

December 2024 | Draft Program Environmental Impact Report
State Clearinghouse No. 2022020363

CITY OF ANAHEIM GENERAL PLAN FOCUSED UPDATE DRAFT PEIR

for City of Anaheim

Prepared for:

City of Anaheim

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Abbreviations and Acronyms

ABBREVIATIONS AND ACRONYMS

AAQS	ambient air quality standards
AB	Assembly Bill
ACM	asbestos-containing materials
ADT	average daily traffic
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
CAA	Clean Air Act
CAFE	corporate average fuel economy
CalARP	California Accidental Release Prevention Program
CalEMA	California Emergency Management Agency
Cal/EPA	California Environmental Protection Agency
CAL FIRE	California Department of Forestry and Fire Protection
CALGreen	California Green Building Standards Code
Cal/OSHA	California Occupational Safety and Health Administration
CalRecycle	California Department of Resources, Recycling, and Recovery
Caltrans	California Department of Transportation
CARB	California Air Resources Board
CBC	California Building Code
CCAA	California Clean Air Act
CCR	California Code of Regulations
CDE	California Department of Education
CDFW	California Department of Fish and Wildlife
CEQA	California Environmental Quality Act
CERCLA	Comprehensive Environmental Response, Compensation and Liability Act
cfs	cubic feet per second
CGS	California Geologic Survey
CMP	congestion management program

Abbreviations and Acronyms

CNDDDB	California Natural Diversity Database
CNEL	community noise equivalent level
CO	carbon monoxide
CO ₂ e	carbon dioxide equivalent
Corps	US Army Corps of Engineers
CSO	combined sewer overflows
CUPA	Certified Unified Program Agency
CWA	Clean Water Act
dB	decibel
dba	A-weighted decibel
DPM	diesel particulate matter
DTSC	Department of Toxic Substances Control
EIR	environmental impact report
EPA	United States Environmental Protection Agency
EPCRA	Emergency Planning and Community Right-to-Know Act
FEMA	Federal Emergency Management Agency
FHWA	Federal Highway Administration
FTA	Federal Transit Administration
GHG	greenhouse gases
GWP	global warming potential
HCM	Highway Capacity Manual
HQTA	high quality transit area
HVAC	heating, ventilating, and air conditioning system
IPCC	Intergovernmental Panel on Climate Change
L _{dn}	day-night noise level
L _{eq}	equivalent continuous noise level
LBP	lead-based paint
LCFS	low-carbon fuel standard
LOS	level of service
LST	localized significance thresholds
M _w	moment magnitude
MCL	maximum contaminant level
MEP	maximum extent practicable

Abbreviations and Acronyms

mgd	million gallons per day
MMT	million metric tons
MPO	metropolitan planning organization
MT	metric ton
MWD	Metropolitan Water District of Southern California
NAHC	Native American Heritage Commission
NO _x	nitrogen oxides
NPDES	National Pollution Discharge Elimination System
O ₃	ozone
OES	California Office of Emergency Services
PM	particulate matter
POTW	publicly owned treatment works
ppm	parts per million
PPV	peak particle velocity
RCRA	Resource Conservation and Recovery Act
REC	recognized environmental condition
RMP	risk management plan
RMS	root mean square
RPS	renewable portfolio standard
RWQCB	Regional Water Quality Control Board
SB	Senate Bill
SCAG	Southern California Association of Governments
SCAQMD	South Coast Air Quality Management District
SIP	state implementation plan
SLM	sound level meter
SoCAB	South Coast Air Basin
SO _x	sulfur oxides
SQMP	stormwater quality management plan
SRA	source receptor area [or state responsibility area]
SUSMP	standard urban stormwater mitigation plan
SWP	State Water Project
SWPPP	Storm Water Pollution Prevention Plan
SWRCB	State Water Resources Control Board

Abbreviations and Acronyms

TAC	toxic air contaminants
TNM	transportation noise model
tpd	tons per day
TRI	toxic release inventory
TTCP	traditional tribal cultural places
USFWS	United States Fish and Wildlife Service
USGS	United States Geological Survey
UST	underground storage tank
UWMP	urban water management plan
V/C	volume-to-capacity ratio
VdB	velocity decibels
VHFHSZ	very high fire hazard severity zone
VMT	vehicle miles traveled
VOC	volatile organic compound
WQMP	water quality management plan
WSA	water supply assessment

1. Executive Summary

1.1 INTRODUCTION

This draft program environmental impact report (Draft PEIR) addresses the environmental effects associated with the implementation of the proposed Anaheim General Plan Focused Update (proposed project). The California Environmental Quality Act (CEQA) requires that local government agencies consider the environmental consequences before taking action on projects over which they have discretionary approval authority. An environmental impact report (EIR) analyzes potential environmental consequences in order to inform the public and support informed decisions by local and state governmental agency decision makers.

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

Data for this Draft PEIR derive 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—aesthetics, air quality, biological resources, cultural resources, energy, geological resources, greenhouse gas emissions, hazards and hazardous materials, hydrology and water quality, land use, noise, population and housing, public services, recreation, transportation and traffic, tribal cultural resources, utilities and service systems, and wildfire.

1.2 ENVIRONMENTAL PROCEDURES

This Draft PEIR 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. CEQA established six main objectives for an EIR:

1. Disclose to decision makers and the public the significant environmental effects of proposed activities.
2. Identify ways to avoid or reduce environmental damage.
3. Prevent environmental damage by requiring implementation of feasible alternatives or mitigation measures.
4. Disclose to the public reasons for agency approval of projects with significant environmental effects.
5. Foster interagency coordination in the review of projects.
6. Enhance public participation in the planning process.

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An EIR is the most comprehensive form of environmental documentation in CEQA and the CEQA Guidelines; it is intended to provide an objective, factually supported analysis and full disclosure of the environmental consequences of a proposed project with the potential to result in significant, adverse environmental impacts.

An EIR is 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. Before approving a proposed project, the lead agency must consider the information in the EIR; determine whether the EIR was 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 adopt a statement of overriding considerations if significant impacts cannot be avoided.

1.2.1 Type and Purpose of This Draft PEIR

This Draft PEIR fulfills the requirements for a program EIR. Although the legally required contents of a program EIR are the same as for a project EIR, program EIRs are typically more conceptual than project EIRs, with a more general discussion of impacts, alternatives, and mitigation measures. According to Section 15168 of the CEQA Guidelines, a program EIR may be prepared for a series of actions that can be characterized as one large project. Use of a program EIR gives the lead agency an opportunity to consider broad policy alternatives and program wide mitigation measures and gives it greater flexibility to address project-specific and cumulative environmental impacts on a comprehensive scale.

Agencies prepare program EIRs for programs or a series of related actions that are linked geographically; logical parts of a chain of contemplated events, rules, regulations, or plans that govern the conduct of a continuing program; or 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 additional CEQA documentation is necessary. However, if the program EIR addresses the program's effects as specifically and comprehensively as possible, many subsequent activities may be within the program EIR's scope, and additional environmental documents may not be required (Guidelines § 15168[c]). When a lead agency relies on a program EIR for a subsequent activity, it must incorporate feasible mitigation measures and alternatives from the program EIR into the subsequent activities (Guidelines § 15168[c][3]). If a subsequent activity would have effects outside 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. Even in this case, the program EIR still serves a valuable purpose as the first-tier environmental analysis. The CEQA Guidelines 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.

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- 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). (Guidelines § 15168[h])

1.2.2 EIR Format

Chapter 1. Executive Summary: Summarizes the background and description of the proposed project, the format of this Draft PEIR, project alternatives, any critical issues remaining to be resolved, and the potential environmental impacts and mitigation measures identified for the project.

Chapter 2. Introduction: Describes the purpose of this PEIR, background on the project, the notice of preparation, the use of incorporation by reference, and Final PEIR certification.

Chapter 3. Project Description: A detailed description of the project, including its objectives, its area and location, approvals anticipated to be required as part of the project, necessary environmental clearances, and the intended uses of this PEIR.

Chapter 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 local and regional perspectives. These provide the baseline physical conditions from which the lead agency determines the significance of the project's environmental impacts.

Chapter 5. Environmental Analysis: Each environmental topic is analyzed in a separate section that discusses: the existing regulatory and environmental setting; identifies proposed General Plan goals and policies; identifies the thresholds used to determine if a significant impact would occur; describes the methodology to identify and evaluate the potential impacts of the project; provides a detailed analysis the potential adverse program and cumulative effects of the project; identifies the level of impact significance before mitigation; provides and required mitigation measures; concludes the level of significance after mitigation is incorporated; and provides a listing of all references used in preparation of the discussion.

Chapter 6. Significant Unavoidable Adverse Impacts: Describes the significant unavoidable adverse impacts of the proposed project.

Chapter 7. Alternatives to the Proposed Project: Describes the alternatives and compares their impacts to the impacts of the proposed project. Alternatives include the No Project Alternative and the Housing Implementation Only Alternative.

Chapter 8. Impacts Found Not to Be Significant: Briefly describes the potential impacts of the project that were determined not to be significant and were therefore not discussed in detail in this PEIR.

Chapter 9. Significant Irreversible Changes Due to the Proposed Project: Describes the significant irreversible environmental changes associated with the project.

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Chapter 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.

Chapter 11. Organizations and Persons Consulted: Lists the people and organizations that were contacted during the preparation of this PEIR.

Chapter 12. Persons Preparing EIR: Lists the people who prepared this PEIR for the proposed project.

Appendices: The appendices for this document (in PDF format) comprise these supporting documents:

- Appendix A: Notice of Preparation for the Anaheim General Plan Focused Update
- Appendix B: Notice of Preparation for the Center City Corridors Specific Plan Project
- Appendix C: Buildout Methodology Memorandum
- Appendix D: C3 Implementation Plan
- Appendix E: Anaheim Proposed Project Sites
- Appendix F: Standard Conditions of Approval
- Appendix G: Anaheim General Plan Land Use Definitions
- Appendix H: Air Quality, Greenhouse Gas, and Energy Modeling
- Appendix I: City of Anaheim: General Plan Focused Update Biological Resources Assessment
- Appendix J: Cultural Resources Existing Conditions Report for the Anaheim General Plan Update, Anaheim, California
- Appendix K: Hazardous Sites in the City of Anaheim
- Appendix L: City of Anaheim General Plan Update Water Supply Assessment
- Appendix M: Noise Modeling
- Appendix N: VMT Memorandum
- Appendix O: General Plan Update Sewer Study

1.3 PROJECT LOCATION

Located in northeastern Orange County, the City of Anaheim and its sphere of influence lie approximately 35 miles southeast of downtown Los Angeles and 7 miles north of Santa Ana. The City is surrounded by the cities of Fullerton, Placentia, and Yorba Linda to the north; Riverside County to the east; the cities of Orange, Garden Grove, and Stanton and unincorporated Orange County to the south; and the cities of Cypress and Buena Park to the west. The City encompasses over 34,000 acres of land, stretching nearly 20 miles along the Riverside Freeway (SR-91), and includes another 2,431 acres of unincorporated land in its sphere of influence. In addition to SR-91, regional access to and from Anaheim is provided by the Santa Ana (I-5), Orange (SR-57), and Costa Mesa (SR-55) Freeways; the Eastern Transportation Corridor (SR-241); and Amtrak and Metrolink passenger train services at Angel Stadium and Anaheim Canyon Stations.

1.4 PROJECT SUMMARY

The proposed project is a focused update of the City of Anaheim's General Plan. The General Plan is a State-required legal document that provides guidance to decision-makers regarding the allocation of resources and

1. Executive Summary

determining the future physical form and character of development in the city. It is the official statement regarding the extent and types of development needed to achieve the community's physical, economic, social, and environmental goals. Although the General Plan is composed of individual sections, or "elements" that individually address a specific area of concern, the General Plan embodies a comprehensive and integrated planning approach for the jurisdiction.

Under State law, each city and county general plan has eight mandated elements, including land use, circulation, housing, conservation, open space, noise and safety, and environmental justice. These elements can be formatted in any manner within a general plan and do not need to be "stand-alone" chapters. Government Code Section 65303 also permits local jurisdictions to formulate other elements, which, in the "judgment of the planning agency," relate to the physical development of the jurisdiction. These "permissive" elements are as legally binding as a mandatory element, once adopted. The City of Anaheim has directed the inclusion of an additional permissive element in its currently adopted General Plan, economic development.

1.4.1 Proposed General Plan Updates

The City of Anaheim is in the process of preparing a focused update to parts of its General Plan, which constitutes the proposed project. The General Plan is divided into elements that address a wide range of subjects and provide goals and policies that will guide future development in the City.¹ As further discussed in Chapter 3, *Project Description*, the General Plan Focused Update includes:

- **Land Use Element Update.** The Land Use Element is a guide for the City's future development. It designates the distribution and general location of land uses, such as residential, retail, industrial, open space, recreation, and public uses. The Land Use Element also addresses the permitted density (number of housing units per acre) and intensity (site coverage and floor to area ratio, or FAR) of the various land use designations. The anticipated residential and non-residential buildout associated with the Land Use Element updates has been updated to reflect growth projections anticipated through 2045. The proposed project would introduce new land use designations of MU-Corridor, MU-Low-Medium, MU-Industrial, and Institutional Low and change the existing Institutional to Institutional High. It would set a minimum residential density for the MU-Medium and MU-High designations. It would also add additional "Implementing Zoning" to the Corridor Residential land use designations, change the implementing zoning for MU-Urban Core from DMC to MU-UC, and update or add the corresponding zones for the remaining mixed-use designations. The proposed project would update General Plan Land Use Element Table LU-2 and LU-3 to reflect these changes, as shown in Table 3-4, *Proposed Residential and Mixed Use Land Use Designations*, and Table 3-5, *Proposed Nonresidential Land Use Designations*. Tables 3-4 and 3-5 provide a summary of the land use designations in terms of density, intensity, and typical implementation zones. The proposed project would also update Table LU-1 (City of Anaheim Approved Specific Plans) and the accompanying Figure LU-1 (Specific Plan Map) to remove the East Center Street Development; and remove references to the Downtown Mixed-Use Overlay Zone, Mixed Use Overlay Zone, and South Anaheim Boulevard Corridor Overlay Zone throughout the Element.

¹ The following General Plan Elements have no revisions proposed: Green Element, Public Services and Facilities Element, Growth Management Element, Noise Element, Economic Development Element, and Community Design Element.

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- **Circulation Element Update:** The Circulation Element identifies the general location and extent of existing and proposed major transportation facilities, including major roadways, passenger and freight rail, transit systems, and bikeways. It also provides policies, programs, actions, and priority transportation networks that support the safe and efficient movement of people driving, walking, biking, and taking transit in Anaheim. The Circulation Element has been updated to reflect changes in transportation needs, new technologies, changes associated with implementing the 2021-2029 Housing Element, and an update to the Anaheim Traffic Analysis Model (ATAM). Changes include updates to circulation-related policies, technical guidance, and updates to circulation-system networks and classifications. The Circulation Element has also been updated to include goals and policies for the updated “Traffic Impact Analysis Guidelines for CEQA: VMT,” established July 1, 2020, pursuant to SB 743.
- **Zoning Code:** The 2021-2029 Housing Element, C3 Plan, and updates to the other General Plan elements, described above, require updates to the City’s Zoning Code to ensure consistency and allow for future implementation of policies and programs identified therein. Title 18, Zoning, of the Anaheim Municipal Code would be amended to add Chapter 18.12 (Mixed-Use Zones) providing development standards and use regulations which will also replace the South Anaheim Boulevard Corridor (Chapter 18.24), Downtown Mixed-Use (Chapter 18.30), and Mixed-Use (Chapter 18.32) Overlay Zones. It would also include new Objective Design Standards in Chapter 18.39 designed to ensure the quality of and certainty for future development, codifying guidance currently in the Community Design Element. Objective design standards will apply to all multi-family and mixed-use developments in the City in addition to the standards of the underlying base zone in which the project is located. The objective design standards address design topics such as site planning, mass and scale, materials and details, frontage types, and historic adjacencies. The objective design standards are written in clear objective terms, consistent with recent State housing laws.
- **Land Use Plan, Zoning Map, and Related Plans:** Implementation of the 2021-2029 Housing Element and C3 Plan requires changes to General Plan Land Use Designations and/or Zoning Classifications to add or increase residential density on identified sites including in addition to the currently permitted or planned non-residential development. The proposed project would update the General Plan Land Use Plan (Figure LU-4) and Zoning Map with these changes in addition to making the corresponding amendments and adjustments to the Beach Boulevard Specific Plan, Anaheim Canyon Specific Plan, and Platinum Triangle Master Land Use Plan.

1.4.2 Statement of Objectives

The City of Anaheim’s General Focused Plan Update (proposed project) is a comprehensive effort by the City to update the existing General Plan for the next 20 years through 2045. The updated General Plan will bring select elements (chapters) into compliance with State housing mandates; conform with new State laws related to community health, environmental justice, climate adaption, resiliency, and mobility; and bring long-term growth into alignment with current factors.

The following objectives have been established for the proposed project and will aid decision makers in their review of the proposed project and associated environmental impacts:

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1. Provide for a wide range of housing opportunities in close proximity to existing and future employment centers and transportation facilities, consistent with the need identified in the City's 2021-2029 Housing Element and local and regional jobs/housing balance policies. Provide a surplus between 15 and 30 percent above the Regional Housing Needs Assessment housing unit allocation.
2. Support intensification around the historic downtown Anaheim (Center City Corridors or C3) through the C3 Implementation Plan (C3 Plan), which identifies new and amended land use designations and zoning classifications along corridors.
3. Provide a focused update to the City's General Plan and Zoning Code to deal more effectively with State law housing and other requirements facing the City of Anaheim.
4. Establish clear design standards to be employed in future development of multifamily and mixed-use projects citywide.
5. Facilitate future use streamlining provisions allowed under the California Environmental Quality Act (CEQA) by providing updated community-level environmental review.

1.5 SUMMARY OF PROJECT ALTERNATIVES

The CEQA Guidelines (Section 15126.6[a]) state 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.” The alternatives in this DEIR were based, in part, on their potential ability to reduce or eliminate the impacts determined to be significant and unavoidable for implementation of the proposed project. Project alternatives are assessed in further detail in Chapter 7, *Alternatives to the Proposed Project*.

1.6 NO-PROJECT/EXISTING GENERAL PLAN ALTERNATIVE

Based on the criteria listed above, the following three alternatives have been determined to represent a reasonable range of alternatives that have the potential to feasibly attain most of the basic objectives of the City of Anaheim's General Plan Focused Update but may avoid or substantially lessen any of the new significant effects of the proposed project.

- No Project/Buildout to Existing General Plan Alternative (Alternative 1)
- Housing Element Only Alternative (Alternative 2)

An EIR must identify an “environmentally superior” alternative, and where the No Project Alternative is identified as environmentally superior, the EIR is required to identify an alternative from among the others evaluated as environmentally superior. However, only impacts where the proposed project would result in significant impacts are used in making the final determination of whether an alternative is environmentally superior or inferior to the proposed project. Each alternative's environmental impacts are compared to the proposed project and determined to be environmentally superior, neutral, or inferior. Section 7.7 identifies the

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Environmentally Superior Alternative. The proposed project is analyzed in detail in Chapter 5 of this Draft PEIR.

1.6.1 No Project/Buildout to Existing General Plan Alternative

The No Project/Buildout to Existing General Plan Alternative (Alternative 1) will be the continuation of the plan, policy, or operation into the future. Therefore, Alternative 1, as required by the State CEQA Guidelines, analyzes the effects of not adopting and implementing the proposed project.

Under Alternative 1, the proposed project would not be adopted, and the candidate sites identified in the proposed 2021-2029 Housing Element would not be rezoned to support future development with mixed-uses with higher density residential uses. Instead, this alternative assumes the buildout of the existing General Plan in accordance with existing land use designations and zoning and 2014-2021 Housing Element. This alternative would result in 134,118 housing units (net increase of 28,450 housing units), 396,110 residents (net increase of 50,111 residents), and 266,313 employees (net increase of 53,120 employees) compared to existing conditions. Alternative 1 would result in 20,638 fewer housing units (13 percent), 35,240 fewer residents (8 percent), and 7,900 fewer employees (3 percent) when compared to the proposed project.

1.6.2 Housing Element Only Alternative

The Housing Element Implementation Only Alternative (Alternative 2) would modify the proposed project to implement the 2021-2029 Housing Element only, which includes land use and zoning changes to the candidate sites and adjacent sites identified in the 2021-2029 Housing Element, and would eliminate the implementation of the C3IP component of the proposed project. However, it should be noted that 59 sites in the C3SP area are identified as candidate sites in the Housing Element; these sites would be rezoned as part of the 2021-2029 Housing Element under this alternative. This alternative would result in 135,328 housing units (net increase of 29,639 units), 391,070 residents (net increase of 45,071 residents), and 231,943 employees (net increase of 18,750 employees) compared to existing conditions, all within the highly developed downtown area. Alternative 2 would result in 19,473 fewer housing units (13 percent), 40,280 fewer residents (9 percent), and 42,270 fewer employees (15 percent) than the proposed project.

1.7 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:

1. Whether this Draft PEIR 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.

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4. Whether the identified goals, policies, or mitigation measures should be adopted or modified.
5. Whether there are other mitigation measures that should be applied to the project besides the Mitigation Measures identified in the Draft PEIR.
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.

1.8 AREAS OF CONTROVERSY

In accordance with Section 15123(b)(2) of the CEQA Guidelines, the EIR summary must identify areas of controversy known to the lead agency, including issues raised by agencies and the public. The City of Anaheim has no knowledge of expressed opposition to the proposed project. A Notice of Preparation (NOP) was released on February 16, 2022, for a 30-day public review period that concluded on March 18, 2022. During the 30-day comment period, a public scoping meeting was held on February 16, 2022, to determine the concerns of responsible and trustee agencies and the community regarding the proposed project. Separately, the City also circulated an NOP for the Center City Corridors Specific Plan (C3SP) Project from February 24, 2022, to March 28, 2022, which at the time was considered a separate project by the City. However, the City subsequently decided to implement any changes to the C3SP area as part of land use changes in the General Plan Focused Update as part of the proposed project, which has been incorporated as the Center City Corridors Implementation Plan (C3 Plan).

The comment letters received during the review period for the proposed project's NOP and scoping meeting and the comment letter received during the review period for the C3 Project's NOP are summarized in Chapter 2, *Introduction* (see Table 2-1, *NOP Comment Summary*). The scoping meeting and NOP comment letters identified concerns related to air quality, greenhouse gas emissions, traffic congestion and safety, and water supply.

1.9 SUMMARY OF ENVIRONMENTAL IMPACTS, MITIGATION MEASURES, AND LEVELS OF SIGNIFICANCE AFTER MITIGATION

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

Although the criteria for determining significance are different for each topic area, the environmental analysis applies a uniform classification of the impacts based on definitions consistent with CEQA and the CEQA Guidelines.

- **No impact.** The project would not change the environment.
- **Less than significant.** The project would not cause any substantial, adverse change in the environment.

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- **Potentially significant.** The project's impacts on the environment are potentially significant in the absence of mitigation. Once mitigation measures have been incorporated, if available, the Draft PEIR makes one of two significance determination under the "level of significance after mitigation":
 - **Less than significant with mitigation incorporated.** The EIR includes mitigation measures that avoid substantial adverse impacts on the environment.
 - **Significant and unavoidable.** The project would cause a substantial adverse effect on the environment, and no additional, feasible mitigation measures are available to reduce the impact to a less than significant level.

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Table 1-1 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
5.1 AESTHETICS			
Impact 5.1-1: Would the project have a substantial adverse effect on a scenic vista?	Less than significant	No mitigation measures are required.	Less than significant
Impact 5.1-2: Would the project substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	Less than significant	No mitigation measures are required.	Less than significant
Impact 5.1-3: Would the project, in non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from publicly accessible vantage point). If the project is an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?	Less than significant	No mitigation measures are required.	Less than significant
Impact 5.1-4: Would the project create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	Less than significant	No mitigation measures are required.	Less than significant
5.2 AIR QUALITY			
Impact 5.2-1: Would the project conflict with or obstruct implementation of the applicable air quality plan?	Potentially significant	No feasible mitigation measures are available.	Significant and unavoidable
Impact 5.2-2: Would the project result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard?	Potentially significant	No feasible mitigation measures are available.	Significant and unavoidable

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Table 1-1 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 5.2-3: Would the project expose sensitive receptors to substantial pollutant concentrations?	Potentially significant	No feasible mitigation measures are available.	Significant and unavoidable
Impact 5.2-4: Would the project result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?	Potentially significant	No feasible mitigation measures are available.	Significant and unavoidable
5.3 BIOLOGICAL RESOURCES			
Impact 5.3-1: Have a substantial 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.	Potentially significant	<p>MM BIO-1 Completion of a Biological Study. Prior to the issuance of grading permits, for all future development projects within the City that could contain special-status species that are not covered by the CONCCP/HCP, or habitat conducive to hosting such species, inclusive of foraging, breeding, or dispersal habitats for wildlife, the project applicant shall employ a qualified Biologist to prepare a Biological Study to evaluate potential impacts to sensitive biological resources regulated by the United States Wildlife Service (USFWS), the California Department of Fish and Wildlife (CDFW), or other local, regional plans or policies that may result from the development of the specific project. The qualified Biologist shall conduct, at a minimum, a site-specific literature review, which shall consider the future development project, site location, Geographic Information System (GIS) information and known sensitive biological resources. The qualified Biologist shall, if the project site has potential support habitat for special-status species or other species protected by federal, State, or local laws or policies, conduct a site visit as part of project review.</p> <p>The review shall assess the site for State or federally listed plants and/or wildlife or other special-status species, aquatic resources, riparian or sensitive natural communities, wildlife movement corridors, or nurseries, or potential nesting or roosting sites, or other regulated biological resources covered by the Endangered Species Act, or California Endangered Species Act (CESA) that could be affected by the proposed project. In some cases, such as a project site that is previously completely developed and contains no potential habitat for protected species, a literature review</p>	Less than significant

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Table 1-1 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>would be sufficient for the Biologist to make a no impact and/or a less than significant impact determination for all six of the thresholds of significance for biological resources. In other cases, such as project sites that are all or partially undeveloped or contain features that could provide soil substrates for special-status plants or foraging, breeding, nesting, roosting, or dispersal habitats for special-status wildlife, a site survey may be needed to assess the biological conditions on-site.</p> <p>The qualified Biologist employed by each project applicant shall assess potential project impacts to non-listed, non-covered, special-status species, identify threshold of significance with a significance conclusion, and document the findings in a report. Additionally, future development projects may be required to incorporate additional mitigation depending on results of such future biological studies. This may include acquisition of take permits if any project proponent proposes take of federal or State-listed or candidate species. If take is proposed, the project proponent shall consult with the CDFW and/or the USFWS, as applicable, regarding an Incidental Take Permit pursuant to Section 2081 of CESA or Sections 7 or 10 of the federal Endangered Species Act.</p> <p>MM BIO-6 shall also apply.</p>	
Impact 5.3-2: 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.	Potentially significant	<p>MM BIO-2a Mapping of Riparian Habitat and/or Sensitive Vegetation Communities. Prior to the issuance of grading permits, for all future development projects within the City that may impact riparian habitat or natural vegetation communities that are considered sensitive by the California Department of Fish and Wildlife (CDFW), the project proponent shall employ a qualified Biologist to map and fully document the sensitive resources. Additional studies, documentation, or permitting may be required, depending on the results of the sensitive community mapping prepared for each project. During implementation of the biological study performed under MM BIO-2, the qualified Biologist employed by each project applicant shall assess potential project impacts to riparian habitats or sensitive vegetation communities, identify threshold of significance with a significance conclusion, and document the findings in a report that is submitted to the</p>	Less than significant

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Table 1-1 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>City and the CDFW. The results of the mapping effort may be presented in the Biological Study prepared during implementation of MM BIO-1 or MM BIO-6.</p> <p>MM BIO-2b On-Site and/or Off-Site Mitigation. If riparian habitats or other natural vegetation communities considered sensitive by the California Department of Fish and Wildlife (CDFW) are discovered on any future development site, and it is determined that the project will impact those resources, the project proponent shall consult with CDFW to mitigate for the loss of these resources. If the project impacts to these resources would be temporary in nature, the project proponent shall implement on-site mitigation, such as habitat restoration. If the project will result in permanent impacts to these resources, the project proponent shall purchase off-site mitigation lands or credits at a 1:1 ratio. Any credits purchased off-site shall be from mitigation banks approved by CDFW. Any lands or purchased off-site shall be protected in perpetuity under a conservation easement to protect the sensitive community from direct and indirect negative impacts, including any future development and zone changes, restrictions on access, proposed land dedications, control of illegal dumping, water pollution, and increased human intrusion. The conservation easement shall be dedicated to a local land conservancy or other appropriate entity approved to hold and manage mitigation lands pursuant to Senate Bill 1094 (Land use: mitigation lands: nonprofit organizations).</p>	
Impact 5.3-3: Have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means.	Potentially significant	<p>If during implementation of MM BIO-1 or MM BIO-6, potentially jurisdictional wetlands or water of the State/United States are discovered on a proposed project site, the project proponent shall implement MM BIO-3a-c</p> <p>MM BIO-3a Determination of Project Impacts to Potentially Jurisdictional Water and Wetlands. Prior to the issuance of grading permits, if any future development projects are in areas that may result in impacts to potentially jurisdictional wetlands or waters of the State/United States within the City, the project proponent shall employ a qualified Biologist/Delineator to conduct a jurisdictional delineation which would establish the jurisdictional limits of potential wetlands or waters of the State/United States. If waters</p>	Less than significant

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Environmental Impact	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
		<p>of the United States are delineated on-site, the project proponent shall prepare a jurisdictional delineation report and submit the jurisdictional delineation report to the United States Army Corps of Engineers for verification. If the project could potentially impact wetlands or waters of the State/United States, the project proponent shall seek permissions from the resource agencies, as described in MM BIO-3b.</p> <p>MM BIO-3b Obtain Agency Permits for Impacts to Wetlands. If any future development projects in the City are expected to impact wetlands or waters of the State/United States in the City, the project proponent shall seek permission from the State regulatory agencies (Regional Water Quality Control Board [RWQCB] and California Department of Fish and Wildlife [CDFW]) for the proposed impacts to State waters and implement the mitigation measures as prescribed in the Clean Water Act 401 (from RWQCB) and State of California Fish and Game Code 1602 (from CDFW) permits. If the project will impact waters of the United States, the project proponent shall seek permission from the United States Army Corp of Engineers for the proposed impacts. The project proponent shall comply with any mitigation measures contained in the permits, such as measures pertaining to on-site habitat restoration or off-site habitat acquisition, among other measures. Copies of the regulatory permits shall be submitted to the City prior to ground disturbance within the regulated jurisdictional waters.</p> <p>MM BIO-3c Apply for Permits from Regulatory Agencies. Any project proponent that proposes impacts to jurisdictional waters or wetlands within the City shall consult with the California Department of Fish and Wildlife regarding a Section 1602 Streambed Alteration Agreement Permit, the United States Army Corps of Engineers regarding a Clean Water Act Section 404 Permit, and the Regional Water Quality Control Board regarding a CWA Section 401 Certification. The project applicant shall be required to obtain these permits as a condition of approval and prior to the issuance of any grading, construction, or building permits from the City and prior to the commencement of any grading or construction activities. The project</p>	

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Environmental Impact	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
		applicant shall implement the mitigation measures as prescribed in the permits.	
Impact 5.3-4: 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.	Potentially significant	<p>If during implementation of MM BIO-1 or MM BIO-6, wildlife movement corridors or wildlife nursery sites are discovered on a proposed project site, the project proponent shall implement MM BIO-4a-c.</p> <p>MM BIO-4a Mapping of Wildlife Movement Corridors. If a wildlife movement corridor, such as a riparian zone of other natural feature that facilitates movements of wildlife, is discovered on any future development site, and it is determined that the project will impact wildlife movements, the project proponent shall employ a qualified Biologist to assess potential project impacts to these resources, identification of the threshold of significance with a significance conclusion, and documentation of the findings in a report. The results of the mapping effort may be presented in the Biological Study prepared during implementation of MM BIO-1 or MM BIO-6. The project proponent shall submit the report to the City and California Department of Fish and Wildlife (CDFW). Additionally, future development projects may be required to incorporate additional mitigation depending on results of such future biological studies. The project proponent shall consult with CDFW to mitigate for any loss of these resources or impediments to wildlife movements. If the impacts to wildlife movements would be temporary in nature, the project proponent shall design project elements that would avoid the resource or provide on-site mitigation to allow wildlife movements to proceed uninhibited following implementation of the project. If the project will result in permanent impacts to wildlife movements, the project proponent shall purchase off-site mitigation lands or credits at a 1:1 ratio through a CDFW-approved mitigation bank or Regional Conservation Investment Strategies Program.</p> <p>MM BIO-4b Identification of Wildlife Nursery Sites. For all future development projects within the City that may impact wildlife nursery sites, such as active bird nests or bat maternity roosts, the project proponent shall employ a qualified Biologist to map and fully document the sensitive resources. Additional studies, documentation, or permitting may be required,</p>	Less than significant

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Table 1-1 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>depending on the results of the wildlife nursery site mapping prepared for each project. During implementation of MM BIO-4a, the qualified Biologist employed by each project applicant shall assess potential project impacts to nesting birds protected by the Migratory Bird Treaty Act (MBTA) or Fish and Game Code or bat maternity roosts, identify threshold of significance with a significance conclusion, and document the findings in a report that is submitted to the City and the California Department of Fish and Wildlife (CDFW). The results of the assessment may be presented in the Biological Study prepared during implementation of MM BIO-1 or MM BIO-6. If avian nesting habitat is determined to be on or adjacent to a future project site that may be impacted by implementation of the project, the project proponent shall implement MM BIO-4c. If potential bat maternity roosts are identified on or adjacent to a future project site that may be impacted by implementation of the project, the project proponent shall implement MM BIO-4d.</p> <p>MM BIO-4c Avoidance of Nesting Avian Species. For all future development projects within the City that contain habitats or features that could provide nesting habitat for bird species protected under the Migratory Bird Treaty Act (MBTA) and Fish and Game Code, the following measures shall apply:</p> <ul style="list-style-type: none"> ▪ Removal of native vegetation shall be limited to only those necessary to construct a proposed future project as reflected in the relevant project approval documents. ▪ To the extent possible, vegetation shall be removed outside of the avian nesting season, or from August 1 through January 31 (for urbanized areas of the City) or October 1 through January 31 (for the Hill and Canyon Area). ▪ If a proposed future project requires vegetation to be removed during the nesting season, or between February 1 and July 31 (for urbanized areas of the City) or between February 1 and September 30 (for the Hill and Canyon Area), pre-construction surveys shall be conducted 7 days prior to tree removal to determine whether or not active nests are present. ▪ If an active nest is located during a pre-construction survey, a qualified Biologist shall determine an appropriately sized avoidance 	

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Environmental Impact	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
		<p>buffer based on the species and anticipated disturbance level. A qualified Biologist shall delineate the avoidance buffer using Environmentally Sensitive Area (ESA) fencing, pin flags, and or yellow caution tape. The buffer zone shall be maintained around the active nest site(s) until the young have fledged and are foraging independently. No construction activities or construction foot traffic is allowed to occur within the avoidance buffer(s).</p> <ul style="list-style-type: none"> ▪ The qualified Biologist shall monitor the active nest during construction activities to prevent any potential impacts that may result from the construction of the proposed project until the young have fledged. <p>MM BIO-4d Avoidance of Bat Maternity Roosts. For all future development projects within the City that contain habitats or features that could provide maternal roosts for bat species, the project proponent shall employ a qualified Biologist to perform a pre-construction survey for bats within 30 days prior to removal of the potential habitat. If no bats are found present, then the trees, structures, or other potential habitat may be demolished and no further mitigation shall be required. If bats are found present, bats may be safely evicted during two seasonal periods of bat activity. For most species that occur in the City, bats can be evicted safely between approximately March 1 (or when evening temperatures are above 45°F (degree Fahrenheit) and rainfall less than 0.5 inch in 24 hours occurs) and April 15, prior to parturition of pups. The next acceptable period is after pups become self-sufficiently volant, generally accepted to be between September 1 through October 15 (or prior to evening temperatures dropping below 45°F and onset of rainfall greater than 0.5 inch in 24 hours). Evictions shall be implemented by a qualified Biologist accordingly:</p> <ul style="list-style-type: none"> ▪ There are two methods for evicting bats from occupied tree cavities or structures. The first, utilized mainly when the cavity or building is in good condition and the work is feasible, is "humane eviction," or "bat exclusion," which relies on the bats' own ability to fly out of the roost. In this method, all potential but currently unused entry points into the cavity or structure are sealed. The active entry points are fitted with one-way exits, which are left in place 7 to 10 days to allow 	

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Environmental Impact	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
		<p>all bats to emerge normally during nightly feeding flights. The one-way exits are then removed, and the remaining openings sealed until demolition if it will occur more than 30 days before demolition. If the interval between successful eviction and demolition will be short (less than 4 weeks), the one-way exits may often be left in place until demolition. This eviction work must be conducted by or under direct supervision or instruction of a qualified Biologist.</p> <ul style="list-style-type: none"> ▪ In some cases, the physical condition of the cavity or structure is so poor that humane eviction as described above is not feasible. If that occurs, the tree or building must be carefully and selectively dismantled in such a way that the internal environment is altered to a degree sufficient to cause bats to abandon the roost and not return. This must occur under the guidance of a bat Biologist qualified in partial dismantling of tree cavities or structures for bat eviction. 	
Impact 5.3-5: Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance.	Potentially significant	<p>If during implementation of MM BIO-1 or MM BIO-6, wildlife movement corridors or wildlife nursery sites are discovered on a proposed project site, the project proponent shall implement MM BIO-5a-e.</p> <p>MM BIO-5a Identification and Recording of Protected Trees. If a protected tree, such as a designated Landmark Tree, street tree, or specimen tree, or an oak woodland is discovered on any future development site, and city staff determines that the project will impact these resources, the project proponent shall employ a qualified Biologist to conduct an inventory of on-site vegetation, assess potential for project impacts to the trees or oak woodlands, identify the threshold of significance with a significance conclusion, and document the findings in a report. Additionally, future development projects may be required to incorporate additional mitigation depending on results of such future biological studies. The additional actions identified through this evaluation process shall be implemented by the project proponent.</p> <p>MM BIO-5b Permissions for Project Impacts to Landmark Trees. If any future development project would remove a designated Landmark Tree, the</p>	Less than significant

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Environmental Impact	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
		project proponent shall seek permission from the City Council prior to its removal according to the Anaheim Municipal Code Chapter 11.12.020.	
		MM BIO-5c Permissions for Project Impacts to Street Trees. If any future development project would remove, top, trim, prune, plant, remove, spray, or in any other manner interfere with any street tree located on public property, the project proponent shall seek permission from the Director of Community Services before performing such actions according to the Anaheim Municipal Code Chapter 13.12.080.	
		MM BIO-5d Permissions for Project Impacts to Specimen Trees. If any future development project would remove or top a Specimen Tree such as an oak, pepper, or sycamore tree located in the Scenic Corridor (SC) Overlay Zone, the project proponent shall seek an Administrative Specimen Tree Removal Permit and/or Discretionary Specimen Tree Removal Permit by the City's Planning and Building Department according to the Anaheim Municipal Code Chapter 18.18.040. Additionally, the project proponent shall replace the specimen tree(s) on the same parcel or in the public right-of-way in the immediate vicinity, according to the Anaheim Municipal Code Chapter 18.18.040 and as directed by the City.	
		MM BIO-5e Avoidance and Mitigation for Project Impacts to Oak Woodlands. If any future development project would impact oak woodland resources, the project proponent shall implement goals of the County of Orange Oak Woodland Management Program, which seeks to preserve oak woodlands through open space acquisitions and conservation within the County of Orange Natural Communities Conservation Plan/Habitat Conservation Plan (CONCCP/HCP) reserve area. The project proponent shall employ a qualified Biologist/Arborist to assess potential project impacts to oak woodlands, including number of trees and acreage of woodland affected in the City. For projects located outside of the CONCCP/HCP, the project proponent shall mitigate loss of oaks and woodland community at a 1:1 ratio on County open space through the County of Orange Oak Woodland Management Program. For projects located in the CONCCP/HCP plan	

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		area, conservation would be achieved through implementing MM BIO-6, including payment of the CONCCP/HCP mitigation fee.	
Impact 5.3-6: Conflict with the provisions of an adopted habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan.	Potentially significant	<p>MM BIO-1 shall apply.</p> <p>MM BIO-6a Conduct Biological Study/CONCCP/HCP Consistency Analysis. For all proposed development projects in the County of Orange Natural Communities Conservation Plan/Habitat Conservation Plan (CONCCP/HCP) plan area, Non-participating Landowners or other project applicants shall employ a qualified Biologist to prepare a Biological Study to evaluate potential impacts to coastal sage scrub (CSS), Covered Habitats, and Identified and Target Species that are covered under the CONCCP/HCP that could result from project implementation. The qualified Biologist shall conduct, at a minimum, a site-specific literature review, which shall consider the future development project, site location, Geographic Information System (GIS) information and known sensitive biological resources. The qualified Biologist shall, if the project site has potential support CSS, Covered Habitats, or Identified or Target Species, conduct a site visit as part of project review.</p> <p>The review shall assess the site to determine whether any Conditionally Covered Species occur or could occur on-site, to determine the CONCCP/HCP Mitigation Fee required, and to recommend appropriate construction-related minimization measures, as applicable. For projects located in Special Linkages/Management Areas, the study will offer recommendations for compatible development or use that conserves habitat or functions as a linkage for Target Species. Projects proposed on lands targeted for the reserve assembly would need to demonstrate consistency with the goals of the CONCCP/HCP. The study shall also assess whether other sensitive resources protected under CEQA but not covered under the CONCCP/HCP are present on the site and could be affected by project implementation, including but not limited to aquatic resources, riparian or sensitive natural communities, wildlife movement corridors or nurseries, or potential nesting or roosting sites.</p>	Less than significant

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		<p>If Conditionally Covered Species occur or could occur on-site, the project applicant shall implement MM BIO-6b. All projects implemented by Non-participating Landowners that opt to participate in the CONCCP/HCP shall implement MM BIO-6d. If take of Conditionally Covered Species or take of non-covered, listed species, is proposed, or if the Non-Participating Landowner declines to participate in the CONCCP/HCP, the project proponent shall consult with the California Department of Fish and Wildlife and/or the United States Fish and Wildlife Service, as applicable, regarding an Incidental Take Permit pursuant to Section 2081 of the California Endangered Species Act or Sections 7 or 10 of the federal Endangered Species Act.</p> <p>MM BIO-6b Payment of CONCCP/HCP Mitigation Fee. For Non-participating Landowners that opt to participate in the County of Orange Natural Communities Conservation Plan/Habitat Conservation Plan (CONCCP/HCP), payment of the CONCCP/HCP Mitigation Fee would be required. This payment would be made to the Nonprofit Corporation on a per-acre basis.</p> <p>MM BIO-6c Avoidance and Mitigation of Conditionally Covered Species. If any future development project has the potential to support or contain habitat for Conditionally Covered Species, including intermediate mariposa lily, arroyo toad, least Bell's vireo, southwestern willow flycatcher, Riverside fairy shrimp, San Diego fairy shrimp, golden eagle, and prairie falcon, the project proponent shall be required to consult with United States Fish and Wildlife Service to determine whether surveys, habitat avoidance/mitigation, project redesign, and/or submission of a mitigation plan prior would be required in order to receive authorization to "take" these species or their habitats.</p> <p>MM BIO-6d Implement CONCCP/HCP Construction-related Minimization Measures. Non-participating Landowners or other project applicant(s) shall provide the City evidence that construction-related minimization measures are implemented on their projects. These construction-related minimization measures are designed to avoid, minimize, reduce, and/or offset impacts</p>	

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		<p>of any activities resulting in incidental take, or habitat disturbance of Identified or Target Species, and include but are not limited to:</p> <ul style="list-style-type: none"> ▪ To the maximum extent practicable, no grading of Covered Habitats that is occupied by special-status species shall occur during the County of Orange Natural Communities Conservation Plan/Habitat Conservation Plan (CONCCP/HCP)-defined breeding season (February 25 through July 15). It is expressly understood that this provision and the remaining provisions of these “construction-related minimization measures” are subject to public health and safety considerations. These considerations include unexpected slope stabilization, erosion control measures and emergency facility repairs. In the event of such public health and safety circumstances, landowners or public agencies/utilities shall provide United States Fish and Wildlife Service (USFWS)/California Department of Fish and Wildlife (CDFW) with the maximum practicable notice (or such notice as is specified in the CONCCP/HCP) to allow for capture of identified Target Species that are not otherwise flushed and shall carry out the following measures only to the extent as practicable in the context of the public health and safety considerations. ▪ Prior to the commencement of grading operations or other activities involving significant soil disturbance, all areas of Covered Habitat be avoided under the provisions of the CONCCP/HCP, shall be identified with temporary fencing or other markers clearly visible to construction personnel. Additionally, prior to the commencement of grading operations or other activities involving disturbance of Covered Habitat, a survey shall be conducted to locate identified Target Species within 100 feet of the outer extent of projected soil disturbance activities and the locations of any such species shall be clearly marked and identified on the construction/grading plans. ▪ A monitoring Biologist, acceptable to USFWS/CDFW shall be on-site during any clearing of Covered Habitat. The landowner or relevant public agency/utility shall advise USFWS/CDFW to work with the monitoring Biologist in connection with bird flushing/capture activities. The monitoring Biologist shall flush identified Target Species (avian or other mobile Identified Species) from occupied habitat areas 	

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		<p>immediately prior to brush-clearing and earthmoving activities. If birds cannot be flushed, they shall be captured in mist nets, if feasible, and relocated to areas of the site be protected or to the CONCCP/HCP Reserve System. It shall be the responsibility of the monitoring Biologist to assure that identified target avian species shall not be directly impacted by brush-clearing and earthmoving equipment in a manner that also allows for construction activities on a timely basis.</p> <ul style="list-style-type: none"> Following the completion of initial grading/earth movement activities, all areas of Covered Habitat shall be avoided by construction equipment and personnel shall be marked with temporary fencing other appropriate markers clearly visible to construction personnel. No construction access, parking or storage of equipment or materials shall be permitted within such marked areas. In areas bordering the CONCCP/HCP Reserve System or Special Linkage/Special Management areas containing Target Species identified in the CONCCP/HCP for protection, vehicle transportation routes between cut-and-fill locations shall be restricted to a minimum number during construction consistent with project construction requirements. Waste, dirt, or rubble shall not be deposited on adjacent Covered Habitats identified in the CONCCP/HCP for protection. Pre-construction meetings involving the monitoring Biologist, construction supervisors and equipment operators shall be conducted and documented to ensure maximum practicable adherence to these measures. Covered Habitats identified in the CONCCP/HCP for protection and location within the likely dust drift radius of construction areas shall be periodically sprayed with water to reduce accumulated dust on the leaves as recommended by the monitoring Biologist.. 	
5.4 CULTURAL RESOURCES			
Impact 5.4-1: Cause a substantial adverse change in the significance of a historical resource pursuant to Section 15064.5.	Potentially significant	MM CUL-1 Prior to project development that may affect historical resources (i.e., structures 45 years or older), a historical resources assessment shall be performed by an architectural historian or historian who meets the Secretary of the Interior's Professionally Qualified Standards in	Less than significant

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		<p>architectural history or history. This shall include a records search to determine whether any resources that may be potentially affected by the project have been previously recorded, evaluated, and/ or designated in the National Register of Historic Places, California Register of Historical Resources, or a local register. Following the records search, the qualified architectural historian shall conduct a survey in accordance with the California Office of Historic Preservation guidelines to identify any previously unrecorded potential historical resources that may be potentially affected by the proposed project. The criteria for determining a historically significant building or structure shall meet one or more of the following criteria:</p> <ul style="list-style-type: none"> ▪ Is associated with events that have made a significant contribution to the broad patterns of local, regional, or national history; or ▪ Is associated with the lives of persons significant in local, regional, or national history; or ▪ Embodies the distinctive characteristics of a significant architectural style, property type, period, or method of construction; represent the work of an architect, designer, engineer, or builder who is locally, regionally, nationally significant, or it is a significant visual feature of the City; possess high artistic values, represent a significant and distinguishable entity whose components may lack individual distinction; or ▪ That have yielded, or may be likely to yield, information important in prehistory or history. <p>MM CUL-2 Properties identified as historically significant resources, shall contain proper documentation meeting the Historic American Building Survey Guidelines that shall be prepared and implemented, as approved by the qualified historian meeting the Secretary of the Interior's Professional Qualifications Standards. Such documentation shall include drawings, photographs, and written data for each building/structure/element and provide a detailed mitigation plan, including a monitoring program, recovery, rehabilitation, redesign, relocation, and/or <i>in situ</i> preservation plan.</p>	

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		<p>MM CUL-3 To ensure that projects requiring the relocation, rehabilitation, or alternation of a historical resource do not impact the resource's significance, the Secretary of Interior's Standards for the Treatments of Historic Properties shall be used to the maximum extent possible. The application of the standards shall be overseen by a qualified architectural historian or historic architect meeting the Professional Qualified Standards. Prior to any construction activities that may affect the historical resource, a report identifying and specifying the treatment of character-defining features and construction activities shall be provided to the City of Anaheim for review and approval.</p> <p>MM CUL-4 If a proposed project would result in the demolition or significant alteration of historical resource, such demolition cannot be mitigated to a less than significant level. However, recordation of the resource prior to construction activities will assist in reducing adverse impacts to the resource to the greatest extent possible. Recordation shall take the form of Historic American Buildings Survey, Historic American Engineering Record, or Historic American Landscape Survey documentation, and shall be performed by an architectural historian or historian who meets the Professional Qualified Standards. Documentation shall include an architectural and historical narrative; medium- or large-format black and white photographs, negatives, and prints; and supplementary information such as building plans and elevations, and/or historical photographs. Documentation shall be reproduced on archival paper and placed in appropriate local, State, or federal institutions. The specific scope and details of documentation are to be developed in coordination with the City of Anaheim.</p>	
Impact 5.4-2: Cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5.	Potentially significant	<p>MM CUL-5 For future projects that propose ground disturbing activities greater than current foundations present on a given site, and/or for projects in areas with documented or inferred resource presence, City staff shall require future property owners/developers to provide studies to document the presence/absence of archaeological resources. Mitigation measures MM CUL-6 through MM CUL-8 shall apply, depending on results of the study. On properties where resources are identified, such studies shall provide a detailed mitigation plan, including a monitoring program and recovery</p>	Less than significant

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Table 1-1 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>and/or in situ preservation plan, based on the recommendations of a qualified specialist. The archaeological resources assessment shall be performed under the supervision of an Archaeologist that meets the Secretary of the Interior's Professional Qualified Standards in either prehistoric or historic archaeology. The assessments shall include a California Historical Resources Information System records search at the South Central Coastal Information Center and a search of the Sacred Lands File maintained by the Native American Heritage Commission. The records searches shall determine if the proposed project has been previously surveyed for archaeological resources, identify and characterize the results of previous cultural resource surveys, and disclose any cultural resources that have been recorded and/or evaluated. Based on results of records search and project site conditions, a Phase I pedestrian survey may be undertaken, based on recommendations from the Qualified Archaeologist.</p> <p>MM CUL-6 If potentially significant archaeological resources are identified through an archaeological resources assessment, and impacts to these resources cannot be avoided, a Phase II Testing and Evaluation investigation shall be performed by an Archaeologist who meets the Professional Qualified Standards prior to any construction-related ground-disturbing activities to determine significance. If resources determined significant or unique through Phase II testing, and site avoidance is not possible, appropriate site-specific mitigation measures shall be established and undertaken. These might include a Phase III data recovery program that would be implemented by a qualified Archaeologist and shall be performed in accordance with the Office of Historic Preservation's Archaeological Resource Management Reports.</p> <p>MM CUL-7 If the archaeological assessment did not identify potentially significant archaeological resources within the proposed project area but indicated the area to be highly sensitive for archaeological resources, this shall be followed by monitoring of all ground-disturbing construction and pre-construction activities in areas with previously undisturbed soil by a qualified Archaeologist.</p>	

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Table 1-1 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>In this event, the property owner/developer or contractor as designee shall provide evidence in the form of an executed Agreement to the City of Anaheim Planning and Building department that they have retained a qualified Archaeologist to provide third-party monitoring (Monitor) during specified excavation and grading activities and to recover and catalogue resources as necessary.</p> <p>The agreement shall include (i) professional qualifications of Monitor; (ii) detailed scope of services to be provided including but not limited to pre-construction education, observation, evaluation, protection, salvage, notification, and/or curation requirements, as applicable, with final documentation/report to Public Works Inspector; (iii) contact information; (iv) communication protocols between Contractor and Monitor for scheduling to facilitate timely performance; (v) acknowledgment that if the Monitor is unavailable or unresponsive based on terms stipulated in the agreement, property owner/developer or contractor as designee may contract with another qualified Monitor acceptable to the City. The selection of the qualified professional(s) shall be subject to City acceptance based on generally accepted professional qualifications and certifications, as applicable.</p> <p>The cover sheet of the grading plans shall include a note to identify that (a) third party monitoring for archaeological resources is required during specified excavation and grading activities in accordance with the City-approved Agreement; and (b) contact information for approved Monitor shall be provided by the Contractor to the City inspector at the pre-construction meeting.</p> <p>The Archaeologist shall inform all construction personnel prior to construction activities of the proper procedures in the event of an archaeological discovery. The training shall be held in conjunction with the project's initial on-site safety meeting and shall explain the importance and legal basis for the protection of significant archaeological resources. In the event that archaeological resources (artifacts or features) are exposed during ground-disturbing activities, construction activities within 100 feet of</p>	

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Table 1-1 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
		the discovery shall be halted while the resources are evaluated for significance by an Archaeologist who meets the Professional Qualified Standards. If the discovery proves to be significant, the qualified Archaeologist shall make recommendations to the Lead Agency (City of Anaheim) on the measures that shall be implemented to protect the discovered resources, including but not limited to excavation of the finds and evaluation of the finds in accordance with Section 15064.5 of the CEQA Guidelines.	
Impact 5.4-3: Disturb any human remains, including those interred outside of dedicated cemeteries	Less than significant	No mitigation measures are required.	Less than significant
5.5 ENERGY			
Impact 5.5-1: Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation	Less than significant	No mitigation measures are required.	Less than significant
Impact 5.5-2: Conflict with or obstruct a state or local plan for renewable energy or energy efficiency.	Less than significant	No mitigation measures are required.	Less than significant
5.6 GEOLOGY AND SOILS			
Impact 5.6-1: Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving: i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault. (Refer to Division of Mines and Geology Special Publication 42.) ii) Strong seismic ground shaking.	Less than significant	No mitigation measures are required.	Less than significant

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Table 1-1 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
iii) Seismic-related ground failure, including liquefaction. iv) Landslides.			
Impact 5.6-2: Result in substantial soil erosion or the loss of topsoil.	Less than significant	No mitigation measures are required.	Less than significant
Impact 5.6-3: 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	No mitigation measures are required.	Less than significant
Impact 5.6-4: Be located on expansive soil, as defined in Table 18-1B of the Uniform building Code (1994), creating substantial direct or indirect risks to life or property.	Less than significant	No mitigation measures are required.	Less than significant
Impact 5.6-5: 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.	Less than significant	No mitigation measures are required.	Less than significant
Impact 5.6-6: Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	Potentially significant	MM GEO-1 Prior to the submittal of a development application for projects that propose ground disturbing activities greater than current foundations present on a given site, and/or for projects in areas with documented or inferred resource presence, future applicants shall retain a Qualified Professional Paleontologist, as defined by the Society of Vertebrate Paleontology, to conduct an evaluation to determine whether ground-disturbing activities would occur in areas of the City underlain by high or undetermined sensitivity geologic units. If so, the City shall require the Qualified Professional Paleontologist to determine the project's potential to significantly impact paleontological resources according to Society of Vertebrate Paleontology standards. If necessary, the Qualified Professional Paleontologist shall recommend mitigation measures to	Less than significant

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Table 1-1 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
		reduce potential impacts to paleontological resources to a less-than-significant level. These measures may include, but are not limited to, implementation of a Worker Environmental Awareness Program, on-site paleontological monitoring (see Mitigation Measure CUL-7 for monitoring agreement requirements), and fossil salvage and treatment plans, if applicable. The City shall review and approve the Qualified Professional Paleontologist's findings and recommendation. All recommendations shall be incorporated into the project plans prior to issuance of a grading permit.	
5.7 GREENHOUSE GAS EMISSIONS			
Impact 5.7-1: Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment.	Potentially significant	No feasible mitigation measures are available.	Significant and unavoidable
Impact 5.7-2: Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases.	Less than significant	No mitigation measures are required.	Less than significant
5.8 HAZARDS AND HAZARDOUS MATERIALS			
Impact 5.8-1: Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials.	Less than significant	No mitigation measures are required.	Less than significant
Impact 5.8-2: 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.	Less than significant	No mitigation measures are required.	Less than significant
Impact 5.8-3: Emit hazardous emissions or handle hazardous or acutely hazardous materials, substance, or waste within one-quarter mile of an existing or proposed school.	Less than significant	No mitigation measures are required.	Less than significant
Impact 5.8-4: Be located on a site which is included on a list of hazardous materials	Less than significant	No mitigation measures are required.	Less than significant

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Table 1-1 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
compiled pursuant to Government Code Section 65962.5 and, as a result, would create a significant hazard to the public or the environment.			
Impact 5.8-5: 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 or excessive noise for people residing or working in the project area.	Less than significant	No mitigation measures are required.	Less than significant
Impact 5.8-6: Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan.	Less than significant	No mitigation measures are required.	Less than significant
Impact 5.8-7: Expose people or structures, either directly or indirectly, to a significant risk of loss, injury, or death involving wildland fires.	Less than significant	No mitigation measures are required.	Less than significant
5.9 HYDROLOGY AND WATER QUALITY			
Impact 5.9-1: Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality.	Less than significant	No mitigation measures are required.	Less than significant
Impact 5.9-2: Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin.	Less than significant	No mitigation measures are required.	Less than significant
Impact 5.9-3: Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:	Less than significant	No mitigation measures are required.	Less than significant

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Table 1-1 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) Result in a substantial erosion or siltation on- or off-site. ii) Substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or offsite. iii) Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff. iv) Impede or redirect flood flows.			
Impact 5.9-4: In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation.	Less than significant	No mitigation measures are required.	Less than significant
Impact 5.9-5: Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan.	Less than significant	No mitigation measures are required.	Less than significant
5.10 LAND USE AND PLANNING			
Impact 5.10-1: Physically divide an established community.	Less than significant	No mitigation measures are required.	Less than significant
Impact 5.10-2: Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect.	Less than significant	No mitigation measures are required.	Less than significant
5.11 NOISE			
Impact 5.11-1: Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local	Potentially significant	MM NOI-1 For all future development projects, power construction equipment (including combustion engines), fixed or mobile, shall be equipped with noise shielding and silencing devices consistent with manufacturer's standards or the Best Available Control Technology. Equipment shall be properly maintained, and the Project Applicant or Owner shall require any	Significant and unavoidable

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Table 1-1 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
general plan or noise ordinance, or applicable standards of other agencies.		construction contractor to submit all construction equipment specification to the Anaheim Planning and Building Department prior to issuance of the respective demolition/grading/building permits. In addition, the contractor shall keep documentation on-site during any earthwork or construction activities demonstrating that the equipment has been maintained in accordance with manufacturer's specifications.	
		MM NOI-2 Driven (impact), sonic, or vibratory pile drivers shall not be used in construction of future development projects, except in locations where the underlying geology renders alternative methods infeasible, as determined by a soils or geotechnical engineer and documented in a soils report.	
		MM NOI-3 All outdoor mechanical equipment in future development projects shall be enclosed or screened from off-site noise-sensitive uses. The equipment enclosure or screen shall be impermeable (i.e., solid material with minimum weight of 2 pounds per square feet) and break the line-of-site from the equipment and off-site noise-sensitive uses. Prior to issuance of demolition permits, construction plans showing the location and specifications of enclosures and screens shall be submitted to the Anaheim Planning and Building Department.	
		MM NOI-4 Construction staging areas in future development projects shall be located as far from noise-sensitive uses as reasonably possible and feasible in consideration of site boundaries, topography, intervening roads and uses, and operational constraints. Prior to issuance of demolition permits, construction plans showing the location of construction staging areas shall be submitted to the Anaheim Planning and Building Department.	
		MM NOI-5 For future development projects in the City located within 500 feet of noise-sensitive land uses, a project-specific Construction Noise Study, prepared by a qualified noise expert to meet the requirements herein, shall be submitted to the Anaheim Planning Division for review and approval during the first demolition/grading/building permit. The Construction Noise Study shall characterize sources of construction noise, quantify noise	

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Table 1-1 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>levels at noise-sensitive uses (e.g., residences, transient lodgings, schools, libraries, churches [or other places of assembly], hospitals, nursing homes, auditoriums, concert halls, amphitheaters, playgrounds, and parks), and identify measures to reduce noise exposure. The Construction Noise Study shall identify reasonably available noise reduction devices or techniques to reduce noise levels to acceptable levels and/or durations including through reliance on any relevant federal, state, or local standards or guidelines or accepted industry practices, and in compliance with AMC standards. Noise reduction devices or techniques may include but not be limited to mufflers, shields, sound barriers, and time and place restrictions on equipment and activities. Each measure in the Construction Noise Study shall identify anticipated noise reductions at noise-sensitive land uses.</p> <p>MM NOI-6 For development projects in the City located within 500 feet of noise-sensitive land uses, a project-specific Operational Noise Study, prepared by a qualified noise expert to meet the requirements herein, shall be submitted to the Anaheim Planning Division for review and approval prior to issuance of a building permit. The Operational Noise Study shall characterize sources of operational noise, quantify noise levels at noise-sensitive uses (e.g., residences, transient lodgings, schools, libraries, churches [or other places of assembly], hospitals, nursing homes, auditoriums, concert halls, amphitheaters, playgrounds, and parks), and identify measures to reduce noise exposure. If project noise would exceed City thresholds, identification of mitigation measures to reduce noise to below a 5 dBA increase in ambient noise shall be implemented. Each mitigation measure in the Operational Noise Study shall identify anticipated noise reductions at noise-sensitive land uses.</p>	
Impact 5.11-2: Generation of excessive groundborne vibration or groundborne noise levels.	Potentially significant	MM NOI-7 Impact pile drivers shall be avoided to eliminate excessive vibration levels when feasible. Drilled piles or similar methods are alternatives that shall be utilized where geological conditions permit their use. In the event that drilled piles are not feasible, the project applicant shall prepare and submit to the Planning Division and Public Works Department, prior to the	Significant and unavoidable

1. Executive Summary

Table 1-1 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
		issuance of grading permits, a geotechnical report providing substantial evidence that impact piles are required. MM NOI-8 Construction activities shall involve rubber-tired equipment rather than metal-tracked equipment where feasible. In the event that rubber-tired equipment is not feasible, the project applicant shall prepare and submit to the Planning Division, prior to issuance of the respective permit, a memorandum providing substantial evidence that site conditions required metal-tracked equipment.	
Impact 5.11-3: For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, if the project would expose people residing or working in the project area to excessive noise levels.	Less than significant	No mitigation measures are required.	Less than significant.
5.12 POPULATION AND HOUSING			
Impact 5.12-1: Induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure).	Less than significant	No mitigation measures are required.	Less than significant
Impact 5.12-2: Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere.	Less than significant	No mitigation measures are required.	Less than significant

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Table 1-1 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
5.13 PUBLIC SERVICES			
<i>FIRE PROTECTION AND EMERGENCY SERVICES</i>			
Impact 5.13-1: 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.	Less than significant	No mitigation measures are required.	Less than significant
<i>POLICE PROTECTION</i>			
Impact 5.13-2: 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.	Less than significant	No mitigation measures are required.	Less than significant
<i>SCHOOL SERVICES</i>			
Impact 5.13-3: 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	Less than significant	No mitigation measures are required.	Less than significant

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Table 1-1 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
service ratios, response times, or other performance objectives for school services.			
LIBRARY SERVICES			
Impact 5.13-4: 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.	Less than significant	No mitigation measures are required.	Less than significant
5.14 RECREATION			
Impact 5.14-1: 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.	Less than significant	No mitigation measures are required.	Less than significant
Impact 5.14-2: Includes recreational facilities or requires the construction or expansion of recreational facilities which might have an adverse physical effect on the environment.	Less than significant	No mitigation measures are required.	Less than significant
5.15 TRANSPORTATION			
Impact 5.15-1: Conflict with a program, plan, ordinance, or policy addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities.	Less than significant	No mitigation measures are required.	Less than significant
Impact 5.15-2: Conflict or be inconsistent with CEQA Guidelines § 15064.3, subdivision (b).	Less than significant	No mitigation measures are required.	Less than significant

1. Executive Summary

Table 1-1 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 5.15-3: Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment). Result in inadequate emergency access.	Less than significant	No mitigation measures are required.	Less than significant
Impact 5.15-4: Result in inadequate emergency access	Less than significant	No mitigation measures are required.	Less than significant
5.16 TRIBAL CULTURAL RESOURCES			
<p>Impact 5.16-1: Cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code § 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:</p> <p>i) Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k), or</p> <p>ii) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code § 5024.1. In applying the criteria set forth in subdivision (c) of Public Resource Code § 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.</p>	Potentially significant	<p>MM TCR-1 Prior to the issuance of the first grading permit for projects that propose ground disturbing activities greater than current foundations present on a given site, and/or for projects in areas with documented or inferred resource presence, the property owner/developer or contractor as designee shall provide evidence in the form of an executed Agreement to the City of Anaheim Planning and Building department that they have retained a qualified Native American tribal monitor to provide third-party monitoring (Monitor) during specified excavation and grading activities and to recover and catalogue tribal resources as necessary. The Monitor shall be from or approved by the Native American tribe(s) requesting consultation.</p> <p>The agreement shall include (i) professional qualifications of Monitor; (ii) detailed scope of services to be provided including but not limited to pre-construction education, observation, evaluation, protection, salvage, notification, and/or curation requirements, as applicable, with final documentation/report to Public Works Inspector; (iii) contact information; (iv) communication protocols between Contractor and Monitor for scheduling to facilitate timely performance; (v) acknowledgment that if the Monitor is unavailable or unresponsive based on terms stipulated in the agreement, property owner/developer or contractor as designee may contract with another qualified Monitor acceptable to the City. The selection of the qualified professional(s) shall be subject to City acceptance based on generally accepted professional qualifications and certifications, as applicable.</p>	Less than significant

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Table 1-1 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>The cover sheet of the grading plans shall include a note to identify that (a) third party monitoring for tribal cultural resources is required during specified excavation and grading activities in accordance with the City-approved Agreement; and (b) contact information for approved Monitor shall be provided by the Contractor to the City inspector at the pre-construction meeting.</p> <p>MM CUL-1 through MM CUL-7 shall apply.</p>	
5.17 UTILITIES AND SERVICE SYSTEMS			
Require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects.	Less than significant	No mitigation measures are required.	Less than significant
Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry, and multiple dry years	Less than significant	No mitigation measures are required.	Less than significant
Result in a determination by the waste water treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments.	Less than significant	No mitigation measures are required.	Less than significant

1. Executive Summary

Table 1-1 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
Generate solid waste in excess of state or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals.	Less than significant	No mitigation measures are required.	Less than significant
Comply with federal, state, and local management and reduction statutes and regulations related to solid waste.	Less than significant	No mitigation measures are required.	Less than significant
5.18 WILDFIRE			
Substantially impair an adopted emergency response plan or emergency evacuation plan.	Less than significant	No mitigation measures are required.	Less than significant
Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire.	Less than significant	No mitigation measures are required.	Less than significant
Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment.	Less than significant	No mitigation measures are required.	Less than significant
Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes.	Less than significant	No mitigation measures are required.	Less than significant

1. Executive Summary

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2. Introduction

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 before taking action on those projects. This draft program environmental impact report (Draft PEIR) has been prepared to satisfy CEQA and the CEQA Guidelines. The environmental impact report (EIR) is the public document designed to provide decision makers and the public with an analysis of the environmental effects of the proposed project, and indicate possible ways to reduce or avoid environmental damage through mitigation measures and 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.

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” (California Public Resources Code Section 21067). The City of Anaheim has the principal responsibility for approval of the City of Anaheim General Plan Focused Update project (proposed project). For this reason, the City of Anaheim is the CEQA lead agency for this project.

The intent of the Draft PEIR is to provide sufficient information on the potential environmental impacts of the proposed Anaheim General Plan Focused Update to allow the City of Anaheim to make an informed decision regarding approval of the project. Specific discretionary actions to be considered by the City are described in Section 3.5, *Intended Uses of the EIR*.

This Draft PEIR has been prepared in accordance with requirements of the:

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

The overall purpose of this Draft PEIR is to inform the lead agency, responsible agencies, decision makers, and the general public about the potential environmental effects resulting from full implementation of the proposed Anaheim General Plan Focused Update project. This Draft PEIR addresses effects that may be significant and adverse; evaluates alternatives to the project; and identifies mitigation measures and alternatives to reduce or avoid identified potentially adverse effects.

2. Introduction

2.1.1 Program EIR

This Draft EIR is a Program EIR (PEIR) that analyzes the adoption and implementation of the proposed General Plan Focused Update. CEQA and the CEQA Guidelines allow lead agencies to prepare different types of EIRs for varying situations and intended uses. As described in Section 15161 of the CEQA Guidelines, the most common type of EIR is a project EIR, which examines the environmental impacts of a specific development project. As described in Section 15168 of the CEQA Guidelines, program EIRs are appropriate when a project consists of a series of actions related to the issuance of rules, regulations, and other planning criteria.

In this case, the proposed project that is the subject of this EIR consists of long-term plans that will be implemented over time as policy documents, guiding future development activities and City actions. No specific development projects are proposed as part of the project. Therefore, this EIR is a program-level EIR that analyzes the potential significant environmental effects of the adoption of the proposed project. As a PEIR, it is not project specific and does not evaluate the impacts of individual projects that may be proposed under the General Plan. Subsequent projects will require a separate environmental review, as required by CEQA, which could be in the form of environmental review that “tiers” off of this PEIR to secure the necessary development permits. Therefore, while subsequent environmental review may be tiered from this EIR, this PEIR is not intended to address project-specific impacts of individual projects.

2.2 NOTICE OF PREPARATION AND INITIAL STUDY

The City of Anaheim determined that an EIR would be required for this project and issued a Notice of Preparation (NOP) on February 16, 2022 (see Appendix A). Comments received during the NOP’s public review period, from February 16, 2022, to March 18, 2022, are in Appendix A. The NOP process is used to help determine the scope of the environmental issues to be addressed in the Draft PEIR. Ten agencies/interested parties responded to the NOP.

The City also circulated an NOP for the Center City Corridors Specific Plan project (C3SP) from February 24, 2022, to March 28, 2022, which was being considered as a separate project by the City. Eleven agencies/interested parties responded to the NOP for the C3SP (see Appendix B). However, the City subsequently decided to implement any changes to the C3SP area as part of land use changes in the General Plan Focused Update—that is, as part of this proposed project as the Center City Corridors Implementation Plan (C3 Plan) and not as a separate project. Therefore, this Draft PEIR for the Anaheim General Plan Focused Update includes what was previously known as the C3SP. Comments received during the C3SP’s NOP public review period have been considered in the preparation of this Draft PEIR and are included in Appendix B. Table 2-1, *NOP Comment Summary*, summarizes the issues identified by the commenting agencies, with reference to the section(s) of this Draft PEIR where an issue is addressed.

2. Introduction

Table 2-1 NOP Comment Summary

Commenting Agency/Person	Date	Comment Summary	Issue Addressed In:
Comments regarding NOP for General Plan Focused Update			
Native American Heritage Commission (NAHC)	02/23/22	<ul style="list-style-type: none"> • Recommends tribal consultation under Assembly Bill 52 (AB 52) and Senate Bill 18 (SB 18) pursuant to NAHC's recommendation for conducting cultural resources assessments. • Provides guidance and recommendations on how to conduct tribal consultation pursuant to AB52 and SB18 	<ul style="list-style-type: none"> • Section 5.16, <i>Tribal Cultural Resources</i>
Orange County Parks Foundation	03/02/2022	<ul style="list-style-type: none"> • Provides updated information on the Mountain Park Conservation Easement through an easement compliance assessment. The Mountain Park Conservation Easement is managed by Orange County Parks and is planned to open for limited public use in 2023. 	Section 5.1, <i>Aesthetics</i> Section 5.3, <i>Biological Resources</i> Section 5.6, <i>Geology and Soils</i> Section 5.14, <i>Recreation</i> Section 5.18, <i>Wildfire</i>
South Coast Air Quality Management District (SCAQMD)	03/15/2022	<ul style="list-style-type: none"> • Requests that a copy of the EIR and other documents pertaining to air quality, health risk, and greenhouse gases be sent to them. • Gives recommendations for conducting the air quality analysis for the proposed project. • Provides recommendations for identifying potential mitigation measures. 	Section 5.2, <i>Air Quality</i> Section 5.7, <i>Greenhouse Gas Emissions</i>
Orange County Transit Authority (OCTA)	03/17/2022	<ul style="list-style-type: none"> • Requests to be kept apprised of the General Plan Update development. Requests the City of Anaheim to consider potential transit service disruptions or impacts to OCTA facilities when developing policies. • Requests that the City continue to coordinate with OCTA on the General Plan Focused Update's Circulation Element and the Orange County Master Plan of Arterial Highways. 	Section 5.15, <i>Transportation</i>
City of Irvine	03/17/2022	<ul style="list-style-type: none"> • Requests that the Housing Element Traffic Study be sent for their review. 	Section 5.15, <i>Transportation</i>
Airport Land Use Commission (ALUC) for Orange County	03/17/2022	<ul style="list-style-type: none"> • Requests that within the Airport Influence Areas, the city address environmental impacts of any new development policies related to airport operations in the General Plan Focused Update and EIR. • States that the city may wish to consider a mitigation and policy specifying a height threshold of 200 feet above ground level depending on the maximum building heights allowed within the General Plan Update. • Recommends that heliports be addressed in the General Plan Update and EIR. • Recommends that the city include a policy in its General Plan and a mitigation measure in the EIR that states that the city shall refer projects to the ALUC for Orange County. • Requests that referrals be submitted to the ALUC for a determination between the local agency's planning commission and city council hearings. 	Section 5.8, <i>Hazards and Hazardous Materials</i> Section 5.10, <i>Land Use and Planning</i> Section 5.11, <i>Noise</i>

2. Introduction

Table 2-1 NOP Comment Summary

Commenting Agency/Person	Date	Comment Summary	Issue Addressed In:
Southern California Association of Governments (SCAG)	03/17/2022	<ul style="list-style-type: none"> • Recommends using side-by-side comparison of SCAG Connect SoCal goals with discussions of consistency of goals and accompanying analysis. Recommends resources for strategies. • Describes SCAG demographics and growth forecast background and resources. Suggests informed and intentional local action to achieve a sustained regional outcome. • Recommends SCAG resources for mitigation measures. • Recommends a housing element in compliance with state housing law to be adopted. Recommends an accompanying resource. • Recommends SCAG resources for developing the Environmental Justice Element. 	Section 5.12, <i>Population and Housing</i>
Metropolitan Water District of Southern California (MWD)	03/18/2022	<ul style="list-style-type: none"> • Describes the pipelines that the MWD owns and operates within the city. • Requires that design plans for any activity in the area of MWD's pipelines or facilities be submitted for their review. Provides detailed guidelines for said design plans. • Encourages the inclusion of water conservation measures. 	Section 5.9, <i>Hydrology and Water Quality</i> Section 5.17, <i>Utilities and Service Systems</i>
California Department of Fish and Wildlife (CDFW)	03/18/2022	<ul style="list-style-type: none"> • Recommends the proposed project maintain consistency with the County of Orange Central and Coastal Subregion Natural Community Conservation Plan/Habitat Conservation Plan in order to avoid, minimize, and/or mitigate potential impacts to biological resources. • Recommends that the EIR includes a complete assessment of flora and fauna within and adjacent to the project site with a focus on identifying threatened, endangered, sensitive, and locally unique species and sensitive habitats. • Recommends that the EIR thoroughly discusses potential direct, indirect, and cumulative impacts on biological resources. • Recommends that the EIR thoroughly analyzes direct, indirect, and cumulative impacts to any special-status species likely to occur in the project site. • Outlines the notification process for activities that will result in lake and streambed alteration. 	Section 5.3, <i>Biological Resources</i> Section 5.9, <i>Hydrology and Water Resources</i>
California Highway Patrol (CHP)	03/18/2022	<ul style="list-style-type: none"> • States that the NOP did not include enough information to determine whether there will be an impact on local area operations and public safety. 	Section 5.15, <i>Transportation</i>
Comments Regarding NOP for C3SP			
Native American Heritage Commission (NAHC)	02/23/22	<ul style="list-style-type: none"> • Recommends consultation with California Native American tribes that are traditionally and culturally affiliated with the geographic area of the C3 project site as early as possible. • Provides guidance and recommendations on how to conduct tribal consultation pursuant to AB52 and SB18. 	Section 5.16, <i>Tribal Cultural Resources</i>

2. Introduction

Table 2-1 NOP Comment Summary

Commenting Agency/Person	Date	Comment Summary	Issue Addressed In:
South Coast Air Quality Management District (SCAQMD)	03/15/2022	<ul style="list-style-type: none"> • Requests that a copy of the EIR and other documents pertaining to air quality, health risk, and greenhouse gases be sent to them. • Gives recommendations for conducting the air quality analysis for the proposed project. • Provides recommendations for identifying potential mitigation measures. 	Section 5.2, <i>Air Quality</i> Section 5.7, <i>Greenhouse Gas Emissions</i>
Southern California Association of Governments (SCAG)	03/17/2022	<ul style="list-style-type: none"> • Recommends using side-by-side comparison of SCAG Connect SoCal goals with discussions of consistency of goals and accompanying analysis. Recommends resources for strategies. • Describes SCAG demographics and growth forecast background and resources. Suggests informed and intentional local action to achieve a sustained regional outcome. • Recommends SCAG resources for mitigation measures. 	Section 5.12, <i>Population and Housing</i>
Metropolitan Water District of Southern California (MWDSC)	03/18/2022	<ul style="list-style-type: none"> • Describes the pipelines that the MWD owns and operates within the project site. • Requires that design plans for any activity in the area of MWD's pipelines or facilities be submitted for their review. Provides detailed guidelines for said design plans. • Encourages the inclusion of water conservation measures. 	Section 5.9, <i>Hydrology and Water Quality</i> Section 5.17, <i>Utilities and Service Systems</i>
Orange County Transit Authority (OCTA)	03/25/2022	<ul style="list-style-type: none"> • States that OCTA completed the Harbor Boulevard Transit Corridor Study in 2018, which includes sections in the C3 project site. • States that OCTA is conducting the Making Better Connections Study. • Asks to be kept apprised of the C3 Project. • Requests that the City continue to coordinate with OCTA related to the Mobility and Streetscape Plan and the Orange County Master Plan of Arterial Highways. 	Section 5.15, <i>Transportation</i>

2.3 SCOPE OF THIS DRAFT PEIR

The scope of the Draft PEIR was determined by the City through the EIR scoping process and addresses potentially significant impacts associated with implementation of the Anaheim General Plan Focused Update. The information in Chapter 3, *Project Description*, establishes the basis for analyzing future project-related environmental impacts. Anaheim General Plan Focused Update goals and policies, existing regulations, standard conditions, and mitigation measures have been identified that either reduce or eliminate potentially significant impacts. The focus of the impact analysis is on areas that propose physical changes that may result in environmental impacts (e.g., areas where land use changes are proposed) and on ensuring that development and improvement activities are consistent with the Anaheim General Plan Focused Update.

2. Introduction

2.3.1 No Impact or Less Than Significant Impact

The EIR identified the following impacts as less than significant or no impact in the Draft PEIR:

- Aesthetics
- Agriculture and Forestry Resources
- Energy
- Hazards and Hazardous Materials
- Hydrology and Water Quality
- Land Use and Planning
- Mineral Resources
- Population and Housing
- Public Services
- Recreation
- Transportation
- Utilities and Service Systems
- Wildfire

2.3.2 Less Than Significant Impacts with Mitigation

The EIR identified the following impacts as less than significant with the implementation of mitigation measures.

- Biological Resources
- Cultural Resources
- Geology and Soils
- Tribal Cultural Resources

2.3.3 Unavoidable Significant Adverse Impacts

This Draft PEIR identifies the following 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. The City must prepare a “statement of overriding considerations” before it can approve the project, attesting 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 outweigh the adverse effects, and therefore the adverse effects are considered acceptable. The impacts that were found in the Draft PEIR to be significant and unavoidable are:

- Air Quality (construction and operation)
- Greenhouse Gas Emissions
- Noise (construction and operation)

2. Introduction

2.4 INCORPORATION BY REFERENCE

Some documents are incorporated by reference into this Draft PEIR, consistent with Section 15150 of the CEQA Guidelines, and they are available for review at the City of Anaheim.

- *City of Anaheim General Plan*, prepared by City of Anaheim, May 2004.
- *City of Anaheim Transportation Impact Analysis Guidelines for CEQA*, prepared by City of Anaheim, June 2020.
- *City of Anaheim Draft 2021-2029 Housing Element Update*, prepared by City of Anaheim, November 2024.
- *City of Anaheim Draft Circulation Element Update*, prepared by City of Anaheim, December 2024.
- *City of Anaheim Draft Environmental Justice Element Update*, prepared by City of Anaheim, July 2022.
- *City of Anaheim Safety Element*, prepared by City of Anaheim, January 2023.

2.5 FINAL PEIR

This Draft PEIR is being circulated for public review for 45 days. Interested agencies and members of the public are invited to provide written comments on the adequacy of the Draft PEIR to the City address shown on the title page of this document. The City of Anaheim will review all comments received and prepare written responses for each. A Final PEIR will include all received comments, responses to the comments, and any changes to the Draft PEIR that result from comments. All responses to comments submitted on the Draft PEIR by agencies will be provided to those agencies at least 10 days prior to certification of the EIR. The Final PEIR will be presented to the City of Anaheim for potential certification as the appropriate environmental document for the proposed project, pursuant to CEQA and the CEQA Guidelines. The City Council will make findings regarding the extent and nature of the impacts as presented in the Final PEIR. After the City Council certifies the Final PEIR, it may then consider the General Plan amendment, implementation of the Housing Element and C3 Plan, and proposed land use plan. The City Council will adopt and incorporate into the project all feasible mitigation measures identified in the PEIR, and it may also require other feasible mitigation measures.

The Draft PEIR is available on the City website at the following web address:

www.anaheim.net/876/Environmental-Documents

The Draft PEIR is also available for review in-person at the following locations:

2. Introduction

Anaheim Planning & Building Department

200 S. Anaheim Boulevard
Anaheim, CA 92805

Anaheim Central Library

500 W. Broadway
Anaheim, CA 92805

Anaheim Public Library, East Anaheim Branch

8201 E. Santa Ana Canyon Road
Anaheim, CA 92808

Anaheim Public Library, Canyon Hills Branch

400 South Scout Trail
Anaheim, CA 92807

Anaheim Public Library, Euclid Branch

1340 S. Euclid Street
Anaheim, CA 92802

Anaheim Public Library, Haskett Branch

2650 W. Broadway
Anaheim, CA 92802

Anaheim Public Library, Ponderosa Joint-Use Branch

240 E. Orangewood Avenue
Anaheim, CA 92802

Anaheim Public Library, Sunkist Branch

901 S. Sunkist Street
Anaheim, CA 92806

2.6 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 Section 21081 or adopted a Negative Declaration pursuant to 21080(c). 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 Anaheim General Plan Focused Update will be completed as part of the Final PEIR, prior to consideration of the project by the Anaheim City Council. In addition to the Mitigation Monitoring Program, the City is also adopting Standard Conditions of Approval (Appendix F), both of which will be applied to future development in the City.

3. Project Description

3.1 PROJECT LOCATION

The project encompasses the City of Anaheim, which is approximately 35 miles southeast of downtown Los Angeles and 7 miles north of Santa Ana (Figure 3-1, *Regional and Vicinity Map*). The City is surrounded by the cities of Fullerton, Placentia, and Yorba Linda to the north; Riverside County to the east; the cities of Orange, Garden Grove, Stanton, and unincorporated Orange County to the south; and the cities of Cypress and Buena Park to the west. The City encompasses over 34,703 acres of land, including its sphere of influence (SOI), stretching nearly 20 miles along State Route 91 (SR-91). For the purposes of this Draft PEIR, the study area (or project site) is considered to be the entirety of the City.

Anaheim is a geographically diverse community. The western and central portions of the City are nearly flat and slope gently to the southwest. This portion of the City is also characterized by a mix of suburban and urban development and is mostly built out. The area is home to Downtown and the Anaheim Colony Historic District, which are within the City's original 1.8-square-mile boundary and contain a majority of Anaheim's valued historic structures.

The eastern portion of the City extends generally along the Santa Ana River to the Riverside County line. This part of the City includes hillside terrain and an abundance of natural resources. Residential development in the eastern portion of Anaheim largely consists of hillside communities on the south side of the Riverside Freeway (SR-91) that extend to the Eastern Transportation Corridor (SR-241). Other residential neighborhoods are north of the Santa Ana River and east of Imperial Highway, and generally south of the Santa Ana River at the intersection of the Riverside (SR-91) and Costa Mesa (SR-55) freeways. Anaheim Canyon is also in the eastern part of the City; this regional employment center consists of office, industrial, and commercial uses and generally spans the north side of SR-91 between the Orange Freeway (SR-57) and Imperial Highway.

3.2 EXISTING LAND USE SUMMARY

3.2.1 Existing Land Use Conditions

Various types of existing land uses are found throughout the City and are categorized by uses that can be grouped into seven broad categories: Residential, Commercial/Office, Industrial/Manufacturing, Parks/Open Space and Agriculture/Vacant, Other, Water Uses/Waterways, and Public/Quasi-Public Facilities. Table 3-1, *Existing Conditions Land Use Summary*, shows the distribution of existing land uses and the number of housing units, population, nonresidential square footage, and jobs in Anaheim, including its SOI. Existing conditions in Table 3-1 reflect the built environment using data provided by the City as well as baseline existing land use data by traffic analysis zone (TAZ) informed by Orange County Projections from the Center for Demographic Research at Cal State Fullerton (see Appendix C, *General Plan Buildout Methodology*).

3. Project Description

Table 3-1 Existing Conditions Land Use Summary¹

Category	Number of Housing Units (DU) or Square Feet (SF)	Total Population	Employment (Number of Jobs)
Residential			
Single Family Residential	52,051	170,401	-
Multifamily Residential	49,225	161,151	-
Mobile Homes	4,413	14,447	-
Commercial/Office			
Commercial & Services	18,297,200 SF	-	45,743
Office	15,814,800 SF	-	52,716
Medical	13,099,000 SF	-	26,198
Industrial/Manufacturing			
Industrial	26,181,250 SF	-	41,890
Parks/Open Space and Agriculture/Vacant			
Parks & Recreation	-	-	109
Agriculture & Resource Extraction	-	-	292
Other			
Other	-	-	32,433
Water Uses/Waterways			
Water Uses/Waterways	-	-	-
Public/Quasi-Public Facilities			
Educational	-	-	10,679
Public Facilities	1,136,850 SF	-	2,067
Utilities	586,300 SF	-	1,066
Total City	105,689 DU 75,115,400 SF	345,999	213,193

Notes:

1. Excludes built square footage of Disneyland, California Adventure, Angel Stadium, and the Honda Center and includes populations within Specific Plans
2. Total population reflects persons living in households and does not include persons living in group quarters.
3. DU= Dwelling Unit, SF= Square feet

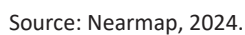


Figure 3-1
Regional and Vicinity Map

3. Project Description

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3. Project Description

3.2.2 Adopted Anaheim General Plan Conditions

Figure 3-2, *Current Land Use Plan*, shows the existing land use designations in Anaheim. Table 3-2, *Adopted Anaheim General Plan Buildout (No Project) Land Use Summary*, presents a breakdown of the land uses in the City and distribution of acreage under the current General Plan. As shown in the table, 16,546 acres (52.6 percent) of the City are designated for residential uses and 3,129 acres (11.0 percent) for commercial/office uses¹. Under Adopted General Plan Buildout Conditions, there would be 134,139 dwelling units, a total population of 391,921, and 266,314 jobs in the City.

Table 3-2 Adopted Anaheim General Plan Buildout (No Project) Land Use Summary

Category	Acres (% of Total ¹)
Residential	16,546 (52.6%)
<i>Estate Residential</i>	1,246 (4.0%)
<i>Low Density Residential</i>	10,222 (32.5%)
<i>Low Medium Hillside Residential</i>	857 (2.7%)
<i>Low Medium Density Residential</i>	2,049 (6.5%)
<i>Mid Density Residential</i>	21 (0.1%)
<i>Medium Density Residential</i>	1,981 (6.3%)
<i>Corridor Residential</i>	170 (0.5%)
Commercial/Office	3,129 (10.0%)
<i>Mixed-Use Mid</i>	-
<i>Mixed-Use Medium</i>	16 (0.1%)
<i>Mixed-Use High</i>	225 (0.7%)
<i>Mixed-Use Urban Core</i>	517 (1.6%)
<i>Neighborhood Commercial</i>	290 (0.9%)
<i>General Commercial</i>	616 (2.0%)
<i>Regional Commercial</i>	219 (0.7%)
<i>Commercial Recreation</i>	944 (3.0%)
<i>Office – Low</i>	238 (0.8%)
<i>Office – High</i>	64 (0.2%)
Industrial/Manufacturing	2,819 (9.0%)
<i>Industrial</i>	2,761 (8.8%)
<i>Non-Residential Mixed-Use</i>	58 (0.2%)
Parks/Open Space and Agriculture/Vacant	6,402 (20.3%)
<i>Open Space - Open Space</i>	4,946 (15.7%)
<i>Open Space – Park</i>	1,456 (4.6%)
Water Uses/Waterways	1,203 (3.8%)
<i>Open Space – Water</i>	1,203 (3.8%)
Public/Quasi-Public Facilities	4,606 (4.3%)
<i>Public Institution</i>	212 (0.7%)
<i>School</i>	981 (3.1%)

¹ Commercial/office uses includes the mixed use designation

3. Project Description

Table 3-2 Adopted Anaheim General Plan Buildout (No Project) Land Use Summary

Category	Acres (% of Total ¹)
<i>Railroad</i>	143 (0.5%)
<i>Right of Way</i>	3,270 (N/A)
Grand Total	34,703 (100%)
1. Percentage of total parceled acreage (excludes right-of-way acreage).	

As shown in Figure 3-3, *Specific and Master Plan Land Use Plans*, there are eleven approved specific plans within the City, which include:

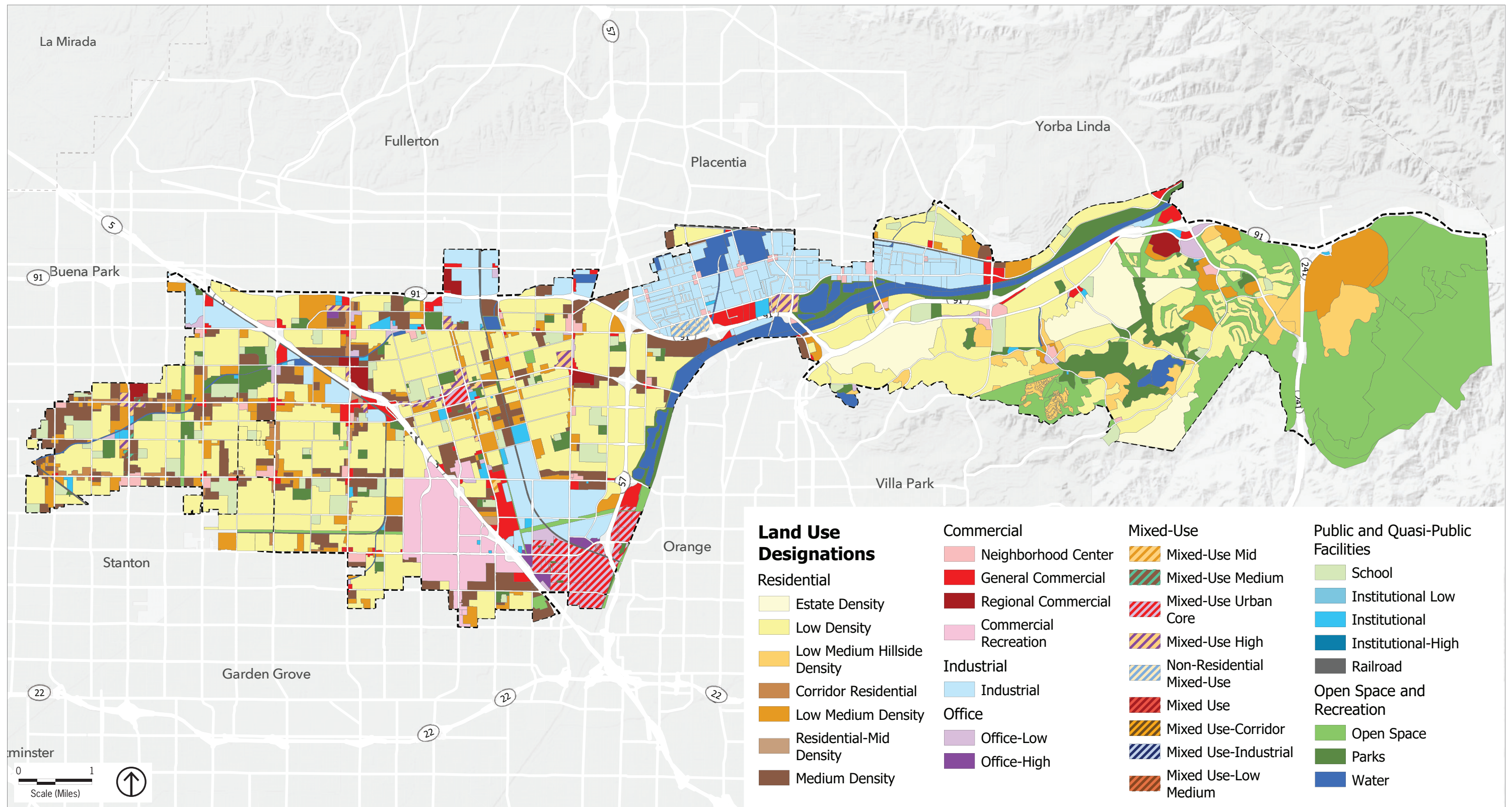
- The Highlands at Anaheim Hills
- Sycamore Canyon
- The Summit of Anaheim Hills
- The Anaheim Hills Festival
- East Center Street
- Anaheim Canyon
- The Anaheim Resort
- Beach Boulevard
- The Disneyland Resort
- Hotel Circle
- Mountain Park

With respect to the proposed project, of the eleven approved specific plans, additional buildout capacity is focused on two specific plans (Anaheim Canyon and Beach Boulevard) and the Platinum Triangle Master Land Use Plan. Table 3-3, *Specific and Master Land Use Plan Existing Population and Employment*, shows the existing population and employment within these three areas.

Table 3-3 Specific and Master Land Use Plans Existing Population and Employment

Planning Area	Existing Housing Units	Existing Population	Existing Employment
Anaheim Canyon	613	1,433	50,469
Beach Boulevard	1,714	5083	2,175
Platinum Triangle	5,408	9,263	14,375
Total	7,735	15,779	67,019

3. Project Description



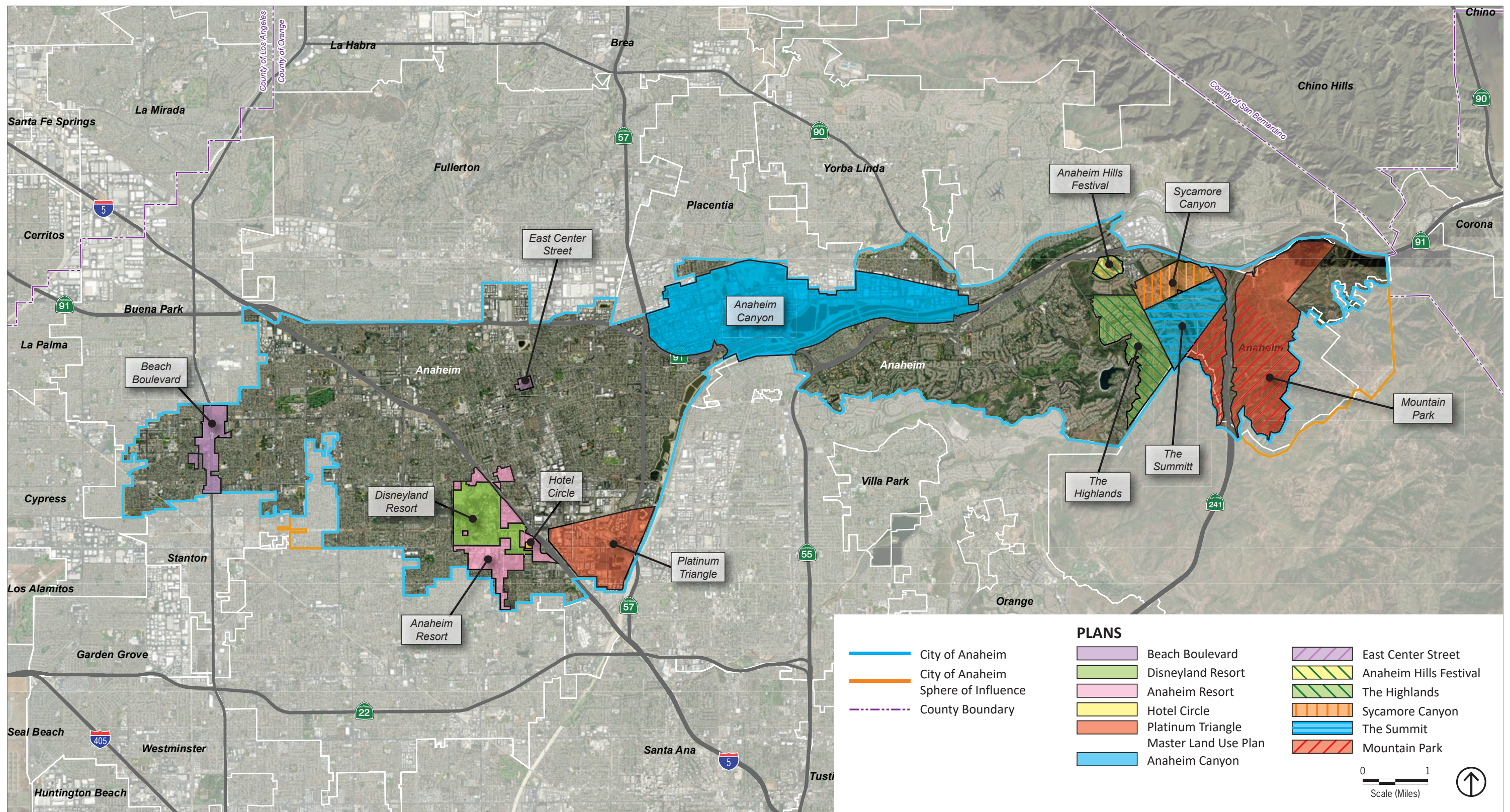
Source: City of Anaheim, 2024.

Figure 3-2
Current Land Use Plan

3. Project Description

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3. Project Description



Source: City of Anaheim, 2019.

Figure 3-3
Specific and Master Plan Land Use Plan.

3. Project Description

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3. Project Description

3.3 STATEMENT OF PROJECT OBJECTIVES

The City of Anaheim's General Plan Focused Update (proposed project) is an effort by the City to update the existing General Plan for the next 20 years through 2045. The updated General Plan will bring select elements (chapters) into compliance with state housing mandates; conform with new state laws related to environmental justice and mobility; and bring long-term growth into alignment with current factors.

The following objectives have been established for the proposed project and will aid decision makers in their review of the project and associated environmental impacts:

1. Provide for a wide range of housing opportunities in close proximity to existing and future employment centers and transportation facilities, consistent with the need identified in the City's 2021-2029 Housing Element and local and regional jobs/housing balance policies. Provide the recommended surplus between 15 and 30 percent above the Regional Housing Needs Assessment housing unit allocation.
2. Support intensification around the historic downtown Anaheim (Center City Corridors or C3) through the C3 Implementation Plan (C3 Plan), which identifies new and amended land use designations and zoning classifications along corridors.
3. Provide a focused update to the City's General Plan and Zoning Code to deal more effectively with State law housing and other requirements facing the City of Anaheim.
4. Establish clear design standards to be employed in future development of multifamily and mixed-use projects citywide.
5. Facilitate future use streamlining provisions allowed under the California Environmental Quality Act (CEQA) by providing updated community-level environmental review.

3.4 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])

3.4.1 Project Background

The purpose of the City of Anaheim General Plan is to create a policy framework that articulates a vision for the City's long-term physical form and development while preserving and enhancing the quality of life for Anaheim's residents. In 2004, the Anaheim City Council adopted a comprehensive update of the General Plan and certified EIR No. 330 as the environmental documentation. The City later certified Supplemental EIR No. 346 for the Housing Opportunities Sites Rezoning Project, which implemented the 2006-2014 General

3. Project Description

Plan Housing Element and informed the 2014-2021 Housing Element. Since the 2004 update, the existing General Plan policies and objectives have continued to guide development across the City. Although “long-term” in nature because it is designed to provide policy guidance generally for 20 years, amendments to the General Plan do occur. To that end, the City has amended the General Plan over 75 times since 2004. The proposed project would incorporate these amendments into the updated elements. The Housing Element is required to be updated every eight years. Implementation of the 2021-2029 Housing Element and changes to the regulatory environment are the basis for this focused update.

Additionally, the City initiated preparation of the Center City Corridors Specific Plan (C3SP) in 2022. The C3SP was intended to guide future development in the C3SP plan area by establishing a community-driven vision implemented by new land use designations and development standards that would build upon and improve conditions and attract economic investment primarily along corridors in the plan area. A Notice of Preparation (NOP) was issued for an EIR that was to be prepared for the C3SP project (State Clearinghouse (SCH) Number 2022020526). Subsequently, the City determined that any changes proposed for this area, which includes some of the candidate sites in the 2021-2029 Housing Element, could be incorporated into this General Plan Update. The Center City Corridors Implementation Plan (C3 Plan) was instead prepared to identify future actions to be included in this General Plan Update (see Appendix D, *C3 Implementation Plan*). Therefore, any public, agency, or tribal comments received during the C3SP scoping process have been incorporated into this Draft PEIR (see Appendix B for the C3SP NOP and comments).

3.4.2 Description of the Project

The General Plan is a State-required legal document that provides guidance to decision-makers regarding the allocation of resources and the future physical form and character of development in the City. It is the official statement of the City regarding the extent and types of development needed to achieve the community’s physical, economic, social, and environmental goals. It is comprised of the following ten elements: Land Use, Circulation, Green, Public Services and Facilities, Growth Management, Safety, Noise, Economic Development, Community Design, and Housing. Although the General Plan is composed of the individual sections, or “elements,” that individually address a specific area of concern, the General Plan embodies a comprehensive and integrated planning approach.

The proposed project is a focused update of the City of Anaheim’s adopted General Plan that reflects zoning, land use and circulation updates resulting from the 2021-2029 Housing Element that address the City’s Regional Housing Needs Assessment (RHNA) growth allocation of 17,453 housing units, and complete the actions identified by the C3 Plan.

3.4.2.1 PROPOSED GENERAL PLAN AND ZONING CODE UPDATES

The following General Plan and Zoning Code updates are included as part of the proposed project.²

² The following General Plan Elements have no revisions proposed: Green Element, Public Services and Facilities Element, Growth Management Element, Noise Element, Economic Development Element, Community Design Element.

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- **Land Use Element Update.** The Land Use Element is a guide for the City’s future development. It designates the distribution and general location of land uses, such as residential, retail, industrial, open space, recreation, and public uses. The Land Use Element also addresses the permitted density (number of housing units per acre) and intensity (site coverage and floor to area ratio, or FAR) of the various land use designations. The anticipated residential and non-residential buildout associated with the Land Use Element updates has been updated to reflect growth projections anticipated through 2045. The proposed project would introduce new land use designations of MU-Corridor, MU-Low-Medium, MU-Industrial, and Institutional Low and change the existing Institutional to Institutional High. It would set a minimum residential density for the MU-Medium and MU-High designations. It would also add additional “Implementing Zoning” to the Corridor Residential land use designations, change the implementing zoning for MU-Urban Core from DMC to MU-UC, and update or add the corresponding zones for the remaining mixed-use designations. The proposed project would update General Plan Land Use Element Table LU-2 and LU-3 to reflect these changes, as shown below in Table 3-4, *Proposed Residential and Mixed Use Land Use Designations*, and Table 3-5, *Proposed Nonresidential Land Use Designations*. Tables 3-4 and 3-5 provide a summary of the land use designations in terms of density, intensity, and typical implementation zones. The proposed project would also update Table LU-1 (City of Anaheim Approved Specific Plans) and the accompanying Figure LU-1 (Specific Plan Map) to remove the East Center Street Development; and remove references to the Downtown Mixed-Use Overlay Zone, Mixed Use Overlay Zone, and South Anaheim Boulevard Corridor Overlay Zone throughout the Element.
- **Circulation Element Update.** The Circulation Element identifies the general location and extent of existing and proposed major transportation facilities, including major roadways, passenger and freight rail, transit systems, and bikeways. It also provides policies, programs, actions, and priority transportation networks that support the safe and efficient movement of people driving, walking, biking, and taking transit in Anaheim. The Circulation Element has been updated to reflect changes in transportation needs, new technologies, changes associated with implementing the 2021-2029 Housing Element, and an update to the Anaheim Traffic Analysis Model (ATAM). Changes include updates to circulation-related policies, technical guidance, and updates to circulation-system networks and classifications. The Circulation Element has also been updated to include goals and policies for the updated “Traffic Impact Analysis Guidelines for CEQA: VMT,” established July 1, 2020, pursuant to SB 743.
- **New Environmental Justice Element.** State law requires local jurisdictions with disadvantaged communities to adopt a new Environmental Justice Element when they are updating two or more elements of their general plan. The City’s new Environmental Justice Element will be compliant with all relevant State laws, including SB 1000 (2016), by addressing the following seven topics: (1) pollution exposure, including air quality; (2) public facilities; (3) food access; (4) safe and sanitary homes; (5) physical activity; (6) community engagement; and (7) prioritization of improvements and programs addressing the needs of disadvantaged communities.

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Table 3-4 Proposed Residential and Mixed-Use Land Use Designations

	Residential							Mixed-Use						
	Estate	Low Density	Low-Medium Hillside Density	Low-Medium Density	Medium Density	Mid Density	Corridor	Corridor	Low-Medium	Mid	Medium	High	Industrial	Urban Core
Urban Minimum to Maximum Density	0–1.5 du/ac	0–6.5 du/ac	0–6.0 du/ac	0–18.0 du/ac	0–36.0 du/ac	0–27.0 du/ac	0–13.0 du/ac	0–6.5 du/ac 0–0.5 FAR	0–18 du/ac 0–0.35 FAR	0–27 du/ac 0–0.10 FAR	18–36 du/ac 0–0.35 FAR	30–60 du/ac 0–0.35 FAR	0–30 du/ac 0–1.0 FAR	0–100 du/ac 0–3.00 FAR
Typical Implementing Zoning	RH-1 RH-2	RH-3 RS-1 RS-2 RS-3	RS-3 (SC) RS-4 (SC) RM-2 (SC)	RS-4 RM-1 RM-2 RM-3	RM-3 RM-3.5 RM-4	RM-3 RM-3.5	RM-1 RM-2 RM-3	MU-C	MU-LM	MU-MID	MU-MED	MU-H	MU-I	PTMU MU-UC

Notes:

RH: Single-Family Hillside Residential, RS: Single-Family Residential, RM: Multiple-Family Residential, MU-C: Mixed-Use Corridor, MU-LM: Mixed-Use Low-Medium, MU-MID: Mixed-Use Mid, MU-MED: Mixed-Use Medium, MU-H: Mixed-Use High, MU-I: Mixed-Use Industrial, MU-UC: Mixed-Use Urban Code, PTMU: Platinum Triangle Mixed Use Overlay Zone, SC: Scenic Corridor Overlay Zone, du/ac: dwelling Units per gross acre, FAR: floor area ratio

Table 3-5 Proposed Nonresidential Land Use Designations

	Commercial			Office		Mixed-Use	Industrial	Public/Quasi-Public			Open Space	Parks	Water
	Neighborhood	General	Regional	Low ¹	High ²	Non-Residential Mixed-Use	Industrial	Institutional-Low	Institutional-High	Schools			
Probable to Maximum Intensity	0.35–0.45 FAR	0.25–0.50 FAR	0.30–0.50 FAR	0.40–0.50 FAR	0.50–2.00 FAR	1.50–3.00 FAR	0.35–0.50 FAR	0.10–0.50 FAR	0.50–3.0 FAR	N/A	0–0.10 FAR	0–0.10 FAR	0–0.10 FAR
Typical Implementing Zoning	C-NC	C-G	C-R	O-L	O-H	Specific Plan	I	SP	SP	SP	OS	PR SP	OS PR SP

Notes:

1. Refer to Table LU-4 of the General Plan Land Use Element for Office Low areas in the Platinum Triangle.

2. Refer to Table LU-4 of the General Plan Land Use Element for Office High areas in the Platinum Triangle.

FAR: floor area ratio, C-NC: Neighborhood Commercial, C-G: General Commercial, C-R: Regional Commercial, O-L: Low Intensity Office Zone, O-H: High Intensity Office Zone, I: Industrial, SP: Semi-Public Zone, OS: Open Space, PR: Public Recreation Zone.

3. Project Description

- **Zoning Code:** The 2021-2029 Housing Element, C3 Plan, and updates to the other General Plan elements, described above, require updates to the City’s Zoning Code to ensure consistency and allow for future implementation of policies and programs identified therein. Title 18, Zoning, of the Anaheim Municipal Code would be amended to add Chapter 18.12 (Mixed-Use Zones) providing development standards and use regulations which will also replace the South Anaheim Boulevard Corridor (Chapter 18.24), Downtown Mixed-Use (Chapter 18.30), and Mixed-Use (Chapter 18.32) Overlay Zones. It would also include new Objective Design Standards in Chapter 18.39 designed to ensure the quality of and certainty for future development, codifying guidance currently in the Community Design Element. Objective design standards will apply to all multi-family and mixed-use developments in the City in addition to the standards of the underlying base zone in which the project is located. The objective design standards address design topics such as site planning, mass and scale, materials and details, frontage types, and historic adjacencies. The objective design standards are written in clear objective terms, consistent with recent State housing laws.
- **Land Use Plan, Zoning Map, and Related Plans:** Implementation of the 2021-2029 Housing Element and C3 Plan requires changes to General Plan Land Use Designations and/or Zoning Classifications to add or increase residential density on identified sites including in addition to the currently permitted or planned non-residential development. The proposed project would update the General Plan Land Use Plan (Figure LU-4) and Zoning Map with these changes in addition to making the corresponding amendments and adjustments to the Beach Boulevard Specific Plan, Anaheim Canyon Specific Plan, and Platinum Triangle Master Land Use Plan.

The full text of the proposed General Plan and Zoning Code Update is available at the City of Anaheim Planning Department, at all City libraries, and on the City’s website (www.anaheim.net/generalplan).

3.4.2.2 IMPLEMENTATION OF HOUSING ELEMENT AND C3 PLAN REZONING

As discussed below, the proposed project would implement the proposed 2021-2029 Housing Element and C3 Plan. Under proposed project conditions, and as shown in Table 3-6, *Proposed Project Sites Buildout*, in total, the proposed project (including both the Housing Element and C3 Plan Sites) would result in 30,103 dwelling units, 56,122 residents, 12,361,277 square feet of non-residential development, and 31,407 employees. Implementation of the proposed project would occur throughout the City, but would focus development and redevelopment in the western and central portions of the City. Figure 3-4, *Proposed Project Sites*, shows all parcels in the City that are included in the proposed project.

Table 3-6 Proposed Project Sites Buildout

Sites	Housing Units	Population	Non-residential Square Feet	Employees
Candidate Sites (346 Sites)	22,997	39,306	7,728,418	22,632
C3 Sites (961 Sites)	6,863	16,451	4,392,388	8,114
Adjacent Sites (29 Sites) ¹	243	365	240,471	661
Totals	30,103	56,122	12,361,277	31,407

¹. Adjacent Sites are sites adjacent to Candidate Sites that were not eligible for inclusion in the 2021-2029 Housing Element but where a contiguous land use treatment is warranted.

3. Project Description

2021–2029 Housing Element

Considering existing development and a lack of vacant land, the City’s housing strategy to demonstrate capacity for the 2021-2029 RHNA growth need relies on infill development opportunities throughout Anaheim. The 2021-2029 Housing Element identifies that the City is able to take credit for 6,531 units currently in the planning process (“pipeline projects”) and 756 accessory dwelling units in the 17,453-unit RHNA allocation; the remaining units need to be accounted for in the Housing Element through the identification of candidate sites. Candidate Sites fall into one of three categories.

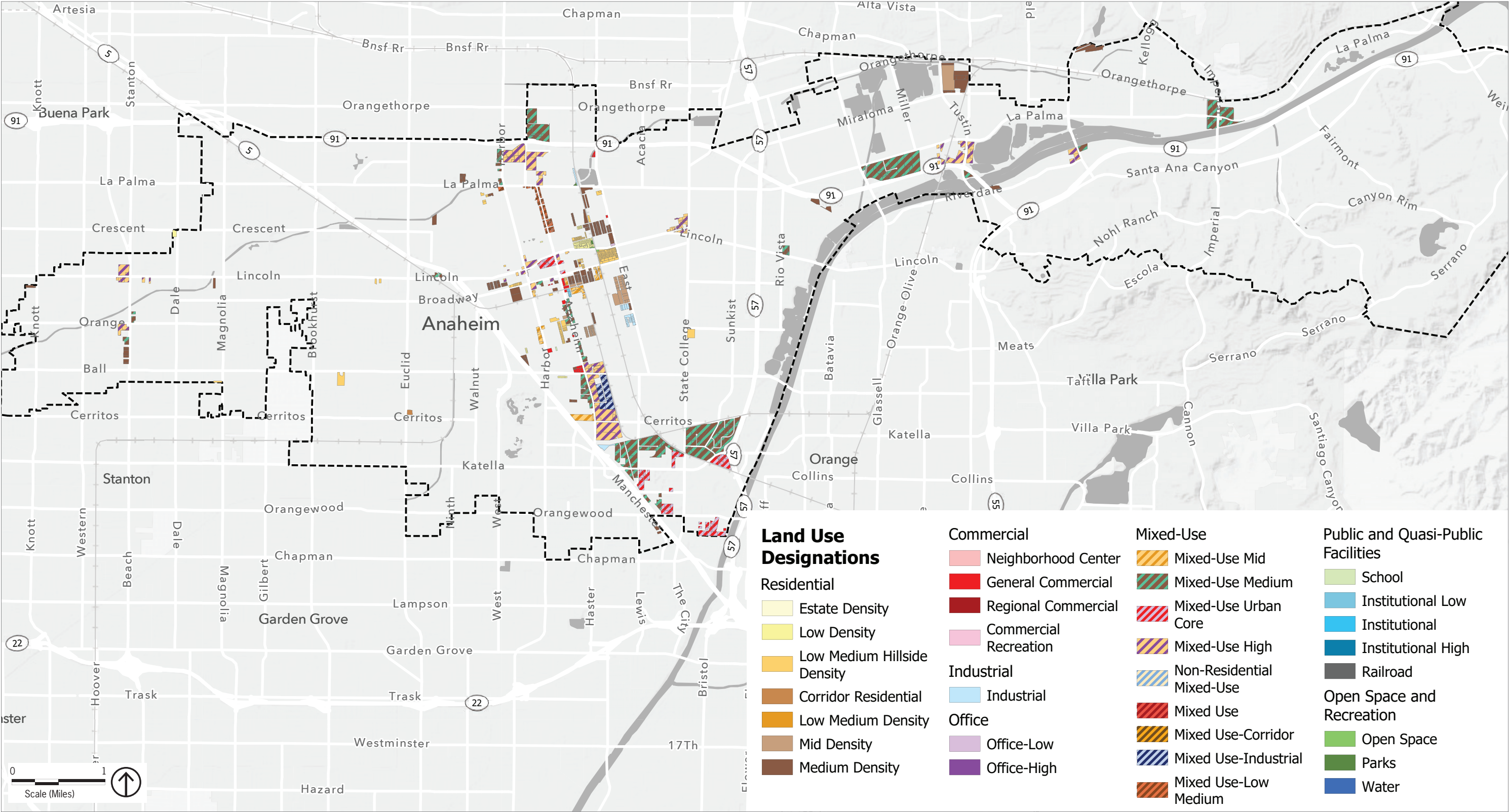
- **Existing Capacity (79 sites)** – Residential development is already permitted; the proposed project includes a build out projection consistent with the Housing Element but no general plan land use designation or implementing zoning changes are proposed.
- **General Plan Land Use Designation (195 sites)** – Residential development is not currently permitted or is permitted at a lower density; the proposed project includes a build out projection consistent with the Housing Element, a Land Use Plan amendment to change the land use designation of the site, and a Zoning Action to implement the General Plan.
- **Zoning Action (72 sites)** – Residential development is not currently permitted, except through the application of State laws facilitating housing development on sites where there is an inconsistency between the General Plan Land Use Designation and the Zoning Classification; the proposed project includes a build out projection consistent with the Housing Element and a Zoning Action to implement the General Plan.

C3 Plan

The C3 Plan area is centrally located within the City of Anaheim and encompasses the Anaheim Colony, the original settlement of the City, and Center City, the City’s downtown area. The C3 Plan area is approximately four square miles and is generally defined by SR-91 and the City of Fullerton to the north; Interstate 5 (I-5), Anaheim Resort, and Platinum Triangle to the south; the Metrolink Railroad and East Street to the east; and I-5 and West Street to the west. The C3 Plan area includes a variety of residential, commercial, office, industrial, institutional, mixed-uses, and public land uses as well as the Civic Center. Implementation of the C3 Plan focuses along the primary corridors, including La Palma Avenue, Lincoln Avenue, Broadway, Ball Road, Harbor Boulevard, and Anaheim Boulevard generally to add or increase residential density. Also, the proposed project ensures consistency between a property’s General Plan land use and Zoning Code designation, as required by State law, and representative of the existing development found on certain properties.

The City’s full list of Proposed Project Sites, is included in Appendix E, *Anaheim Proposed Project Sites*, of this Draft PEIR.

3. Project Description



Source: City of Anaheim, 2024.

Figure 3-4
Proposed Project Sites

3. Project Description

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3. Project Description

3.4.2.3 PROPOSED LAND USE PLAN

Land use designations define the type and nature of development that would be allowed in a given location on the Proposed Land Use Map. Under the proposed land use classification system, land uses in Anaheim would continue to be classified into seven broad categories: Residential, Commercial/Office, Industrial/Manufacturing, Parks/Open Space and Agriculture/Vacant, Other, Water Uses/Waterways, and Public/Quasi-Public Facilities. Detailed descriptions of each of these land use categories can be found in Appendix H, *Anaheim General Plan Land Use Definitions*, to this Draft PEIR. Table 3-7, *Proposed Project Land Use Summary*, shows the proposed land use designations that would regulate development in the City. Figure 3-5, *Proposed Land Use Plan*, shows the proposed General Plan Land Use Map. As shown in the table, 16,460 acres (52.0 percent) of the City is designated for residential uses and 3,315 (11.0 percent) for commercial/office uses. The proposed project primarily redesignates residential and commercial parcels to higher density mixed-uses.

Table 3-7 also details the projected housing units, population, and employment planned under the proposed project. Assumptions used to calculate buildout are in Appendix C, *General Plan Buildout Methodology*, of this Draft PEIR.

Table 3-7 Proposed Project Land Use Summary

Category	Acres (% of total) ¹
Residential	16,460 (52.3%)
<i>Estate Residential</i>	1,246 (4.0%)
<i>Low Density Residential</i>	10,124 (32.2%)
<i>Low Medium Hillside Residential</i>	857 (2.7%)
<i>Low Medium Density Residential</i>	1,929 (6.1%)
<i>Mid Density Residential</i>	98 (0.3%)
<i>Medium Density Residential</i>	2,017 (6.4%)
<i>Corridor Residential</i>	170 (0.5%)
Commercial/Office	3,315 (10.7%)
<i>Mixed-Use Low-Medium</i>	19 (0.1%)
<i>Mixed-Use Mid</i>	24 (0.1%)
<i>Mixed-Use Medium</i>	205 (0.7%)
<i>Mixed-Use High</i>	344 (1.1%)
<i>Mixed-Use Urban Core</i>	521 (1.7%)
<i>Mixed-Use Corridor</i>	23 (0.1%)
<i>Mixed-Use Industrial</i>	30 (0.1%)
<i>Neighborhood Commercial</i>	283 (0.9%)
<i>General Commercial</i>	484 (1.5%)
<i>Regional Commercial</i>	195 (0.6%)
<i>Commercial Recreation</i>	944 (3.0%)
<i>Office – Low</i>	229 (0.7%)
<i>Office – High</i>	63 (0.2%)
Industrial/Manufacturing	2,733 (8.7%)
<i>Industrial</i>	2,645 (8.4%)
<i>Non-Residential Mixed-Use</i>	88 (0.3%)

3. Project Description

Table 3-7 Proposed Project Land Use Summary

Category	Acres (% of total) ¹
Parks/Open Space and Agriculture/Vacant	6,411 (20.4%)
Open Space – Open Space	4,957 (15.8%)
Open Space – Park	1,454 (4.6%)
Water Uses/Waterways	1,203 (3.8%)
Open Space – Water	1,203 (3.8%)
Public/Quasi-Public Facilities	4,583 (4.2%)
Public Institution	193 (0.6%)
School	977 (3.1%)
Railroad	143 (0.5%)
Right of Way	3,270 (N/A)
Grand Total	34,703 (100%)

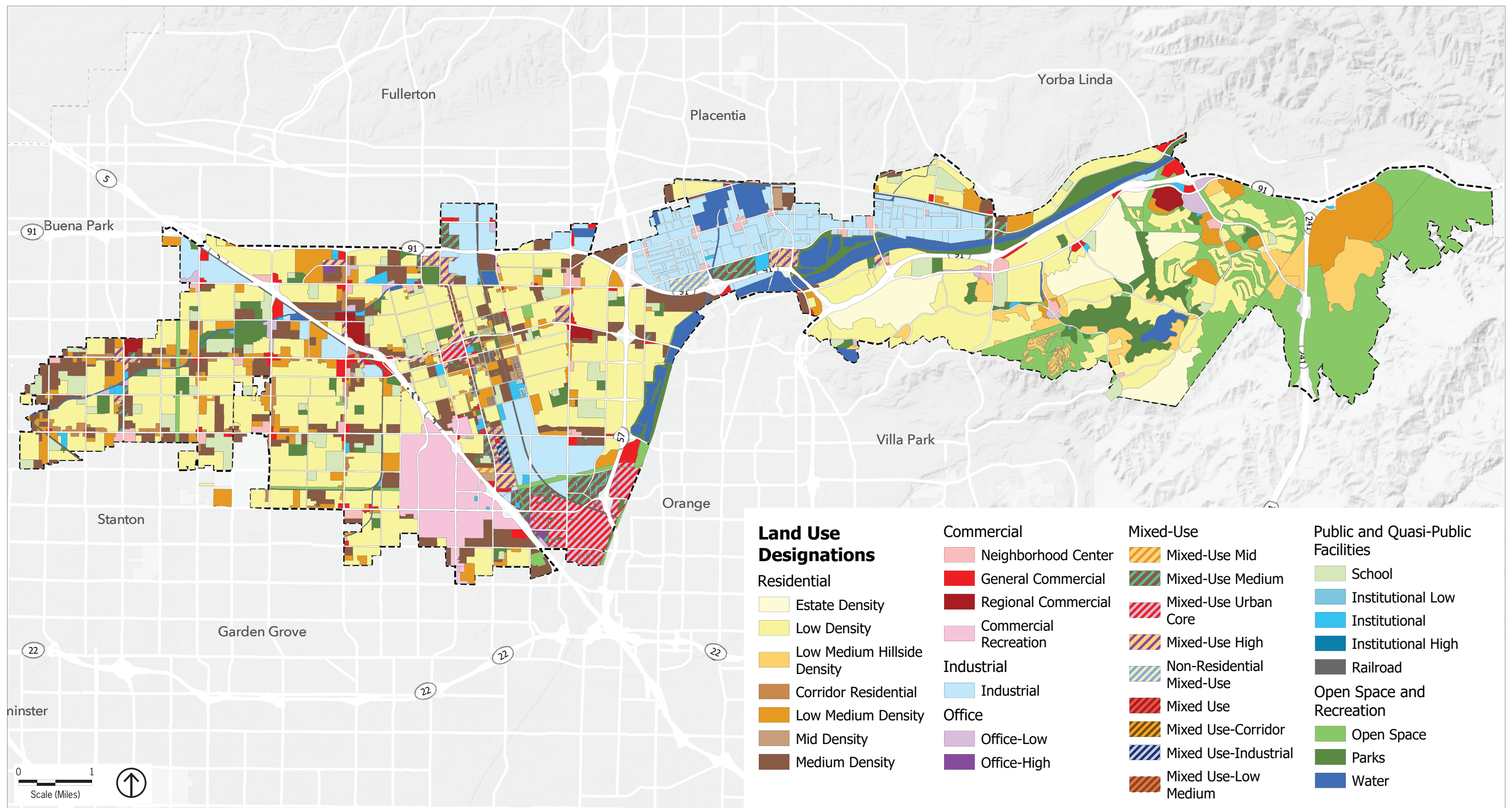
3.4.2.4 COMPARISON OF EXISTING LAND USES AND LAND USES AT BUILDOUT

As detailed in Table 3-8, *Existing Conditions and Proposed Project Buildout Comparison*, the proposed project would result in a potential buildout total of 431,340 residents, reflecting a population growth of 85,431 residents as compared to existing conditions, 154,801 housing units, an increase of 49,112 units from existing conditions, 274,213 employees, which is an increase in 61,020 jobs from existing conditions, and an increase of 38,319,633 non-residential square feet.

Table 3-8 Existing Conditions and Proposed Project Buildout Comparison

	Existing Conditions	Proposed Project Conditions	Change
Number of Housing Units	105,689	154,801	49,112
Total Population	345,999	431,340	85,341
Non-residential Square Feet	75,115,400	113,435,033	38,319,633
Employment (Number of Jobs)	213,193	274,213	61,020

3. Project Description



Source: City of Anaheim, 2024.

Figure 3-5
Proposed Land Use Plan

3. Project Description

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3. Project Description

Buildout and employment projections shown in Table 3-6 are used throughout this Draft PEIR to estimate the magnitude of development that could occur in Anaheim upon implementation of the proposed project to Year 2045. Projections are a liberal estimate based on full buildout of the proposed project to support the CEQA analysis. However, the current general plan failed to reach its projections for housing, population, or employment during the plan period because ultimate buildout and development largely depend on social and economic forces outside of the scope and control of the general plan. Land use calculations are used to estimate the number of dwelling units, residents, square feet of nonresidential uses, and employees that could be generated by proposed land uses. Specifically for sites with mixed-use designations, the calculations assumed residential and/or nonresidential uses could develop either and planned conservatively for both uses. These projections are then used to provide a liberal estimate of how much noise, traffic, and other impacts could occur due to these changes.

As detailed in Table 3-9, *Specific and Master Land Use Plans Proposed Project Buildout Conditions*, the proposed project includes a focus on population and employment growth in the Anaheim Canyon, Beach Boulevard, and Platinum Triangle plan areas.

Table 3-9 Specific and Master Land Use Plans Proposed Project Buildout Conditions

Planning Area	Buildout Housing Units	Buildout Population	Buildout Employment	Housing Unit Change	Population Change	Employment Change
Anaheim Canyon	8,092	19,121	71,263	7,479	17,688	20,794
Beach Boulevard	5,703	18,404	4,191	3,989	13,321	2,016
Platinum Triangle	21,897	33,378	27,158	16,489	24,115	12,783
Total	35,692	70,903	102,612	27,957	55,124	35,593
Percent of Total Buildout	23.1%	20.5%	37.4%	N/A	N/A	N/A

Table 3-10, *Existing General Plan and Proposed Project Buildout Comparison*, is shown for information purposes only. The analyses in the Draft PEIR assess the change from existing conditions and the proposed buildout (Table 3-6).

Table 3-10 Adopted General Plan and Proposed Project Development Comparison

	Buildout of Adopted General Plan Conditions	Proposed Project Conditions	Change
Number of Housing Units	134,139	154,801	20,662
Total Population	396,110	431,340	35,230
Non-residential Square Feet	111,456,801	113,435,033	1,978,232
Employment (Number of Jobs)	266,313	274,213	7,900

3. Project Description

3.4.2.5 CEQA STREAMLINING FOR FUTURE PROJECTS

The City proposes to facilitate the opportunity for projects to utilize Public Resources Code Section 21159.24, which allows urban infill residential development that meets certain criteria to be exempt from CEQA. The City would facilitate the Statutory Infill Housing Exemption by providing updated community level environmental review, as defined by Public Resources Code Section 21159.20, for properties designated for residential development by the General Plan. In addition, the City may utilize CEQA streamlining provisions including but not limited those defined in CEQA Guidelines Section 14183.3, Streamlining for Infill Projects.

Standard Conditions of Approval

As part of future streamlining, this Draft PEIR references Standard Conditions of Approval that will apply to all future projects in the City. These Standard Conditions of Approval would be adopted by the City as part of the project and are intended to ensure that site-specific environmental impacts are appropriately addressed through compliance with these requirements, or that it is demonstrated why certain Standard Conditions of Approval are not applicable. Appendix G to this Draft PEIR provides a list of all Standard Conditions of Approval, and they are appropriately addressed in the respective analytical chapters of this Draft PEIR.

3.5 INTENDED USES OF THE EIR

This is a Draft PEIR that examines the potential environmental impacts of the proposed Anaheim General Plan Focused Update. This Draft PEIR also addresses various actions by the City and others to adopt and implement the General Plan. It is the intent of the Draft PEIR to evaluate the environmental impacts of the proposed project, thereby enabling the City of Anaheim, other responsible agencies, and interested parties to make informed decisions with respect to the requested entitlements. The anticipated approvals required for this project are in Table 3-11, *Project Approvals Needed*.

Table 3-11 Project Approvals Needed

Lead Agency	Action
Anaheim City Council	Adoption of the General Plan
	Adoption of amendments to Title 18 (Zoning) of the Anaheim Municipal Code consistent with the General Plan
	Adoption of amendments to City's Zoning Map consistent with the General Plan
	Adoption of amendments to City's Land Use Element Map consistent with the General Plan
	Adoption of any ordinances, guidelines, programs, or other mechanisms that implement General Plan policy
	Certification of Final PEIR
	Adoption of Findings of Fact and Statement of Overriding Considerations (if required)
	Adoption of the Mitigation Monitoring Program

3. Project Description

Table 3-11 Project Approvals Needed

Responsible Agencies	Action
California Department of Housing and Community Development (HCD)	Review and approval of Rezone and Related Programs to provide adequate sites to accommodate RHNA
Orange County Transportation Authority (OCTA)	Approval of an amendment to the Master Plan of Arterial Highways (MPAH) to be consistent with the City's proposed Circulation Element

3. Project Description

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4. Environmental Setting

4.1 INTRODUCTION

This section provides 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” (Guidelines Section 15125[a]), pursuant to provisions of the California Environmental Quality Act (CEQA) and the CEQA Guidelines. The environmental setting provides the baseline physical conditions from which the lead agency will determine the significance of environmental impacts resulting from the proposed project.

4.2 REGIONAL ENVIRONMENTAL SETTING

4.2.1 Regional Location

The project site lies in northern Orange County, in the City of Anaheim (City) and sphere of influence (see Figure 3-1). A “sphere of influence” is defined as a planning boundary outside of an agency’s legal boundary (such as the city limits) that designates the agency’s probable future boundary and service area. As such, it is included in the project boundary. Orange County is bordered by the Pacific Ocean to the west, Los Angeles County to the north and northwest, San Bernardino County to the northeast, Riverside County to the east, and San Diego County to the southeast. Orange County comprises approximately 798 square miles, stretching approximately 40 miles along the coast and extending inland approximately 20 miles.

The natural setting of Orange County provides a combination of mountains, hills, flatlands, and shorelines. Orange County lies predominantly on an alluvial plain that is generally less than 300 feet in elevation in the west and central sections. The western portion of the County is made up of a series of broad sloping plains (Downey and Tustin Plains) formed from alluvium transported from the mountains by the Santa Ana River, Santiago Creek, and other local streams. Several low-lying mesas interrupt the plain along the northern coast. Orange County is partially enclosed by the Puente and Chino Hills to the north, the San Joaquin Hills to the south, and the Santiago Foothills and the Santa Ana Mountains to the east. The Puente and Chino Hills, which identify the northern limit of the plain, extend for 22 miles and reach a peak height of 7,780 feet. To the east and southeast of the plain are the Santa Ana Mountains, which have a peak height of 5,691 feet.

4.2.2 Regional Planning Considerations

4.2.2.1 SOUTH COAST AIR BASIN AIR QUALITY MANAGEMENT PLAN

The City of Anaheim is in the South Coast Air Basin (SoCAB), which is managed by the South Coast Air Quality Management District (AQMD). 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)

4. Environmental Setting

have been developed are known as criteria air pollutants and include ozone (O₃), carbon monoxide (CO), volatile organic compounds (VOC), nitrogen oxides (NO_x), sulfur dioxide, coarse inhalable particulate matter (PM₁₀), fine inhalable particulate matter (PM_{2.5}), and lead. VOC and NO_x are criteria pollutant precursors and go on to form secondary criteria pollutants, such as O₃, 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 nonattainment for O₃, PM_{2.5}, and lead (Los Angeles County only) under the California and National AAQS and nonattainment for nitrogen dioxide (NO₂) and PM₁₀ under the California AAQS. The General Plan Update's consistency with the applicable AAQS is discussed in Section 5.2, *Air Quality*.

4.2.2.2 GREENHOUSE GAS EMISSIONS REDUCTION LEGISLATION

Current State of California guidance and goals for reducing GHG emissions are generally embodied in Assembly Bill 32 (AB 32), Senate Bill 32 (SB 32), AB 1279, and SB 375. To achieve the emissions reductions of AB 32 and SB 32, CARB prepared the 2017 Climate Change Scoping Plan, which establishes an emissions limit of 260 million metric tons of CO₂-equivalent emissions for the year 2030, that is, a 40 percent decrease in 1990 levels by 2030 (CARB 2017). In addition, CARB released the Draft 2022 Scoping Plan Update to address the State's carbon neutrality targets of Executive Order B-55-18 (CARB 2022), which has since been superseded by passage of AB 1279 on September 16, 2022.

If the estimated GHG reductions from the known commitments are not realized due to delays in implementation or technology, the post-2020 Cap-and-Trade Program would deliver the additional GHG reductions in the sectors it covers to ensure the 2030 target is achieved. In addition to these statewide strategies, the 2017 Climate Change Scoping Plan also identified local governments as essential partners in achieving the state's long-term GHG reduction goals and identified local actions to reduce GHG emissions. As part of the recommended actions, CARB recommends statewide targets of no more than six metric tons of CO₂-equivalent emissions or less per capita by 2030 and two metric tons or less per capita by 2050 (CARB 2017).

4.2.2.3 SENATE BILL 743

The legislature found that with the adoption of the SB 375, the state had signaled its commitment to encourage land use and transportation planning decisions and investments that reduce VMT and thereby contribute to the reduction of GHG emissions, as required by the California Global Warming Solutions Act of 2006 (AB 32). Additionally, AB 1358 requires local governments to plan for a balanced, multimodal transportation network that meets the needs of all users.

On September 27, 2013, SB 743 was signed into law, starting a process that fundamentally changes transportation impact analysis as part of CEQA compliance. Changes include the elimination of auto delay, level of service (LOS), and similar measures of vehicular capacity or traffic congestion as a basis for determining significant impacts under CEQA. As part of the new CEQA Guidelines, the new criteria "shall promote the reduction of greenhouse gas emissions, the development of multimodal transportation networks, and a diversity of land uses" (Public Resources Code Section 21099(b)(1)).

4. Environmental Setting

On December 28, 2018, the State Office of Planning and Research approved a comprehensive update to the state CEQA Guidelines, which also included implementation metrics for VMT. The revised CEQA Guidelines established new criteria for determining the significance of transportation impacts and define alternative metrics to replace LOS. The new guidelines require that LOS be replaced with VMT-related metric(s) beginning January 1, 2020, to evaluate the significance of transportation-related impacts under CEQA for development projects, land use plans, and transportation infrastructure projects. In June 2020, the City of Anaheim published its Transportation Impact Analysis Guidelines, which includes the City's adopted VMT thresholds of significance (Anaheim 2020). VMT impacts associated with the General Plan Focused Update, which includes an update to the Circulation Element, is analyzed in Section 5.15, *Transportation*.

4.2.2.4 SCAG REGIONAL TRANSPORTATION PLAN/SUSTAINABLE COMMUNITIES STRATEGY

SCAG adopted the 2024-2050 RTP/SCS, Connect SoCal, in April 2024. Connect SoCal is a long-term plan for the Southern California region that details the development, integrated management and operation of transportation systems and facilities that will function as an intermodal transportation network for the SCAG metropolitan planning area. This plan outlines a forecast development pattern that demonstrates how the region can sustainably accommodate needed housing and job centers with multimodal mobility options. The overarching vision is to expand alternatives to driving, advance the transition to clean transportation technologies, promote integrated and safe transit networks, and foster transit-oriented development in compact and mixed-use developments.

In addition, Connect SoCal is supported by a combination of transportation and land use strategies that outline how the region can achieve California's GHG emission-reduction goals and federal Clean Air Act requirements. The regional transportation network envisioned in Connect SoCal would reduce per-capita GHG emissions related to vehicular travel associated with the proposed project and assist in meeting the GHG reduction per capita targets for the SCAG region.

Connect SoCal is meant to provide growth strategies that will achieve the regional GHG emissions reduction targets identified by the California Air Resources Board. However, Connect SoCal does not require that local general plans, specific plans, or zoning be consistent with Connect SoCal; instead, it provides incentives to governments and developers for consistency. The General Plan Update's consistency with the applicable 2024-2050 Connect SoCal policies is analyzed in detail in Section 5.10, *Land Use and Planning*.

4.2.2.5 AIRPORT ENVIRONS LAND USE PLANS

In 1975, the Airport Land Use Commission (ALUC) of Orange County adopted an Airport Environs Land Use Plan (AELUP) (amended April 17, 2008) that included John Wayne Airport; Fullerton Municipal Airport (FMA); and the Joint Forces Training Base (JFTB), Los Alamitos. 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. Each airport's AELUP identifies standards for development in the airport's planning area based on noise contours, accident potential zones, and building heights. The ALUC is authorized under State law to assist local agencies in ensuring compatible land uses in the vicinity of airports. Primary areas of concern for the ALUC are noise, safety hazards, and airport operational integrity.

4. Environmental Setting

The ALUC is not an implementing agency in the manner of local governments, nor does it issue permits for a project such as those required by local governments. However, pursuant to California Public Utilities Code Section 21676, local governments are required to submit all general plan amendments and zone changes in the ALUC planning areas for consistency review by the ALUC. If such an amendment or change is deemed inconsistent with the AELUP, a local government 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 stated in Section 21670(a)(2) of the Public Utilities Code: “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.” The northwest portion of Anaheim falls within the airport influence area of FMA, and the westernmost part of the city is within the airport influence area of JFTB Los Alamitos. Therefore, the General Plan update’s consistency with FMA’s and JFTB Los Alamitos’ AELUPs is discussed in Sections 5.8, *Hazards and Hazardous Materials*, 5.10, *Land Use and Planning*, and 5.11, *Noise*.

4.3 LOCAL ENVIRONMENTAL SETTING

4.3.1 Local Location

The City and its sphere of influence lie approximately 35 miles southeast of downtown Los Angeles and 7 miles north of Santa Ana. The City is surrounded by the cities of Fullerton, Placentia, and Yorba Linda to the north; Riverside County to the east; the cities of Orange, Garden Grove, and Stanton and unincorporated Orange County to the south; and the cities of Cypress and Buena Park to the west. The City encompasses over 34,000 acres of land, stretching nearly 20 miles along State Route 91 (SR-91 or Riverside Freeway) and includes another 2,431 acres of unincorporated land in its sphere of influence. In addition to SR-91, regional access to and from Anaheim is provided by Interstate 5 (I-5), SR-57, and SR-55; SR-241; and Amtrak and Metrolink passenger train services at Angel Stadium and Anaheim Canyon Stations.

Anaheim is currently home to over 350,000 people, 23,875 business licenses, and 4,000 acres of passive and active parks and open space areas. The City boundaries generally form an elongated irregular shape that extends approximately 16 miles east to west.

Major freeways traversing the City include I-5, which travels generally northwest to southeast; SR-57, which travels north and south through the central portion of the City; SR-55, which abuts the southern edge of the City at the western edge of the Hill and Canyon Area; SR-91, which travels east and west along the northern portion of the City; and SR-241, which travels north and south near the eastern edge of the City.

4.3.2 Adopted General Plan (2004)

The City’s existing General Plan, adopted in May 2004 by the Anaheim City Council, and subsequently amended, includes the elements described below. The existing General Plan Land Use Map consists of various land use designations, as shown on Figure 3-3, *Current Land Use Plan*. These designations are grouped into broad categories such as Residential, Parks and Recreation, Schools, Conservation, Commercial, and Industrial.

4. Environmental Setting

- **Land Use Element.** The Land Use Element is a guide, or “blueprint,” for Anaheim’s future development. It designates the distribution and general location of land uses, such as residential, retail, industrial, open space, recreation, and public uses. The Land Use Element also addresses the permitted density and intensity of the various land use designations as reflected on the City’s Land Use Map, General Plan Figure 3.3-1.
- **Circulation Element.** The Circulation Element addresses the existing and proposed road networks and describes freeways, major highways, primary highways, secondary highways and commuter streets throughout the City. Other issues, such as parking and transportation modes (transit, rail, truck, air, and pipelines) are also discussed. This Element also includes a discussion of the improvements that will be needed to accommodate anticipated travel demands in the future including improvements to major freeways, and local roadways and railroad crossings.
- **Green Element.** The Green Element combines Anaheim’s Conservation, Open Space, Parks, Recreation and Community Services Elements into a single, comprehensive plan to add more green areas throughout the City and protect and enhance its natural and recreational resources. This includes vital natural resources such as water, energy, air, and wildlife. The Green Element also includes goals and policies for landscaping, enhancing the City’s corridors and its identity.
- **Public Services and Facilities Element.** The Public Services and Facilities Element identifies the City’s goals, policies, and programs concerning the provision of public facilities and services, including fire protection and emergency services, police services, electrical utilities, water utilities, sanitary sewer systems, storm drain systems, solid waste disposal, private utilities, municipal fiber optics infrastructures, overhead power lines and facilities siting, schools, libraries, community centers and cultural facilities, and neighborhood improvement services.
- **Growth Management Element.** The Growth Management Element contains policies for the planning and provision of public facilities and services that are necessary for orderly growth and development and continued quality of life. This Element presents policies and programs for the establishment of specific traffic levels of service (LOS) and other public facility/service standards. It also includes an implementation program for monitoring. The Growth Management Element is implemented through various coordinated programs developed to support and carry out its goals, objectives and policies.
- **Safety Element.** The Safety Element identifies major potential hazards and the City resources or procedures by which to prevent or respond to disasters. The potential hazards discussed include fire hazards, geologic and seismic hazards, flood hazards, and disasters.
- **Noise Element.** The purpose of the Noise Element is to serve as a guide to all concerned with noise issues in the City by establishing uniformity of policy and direction concerning actions to eliminate or minimize noise impacts. Goals and policies toward that end are discussed in the Element.
- **Economic Development Element.** The purpose of the Economic Development Element is to guide the City in expanding the local economy, which provides jobs, attracts and retains businesses, supports diverse

4. Environmental Setting

and vibrant commercial areas, and brings in sufficient revenue to support various local programs and services. The Economic Development Element is not a State-mandated Element of the General Plan.

- **Community Design Element.** Anaheim is the oldest city in the County and contains historic as well as newly developed areas. Its topography varies from hills and canyons to flat coastal plains. Its built environment ranges from dense commercial and civic uses to estate-type, single-family neighborhoods. This Element provides policy guidance that respects this diverse context while seeking to unify the City through carefully crafted design policies.
- **Housing Element.** The Housing Element was last updated in February 2014 and contains a description of the policies and programs to be implemented during the 2014-2021 planning period. The time frame of the planning period is determined by State law, which mandated that jurisdictions within the SCAG region update and adopt their Housing Element by October 15, 2013. This document represents the update required and responds to the issues that faced the City.

4.3.3 Approved Specific Plans

Anaheim has 11 approved specific plans (see also Figure 3-3, *Specific and Master Land Use Plans*):

- **Highlands at Anaheim Hills Specific Plan.** The Highlands at Anaheim Hills Specific Plan, adopted in June 1987, covers an 816-acre site in the east end of the Anaheim Hills Planned Community. The specific plan intends to enable development while preserving and enhancing open space and recreational values. The specific plan includes residential, commercial, educational, and recreational uses and open space. The specific plan has been substantially implemented.
- **Sycamore Canyon Specific Plan.** The Sycamore Canyon Specific Plan, adopted in February 1988 and subsequently amended in April 1989, covers a 325-acre site in the eastern canyon area of the City. The specific plan intends to enable development of the site with a variety of residential densities while preserving and enhancing open space and recreational values. The specific plan also incorporates substantial public benefits including major infrastructure improvements and community public services. The specific plan has been implemented.
- **Summit of Anaheim Hills Specific Plan.** The Summit of Anaheim Hills Specific Plan, adopted in September 1988, covers a 591-acre site within the canyon area of the City. The specific plan intends to expand urban development; characterize development, the market place, and surrounding land uses; extend and finance major infrastructure; and preserve significant natural features. The specific plan includes residential, commercial, and recreational uses and open space. The specific plan has been implemented.
- **Anaheim Hills Festival Specific Plan.** The Anaheim Hills Festival Specific Plan, adopted in April 1998, covers an 85-acre site in the hill and canyon area of the City. The specific plan delineates the development plan for the Festival, a regional shopping center, and has been designed to meet the objectives of the General Plan, the Scenic Corridor Overlay Zone, and the specific plan. The specific plan has been completely implemented.

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- **East Center Street Specific Plan.** The East Center Street Specific Plan, adopted in August 1990, covers 24 acres of developable area within the historic downtown area of Anaheim. The specific plan provides for the creation of a new retail activity center as a central development spine for the Project Alpha Redevelopment Area, the intensification of residential development adjacent to the retail center to provide market support for the retail services, and the provision of onsite infrastructure and open space development of the specific plan area. The specific plan includes commercial, residential, and open space uses. An addendum to the specific plan was adopted and delineates the Lincoln Village project, which includes residential uses. The specific plan and addendum have been implemented.
- **Anaheim Canyon Specific Plan.** The Anaheim Canyon Specific Plan, adopted in February 2016, covers an approximately 2,600-acre site in the northern portion of the City. The specific plan is intended to create a business environment attractive to a wide variety of industries while encouraging sustainable development. The specific plan also establishes a multimodal transportation network to provide greater options and healthier living for area residents and workers. Part of the specific plan has been implemented.
- **Anaheim Resort Specific Plan.** The Anaheim Resort Specific Plan, adopted in 1994, encompasses 581 acres of The Anaheim Resort. The specific plan is intended to provide for the development of hotels, motels, convention and conference facilities, including the Anaheim Convention Center, as well as restaurants, retail shops, and other entertainment uses. The specific plan is divided into two development areas: the Public Recreation (PR) District and the Commercial Recreation (C-R) District. This specific plan has been implemented.
- **Beach Boulevard Specific Plan.** The Beach Boulevard Specific Plan, adopted in 2018, encompasses a 1.5-mile stretch of Beach Boulevard between the cities of Buena Park and Stanton in the western portion of Anaheim. The specific plan is intended to improve conditions along Beach Boulevard and attract economic investment to the area. The specific plan includes residential, commercial, office, semi-public, and public recreational uses. Part of the specific plan has been implemented.
- **Disneyland Resort Specific Plan.** The Disneyland Resort Specific Plan, adopted in 2024, encompasses approximately 1,078 acres of the Anaheim Resort and provides for the development of an international vacation destination resort that allows for the development of a second theme park, additional hotel and entertainment areas, administrative office facilities, back-of-house facilities, new public and private parking facilities, an internal transportation system, conference facilities, including the Anaheim Convention Center, and the ongoing modification of Disneyland. The specific plan is being implemented.
- **Hotel Circle Specific Plan.** The Hotel Circle Specific Plan, adopted in August 1994, covers a 6.8-acre site in the south-central portion of the City. The specific plan is intended to provide for the development of the two hotel buildings immediately adjacent to three previously approved hotels in the Hotel Circle property. This specific plan has been implemented.
- **Mountain Park Specific Plan.** The Mountain Park Specific Plan, adopted in August 2005, encompasses 3,001 acres in the canyon and hill area of the City and its sphere of influence. The specific plan is intended

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to allow for the development of an 830-acre, gated residential community with a maximum of 2,500 residential units and public, recreational, and open space uses. The specific plan has been implemented.

In addition to the eleven specific plans, the Platinum Triangle Master Land Use Plan provides Special Density Limitations specific to this area.

4.3.4 Current Zoning

The Anaheim Zoning Code—Title 18 of the Anaheim Municipal Code—establishes the zoning districts for each parcel throughout the City. The zoning districts are the City’s codes and regulations by which it controls and permits activities and the physical form of structures on each parcel. The zoning districts are more stringent than the land use designations because they apply the general vision of the Land Use Element to reflect the specific characteristics, opportunities, and challenges for each property.

4.3.5 Public Services and Utilities

Public services and utilities are provided in the City of Anaheim by providers listed in Table 4-1, *Public Service and Utility Providers*. Additional information describing the existing provision of services and utilities in the City is in Sections 5.13, *Public Services*, and 5.17, *Utilities and Service Systems*, of this Draft PEIR.

Table 4-1 Public Service and Utility Providers

Public Services	
Police	Anaheim Police Department (APD)
Fire Protection and Emergency Medical Services	Anaheim Fire and Rescue (AF&R)
Public Schools	Fullerton School District, Savanna Elementary School District, Placentia/Yorba Linda Unified School District, Garden Grove Unified School District, Anaheim Union High School District, Magnolia Unified School District, Anaheim Elementary School District, Orange Unified School District, Buena Park School District, Fullerton Joint Union High School District, Centralia Elementary School District
Library	City of Anaheim Library Services
Utilities and Infrastructure	
Water	Orange County Water District (OCWD)
Wastewater Treatment	Orange County Sanitation District (OCSD)
Solid Waste Collection	Republic Services
Electricity	Anaheim Public Utilities Department (APUD)
Natural Gas	Southern California Gas Company (SCG)

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 a level of 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

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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.

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

- a) 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
- b) A summary of projections contained in an adopted general plan or related planning document designed to evaluate regional or area-wide conditions.

The cumulative impact analysis in this Draft PEIR uses method ‘b’. Consistent with Section 15130(b)(1)(B) of the CEQA Guidelines, this Draft PEIR analyzes the environmental impacts of development in accordance with the City’s adopted General Plan and associated Land Use Plan. As a result, this Draft PEIR addresses the cumulative impacts of development within the City and the larger Orange County region surrounding it, as appropriate. In most cases, the potential for cumulative impacts is contiguous with the City boundary, since the City is the service provider for various City services and public utilities. Potential cumulative impacts related to traffic, air quality, noise, and greenhouse gas emissions, which have the potential for impacts beyond the City boundary, have been addressed through use of a traffic model, which the City uses a traffic model to forecast cumulative growth in the City and region. Regional growth outside of the City has accounted for traffic, air quality, noise, and greenhouse gas impacts through use of this model, which is a socioeconomic traffic 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 Draft PEIR. Please refer to Chapter 5, *Environmental Analysis*, of this Draft PEIR for a discussion of the cumulative impacts associated with development and growth within the City and region.

4.5 REFERENCES

Anaheim, City of. 2004, May. City of Anaheim General Plan. <http://www.anaheim.net/712/General-Plan>.

———. 2020, June. City of Anaheim Transportation Impact Analysis Guidelines for CEQA. <https://www.anaheim.net/DocumentCenter/View/32774/City-of-Anaheim-TIA-Guidelines-for-CEQA-Analysis-62020>.

California Air Resources Board (CARB). 2017. California’s 2017 Climate Change Scoping Plan: The Strategy for Achieving California’s 2030 Greenhouse Gas Target. https://www.arb.ca.gov/cc/scopingplan/scoping_plan_2017.pdf.

———. 2022. Draft 2022 Scoping Plan Update. <https://ww2.arb.ca.gov/our-work/programs/ab-32-climate-change-scoping-plan/2022-scoping-plan-documents>.

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5. Environmental Analysis

This chapter examines the environmental setting of the proposed project, analyzes its effects and the significance of its impacts, and recommends mitigation measures to reduce or avoid impacts. This chapter has a separate section for all environmental issue areas in Appendix G of the CEQA Guidelines. Environmental issues and their corresponding sections are:

- 5.1 Aesthetics
- 5.2 Air Quality
- 5.3 Biological Resources
- 5.4 Cultural Resources
- 5.5 Energy
- 5.6 Geology and Soils
- 5.7 Greenhouse Gas Emissions
- 5.8 Hazards and Hazardous Materials
- 5.9 Hydrology and Water Quality
- 5.10 Land Use and Planning
- 5.11 Noise
- 5.12 Population and Housing
- 5.13 Public Services
- 5.14 Recreation
- 5.15 Transportation
- 5.16 Tribal Cultural Resources
- 5.17 Utilities and Service Systems
- 5.18 Wildfire

Sections 5.1 through 5.18 provide a detailed discussion of the environmental setting, proposed goals and policies, applicable standard conditions of approval, 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.

The City also determined that certain issues under an environmental topic would not be significantly affected by implementation of the project; the following issues are briefly discussed in Chapter 8, *Impacts Found Not to Be Significant*, of this Draft PEIR:

- Agriculture and Forestry Resources
- Mineral Resources

5. Environmental Analysis

Organization of Environmental Analysis

To assist the reader with comparing information between environmental issues, each section is organized under six major headings:

- Environmental Setting
- Proposed General Plan Goals and Policies
- Thresholds of Significance
- Environmental Impacts
- Cumulative Impacts
- Level of Significance Before Mitigation
- Mitigation Measures
- Levels of Significance After Mitigation
- References

In addition, Chapter 1, *Executive Summary*, has a table that summarizes all impacts by environmental issue.

Terminology Used in This Draft EIR

The level of significance is identified for each impact in this Draft PEIR. Although the criteria for determining significance are different for each topic area, the environmental analysis applies a uniform classification of the impacts based on definitions consistent with CEQA and the CEQA Guidelines:

- **No impact.** The project would not change the environment.
- **Less than significant.** The project would not cause any substantial, adverse change in the environment.
- **Less than significant with mitigation incorporated.** The EIR includes mitigation measures that avoid substantial adverse impacts on the environment.
- **Significant and unavoidable.** The project would cause a substantial adverse effect on the environment, and no feasible mitigation measures are available to reduce the impact to a less than significant level.

5. Environmental Analysis

5.1 AESTHETICS

This section of the Draft Program Environmental Impact Report (Draft PEIR) discusses the potential impacts to the visual character of the City of Anaheim from implementation of the City of Anaheim's Focused General Plan Update (proposed project), including scenic vistas, scenic resources, consistency with policies and programs related to visual resources, and light and glare.

No comments were received during the scoping period for either the proposed project (see Appendix A) or the Center City Corridors Specific Plan (C3SP), which has been incorporated into the proposed project as the Center City Corridors Implementation Plan (C3 Plan), that are related to aesthetic or visual impacts (see Appendix B).

5.1.1 Environmental Setting

5.1.1.1 REGULATORY BACKGROUND

State

Senate Bill No. 743

Senate Bill (SB) 743, codified within Public Resources Code (PRC) Section 21099 et. seq., states that "Aesthetic (...) impacts of a residential, mixed-use residential, or employment center project on an infill site within a transit priority area shall not be considered significant impacts on the environment" (PRC Section 21099(d)(1)). Pursuant to PRC Section 21099(d)(B), aesthetic impacts do not include impacts to historic or cultural resources. Pertinent definition applicable to PRC Section 21099(a) include:

- **"Infill site"** means a lot located within an urban area that has been previously developed, or on a vacant site where at least 75 percent of the perimeter of the site adjoins or is separated only by an improved public right-of-way from, parcels that are developed with qualified urban uses.
- **"Transit priority area"** means an area within 0.5 mile of a major transit stop that is existing or planned, if the planned stop is scheduled to be completed within the planning horizon included in a Transportation Improvement Program adopted pursuant to Section 450.216 or 450.322 of Title 23 of the Code of Federal Regulations.
- **"Employment center project"** means a project on property zoned for commercial uses with a floor area ratio of no less than 0.75 and within a transit priority area.
- **"Major transit stop"** is defined by PRC Section 21064.3 to mean a site containing an existing rail transit station, a ferry terminal served by either a bus or rail transit service, or the intersection of two or more major bus routes with a frequency of service interval of 15 minutes or less during the morning and afternoon peak commute periods.

Qualifying projects that meet the criteria in PRC Section 21099 are exempt from findings of significance related to aesthetic impacts.

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AESTHETICS

Caltrans Scenic Highway Program

In 1963, California's Scenic Highway Program was created to preserve and protect the natural scenic beauty of California highways and adjacent corridors through special conservation treatment. The state laws governing this program are in the Streets and Highways Code, Sections 260 to 2684, and California Department of Transportation (Caltrans) oversees the program. Caltrans defines a scenic highway as any freeway, highway, road, or other public right-of-way that traverses an area of exceptional scenic quality. Suitability for designation as a State Scenic Highway is based on the following criteria described in Caltrans's Guidelines for Official Designation of Scenic Highways (Caltrans 2008):

- The State or county highway consists of a scenic corridor that is comprised of a memorable landscape that showcases the natural scenic beauty or agriculture of California; “vividness” is used to assess visual quality, and is the extent to which the landscape is memorable. This is associated with the distinctiveness, diversity and contrast of visual elements. A vivid landscape makes an immediate and lasting impression on the viewer.
- Existing visual intrusions do not significantly impact the scenic corridor; this is based on intactness (the integrity of visual order in the landscape and the extent to which the natural landscape is free from visual intrusions) and unity (the extent to which visual intrusions are sensitive to and in visual harmony with the natural landscape).
- Demonstration of strong local support for the proposed scenic highway designation.
- The length of the proposed scenic highway is not less than a mile and is not segmented.

The City of Anaheim includes one officially designated State Scenic Highway. A 4.5-mile segment of SR-91 is an officially designated State Scenic Highway from SR-55 to the Weir Canyon Road interchange (Caltrans 2024).

California Building Code

The California Building Code (CBC), Part 2 of Title 24 in the California Code of Regulations (CCR), is based on the International Building Code and combines three types of building standards from three different origins:

- Building standards that have been adopted by State agencies without change from building standards contained in the International Building Code.
- Building standards that have been adopted from the International Building Code to meet California conditions.
- Building standards, authorized by the California legislature, constitute extensive additions not covered by the International Building Code that have been adopted to address particular California concerns.

5. Environmental Analysis

AESTHETICS

The CBC includes standards for outdoor lighting that are intended to improve energy efficiency, and to reduce light pollution and glare by regulating light power and brightness, shielding, and sensor controls.

The Mills Act

The Mills Act is a State law enacted in 1972 that encourages the preservation and maintenance of qualified historic structures. The Mills Act permits cities to enter into agreements with owners of qualified historic structures to preserve and maintain their properties, in exchange for the County Assessor assessing their property at a lower rate by utilizing a formula established by the State.

Regional

Orange County Scenic Highway Plan

The Orange County Scenic Highway Plan identifies a number of landscape corridor and viewscape corridors in the county, and the County desires to preserve the scenic character of these visually important roadways. The Scenic Highway Plan contains officially designated and eligible scenic highways and categorizes them by landscape corridor and viewscape corridor.

Local

City of Anaheim General Plan

Creating a positive and strong community identity for such a large and diverse area as the City of Anaheim is the goal of the General Plan's Community Design Element. Combined with the Green Element, which combines parks and recreation, open space, conservation, and public landscaping into a comprehensive plan to beautify the City, the Community Design Element provides policy guidance that respects this diverse context while seeking to unify the City through carefully crafted design policies. The following goals in the General Plan relate to aesthetic quality in the City (City of Anaheim 2004a):

Land Use Element

Goal 8.1: Preserve natural, scenic and recreational resources; continue to ensure residential neighborhoods are safe, well-maintained, places to live; and continue to provide necessary community services and facilities.

Green Element

Goal 1.1: Maintain strict standards for hillside grading to preserve environmental and aesthetics resources.

Goal 2.1: Preserve views of ridgelines, natural open space, and other scenic vistas wherever possible.

- **Policy 2.1-1.** Control infill development on visually significant ridgelines, canyon edges, and hilltops through sensitive site planning and appropriate landscaping to ensure development is visually unobtrusive.

5. Environmental Analysis

AESTHETICS

- **Policy 2.** Encourage development that preserves natural contours and views of existing backdrop ridgelines or prominent views.

Community Design Element

Goal 2.1: Attractively landscape and maintain Anaheim's major arterial corridors and prepare/implement distinctive streetscape improvement plans.

Goal 3.1: Single-family neighborhoods are attractive, safe, and comfortable.

Goal 4.1: Multiple-family housing is attractively designed and scaled to complement the neighborhood and provides visual interest through varied architectural detailing.

Goal 6.1: Focus activity centers at the intersections of selected major corridors to provide a convenient and attractive concentration of retail and office uses.

- **Policy 6.1-2.** Design highly visible entrances to retail activity centers through accent landscaping and lighting, enhanced intersection features, façade detailing, monument signs, public art, and other design amenities.

- **Policy 6.1-4.** Incorporate architectural interest and variety within the context of a unified design theme for large-scale retail activity centers. Architectural interest should be provided through varied rooflines, architectural detailing, accent lighting, and massing. Consistency should be maintained through commonalities of architectural style, color, landscaping, signage, and lighting.

Goal 7.1: Neighborhood retail centers are thoughtfully designed to create attractive places that provide convenient access and ample pedestrian amenities to residents of surrounding neighborhoods.

- **Policy 7.1-9.** Lighting should provide for safety and highlight features of the neighborhood retail center but not shine directly onto neighboring properties.

Goal 8.1: Anaheim's mixed-use areas are attractively designed, pedestrian and bicycle-friendly, easily accessible, and contain a proper blend of commercial retail office, and residential uses.

Goal 11.1: Architecture in Anaheim has diversity and creativity of design and is consistent with the immediate surroundings.

Goal 21.1: Preserve the Hill and Canyon Area's sensitive hillside environment and the community's unique identity.

City of Anaheim Municipal Code

Zoning Code

The City of Anaheim Municipal Code, Title 18, Zoning, identifies the types of permitted land uses on all parcels throughout the City and community policy areas. Title 18 identifies applicable use regulations, criteria for site development, performance standards, and design regulations.

5. Environmental Analysis AESTHETICS

- **Adoption of Building Standards Codes (Section 15.03.010).** This section adopts by reference the California Building Code, including the California Historical Building Code. The provisions of the California Historical Building Code shall apply to the alteration and repair of recognized historical buildings.
- **Scenic Corridor (SC) Overlay Zone (Section 18.18).** The purpose is to provide for and promote orderly growth in certain areas of the City designated as being of distinctive, scenic importance, while implementing local governmental agency actions for the protection, preservation and enhancement of the unique and natural scenic assets of these areas as a valuable resource to the community. This area has been designated as an area of distinctive natural and rural beauty, characterized and exemplified by the interrelationship between such primary natural features as the rolling terrain, winding river, Specimen Trees, and the profusion of natural vegetation.

The area of the City designated as being within the Scenic Corridor (SC) Overlay Zone is defined as that area lying easterly of the intersection of the State Route 55/Costa Mesa and State Route 91/Riverside Freeways, west of the Orange County line, south of the Atchison, Topeka and Santa Fe Railroad right-of-way, and north of the present or any future south City limits of Anaheim, with the exception of the properties in the Anaheim Canyon Specific Plan No. 2015-01 (SP2015-01) Zone.

- **Mechanical and Utility Equipment – Ground Mounted (Section 18.38.160).** This section states that ground mounted mechanical or utility equipment and other such similar equipment shall be screened from view from all public rights-of-way, public property, and adjacent non-industrially zoned properties, as may be seen from a point six feet above ground level on the adjacent non-industrially zoned property. This section provides requirements for screening ground mounted mechanical and utility equipment.
- **Mechanical and Utility Equipment – Roof Mounted (Section 18.38.160).** This section states that roof-mounted mechanical or utility equipment shall not be visible in any direction from any public right-of-way, public property or any adjacent property, as may be seen from a point of six feet above ground level on such adjacent property, public property, or sidewalk on the opposite side of the street. This section provides requirements for screening roof mounted mechanical and utility equipment.
- **Parking and Loading (Chapter 18.42).** The purpose of this chapter is to prescribe minimum standards for parking and loading to ensure the attractiveness and adequacy of parking and loading of passengers and goods. The chapter establishes how many parking spaces are required for each unit but also dictates how parking lots and garages are designed.
- **Landscaping and Screening (Chapter 18.46).** This chapter defines landscaping standards, screening standards, and other provisions that are intended to enhance the visual appearance of the City.
- **Tree Preservation (Chapter 18.18.040).** Tree Preservation protects trees that are community resources within the (SC) Overlay Zone in order to preserve the Santa Ana Canyon
- **Sign Construction and Design (Section 18.44.150).** This section identifies provisions for lighted signs in the City.

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AESTHETICS

- **Exterior Alterations to Historical Properties Under A Mills Act Contract (Section 18.62.100).** This section identifies that owners of historical properties must preserve, maintain, and, where necessary, restore and rehabilitate the Historical Property and its “Character Defining Features” in accordance with 1) the rules and regulations of the Office of Historic Preservation of the California Department of Parks and Recreation, 2) the United States Secretary of the Interior’s Standards for Rehabilitation, and 3) the State Historical Building Code.
- **Final Plan Reviews (Chapter 18.70).** The purpose of this chapter is to establish procedures for the review of the design aspects of certain proposed development that does not require discretionary actions, such as approval of a conditional use permit. The procedures focus on design issues and solutions that will have the greatest effect on community character and aesthetics, and to encourage imaginative solutions and high-quality urban design.

Additional development standards and design guidelines are found elsewhere in the Zoning Code, organized by zoning district categories (e.g., commercial zones). These criteria, standards, and regulations include specifications for lot size, setbacks, open space, density, height, lighting, landscaped areas, fencing, building design, and parking throughout the City and community policy areas.

Specific Plans

The following chapters of the Anaheim Municipal Code identified applicable regulations and criteria for site development such as lot size, setbacks, open space, density, height, lighting, tree preservation, landscaping, building design, and parking within each individual Specific Plan area.

- Chapter 18.100, Highlands at Anaheim Hills Specific Plan
- Chapter 18.102, Sycamore Canyon Specific Plan
- Chapter 18.104, The Summit of Anaheim Hills Specific Plan
- Chapter 18.108, Festival Specific Plan
- Chapter 18.110, East Center Street Development Specific Plan
- Chapter 18.112, Mountain Park Specific Plan
- Chapter 18.114, Disneyland Resort Specific Plan
- Chapter 18.116 Anaheim Resort Specific Plan
- Chapter 18.118, Hotel Circle Specific Plan
- Chapter 18.120, Anaheim Canyon Specific Plan
- Chapter 18.122, Beach Boulevard Specific Plan

Historic Districts

Since 1997, the Anaheim City Council has adopted four historic districts in Central Anaheim. Although Anaheim has historically significant structures throughout its 50 square miles, the vast majority are clustered in the four historic districts, described below. These districts encompass approximately two square miles of Anaheim.

5. Environmental Analysis

AESTHETICS

All of the district's historic homes have been inventoried, and many have been surveyed in detail. Certain structures in these districts are eligible to participate in the Mills Act Program that was approved by City Council in 2000. This program may allow property owners to enjoy a reduction in property tax in exchange for restoring the exteriors of their homes and maintaining them in a historically accurate condition.

- **Anaheim Colony.** Anaheim Colony District is the City's first and largest historic district.
- **Five Points.** The Five Points District preserves a concentration of architecturally unique and significant homes from about the same era as the Anaheim Colony Historic District.
- **Historic Palm.** This Historic Palm District has approximately 180 qualified historic structures that are mostly French, English, and Spanish themed.
- **Hoskins.** Hoskins represents a more modern time in Anaheim's history, an era immediately following World War Two.

Standard Conditions of Approval

The City will be adopting Master Conditions of Approval that are applied to all development projects through the plan-check review process. As a matter of practice, the City has been implementing the following conditions that relate to aesthetics and visual quality, compliance with which would reduce negative aesthetic impacts. Compliance with standard conditions would be required for all new development and redevelopment in the City.

- **SC AE-1:** All new landscaping shall be installed by the owner/developer in conformance with Chapter 18.46 "Landscape and Screening" of the Anaheim Municipal Code and shall be maintained in perpetuity. Landscaping shall be replaced in a timely manner in the event that it is removed, damaged, diseased, and/or dead.
- **SC AE-2:** The owner/developer shall ensure the following: landscaping shall be of the type and situated in locations to maximize observation while providing the desired degree of aesthetics. Security planting materials are encouraged along fence and property lines and under vulnerable windows. Shrubbery or ground cover should not generally exceed 3 feet in height, and tree branches should not descend below 6 feet from the ground; trees should not be planted close enough to the structure to allow easy access to the roof, or should be kept trimmed to make climbing difficult.
- **SC AE-3:** The owner/developer shall ensure that the exterior of the building and parking lot shall be illuminated during all hours of darkness.
- **SC AE-4:** Trees and shrubs shall be pruned by the owner/developer to allow visual access to all parts of the premises.
- **SC AE-5:** Entrance windows shall not be covered with posters and announcements that obstruct natural surveillance.

5. Environmental Analysis

AESTHETICS

5.1.1.2 EXISTING CONDITIONS

Visual Character

The western portion of the city is largely urbanized and consists of residential neighborhoods and commercial areas, and the eastern portion of the City has large areas of open space. The North Euclid area serves as a major gateway into the City and consists of multiple-family and single-family neighborhoods. The eastern portion of the City also consists of single- and multi-family neighborhoods. The North Central Industrial Area consists of established industrial uses and is adjacent to a residential neighborhood located north of La Palma Avenue and west of Olive Street. Anaheim Colony contains historic resources, including the original Mother Colony House, and a number of State and nationally designated historic structures, and is home to the City's Downtown and Civic Center. South Anaheim Boulevard area consists of a variety of residential, commercial, and industrial uses as well as some office uses that complement the adjacent Western Medical Center hospital. The Platinum Triangle is home to Angel Stadium of Anaheim and the Honda Center. The Anaheim Resort is a major tourist destination with attractions such as Disneyland, Disney's California Adventure, Downtown Disney, and the Anaheim Convention Center. The Canyon is a 2,450-acre business park and is considered a major regional employment center (City of Anaheim 2004b).

As previously mentioned, the City's eastern portion has large areas of open space and includes major open space features such as the Hill and Canyon Area. This area of the City consists of moderate to steep topography that consists of open space uses, including public parks, dedicated open space, and a golf course. Specifically, this area includes the Deer Canyon Preserve, the undeveloped Mountain Park Specific Plan area in the City's sphere of influence, and State-owned land adjacent to the Chino Hills State Park and the Cleveland National Forest on the eastern edge of the City that provides a potential gateway and link for wildlife corridors, trails, and recreation uses. The other major open space resource is the Santa Ana River. It is the centerpiece of a 2,650-square mile watershed that involves major portions of three counties—Orange County, Riverside County, and San Bernardino County. It includes the Santa Ana River Trail, a designated national recreation trail that, when completed, will incorporate 110 miles of trail system from San Bernardino County in the northeast to Orange County in the southwest. It provides trails, bikeways, scenic views and other open space and recreational opportunities along its course. At the time this Draft PEIR was prepared, the Santa Ana River Trail was 60 percent complete (City of Anaheim 2004b; San Bernardino County 2024).

Scenic Corridors

A highway may be designated scenic depending upon how much of the natural landscape can be seen by travelers, the scenic quality of the landscape, and the extent to which development intrudes upon the traveler's enjoyment of the view. One of the most prevalent opportunities to view scenic resources in a city is its system of major streets and freeways. The circulation network of streets and roads serves a functional role, but also provides motorists opportunities to view the city. Streets and highways provide scenery in two ways. First, the road or highway may be scenic. For example, a street may be tree lined, or pass-through scenic terrain or open space. On the other hand, the road or highway may make scenic vistas available to motorists and cyclists.

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As depicted in Figure C-1, *Planned Roadway Network*, of the City's General Plan, there are two scenic expressways in the City, both of which are located in the eastern portion of the City. These scenic expressways include portions of Weir Canyon Road and Santa Ana Canyon Road (Anaheim 2004). A 4.5-mile segment of SR-91 that runs along the banks of the Santa Ana River is an officially designated State Scenic Highway from SR-55 to the Weir Canyon Road interchange (Caltrans 2024; City of Anaheim 2004). This designation is enforced through the Scenic Corridor Overlay Zone in the Anaheim Municipal Code. (Section 18.18.020) Views from the corridor include mountain ridgelines, canyons, rolling hills, intermittent riparian and chaparral vegetation, and residential and commercial development. The SR-91 east of Weir Canyon is an eligible State Scenic Highway (City of Anaheim 2004). The status of a State Scenic Highway changes from eligible to officially designated when the local jurisdiction adopts a scenic corridor protection program, applies to Caltrans for scenic highway approval, and receives notification from Caltrans that the highway has been designated as a Scenic Highway.

Visual Landmarks

A landmark can be any prominently visible feature within a city, including buildings, geographic features, or cultural centers. Landmarks often serve to give a city its own distinct character and image, as well as help orient residents and visitors. Some prominent visual landmarks in the City of Anaheim include the Matterhorn attraction with the Disneyland theme park, the "Big A" sign and Angel Stadium of Anaheim, the Honda Center, and the Kraemer Building, a National Register Historic Structure in the Anaheim Colony Historic District (City of Anaheim 2004b). All of these are visible from various locations in Anaheim and also from I-5 as it traverses the City.

Viewsheds

As previously discussed, the City is relatively flat, with little topographic relief throughout its central and western portions, while the Hill and Canyon Areas span the eastern half of the City and its sphere of influence. Views and vistas are important visual amenities in the City. From most areas in the City, the contours of the Hill and Canyon Area and the Santa Ana Mountains are visible in the east. Other scenic amenities, such as golf courses and the Santa Ana River, provide visual relief from the built environment and are important visual amenities and landmarks (City of Anaheim 2004a). In addition, seven major parks of regional and statewide interest, including the Chino Hills State Park and the Cleveland National Forest, are adjacent to the City. These parklands have sensitive viewsheds that overlook portions of the City (City of Anaheim 2004b). Trails within the City provide vistas to these visual amenities; most the City's trails are within the eastern portion of the City with one regional trail along the Santa Ana River and one feeder trail within the central portion of the City. Goal 2 of the City's General Plan Green Element provide policies that aim to preserve views of ridgelines, natural open space, and other scenic vistas wherever possible.

Light and Glare

Sources of light and glare in the City and SOI include building (interior and exterior), security, sign illumination, and parking-area lighting. Lighting from entertainment areas such as Disneyland, Honda Center, and Angel Stadium can also be visible. Other sources of nighttime light and glare include streetlights and vehicular traffic along surrounding roadways. Additionally, a significant amount of ambient lighting comes

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from surrounding communities and roadways because the plan area is surrounded by highly urbanized portions of the cities of Santa Ana to the south, Fullerton to the north, Cypress to the west, and Orange to the east. The City's Zoning Ordinance includes provisions in Section 18.44.150 and Section 18.42.090 related to lighting. The surrounding cities include standards in their respective zoning codes that address light and glare.

5.1.2 Proposed General Plan Goals and Policies and Standard Conditions

The proposed project does not include any new or updated general plan goals and policies related to aesthetics. However, it does include certain standard conditions of approval that would be applicable to future development projects in the City, in addition to those listed above in Section 5.1.1.1. These additional standard conditions are identified below.

- SC AE-6** Prior to approval of each grading plan or issuance of each demolition or building permits, whichever occurs first, a Construction Barrier Plan showing the location and types of barriers to be in place during grading and construction. Said plan shall provide for all construction areas to be screened from view in compliance with the City of Anaheim Municipal Code and shall include provision for the type and height of the barriers to be placed along all construction perimeters prior to the commencement of demolition, Site preparation or grading, whichever occurs first.
- SC AE-7** A detailed on-site lighting plan, including a photometric diagram, shall be submitted by project applicants and reviewed and approved by the Planning and Building Director and Police Department prior to the issuance of building permits. Such plan shall indicate style, illumination, location, height, and method of shielding so as not to adversely affect adjacent properties.

5.1.3 Thresholds of Significance

The City of Anaheim considers a project to have a significant effect on the environment if it 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** In non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from publicly accessible vantage point). If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality.
- AE-4** Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area.

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5.1.4 Environmental Impacts

The following impact analysis addresses thresholds of significance that are identified in brackets after the impact statement.

Impact 5.1-1: Implementation of the proposed project would not have an adverse effect on a scenic vista. [Thresholds AE-1]

As previously discussed, scenic amenities for the City include the contours of the Hill and Canyon Area, Santa Ana Mountains, Santa Ana River, and golf courses, and views to these amenities are provided from trails and the scenic corridor overlay zone in the eastern portion of the City. Additionally, approximately 2,100 acres of open space within the Mountain Park Specific Plan area (Anaheim 2004) in the eastern portion of the City is permanently protected as part of the Irvine Ranch Land Reserve and provides visual relief from the built environment in the City. Implementation of the proposed project would occur throughout the City, but would focus development and redevelopment in the western and central portions of the City.

The proposed project would primarily redesignate residential and commercial parcels to high density mixed-uses. The proposed project would allow for the redevelopment of currently developed parcels and intensification of land uses in some areas of the City. Redevelopment and intensification would primarily be within the western and central parts of the City, which are already substantially developed with urban buildings and land uses. Land use and zoning changes that would be undertaken as part of the project would increase maximum allowable building density and maximum building heights, depending on location. Specifically, with respect to accessory dwelling units and junior accessory dwelling units, maximum height for detached units would increase from 16 feet to 18 feet plus 2 additional feet for a roof pitch.

As described above in Section 5.1.1.1, *Regulatory Setting*, future development projects that meet the criteria in PRC Section 21099 are exempt from findings of significance related to aesthetic impacts. While the proposed project itself does not meet these criteria (no specific development projects are proposed at this time), future development projects facilitated by the proposed project could be found exempt from aesthetic findings of significance related to aesthetic impacts if the future project meets the criteria established in PRC Section 21099.

For all future projects, the City would apply the requisite General Plan policies and standard conditions, identified above, to ensure that future projects did not have an adverse effect on scenic vistas. For example, through the public hearing and review process the City may require additional open space, lower building heights, view corridors, and lighting plans to minimize or avoid impacts on scenic vistas. Additionally, the proposed project includes adoption of Chapter 18.39, Multiple-Family and Mixed-Use Objective Design Standards, of the Anaheim Municipal Code to include the City's Objective Design Standards. Objective design standards in this chapter will apply to all multiple-family and mixed-use developments within the City in addition to the standards of the underlying base zone in which the project is located. The objective design standards address design topics such as site planning, mass and scale, materials and details, frontage types, and historic adjacencies, including, but not limited to the following subtopics: building orientation, common and private open space, parking and loading, height and facade modulation, and fenestration standards. Further,

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unique standards applicable to Specific Plan areas would continue to be required for projects specific to those areas.

The General Plan includes goals and policies related to preserving aesthetic resources in the City.

- **Land Use Element Goal 8.1:** Preserve natural, scenic and recreational resources; continue to ensure residential neighborhoods are safe, well-maintained, places to live; and continue to provide necessary community services and facilities.
- **Green Element Goal 1.1:** Maintain strict standards for hillside grading to preserve environmental and aesthetics resources.
- **Green Element Goal 2.1:** Preserve views of ridgelines, natural open space, and other scenic vistas wherever possible.
- **Green Element Goal 14.3:** Ensure that future development near regional open space resources will be sensitively integrated into surrounding sensitive habitat areas.
- **Community Design Element Goal 21.1:** Preserve the Hill and Canyon Area's sensitive hillside environment and the community's unique identity.

Through implementation of City General Plan and zoning requirements, and application of PRC 21099 where applicable, impacts related to scenic vistas would be less than significant.

Level of Significance Before Mitigation: Impact 5.1-1 would be less than significant.

Mitigation Measures: No mitigation measures are required.

Impact 5.1-2: Implementation of the proposed project would not substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway. [Threshold AE-2]

A 4.5-mile segment of SR-91 is an officially designated State Scenic Highway from SR-55 to Weir Canyon Road interchange (Caltrans 2024). This freeway runs along the banks of the Santa Ana River. Views include mountain ridgelines, rolling hills, canyons, intermittent riparian and chaparral vegetation, and residential and commercial development. This segment is within the eastern portion of the City and the proposed project focused land use changes in the west and central parts of Anaheim, such that it would substantially affect views from this segment of SR-91. In addition, should future discretionary projects include alteration, removal, or change in any way to historical resources, an assessment of historic impacts consistent with local, State, and federal requirements would be undertaken in accordance with the environmental review process for the project. Development and/or redevelopment projects exempt from CEQA would be required to comply with Section 18.62.100 and Section 15.03.010 of the City's Municipal Code. Compliance with the environmental review process and compliance with the Municipal Code, as applicable, would address potential impacts related to scenic historic resources.

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The proposed project would allow for the redevelopment of currently developed parcels and intensification of land uses in some areas of the City. Redevelopment and intensification would primarily be within the western and central parts of the City, which are already substantially developed with urban uses. Due to distance and intervening topography, the proposed project would not substantially damage scenic resources, including but not limited to trees, rock outcroppings, and historic buildings within a State scenic highway. Impacts would be less than significant.

Level of Significance Before Mitigation: Impact 5.1-1 would be less than significant.

Mitigation Measures: No mitigation measures are required.

Impact 5.1-3: Implementation of the proposed project would not conflict with applicable zoning and other regulations governing scenic quality. [Threshold AE-3]

The City of Anaheim is an urbanized area, as defined by Section 21071 of the CEQA Statute; therefore, the analysis for this threshold focuses on whether the proposed project would conflict with applicable zoning and other regulations governing scenic quality. It should be noted that, in accordance with SC AE-6, a Construction Barrier Plan showing the location and types of barriers to be in place during grading and construction. The visual quality is affected by many factors, including General Plan designations and policies, Specific Plans, Zoning regulations and enforcement, the City's Capital Improvement Program, and private property maintenance. The City's adopted General Plan, Zoning Code, and Capital Improvement Program have the most direct effect on community identity.

The proposed project would primarily redesignate residential and commercial parcels to higher density mixed-uses within the western and central portions of the City. The policies in General Plan Land Use Element and Circulation Element, as well as the proposed objective design standards, are intended to complement and improve the existing scenic quality and resources in the City as well as to implement the City's vision for the future character of the City. The proposed policies that are intended to complement and improve the existing scenic quality and resources include:

Future development under the proposed project would be reviewed for compliance with the goals and policies of the existing General Plan related to scenic quality, including scenic views and scenic resources.

- **Community Design Element Goal 1.1:** Create an aesthetically pleasing and united community appearance within the context of distinct districts and neighborhoods.
- **Community Design Element Goal 2.1:** Attractively landscape and maintain Anaheim's major arterial corridors and prepare/implement distinctive streetscape improvement plans.
- **Community Design Element Goal 3.1:** Single-family neighborhoods are attractive, safe, and comfortable.
- **Community Design Element Goal 4.1:** Multiple-family housing is attractively designed and scaled to complement the neighborhood and provides visual interest through architectural detailing.

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- **Community Design Element Goal 6.1:** Focus activity centers at the intersections of selected major corridors to provide a convenient and attractive concentrations of retail and office uses.
 - **Policy 2.** Design highly visible entrances to retail activity centers through accent landscaping and lighting, enhanced intersection features, façade detailing, monument signs, public art, and other design amenities.
 - **Policy 4.** Incorporate architectural interest and variety within the context of a unified design theme for large-scale retail activity centers. Architectural interest should be provided through varied rooflines, architectural detailing, accent lighting, and massing. Consistency should be maintained through commonalities of architectural style, color, landscaping, signage, and lighting.
- **Community Design Goal Element Goal 7.1:** Neighborhood retail centers are thoughtfully designed to create attractive places that provide convenient access and ample pedestrian amenities to residents of surrounding neighborhoods.
 - **Policy 9.** Lighting should provide for safety and highlight features of the neighborhood retail center but not shine directly onto neighboring properties.
- **Community Design Element Goal 8.1:** Anaheim's mixed-use areas are attractively designed, pedestrian and bicycle-friendly, easily accessible, and contain a proper blend of commercial retail office, and residential uses.
- **Community Design Element Goal 11.1:** Architecture in Anaheim has diversity and creativity of design and is consistent with the immediate surroundings.

Other than adoption of the objective design standards, the proposed project would not modify the goals and policies in the General Plan or requirements for review identified in Title 18 of the Municipal Code (Sections 18.62, Administrative Reviews, 18.70, Final Plan Reviews, 18.72, Specific Plans) related to scenic quality or conflict with these existing goals, policies or regulations. Further, development of projects consistent with the proposed project would be required to comply with the design and development specifications outlined in the General Plan Land Use, Green, and Community Design Elements. Compliance with the policies of the General Plan, Objective Design Standards, and standard conditions of approval would ensure that future development would be consistent with the scenic character and would not detract from the scenic quality of the City. Therefore, impacts to scenic quality within the City would be less than significant.

The Zoning Code includes a Scenic Corridor Overlay Zone (Chapter 18.18) to provide for and promote orderly growth in an area of the City considered to have distinctive, scenic importance. The Zoning Code provides for the protection, preservation and enhancement of the unique and natural scenic assets of the City. The Scenic Corridor (SC) Overlay Zone is defined as that area lying east of the intersection of SR-55 and SR-91, west of the Riverside County line, south of the Atchison, Topeka and Santa Fe Railroad right-of-way, and north of the present or any future south City limits of the City of Anaheim. The proposed project would not modify the SC Overlay Zone, and the redesignation and intensification would occur within the western and central portions of the City.

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The proposed zoning code update would amend the zoning designations to ensure consistency between the General Plan and Zoning Code. As such, the zoning code update would not conflict with the General Plan Focused Update and other regulations governing scenic quality and visual character. The form and mass of future buildings would be dictated by the standards, including setbacks, FAR, building height, and lot coverage. Future development would be reviewed by the City for compliance with applicable requirements in accordance with Anaheim Municipal Code Title 18. Therefore, impacts would be less than significant.

Buildout under the proposed project would be in conformance with State regulations, such as Title 24 (Building Code), and local regulations, such as the City's municipal code and seven existing specific plans that guide design and aesthetic quality. Consistency with existing State and local regulations and the General Plan policies would ensure that future development in the City would not degrade the views and visual character of the City and would not conflict with zoning and other regulations that govern scenic quality. Impacts would be less than significant.

Additionally, text changes to the existing General Plan Land Use Element and Circulation Element; addition of the Environmental Justice Element; and text changes to the Zoning Code would not facilitate or entitle any physical development that would result in impacts to zoning and other regulations governing scenic quality. Impacts would be less than significant.

Level of Significance Before Mitigation: Impact 5.1-3 would be less than significant.

Mitigation Measures: No mitigation measures are required.

Impact 5.1-4: The proposed project would not create a new source of substantial light or glare which would adversely affect day or nighttime views in the area. [Threshold AE-4]

The two major causes of light pollution are glare and spillover light. Spillover light is caused by misdirected light that illuminates areas outside the intended area. Glare is light that shines directly or is reflected from a surface into a viewer's eyes. Spillover light and glare impacts are effects of a project's exterior lighting on adjoining uses and areas.

Light and glare may be caused by street and parking lot lighting, building, lighted signs, or landscape lighting, illuminated signs, recreational facilities, and to some extent interior lighting of residential and nonresidential buildings. Specifically, Anaheim Municipal Code Section 18.118.141, Lighted Signs-General, which provides lighting standards for the Hotel Circle Specific Plan area, identifies requirements for lighted signs in this area to reduce excessive illumination on residential structures from artificial light. Materials such as glass, metal, and polished surfaces can contribute to glare. Excessive light and glare can interfere with the scenic quality of an area and contribute to light pollution. In the City, light and glare are concentrated in the western and central portions where commercial and more densely developed residential areas are located.

Future development in accordance with the proposed project would allow for the intensification and redevelopment of existing land uses, which could increase nighttime light and glare in the City. For instance, the conversion of underutilized areas into residential or commercial uses would introduce new sources of light. Additionally, future projects would be required to comply with standard condition SC AE-7, which

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require a lighting plan to be reviewed and approved by the Planning and Building Director and Police Department and that all lighting fixtures be shown on all final site plans. Furthermore, all proposed lighting would be consistent with the City's building code requirements, and all illuminated signs would be required to comply with the provisions in Section 18.44.150 of the municipal code. This would ensure that substantial light and glare does not extend substantially beyond the site where it is generated. Development in accordance with the proposed project would not generate substantial additional light and glare and the impact would be less than significant.

Level of Significance Before Mitigation: Impact 5.1-4 would be less than significant.

Mitigation Measures: No mitigation measures are required.

5.1.5 Cumulative Impacts

Cumulative aesthetic impacts are based on potential changes to visual quality in the City. Future development within the City could have a cumulative impact on visual resources due to changes in existing visual quality and aesthetics. These impacts could result from incremental increases in density and urbanization. The primary contributor to potential visual changes in the City is future development facilitated by land use changes under the proposed project.

Most of the City's scenic vistas are within the eastern portion of the City. Implementation of the proposed project would occur throughout the City, but would focus development and redevelopment in the western and central portions of the City. As a result, it would not substantially affect views to these major open space features. The future development in accordance with the proposed project would occur within the western and central portions of the City. The proposed project would not have an adverse effect on a scenic vista. The proposed project would not contribute to a cumulative impact with respect to scenic vistas. Impacts would be less than significant.

One officially designated State Scenic Highway is within the City—a 4.5-mile segment of SR-91 between SR-55 and Weir Canyon Road in the eastern portion of the City. The future development in accordance with proposed project would be focused in the western and central portions of the City. Due to distance, future development in the western and central portions of the City would not substantially damage scenic resources in the corridor of a State Scenic Highway. The proposed project would not contribute to a cumulative impact with respect to a State Scenic Highway. Impacts would be less than significant.

Future development and growth in the City could have cumulative effects on the aesthetic character of the City, thus resulting in a cumulative impact. The City is characterized by residential, commercial, industrial, mixed-use, open space/recreation, institutional, and schools. The General Plan includes goals and policies that address aesthetic resources. With compliance with applicable general plan goals and policies (Goal 2.1, 3.1, 4.1, 6.1, 7.1, 8.1, and 11.1), regulations (CBC Title 24), and City and project-specific standard conditions (SC AE-1, SC AE-2, SC AE-4, and SC AE-5) related to aesthetics, the cumulative impact would be less than significant. Therefore, the proposed project would not contribute to a cumulative significant impact related to scenic vistas or conflicts with applicable zoning and other regulations governing scenic quality in an urbanized area.

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The vast majority of proposed land use and zoning changes are in the highly urbanized and developed parts of the City, which already contain existing sources of artificial light and glare. Future development in accordance with the proposed project is expected to generate similar nighttime lighting and daytime glare impacts. The proposed project would not significantly increase the lighting or glare levels in the City from the existing developed conditions. The proposed project would not contribute to a cumulative significant impact related to light and glare.

Level of Significance Before Mitigation: Cumulative impacts would be less than significant

Mitigation Measures: No mitigation measures are required.

5.1.6 Level of Significance Before Mitigation

Upon implementation of regulatory requirements and General Plan policies, Impacts 5.1-1 through 5.1-4 would have less than significant impacts.

5.1.7 Mitigation Measures

No significant impacts were identified and no mitigation measures are necessary.

5.1.8 Level of Significance After Mitigation

Impacts 5.1-1 through 5.1-4 would be less than significant with compliance with all applicable regulatory requirements and General Plan policies.

5.1.9 References

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AIR QUALITY

5.2 AIR QUALITY

This section of the Draft Program Environmental Impact Report (Draft PEIR) discusses the potential impacts to air quality in a local and regional context from implementation of the City of Anaheim's Focused General Plan Update (proposed project), and consistency with policies and programs related to air quality. The analysis in this section is based on land uses associated with the proposed project, vehicle miles traveled (VMT) provided by Kimley-Horn and Associates, Inc. (see Appendix N, *VMT Memorandum*) and traffic data provided by Fehr & Peers. The air quality model output sheets are included in Appendix H, *Air Quality, Greenhouse Gas, and Energy Modeling*, of this Draft PEIR.

Comments were received during the scoping period both the proposed project (see Appendix A) and the Center City Corridors Specific Plan (C3SP) which has been incorporated into the proposed project as the Center City Corridors Implementation Plan (C3 Plan), that are related to air quality impacts (see Appendix B).

5.2.1 Environmental Setting

5.2.1.1 REGULATORY BACKGROUND

Federal and State

Ambient air quality standards (AAQSs) have been adopted at the 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 proposed project is in the South Coast Air Basin (SoCAB) and is subject to the rules and regulations imposed by the South Coast Air Quality Management District (SCAQMD) as well as the California AAQSs (CAAQSs) adopted by the California Air Resources Board (CARB) and National AAQSs (NAAQSs) adopted by the United States Environmental Protection Agency (U.S. EPA). Federal, state, regional, and local laws, regulations, plans, or guidelines that are potentially applicable to the proposed project are summarized in this section.

Federal Clean Air Act

Air quality is federally protected by the federal Clean Air Act (FCAA) and its amendments. Under the FCAA, the U.S. EPA developed the primary and secondary NAAQSs for the criteria air pollutants including ozone (O₃), nitrogen dioxide (NO₂), carbon monoxide (CO), sulfur dioxide (SO₂), particulate matter 10 micrograms in diameter or less (PM₁₀), particulate matter 2.5 micrograms in diameter or less (PM_{2.5}), and lead. Proposed projects in or near nonattainment areas could be subject to more stringent air-permitting requirements. The FCAA requires each state to prepare a State Implementation Plan (SIP) to demonstrate how it will attain the NAAQSs within the federally imposed deadlines.

The U.S. EPA can withhold certain transportation funds from states that fail to comply with the planning requirements of the FCAA. If a state fails to correct these planning deficiencies within two years of federal notification, the U.S. EPA is required to develop a federal implementation plan for the identified nonattainment area or areas. The provisions of 40 Code of Federal Regulations (CFR) Parts 51 and 93 apply in all nonattainment and maintenance areas for transportation-related criteria pollutants for which the area is

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designated nonattainment or has a maintenance plan. Applicable NAAQSs are summarized in Table 5.2-1, *State and Federal Ambient Air Quality Standards*.

Table 5.2-1 State and Federal Ambient Air Quality Standards

Pollutant	Averaging Time	State Standards ¹	National Standards ²
Ozone (O ₃) ^{2, 5, 7}	1 Hour	0.09 ppm (180 µg/m ³)	-
	8 Hours	0.070 ppm (137 µg/m ³)	0.070 ppm
Carbon Monoxide (CO)	1 Hour	20 ppm (23 mg/m ³)	35 ppm (40 mg/m ³)
	8 Hours	9.0 ppm (10 mg/m ³)	9 ppm (10 mg/m ³)
Nitrogen Dioxide (NO ₂)	1 Hour	0.18 ppm (339 µg/m ³)	0.10 ppm ¹¹
	Annual Arithmetic Mean	0.030 ppm (57 µg/m ³)	0.053 ppm (100 µg/m ³)
Sulfur Dioxide (SO ₂) ⁸	1 Hour	0.25 ppm (655 µg/m ³)	0.075 ppm (196 µg/m ³)
	24 Hours	0.04 ppm (105 µg/m ³)	0.14 ppm (365 µg/m ³)
	Annual Arithmetic Mean	-	0.03 ppm (80 µg/m ³)
Particulate Matter (PM ₁₀) ^{1, 3, 6}	24 Hours	50 µg/m ³	150 µg/m ³
	Annual Arithmetic Mean	20 µg/m ³	-
Fine Particulate Matter (PM _{2.5}) ^{3, 4, 6, 9}	24 Hours	-	35 µg/m ³
	Annual Arithmetic Mean	12 µg/m ³	9 µg/m ³
Sulfates (SO ₄₋₂)	24 Hours	25 µg/m ³	-
Lead (Pb) ^{10, 11}	30-Day Average	1.5 µg/m ³	-
	Calendar Quarter	-	1.5 µg/m ³
	Rolling 3-Month Average	-	0.15 µg/m ³
Hydrogen Sulfide (H ₂ S)	1 Hour	0.03 ppm (42 µg/m ³)	-
Vinyl Chloride (C ₂ H ₃ Cl) ¹⁰	24 Hours	0.01 ppm (26 µg/m ³)	-

Source: CARB 2024a.

Notes: ppm = parts per million; µg/m³ = micrograms per cubic meter; mg/m³ = milligrams per cubic meter; -- = no information available.

¹ California standards for O₃, CO (except Lake Tahoe), SO₂ (1-hour and 24-hour), NO₂, PM₁₀, and visibility-reducing particles are values that are not to be exceeded. The standards for sulfates, Lake Tahoe CO, lead, hydrogen sulfide, and vinyl chloride are not to be equaled or exceeded. If the standard is for a 1-hour, 8-hour, or 24-hour average (i.e., all standards except for lead and the PM₁₀ annual standard), then some measurements may be excluded. Measurements that CARB determines would occur less than once per year on the average are excluded. The Lake Tahoe CO standard is 6.0 ppm, a level one-half the national standard and two-thirds the state standard.

² National standards shown are the "primary standards" designed to protect public health. National standards other than for O₃, particulates, and those based on annual averages are not to be exceeded more than once a year. The 1-hour O₃ standard is attained if, during the most recent three-year period, the average number of days per year with maximum hourly concentrations above the standard is equal to or less than one. The 8-hour O₃ standard is attained when the 3-year average of the fourth-highest daily concentrations is 0.070 ppm or less. The 24-hour PM₁₀ standard is attained when the 3-year average of the 99th percentile of monitored concentrations is less than 150 µg/m³. The 24-hour PM_{2.5} standard is attained when the 3-year average of the 98th percentile of monitored concentrations is less than 35 µg/m³.

Except for the national particulate standards, annual standards are met if the annual average falls below the standard at every site. The national annual particulate standard for PM₁₀ is met if the 3-year average falls below the standard at every site. The annual PM_{2.5} standard is met if the 3-year average of annual averages spatially averaged across officially designed clusters of sites falls below the standard.

³ NAAQSs are set by the U.S. EPA at levels determined to be protective of public health with an adequate margin of safety.

⁴ On October 1, 2015, the national 8-hour O₃ primary and secondary standards were lowered from 0.075 to 0.070 ppm. An area will meet the standard if the fourth-highest maximum daily 8-hour O₃ concentration per year, averaged over three years, is equal to or less than 0.070 ppm. U.S. EPA will make recommendations on attainment designations by October 1, 2016, and issue final designations October 1, 2017. Nonattainment areas will have until 2020 to late 2037 to meet the health standard, with attainment dates varying based on the O₃ level in the area.

⁵ The national 1-hour O₃ standard was revoked by the U.S. EPA on June 15, 2005.

⁶ In June 2002, CARB established new annual standards for PM_{2.5} and PM₁₀.

⁷ The 8-hour California O₃ standard was approved by the CARB on April 28, 2005, and became effective on May 17, 2006.

⁸ On June 2, 2010, the U.S. EPA established a new 1-hour SO₂ standard, effective August 23, 2010, which is based on the 3-year average of the annual 99th percentile of 1-hour daily maximum concentrations. The existing 0.030 ppm annual and 0.14 ppm 24-hour SO₂ NAAQSs, however, must continue to be used until one year following U.S. EPA initial designations of the new 1-hour SO₂ NAAQS.

⁹ On February 7, 2024, the U.S. EPA strengthened the annual PM_{2.5} NAAQS from 12.0 µg/m³ to 9.0 µg/m³ to provide increased public health protection, consistent with the available health science. This final rule became effective on May 6, 2024.

¹⁰ CARB has identified lead and vinyl chloride as "toxic air contaminants" with no threshold level of exposure below which there are no adverse health effects determined.

¹¹ The final rule for the national rolling 3-month average lead standard was signed October 15, 2008. Final designations became effective on December 31, 2011.

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California Clean Air Act

The California Clean Air Act (CCAA) requires that each local air district prepare and maintain an Air Quality Management Plan (AQMP) to achieve compliance with CAAQSs. These AQMPs also serve as the basis for the preparation of the SIP for meeting NAAQSs for the state of California. Like the U.S. EPA, CARB also designates areas within California as either attainment or nonattainment for each criteria pollutant based on whether the CAAQSs have been achieved. Under the CCAA, areas are designated as nonattainment for a pollutant if air quality data shows that a state standard for the pollutant was violated at least once during the previous three calendar years. Exceedances that are affected by highly irregular or infrequent events such as wildfires, volcanoes, etc. are not considered violations of a state standard, and are not used as a basis for designating areas as nonattainment. The applicable CAAQSs are summarized in Table.

California Air Resources Board

CARB administers air quality policies in California. CARB is the agency responsible for coordination and oversight of state and local air pollution control programs in the state, and for implementing the requirements of the CCAA. CARB oversees local district compliance with state and federal laws; monitors air quality; determines and updates area designations and maps; and sets emissions standards for new mobile sources, consumer products, small utility engines, off-road vehicles, and fuels. Additionally, local air districts prepare SIP elements and submit them to CARB for review and approval. CARB then forwards SIP revisions to the U.S. EPA for approval and publication in the Federal Register. All the items included in the California SIP are listed in the CFR at 40 CFR 52.220.

The CAAQSs were established in 1969 pursuant to the Mulford-Carrell Act. These standards, included with the NAAQSs in Table, are generally more stringent and apply to more pollutants than the NAAQSs. In addition to the criteria pollutants, CAAQSs have been established for visibility-reducing particulates, hydrogen sulfide, and sulfates.

CARB recently adopted various regulations to reduce criteria pollutants, including:

- **Advanced Clean Cars Program.** This program aims to make all new passenger cars, trucks, and SUVs sold in California zero emissions by 2035.
- **Advanced Clean Truck Regulation.** CARB adopted the Advanced Clean Truck (ACT) Regulation in June 2020 requiring truck manufacturers to transition from diesel trucks and vans to electric zero-emission (ZE) trucks beginning in 2024. By 2045, every new truck sold in California is required to be ZE.
- **Low NO_x Heavy-Duty Omnibus Regulation.** Adopted in September 2021, the Heavy-Duty Engine and Vehicle Omnibus Regulation (Omnibus Regulation) will significantly increase the stringency of nitrogen oxides (NO_x) emissions standards for heavy-duty diesel engines for use in vehicles with a gross vehicle weight rating (GVWR) greater than 10,000 pounds. The more stringent NO_x emission standards begin with the 2024 model year engines and become more stringent with 2027 and subsequent model year engines.

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- **Advanced Clean Fleets Regulation.** Adopted in April 2023, the Advanced Clean Fleets Regulation (ACF) requires fleet owners to begin transitioning toward zero emissions vehicles (ZEVs) starting in 2024. Drayage trucks will need to be ZE by 2035, and all other fleet owners have the option to transition a percentage of their vehicles to meet expected ZE milestones, which gives owners the flexibility to continue operating combustion-powered vehicles as needed during the move toward cleaner technology.

California Air Resources Board Air Quality and Land Use Handbook

CARB published the Air Quality and Land Use Handbook in April 2005 to serve as a general guide for considering impacts to sensitive receptors from facilities that emit TAC emissions. The recommendations provided therein are voluntary and do not constitute a requirement or mandate for either land use agencies or local air districts. The goal of the guidance document is to protect sensitive receptors, such as children, the elderly, acutely ill, and chronically ill persons, from exposure to TAC emissions. Some examples of CARB's siting recommendations include the following: (1) avoid siting sensitive receptors within 500 feet of a freeway, urban road with 100,000 vehicles per day, or rural roads with 50,000 vehicles per day; (2) avoid siting sensitive receptors 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 per day, or where transport refrigeration unit operations exceed 300 hours per week); and (3) avoid siting sensitive receptors within 300 feet of any dry cleaning operation using perchloroethylene and within 500 feet of operations with two or more machines.

CARB 2017 Technical Advisory (Strategies to Reduce Air Pollution Exposure Near High-Volume Roadways)

CARB published a Technical Advisory in 2017 to provide planners and other stakeholders involved in land use planning and decision-making with information on scientifically based strategies to reduce exposure to traffic emissions near high-volume roadways. Near-roadway development is a result of a variety of factors, including economic growth, demand for built environment uses, and the scarcity of developable land in some areas. The Technical Advisory notes that research has demonstrated the public health, climate, financial, and other benefits of compact, infill development along transportation corridors, and demonstrates that planners, developers, and local governments can pursue infill development while simultaneously reducing exposure to traffic-related pollution. On-site strategies to remove air pollution identified in the Technical Advisory include the use of particle filtration systems (i.e., high-efficiency filtration in mechanical ventilation systems), solid barriers, and vegetation.

California Building Code: Building Energy Efficiency Standards

The Energy Efficiency Standards for Residential and Nonresidential Buildings, as specified in California Code of Regulations (CCR) Title 24 Part 6, were established in 1978 in response to a legislative mandate to reduce California's energy consumption. The standards are updated periodically to allow consideration and possible incorporation of new energy efficiency technologies and methods. The 2022 Building Energy Standards include requirements for mandatory mechanical ventilation intended to improve indoor air quality in homes and requirements for Minimum Efficiency Reporting Value (MERV) 13 air filtration on space conditioning systems and ventilation systems that provide outside air to a dwelling's occupiable space. The Residential Compliance Manual for the 2022 Building Energy Efficiency Standards notes that air filter efficiencies of at least MERV 13 protect occupants from exposure to the smaller airborne particles (i.e., PM_{2.5}) that are known to adversely

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affect respiratory health. CCR Title 24 Part 6 requires a particle size efficiency rating equal to or greater than 85 percent in the 1.0 to 0.3 micrometer (μm) range.

CalEnviroScreen

The California Office of Environmental Health Hazard Assessment (OEHHA) developed CalEnviroScreen 4.0, which is a mapping tool that helps identify California communities that are most affected by various pollution sources, and where people are especially vulnerable to pollution's effects. CalEnviroScreen uses environmental, health, and socioeconomic information to produce scores for every census tract in the state. The scores are mapped so that different communities can be compared. An area with a high score experiences a much higher pollution burden than areas with low scores.

According to CalEnviroScreen 4.0, the City of Anaheim includes census tracts that range between the 30th and 96th percentile of pollution burden such as Census Tracts 60590219212 on the low end and 6059086702 and 6059087405 on the higher end (OEHHA 2023). A 96th percentile means 96 percent of census tracts have lower pollution burden. The percentiles are relative scores that includes a scoring system that averages four components (exposures, environmental effects, sensitive populations, and socioeconomic factors). The Census Tracts closest to Interstate 5 (I-5) and State Route 91 (SR-91) tend to have the highest pollution burden; refer to Figure 5.2-1, *CalEnviroScreen Indicator – Pollution Burden*. It is noted that the CalEnviroScreen scores are relative to other census tracts and are not an expression of health risk, and do not provide quantitative information on increases in cumulative impacts for specific sites or projects. Further, as a comparative screening tool, the results do not provide a basis for determining when differences between scores are significant in relation to public health or the environment. See Figure 5.2-2, *CalEnviroScreen Indicator – Ozone*, Figure 5.2-3, *CalEnviroScreen Indicator – PM_{2.5}*, and Figure 5.2-4, *CalEnviroScreen Indicator – Diesel PM*.

Senate Bill 535

Senate Bill (SB) 535 directs 25 percent of the proceeds from the Greenhouse Gas Reduction Fund (i.e., funds from the Assembly Bill [AB] 32 cap-and-trade program) to go to projects that provide a benefit to disadvantaged communities (DACs) as identified by the OEHHA mapping. These funds must be used for programs that further reduce greenhouse gas emissions. Funding programs that reduce greenhouse gas emissions would also potentially reduce exposure to other emissions including TACs. Based on OEHHA mapping, the City includes several census tracts that are designated as SB 535 DACs (OEHHA 2024). SB 535 does not include project-specific requirements or prohibit developments in proximity to the designated communities. See Figure 5.2-5, *Disadvantaged Communities*.

State Programs for Toxic Air Contaminants

The California Air Toxics Program is an established two-step process of risk identification and risk management to address potential health effects from exposure to toxic substances in the air. In the risk identification step, CARB and OEHHA determine if a substance should be formally identified, or “listed,” as a TAC in California. In the risk management step, CARB reviews emission sources of an identified TAC to determine whether regulatory action is needed to reduce risk. Based on results of that review, CARB promulgated several Airborne Toxic Control Measures (ATCMs), both for stationary and mobile sources,

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including On-Road and Off-Road Vehicle Rules. These ATCMs include measures, such as limits on heavy-duty diesel motor vehicle idling and emission standards for off-road diesel construction equipment, to reduce public exposure to diesel particulate matter (DPM) and other TACs. These actions are also supplemented by the AB 2588 Air Toxics “Hot Spots” program and SB 1731, which require facilities to report their air toxics emissions, assess health risks, notify nearby residents and workers of significant risks if present, and reduce their risk through implementation of a risk management plan. SCAQMD further adopted two rules to limit cancer and non-cancer health risks from facilities located within its jurisdiction. Rule 1401 (New Source Review of Toxic Air Contaminants) regulates new or modified facilities, and Rule 1402 (Control of Toxic Air Contaminants from Existing Sources) regulates facilities that are already operating. Rule 1402 incorporates requirements of the AB 2588 program, including implementation of risk reduction plans for significant risk facilities.

Regional

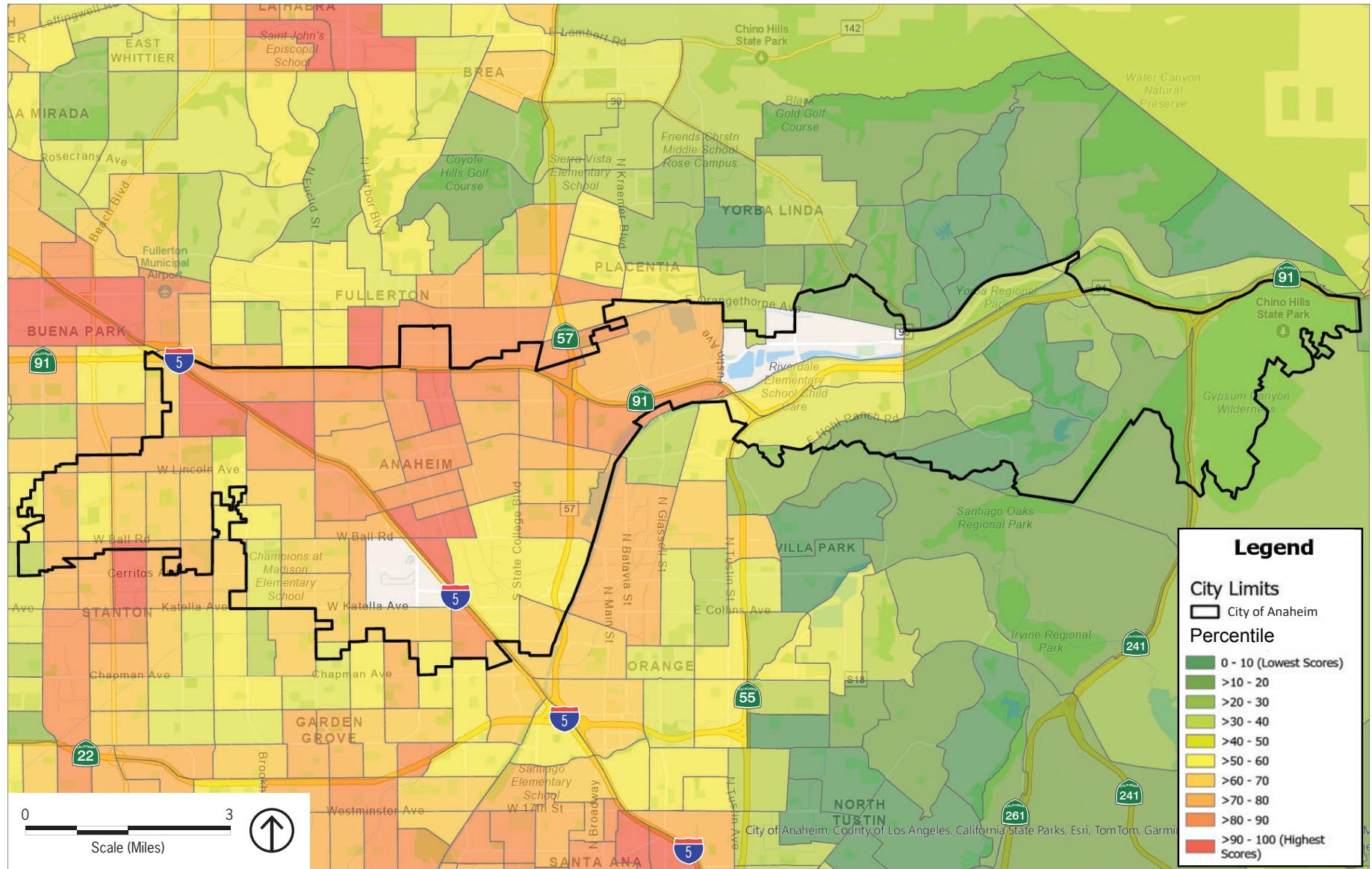
South Coast Air Quality Management District

The SCAQMD is the air pollution control agency for Orange County and the urban portions of Los Angeles, Riverside, and San Bernardino Counties. The agency’s primary responsibility is ensuring that the CAAQSs and NAAQSs are attained and maintained in the SoCAB. The SCAQMD is also responsible for adopting and enforcing rules and regulations concerning air pollutant sources, issuing permits for stationary sources of air pollutants, inspecting stationary sources of air pollutants, responding to citizen complaints, monitoring ambient air quality and meteorological conditions, awarding grants to reduce motor vehicle emissions, conducting public education campaigns, and many other activities. All projects are subject to SCAQMD rules and regulations in effect at the time of construction.

The SCAQMD is also the lead agency in charge of developing the AQMP, with input from the Southern California Association of Governments (SCAG) and CARB. The AQMP is a comprehensive plan that includes control strategies for stationary and area sources, as well as for on-road and off-road mobile sources. SCAG has the primary responsibility for providing future growth projections and the development and implementation of transportation control measures. CARB, in coordination with federal agencies, provides the control element for mobile sources.

The 2022 AQMP, adopted by the SCAQMD Governing Board on December 2, 2022, was developed to address the requirements for meeting the 2015 8-hour O₃ standard. The 2022 AQMP builds upon measures already in place from previous AQMPs. It also includes a variety of additional strategies such as regulation, accelerated deployment of available cleaner technologies (e.g., ZE technologies, when cost-effective and feasible, and low NO_x technologies in other applications), best management practices, co-benefits from existing programs (e.g., climate and energy efficiency), incentives, and other FCAA measures to achieve the 2015 8-hour O₃ standard. The 2022 AQMP incorporates the latest scientific and technological information and planning assumptions, including the 2020-2045 Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS) and updated emission inventory methodologies for various source categories. It is noted that the U.S. EPA’s approval of the 2022 AQMP portion of the SIP is still pending.

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Source: Kimley-Horn, 2024.

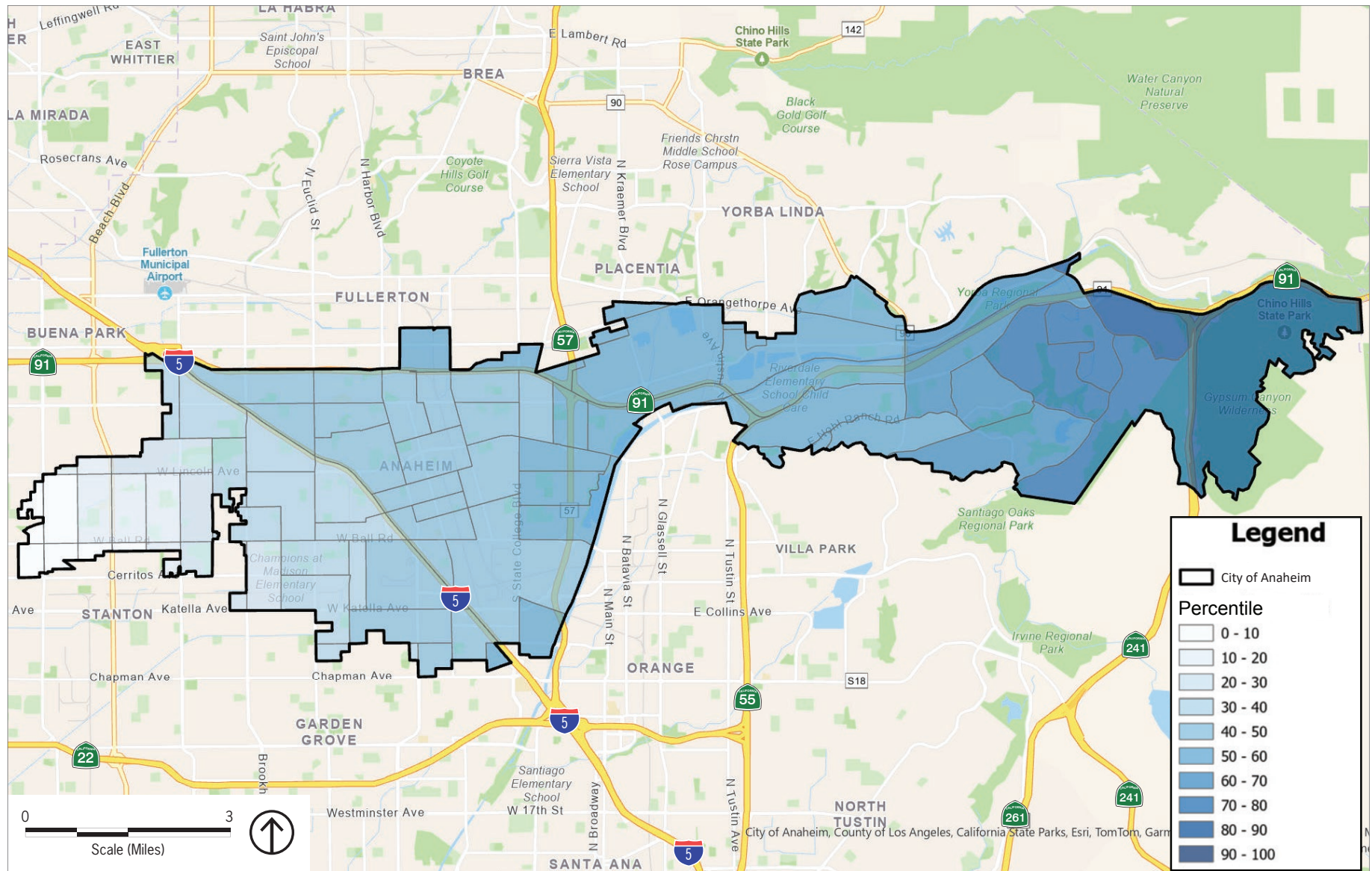
Figure 5.2-1
CalEnviroScreen Indicator – Pollution Burden

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Source: Kimley-Horn, 2024.

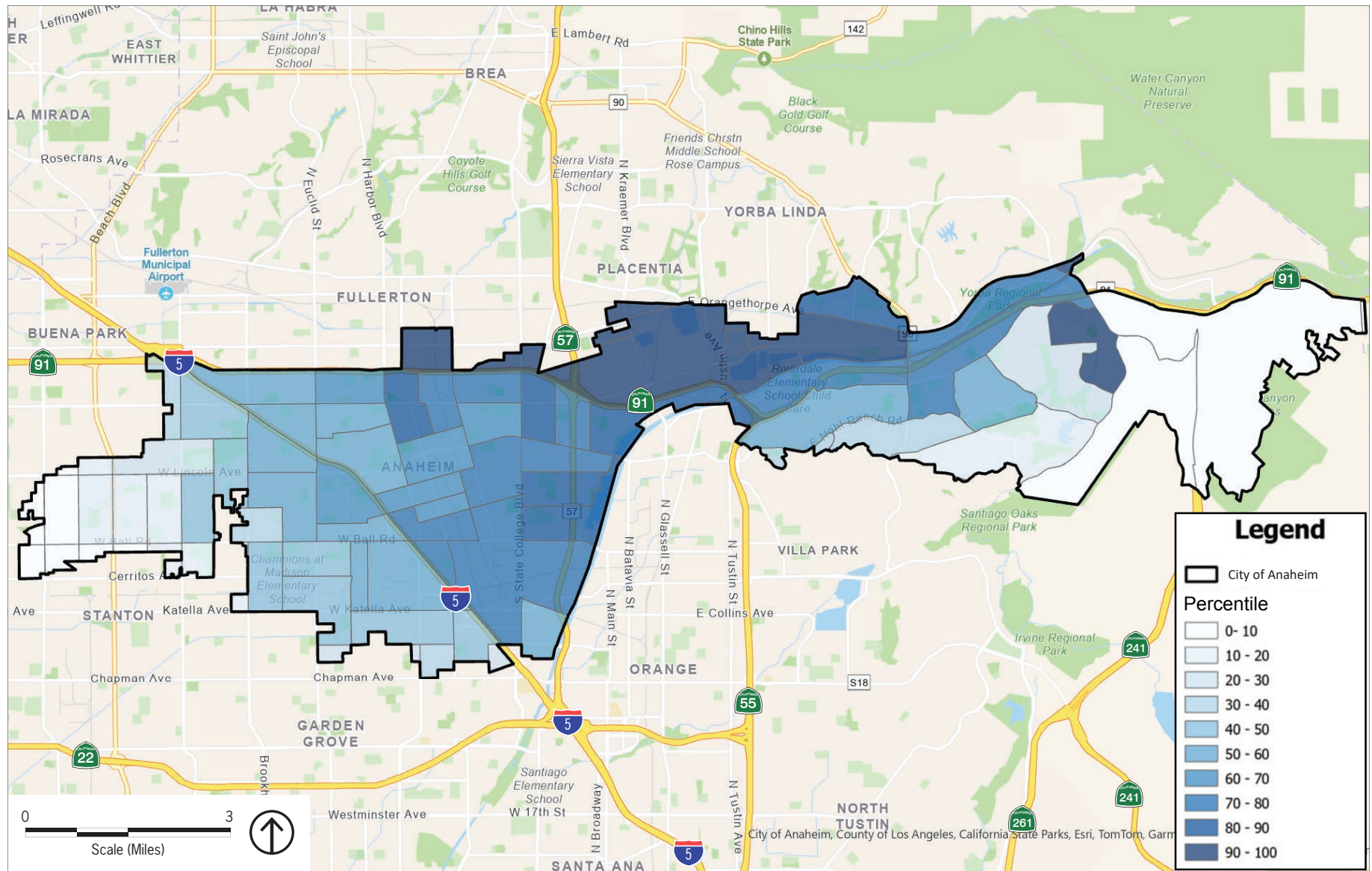
Figure 5.2-2
CalEnviroScreen Indicator – Ozone

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Source: Kimley-Horn, 2024.

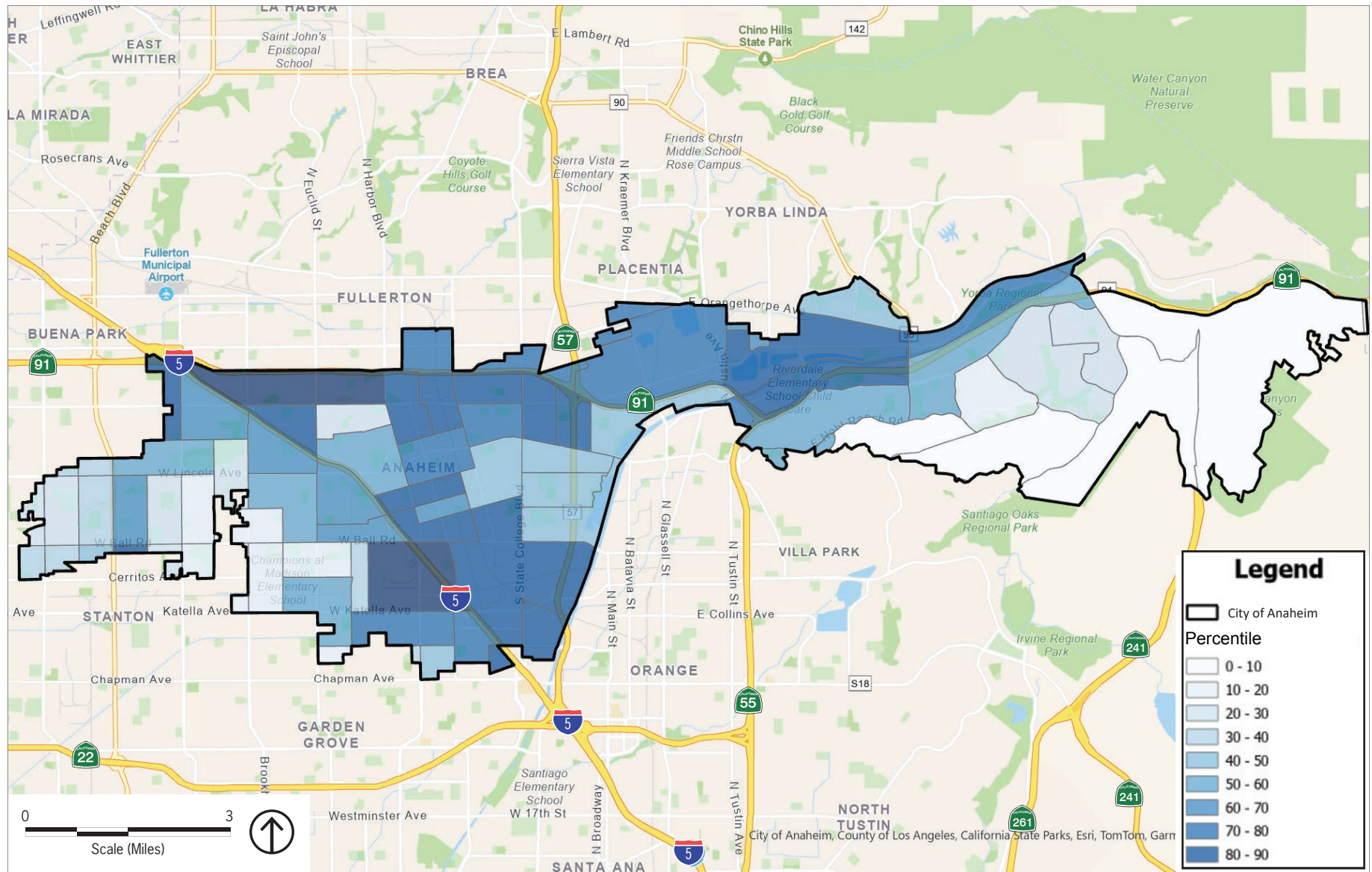
Figure 5.2-3
CalEnviroScreen Indicator – PM2.5

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Source: Kimley-Horn, 2024.

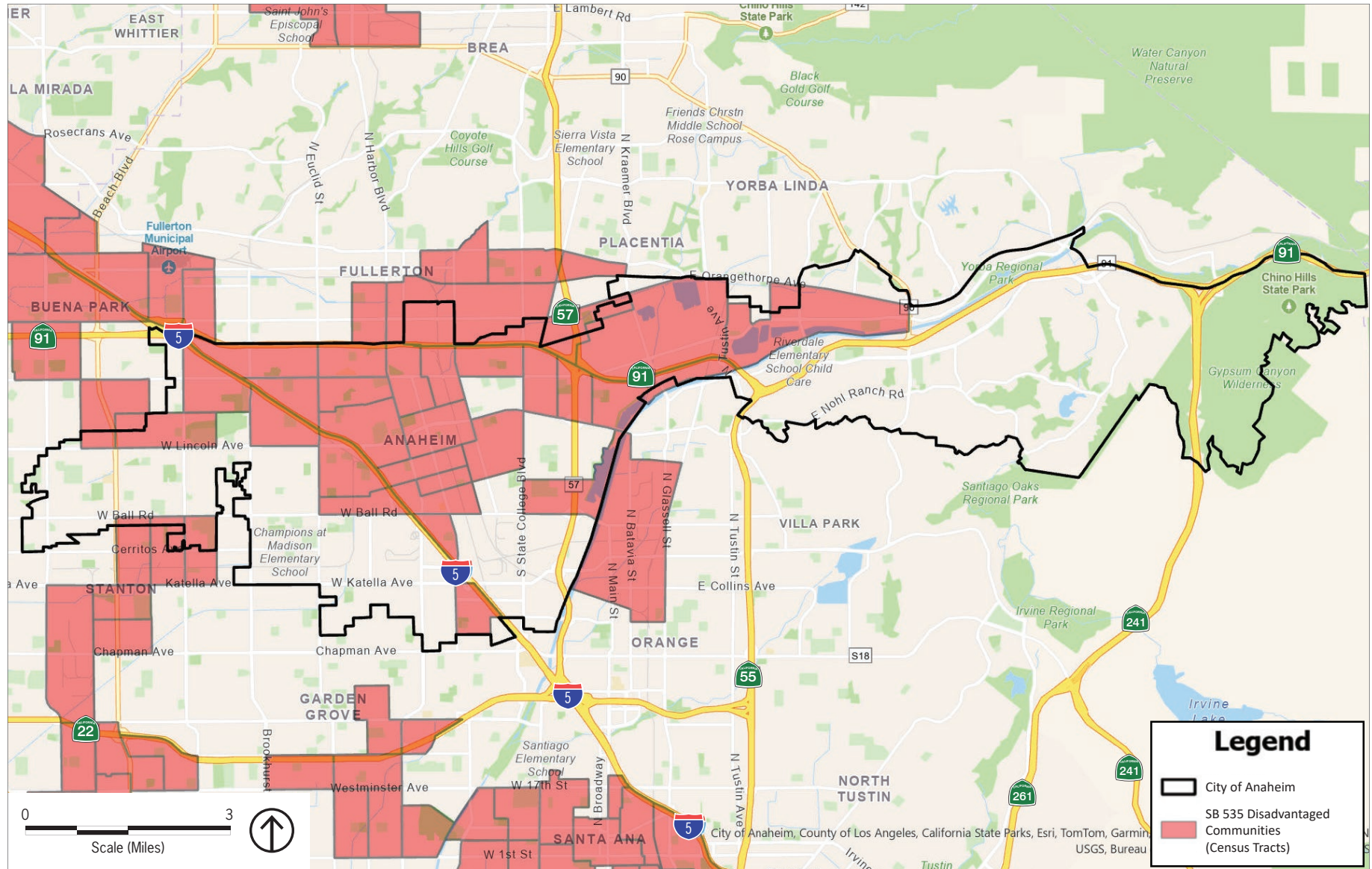
Figure 5.2-4
CalEnviroScreen Indicator – Diesel PM

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Source: Kimley-Horn, 2024.

Figure 5.2-5
Disadvantaged Communities

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The SCAQMD published the CEQA Air Quality Handbook, and the SCAQMD Governing Board approved it in 1993. The SCAQMD augmented the CEQA Air Quality Handbook with guidance for Local Significance Thresholds (LSTs) in 2008. The SCAQMD guidance helps local government agencies and consultants to develop environmental documents required by CEQA and provides identification of suggested thresholds of significance for criteria pollutants for both construction and operation (see discussion of thresholds below). With the help of the CEQA Air Quality Handbook and associated guidance, local land use planners and consultants can analyze and document how proposed and existing projects affect air quality in order to meet the requirements of the CEQA review process. The SCAQMD periodically provides supplemental guidance and updates to the handbook on their website.

The state and federal attainment status designations for the SoCAB are summarized in Table 5.2-2, *SoCAB Attainment Status*. The SoCAB is currently designated as a nonattainment area for the O₃, PM₁₀, and PM_{2.5} CAAQSs, as well as the O₃ and PM_{2.5} NAAQSs. The SoCAB is designated as attainment or unclassified for the remaining CAAQSs and NAAQSs.

Table 5.2-2 SoCAB Attainment Status

Pollutant	State	Federal
Ozone (O ₃) (1-Hour Standard)	Nonattainment	Nonattainment (Extreme)
Ozone (O ₃) (8-Hour Standard)	Nonattainment	Nonattainment (Extreme)
Particulate Matter (PM _{2.5}) (24-Hour Standard)	–	Nonattainment (Serious)
Particulate Matter (PM _{2.5}) (Annual Standard)	Nonattainment	Nonattainment (Moderate)
Particulate Matter (PM ₁₀) (24-Hour Standard)	Nonattainment	Attainment (Maintenance)
Particulate Matter (PM ₁₀) (Annual Standard)	Nonattainment	–
Carbon Monoxide (CO) (1-Hour Standard)	Attainment	Attainment (Maintenance)
Carbon Monoxide (CO) (8-Hour Standard)	Attainment	Attainment (Maintenance)
Nitrogen Dioxide (NO ₂) (1-Hour Standard)	Attainment	Unclassifiable/Attainment
Nitrogen Dioxide (NO ₂) (Annual Standard)	Attainment	Attainment (Maintenance)
Sulfur Dioxide (SO ₂) (1-Hour Standard)	Attainment	Unclassifiable/Attainment
Sulfur Dioxide (SO ₂) (24-Hour Standard)	Attainment	–
Lead (Pb) (30-Day Standard)	–	Unclassifiable/Attainment

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Table 5.2-2 SoCAB Attainment Status

Pollutant	State	Federal
Lead (Pb) (3-Month Standard)	Attainment	–
Sulfates (SO ₄₋₂) (24-Hour Standard)	Attainment	–
Hydrogen Sulfide (H ₂ S) (1-Hour Standard)	Unclassified	–

Sources: SCAQMD 2022, U.S. EPA 2024b.

The following is a list of SCAQMD rules that are required of construction activities associated with implementation of the proposed project. See the SCAQMD rule book for rules related to specific operational activities or sources. Operationally, each facility and source would need to determine its own applicability and permits:

- **Rule 401 (Visible Emissions)** - This rule establishes the limit for visible emissions. This rule states that a person shall not discharge into the atmosphere from any single source of emission whatsoever any air contaminant for a period or periods aggregating more than three minutes in any one hour which is as dark or darker in shade as that designated No. 1 on the Ringelmann Chart or of such opacity as to obscure an observer's view.
- **Rule 402 (Nuisance)** – This rule prohibits the discharge from any source whatsoever such quantities of air contaminants or other material which cause injury, detriment, nuisance, or annoyance to any considerable number of persons or to the public, or which endanger the comfort, repose, health, or safety of any such persons or the public, or which cause, or have a natural tendency to cause, injury or damage to business or property. This rule does not apply to odors emanating from agricultural operations necessary for the growing of crops or the raising of fowl or animals.
- **Rule 403 (Fugitive Dust)** – This rule requires fugitive dust sources to implement best available control measures for all sources, and all forms of visible particulate matter are prohibited from crossing any property line. This rule is intended to reduce PM₁₀ emissions from any transportation, handling, construction, or storage activity that has the potential to generate fugitive dust. PM₁₀ suppression techniques are summarized below.
 - a) Portions of a construction site to remain inactive longer than a period of three months will be seeded and watered until grass cover is grown or otherwise stabilized.
 - b) All on-site roads will be paved as soon as feasible or watered periodically or chemically stabilized.
 - c) All material transported off site will be either sufficiently watered or securely covered to prevent excessive amounts of dust.

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- d) The area disturbed by clearing, grading, earthmoving, or excavation operations will be minimized at all times.
- e) Where vehicles leave a construction site and enter adjacent public streets, the streets will be swept daily or washed down at the end of the workday to remove soil tracked onto the paved surface.
- **Rule 445 (Wood Burning)** – This rule prohibits permanently installed wood-burning devices into any new development. A wood-burning device means any fireplace, wood burning heater, or pellet-fueled wood heater, or any similarly enclosed, permanently installed, indoor or outdoor device burning any solid fuel for aesthetic or space-heating purposes, which has a heat input of less than one million British thermal units per hour.
- **Rule 1113 (Architectural Coatings)** – This rule requires manufacturers, distributors, and end users of architectural and industrial maintenance coatings to reduce reactive organic gas (ROG) emissions from the use of these coatings, primarily by placing limits on the ROG content of various coating categories.
- **Rule 1143 (Paint Thinners and Solvents)** – This rule governs the manufacture, sale, and use of paint thinners and solvents used in thinning of coating materials, cleaning of coating application equipment, and other solvent cleaning operations by limiting their VOC content. This rule regulates the VOC content of solvents used during construction. Solvents used during the construction phase must comply with this rule.
- **Rule 1403 (Asbestos Emissions from Demolition/Renovation Activities)** – This rule requires owners and operators of any demolition or renovation activity and the associated disturbance of asbestos-containing materials, any asbestos storage facility, or any active waste disposal site to implement work practice requirements to limit asbestos emissions from building demolition and renovation activities, including the removal and associated disturbance of asbestos-containing materials.

Permitted Sources of Emissions

SCAQMD regulates stationary sources of emissions through source-specific rules that have been adopted to reduce criteria air pollutant emissions and TACs. SCAQMD maintains the Facility Information Detail (FIND) database of regulated facilities that are required to have a permit to operate equipment that releases pollutants into the air in its region. Permitted sources include smaller sources such as gas stations and chrome-plating facilities as well as large sources such as refineries and power stations. See Appendix H which identifies permitted sources of emissions in Anaheim that are regulated directly by SCAQMD. The number of permitted facilities in an area are depicted by blue circles of various sizes dependent on the number of facilities in the vicinity. Permitted sources of emissions are generally clustered in industrial areas of the City.

Multiple Air Toxics Exposure Study

The SCAQMD conducted an in-depth analysis of TACs and their resulting health risks for the SoCAB region. The Multiple Air Toxics Exposure Study (MATES) V shows that carcinogenic risk from air toxics in the SoCAB, based on the average concentrations at the 10 monitoring sites, is approximately 40 percent lower than the monitored average in MATES IV and 84 percent lower than the average in MATES II (SCAQMD 2021a).

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MATES V also evaluated the population-weighted cancer risk within Environmental Justice (EJ) communities using the SB 535 definition of DACs.¹ From MATES IV to MATES V, air toxic cancer risk decreased by 57 percent in EJ communities overall compared to a 53 percent reduction in non-EJ communities.

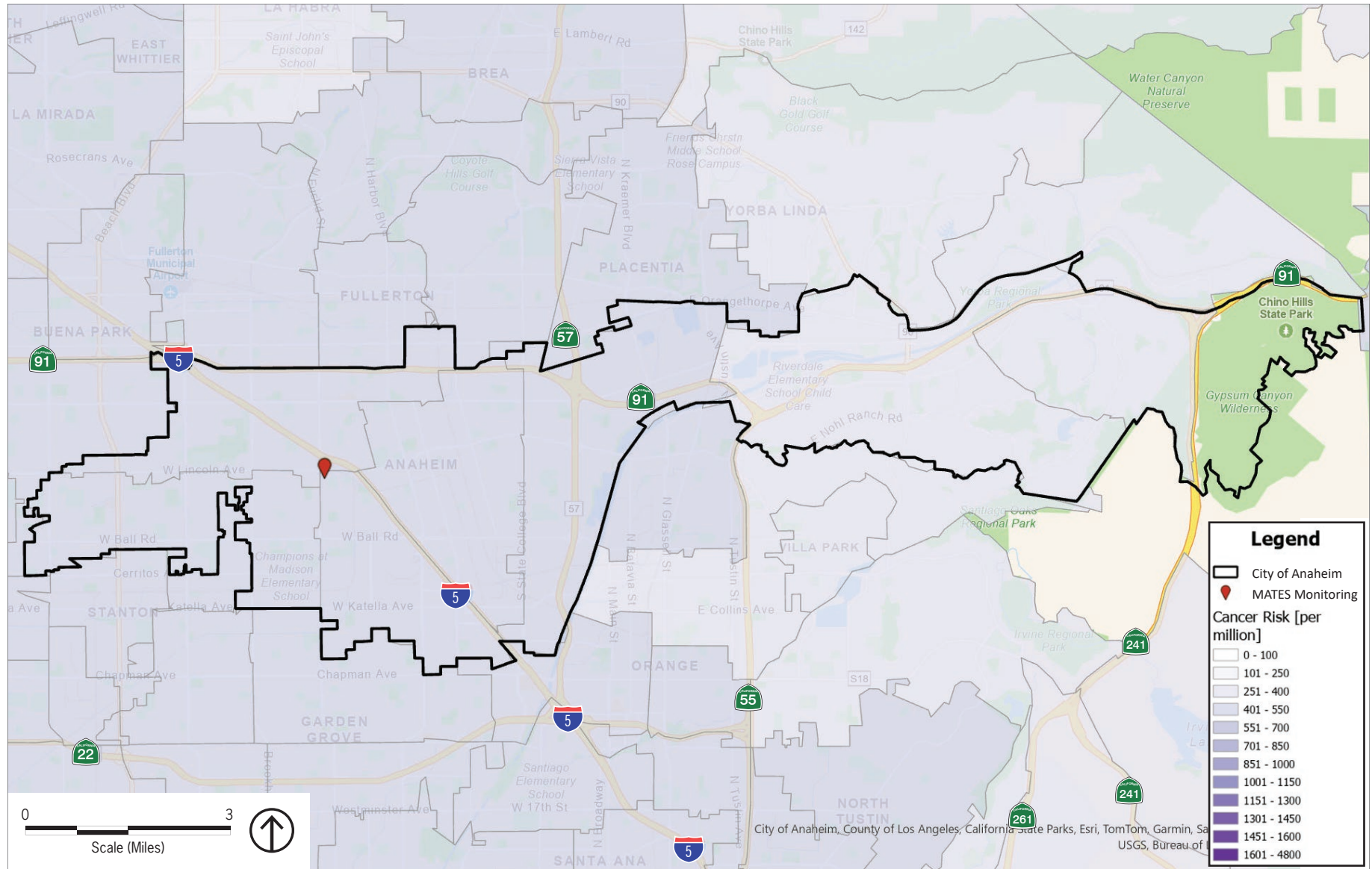
MATES V is the most comprehensive dataset documenting the ambient air toxic levels and health risks associated with SoCAB emissions. Therefore, the MATES V study represents the baseline health risk for a cumulative analysis. MATES V estimates the average excess cancer risk level from exposure to TACs is 424 in one million across the entire SoCAB. In comparison, at the time of the MATES IV study, the basin's average risk was 897 in one million. These model estimates were based on monitoring data collected at ten fixed sites within the SoCAB combined with inventory data developed by the SCAQMD. The SCAQMD also provides MATES V extrapolated excess cancer risk levels throughout the SoCAB by modeling the specific grids. A MATES monitoring station is located within the City of Anaheim, located at 1630 West Pampas Lane. The MATES V data show an excess cancer risk of 582 in one million for the Anaheim monitoring station (SCAQMD 2024). SCAQMD MATES V Cancer Risk for the City of Anaheim is shown in Figure 5.2-6, *SCAQMD MATES V Cancer Risk*. DPM is included in this cancer risk along with other TAC sources. DPM accounts for approximately 41.8 percent of the total risk shown in MATES V in the City and surrounding vicinity.

Southern California Association of Governments

SCAG is the regional planning agency for Los Angeles, Orange, Ventura, Riverside, San Bernardino, and Imperial counties and serves as a forum for regional issues relating to transportation, the economy, community development, and the environment. Under federal law, SCAG is designated as a Metropolitan Planning Organization and under state law as a Regional Transportation Planning Agency and a Council of Governments.

¹ SB 535 established initial requirements for minimum funding levels to “Disadvantaged Communities” (DACs). The legislation also gives California EPA the responsibility for identifying those communities, stating that the designation of disadvantaged communities must be based on “geographic, socioeconomic, public health, and environmental hazard criteria.”

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Source: Kimley-Horn, 2024.

Figure 5.2-6
SCAQMD Mates V Cancer Risk

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Local

City of Anaheim General Plan

The 2004 City of Anaheim General Plan contains the following existing goals and policies intended to control or reduce air pollution impacts.

Land Use Element

Goal 12.1: Encourage the on-going transition of the North Central Industrial Area into a high-quality light industrial area that is sensitive to adjacent residential neighborhoods.

- **Policy 12.1-2.** Encourage the on-going transition of heavy industrial uses to “cleaner” light industrial uses pursuant to the Zoning Code and General Plan land use designations.

Circulation Element

Goal 2.3: Improve regional access for City residents and workers.

- **Policy 2.3-5.** Coordinate with neighboring jurisdictions and regional, state, and federal agencies to implement Smart Streets, Intelligent Transportation Systems, High Speed Rail, Bus Rapid Transit and ARTIC.

Goal 7.1: Protect and encourage bicycle travel.

- **Policy 7.1-1.** Provide safe, direct, and continuous bicycle routes for commuter and recreational cyclists.
- **Policy 7.1-4.** Support roadway design policies that promote attractive circulation corridors and safe and pleasant traveling experiences for bicyclists.
- **Policy 7.1-6.** Implement a bikeway system with linkages to routes in neighboring jurisdictions and regional bicycle routes.
- **Policy 7.1-10.** Where space and appropriate roadway conditions currently exist, continue to install bike routes with priority to segments serving US Census documented existing high bicycle ridership areas.
- **Policy 7.1-11.** Work with the Caltrans to provide appropriate accommodation for bicyclists and pedestrians along Caltrans facilities, as well as applying for funding for state, local and regional non-motorized modal projects.

Goal 8.1: Protect and encourage pedestrian travel.

- **Policy 8.1-1.** Encourage and improve pedestrian facilities that link development to the circulation network and that serve as a transition between other modes of travel.
- **Policy 8.1-2.** Improve pedestrian and bicycle connections from residential neighborhoods to retail activity centers, employment centers, schools, parks, open space areas and community centers.

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- **Policy 8.1-9.** Enhance and encourage pedestrian amenities and recreation, retail and employment opportunities in mixed-use areas to enhance non-motorized transportation.
- **Policy 8.1-10.** Require commercial developments to provide specific pedestrian access points independent from auto entrances.
- **Policy 8.1-11.** Coordinate with appropriate agencies to ensure that transit stops are accessible to pedestrians.

Goal 9.1: Provide carpooling and vanpooling opportunities for commuters.

- **Policy 9.1-1.** Continue to encourage carpooling by promoting park-and-ride facilities.
- **Policy 9.1-2.** Continue to encourage vanpooling for City residents and workers.
- **Policy 9.1-3.** Participate in OCTA's Rideshare program.
- **Policy 9.1-4.** Cooperate with public or private providers of vanpool services and publicize vanpool options to residents.

Green Element

Goal 8.1: Reduce locally generated emissions through improved traffic flows and construction management practices.

- **Policy 8.1-1.** Reduce vehicle emissions through traffic flow improvements, such as traffic signal synchronization, Intelligent Transportation Systems, the Scoot Adaptive Traffic Control System, and related capital improvements.
- **Policy 8.1-2.** Regulate construction practices, including grading, dust suppression, chemical management, and encourage pre-determined construction routes that minimize dust and particulate matter pollution.

Goal 9.1: Reduce single-occupancy vehicle trips.

- **Policy 9.1-1.** Encourage alternative work schedules for public and private sector workers.
- **Policy 9.1-2.** Encourage development of new commercial and industrial projects that provide on-site amenities that help to lesson vehicle trips such as on-site day care facilities, cafeterias, automated teller machines and bicycle storage facilities.
- **Policy 9.1-3.** Encourage use of vanpools and carpools by providing priority parking through the project design process.
- **Policy 9.1-4.** Encourage bicycle and pedestrian travel by improving the City's trail and bikeway master plan and by providing convenient links between the trail system and desired destinations.

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Goal 12.1: Continue to be a county leader in the use of electric and alternative fuel vehicles.

- **Policy 12.1-1.** Continue and expand the program to convert City vehicle fleets to alternative fuel and/or electric power.
- **Policy 12.1-2.** Continue the City's program of providing a clean fuel Resort Transit Fleet.
- **Policy 12.1-3.** Continue to work with Anaheim businesses to assist with fleet conversion to alternative fuels.
- **Policy 12.1-4.** Work with the US Department of Energy to achieve a Clean City designation for the City of Anaheim.

Goal 13.1: Expand citizen and business outreach programs relating to policies that improve air quality.

- **Policy 13.1-2.** Disseminate air quality educational materials to residents, businesses and schools.

Growth Management Element

Goal 1.2: Participate in programs addressing regional growth issues.

- **Policy 1.2-2.** Monitor state and federal legislation affecting air quality, transportation, waste management, water conservation and other regional issues, ensuring that Anaheim's interests are represented and addressed.

Goal 2.1: Reduce traffic congestion on the City's arterial highway system.

- **Policy 2.1-5.** Promote the use of public transportation and alternative modes of transportation by increasing access to public transit, including Bus Rapid Transit, through land use planning (e.g., locating higher density residential projects near transportation corridors). Ensuring direct and convenient pedestrian access to public transit stops, implementing bicycle routes, encouraging pedestrian-friendly developments, and supporting High Occupancy Vehicles (HOV) lanes.

City of Anaheim Municipal Code

The City of Anaheim Municipal Code (AMC) Section 14.62.010 presents the City's policies regarding mobile source air pollution reduction. This ordinance supports SCAQMD's vehicle registration fee program to reduce air pollution from motor vehicles and to comply with the requirements set forth in Section 44243 of the Health and Safety Code to make the City of Anaheim eligible to receive fee revenues for the purpose of implementing programs to reduce air pollution from motor vehicles.

Standard Conditions of Approval

As a matter of practice, the City applies standard conditions for development projects that are intended to reduce environmental impacts. Currently, there are no standard conditions that are related to air quality.

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5.2.1.2 EXISTING CONDITIONS

Climate and Meteorology

CARB divides the state into 15 air basins that share similar meteorological and topographical features. The City is located within the 6,645-square-mile SoCAB, which includes the non-desert portions of Los Angeles, Riverside, and San Bernardino counties, as well as all of Orange County. The SoCAB is on a coastal plain with connecting broad valleys and low hills, bounded by the Pacific Ocean on the southwest and high mountains forming the remainder of the perimeter (SCAMD 1993). The SoCAB's air quality is determined by natural factors such as topography, meteorology, and climate, in addition to the presence of existing air pollution sources and ambient conditions. These factors along with applicable regulations are discussed below.

The SoCAB is part of a semi-permanent high-pressure zone in the eastern Pacific. As a result, the climate is mild and tempered by cool sea breezes. This usually mild weather pattern is occasionally interrupted by periods of extreme heat, winter storms, and Santa Ana winds. The annual average temperature throughout the SoCAB ranges from low 60 to high 80 degrees Fahrenheit with little variance. With more oceanic influence, coastal areas show less variability in annual minimum and maximum temperatures than inland areas.

Contrasting the very steady pattern of temperature, rainfall is seasonally and annually highly variable. Almost all annual rainfall occurs between the months of November and April. Summer rainfall is reduced to widely scattered thundershowers near the coast, with slightly heavier activity in the east and over the mountains.

Although the SoCAB has a semiarid climate, the air closer to the Earth's surface is typically moist because of the presence of a shallow marine layer. Except for occasional periods when dry, continental air is brought into the SoCAB by offshore winds, the "ocean effect" is dominant. Periods of heavy fog are frequent, and low clouds known as high fog are characteristic climatic features, especially along the coast. The annual average humidity is 70 percent at the coast and 57 percent in the SoCAB's eastern portions.

Wind patterns across the SoCAB are characterized by westerly or southwesterly onshore winds during the day and easterly or northeasterly breezes at night. Wind speed is typically higher during the dry summer months than during the rainy winter.

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

The mountain ranges to the east affect the diffusion of pollutants by inhibiting the eastward transport of pollutants. The SoCAB's air quality generally ranges from fair to poor and is like air quality in most of coastal Southern California. The entire region experiences heavy concentrations of air pollutants during prolonged periods of stable atmospheric conditions.

In addition to the 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 air pollutants

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are mixed: marine inversion and radiation inversion. The height of the base of the inversion at any given time is called the “mixing height.” The combination of winds and inversions is a critical determinant leading to highly degraded air quality for the SoCAB in the summer and generally good air quality in the winter.

Air Pollutants of Concern

Criteria Air Pollutants

Air pollutants emitted into the ambient air by stationary and mobile sources are regulated by federal and state laws. These regulated air pollutants are known as “criteria air pollutants” and are categorized into primary and secondary pollutants.

Primary air pollutants are those that are emitted directly from sources. CO, ROG, NO_x, SO₂, particulate matter (PM₁₀ and PM_{2.5}), lead, and fugitive dust are primary air pollutants. Ozone, NO₂, CO, SO₂, PM₁₀, PM_{2.5}, and lead are criteria pollutants. ROG and NO_x are criteria pollutant precursors and go on to form secondary criteria pollutants through chemical and photochemical reactions in the atmosphere (for example, O₃ is formed by a chemical reaction between ROG and NO_x in the presence of sunlight). Ozone and NO₂ are the principal secondary pollutants. Sources and health effects commonly associated with criteria pollutants are summarized in Table 5.2-3, *Air Contaminants and Associated Public Health Concerns*.

Table 5.2-3 Air Contaminants and Associated Public Health Concerns

Pollutant	Major Man-Made Sources	Human Health Effects
Particulate Matter (PM ₁₀ and PM _{2.5})	Power plants, steel mills, chemical plants, unpaved roads and parking lots, wood-burning stoves and fireplaces, automobiles, and others.	Increased respiratory symptoms, such as irritation of the airways, coughing, or difficulty breathing; asthma; chronic bronchitis; irregular heartbeat; nonfatal heart attacks; and premature death in people with heart or lung disease. Impairs visibility.
Ozone (O ₃)	Formed by a chemical reaction between reactive organic gases/volatile organic compounds (ROG or VOC) ¹ and nitrogen oxides (NO _x) in the presence of sunlight. Motor vehicles exhaust industrial emissions, gasoline storage and transport, solvents, paints, and landfills.	Irritates and causes inflammation of the mucous membranes and lung airways; causes wheezing, coughing, and pain when inhaling deeply; decreases lung capacity; aggravates lung and heart problems. Damages plants and reduces crop yield.
Sulfur Dioxide (SO ₂)	A colorless gas formed when fuel containing sulfur is burned and when gasoline is extracted from oil. Examples are petroleum refineries, cement manufacturing, metal processing facilities, locomotives, and ships.	Respiratory irritant. Aggravates lung and heart problems. In the presence of moisture and oxygen, SO ₂ converts to sulfuric acid which can damage marble, iron, and steel. Damages crops and natural vegetation. Impairs visibility. Precursor to acid rain.
Carbon Monoxide (CO)	An odorless, colorless gas formed when carbon in fuel is not burned completely. A component of motor vehicle exhaust.	Reduces the ability of blood to deliver oxygen to vital tissues, affecting the cardiovascular and nervous system. Impairs vision, causes dizziness, and can lead to unconsciousness or death.
Nitrogen Dioxide (NO ₂)	A reddish-brown gas formed during fuel combustion for motor vehicles and industrial sources. Sources include motor vehicles, electric utilities, and other sources that burn fuel.	Respiratory irritant; aggravates lung and heart problems. Precursor to O ₃ . Contributes to global warming and nutrient overloading which deteriorates water quality. Causes brown discoloration of the atmosphere.
Lead (Pb)	A metal found naturally in the environment as well as in manufactured products. Major sources of lead	Exposure to lead occurs mainly through inhalation of air and ingestion of lead in food, water, soil, or dust.

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Table 5.2-3 Air Contaminants and Associated Public Health Concerns

Pollutant	Major Man-Made Sources	Human Health Effects
Particulate Matter (PM10 and PM2.5)	Power plants, steel mills, chemical plants, unpaved roads and parking lots, wood-burning stoves and fireplaces, automobiles, and others.	Increased respiratory symptoms, such as irritation of the airways, coughing, or difficulty breathing; asthma; chronic bronchitis; irregular heartbeat; nonfatal heart attacks; and premature death in people with heart or lung disease. Impairs visibility.
	emissions have historically been motored vehicles (such as cars and trucks) and industrial sources. Due to the phase-out of leaded gasoline, metals processing is the major source of lead emissions to the air today. The highest levels of lead in air are generally found near lead smelters. Other stationary sources are waste incinerators, utilities, and lead-acid battery manufacturers.	Accumulates in the blood, bones, and soft tissues and can adversely affect the kidneys, liver, nervous system, and other organs. Excessive exposure may cause neurological impairments such as seizures, mental retardation, and behavioral disorders. Even at low doses, lead exposure is associated with damage to the nervous systems of fetuses and young children, resulting in learning deficits and lowered IQ.

Sources: CARB 2024b, U.S. EPA 2024a.

Note: Volatile Organic Compounds (VOCs or ROGs) are hydrocarbons/organic gases that are formed solely of hydrogen and carbon. There are several subsets of organic gases including ROG and VOCs. Both ROG and VOCs are emitted from the incomplete combustion of hydrocarbons or other carbon-based fuels. The major sources of hydrocarbons are combustion engine exhaust, oil refineries, and oil-fueled power plants; other common sources are petroleum fuels, solvents, dry cleaning solutions, and paint (via evaporation).

Toxic Air Contaminants

TACs are considered carcinogenic or noncarcinogenic based on the nature of the health effects associated with exposure to the pollutant. For regulatory purposes, carcinogenic TACs are assumed to have no safe threshold below which health impacts would not occur, and cancer risk is expressed as excess cancer cases per one million exposed individuals. Noncarcinogenic TACs differ in that there is generally assumed to be a safe level of exposure below which no negative health impact is believed to occur. These levels are determined on a pollutant-by-pollutant basis.

There are many different types of TACs, with varying degrees of toxicity. Sources of TACs include industrial processes, such as petroleum refining and chrome-plating operations; commercial operations, such as gasoline stations and dry cleaners; and motor vehicle exhaust. Public exposure to TACs can result from emissions from normal operations, as well as from accidental releases of hazardous materials during upset conditions. The health effects associated with TACs are quite diverse and are generally assessed locally, rather than regionally. TACs can cause long-term health effects such as cancer, birth defects, neurological damage, asthma, bronchitis, or genetic damage, or short-term acute effects such as eye-watering, respiratory irritation (a cough), running nose, throat pain, and headaches.

To date, CARB has designated 244 compounds as TACs (CARB 1999). Additionally, CARB has implemented control measures for several compounds that pose high risks and show potential for effective control. Most of the estimated health risks from TACs can be attributed to a relatively few compounds, most importantly particulate matter from diesel fuel engines.

CARB identified DPM as a TAC. DPM differs from other TACs in that it is not a single substance but rather a complex mixture of hundreds of substances. Diesel exhaust is a complex mixture of particles and gases produced when an engine burns diesel fuel. DPM is a concern because it causes lung cancer; many compounds

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found in diesel exhaust are carcinogenic. Some short-term (acute) effects of diesel exhaust include eye, nose, throat, and lung irritation, and diesel exhaust can cause coughs, headaches, light-headedness, and nausea. DPM poses the greatest health risk among the TACs. Almost all diesel exhaust particle mass is 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 lung.

Existing Ambient Air Quality

The primary sources of short-term emissions of various air pollutants in urban areas includes those from temporary construction-related activities including VOC and NO_x (O₃ precursors), PM₁₀, and PM_{2.5}, which are emitted by construction equipment during various activities that may include but are not limited to grading, excavation, building construction, or demolition. Additionally, soil disturbance during construction activities emits fugitive dust, a fraction of which is comprised of PM₁₀ and PM_{2.5}. Long-term air pollutant emission impacts are those associated with mobile sources (e.g., vehicle trips), energy sources (e.g., electricity and natural gas), and area sources (e.g., architectural coatings and the use of landscape maintenance equipment). Additionally, a variety of industrial and commercial processes (e.g., food processing plants, glass manufacturers, gas stations, and dry cleaning) also emit criteria pollutant emissions.

CARB monitors ambient air quality at approximately 250 air monitoring stations across the state. These stations usually measure pollutant concentrations 10 feet above ground level; therefore, air quality is often referred to in terms of ground-level concentrations. Existing levels of ambient air quality, historical trends, and projections near the proposed project are documented by measurements made by the SCAQMD. Pollutants of concern in the SoCAB include O₃, PM₁₀, and PM_{2.5}. Table 5.2-4, *Ambient Air Quality Data*, summarizes the monitored maximum concentrations and number of exceedances of CAAQSs and NAAQSs. These CAAQSs and NAAQSs help provide a framework for monitoring and minimizing air criteria air pollutants to support continued public health. The data used in the Table 5.2-4 was sourced from the Anaheim-Pampas Lane Monitoring Station for the years of 2019, 2020, 2021, 2022, and 2023.

Table 5.2-4 Ambient Air Quality Data

Criteria Pollutant	2019	2020	2021	2022	2023
Ozone (O₃)					
1-hour Maximum Concentration (ppm)	0.096	0.142	0.089	0.102	0.089
8-hour Maximum Concentration (ppm)	0.082	0.097	0.068	0.076	0.076
<i>Number of Days Standard Exceeded</i>					
CAAQS 1-hour (>0.09 ppm)	1	6	0	1	0
NAAQS 8-hour (>0.070 ppm)	1	15	0	1	2
Carbon Monoxide (CO)					
1-hour Maximum Concentration (ppm)	2.4	2.3	2.1	2.4	2.5
<i>Number of Days Standard Exceeded</i>					
NAAQS 1-hour (>35 ppm)	0	0	0	0	0
CAAQS 1-hour (>20 ppm)	0	0	0	0	0
Nitrogen Dioxide (NO₂)					
1-hour Maximum Concentration (ppm)	0.059	0.071	0.067	0.053	0.051
<i>Number of Days Standard Exceeded</i>					

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Table 5.2-4 Ambient Air Quality Data

Criteria Pollutant	2019	2020	2021	2022	2023
NAAQS 1-hour (>0.100 ppm)	0	0	0	0	0
CAAQS 1-hour (>0.18 ppm)	0	0	0	0	0
Particulate Matter (PM10)					
National 24-hour Maximum Concentration	127.6	74.8	63.6	67.0	97.8
State 24-hour Maximum Concentration	127.1	74.5	63.3	66.7	99.4
State Annual Average Concentration (CAAQS=20 µg/m³)	24.4	-	23.2	-	-
<i>Number of Days Standard Exceeded</i>					
NAAQS 24-hour (>150 µg/m³)	0	0	0	0	0
CAAQS 24-hour (>50 µg/m³)	4	5	1	1	1
Particulate Matter (PM2.5)					
National 24-hour Maximum Concentration	36.1	60.2	54.4	33.1	45.6
State 24-hour Maximum Concentration	37.1	64.8	54.4	33.1	50.7
<i>Number of Days Standard Exceeded</i>					
NAAQS 24-hour (>35 µg/m³)	4	12	10	0	1

Sources: CARB 2024c, 2024d.

Notes: NAAQS = National Ambient Air Quality Standards; CAAQS = California Ambient Air Quality Standards; ppm = parts per million; µg/m³ = micrograms per cubic meter; - = insufficient data available.

1 Measurements taken at the Anaheim-Pampas Lane Monitoring Station.

2 All pollutant measurements are from the CARB Aerometric Data Analysis and Management system database except for CO and NO₂, which were retrieved from the CARB Air Quality and Meteorological Information System.

City of Anaheim Emissions Inventory

Table 5.2-5, *Summary of Existing Emissions for the City of Anaheim*, summarizes the emissions of criteria air pollutants within the City for construction as well as operational area, energy, mobile, waste, and water categories. The construction emissions inventory is based on the City's proportion of Orange County CARB OFFROAD2021 Emissions Inventory. The operational emissions inventory is based on existing land use information and traffic behavior. The data used to calculate the operational emissions inventory for criteria pollutants is based on the City's land use data and Citywide VMT data. According to the operational emissions inventory, mobile sources are the largest contributor to the estimated land use emissions, except for area sources, which are the largest contributor to ROG emissions.

Table 5.2-5 Summary of Existing Emissions for the City of Anaheim

Source	Criteria Pollutant (pounds per day)					
	ROG	NO _x	CO	SO _x	PM10	PM2.5
Construction						
Baseline Construction Emissions	1,452	2,380	20,950	43	118	97
Operations						
Area	33,287	1,975	39,482	56	4,091	4,089

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Table 5.2-5 Summary of Existing Emissions for the City of Anaheim

Source	Criteria Pollutant (pounds per day)					
	ROG	NO _x	CO	SO _x	PM10	PM2.5
Energy	105	1,842	1108	12	145	145
Mobile	7,813	7,214	66,246	138	11,838	3,071
Total Emissions	41,205	11,031	106,836	206	16,074	7,305

Note: CARB OFFROAD2021 Emissions Inventory was used for construction and California Emissions Estimator Model (CalEEMod) version 2022.1.1.28 for operations. See Appendix I for model outputs.

Sensitive Receptors

Some land uses are considered more sensitive to changes in air quality than others, depending on the population groups and the activities involved. People most likely to be affected by air pollution include children, the elderly, athletes, and people with cardiovascular and chronic respiratory diseases. Facilities and structures where people sensitive to air pollution live or spend considerable amounts of time are known as sensitive receptors. Per SCAQMD General Plan Guidance document for air quality, places where air pollution-sensitive individuals are most likely to spend time include schools and schoolyards, parks and playgrounds, daycare centers, nursing homes, hospitals, and residential communities (collectively referred to as sensitive receptors) (SCAQMD 2005).

5.2.2 Proposed General Plan Goals and Policies and Standard Conditions

The proposed project does not include any new or updated general plan goals and policies related to air quality. However, it does include certain standard conditions of approval that would be applicable to future development projects in the City. These standard conditions are identified below.

SC AQ-1 Future development projects shall have construction and operational air quality impacts analyzed using the latest available air emissions model, or other analytical method determined in conjunction with the SCAQMD. The results of the air quality impact analysis shall be included in the development project's CEQA documentation. To address potential localized impacts, the air quality analysis may incorporate SCAQMD's Localized Significance Threshold (LST) analysis or other appropriate analyses as determined in conjunction with SCAQMD. If such analyses identify potentially significant regional or local air quality impacts, the City shall require the incorporation of appropriate mitigation to reduce such impacts.

SC AQ-2 Applicants for future development projects which will generate construction-related fugitive dust emissions that exceed applicable thresholds shall include, but are not limited to, the mitigation measures recommended by SCAQMD's CEQA Air Quality Handbook, to the extent feasible and applicable. The measures shall be included as notes on the grading and/or demolition plans:

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- The area disturbed by clearing, grading, earth moving, or excavation operations shall be minimized to prevent excess amounts of dust.
- Pre-grading/excavation activities shall include watering the area to be graded or excavated before commencement of grading or excavation operations. Application of watering (preferably reclaimed, if available) should penetrate sufficiently to minimize fugitive dust during grading activities. This measure can achieve PM10 reductions of 61 percent through application of water every three hours to disturbed areas.
- Fugitive dust produced during grading, excavation, and construction activities shall be controlled by the following activities:
 - All trucks shall be required to cover their loads as required by California Vehicle Section 23114. Covering loads and maintaining a freeboard height of 12 inches can reduce PM10 emissions by 91 percent.
 - All graded and excavated material, exposed soil areas, and active portions of the construction site, including unpaved on-site roadways, shall be treated to prevent fugitive dust. Treatment shall include, but not necessarily be limited to, periodic watering, application of environmentally safe soil stabilization materials, and/or roll-compaction as appropriate. Watering shall be done as often as necessary and reclaimed water shall be used whenever possible. Application of water every three hours to disturbed areas can reduce PM10 emissions by 61 percent.
- Graded and/or excavated inactive areas of the construction site shall be monitored at least weekly for dust stabilization. Soil stabilization methods, such as water and roll-compaction, and environmentally safe dust control materials, shall be periodically applied to portions of the construction site that are inactive for over four days. If no further grading or excavation operations are planned for the area, the area should be seeded and watered until grass growth is evident, or periodically treated with environmentally safe dust suppressants, to prevent excessive fugitive dust. Replacement of ground cover in disturbed areas can reduce PM10 emissions by 5 percent.
- Signs shall be posted on-site limiting traffic to 15 miles per hour or less. This measure can reduce associated PM10 emissions by 57 percent.
- During periods of high winds (i.e., wind speed sufficient to cause fugitive dust to impact adjacent properties), all clearing, grading, earth-moving, and excavation operations shall be curtailed to the degree necessary to prevent fugitive dust created by on-site activities and operations from being a nuisance or hazard off-site or on-site. The site superintendent/supervisor shall use his/her discretion in conjunction with SCAQMD when winds are excessive.
- Adjacent streets and roads shall be swept at least once per day, preferably at the end of the day, if visible soil material is carried over to adjacent streets and roads.

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- Personnel involved in grading operations, including contractors and subcontractors, should be advised to wear respiratory protection in accordance with California Division of Occupational Safety and Health regulations.

SC AQ-3

Applicants for future development projects which will generate construction-related exhaust emissions shall ensure off-road diesel-powered construction equipment greater than 50 horsepower meets CARB Tier 4 Final off-road emissions standards. Requirements for Tier 4 Final equipment shall be included in applicable bid documents and successful contractor(s) must demonstrate the ability to supply such equipment. A copy of each equipment's Best Available Control Technology (BACT) documentation (certified tier specification or model year specification), and CARB or SCAQMD operating permit (if applicable) shall be provided to the City prior to obtaining the grading permit. If Tier 4 Final equipment are not available, alternative measures may include the use of added exhaust devices, alternatively fueled equipment, such as the use of Tier 3 engines that include CARB Level 3 verifiable diesel emission control devices that altogether achieve an 85 percent reduction in particulate matter exhaust and 40 percent reduction in NO_x in comparison to uncontrolled equipment.

SC AQ-4

Applicants for future development projects that would generate construction-related emissions that exceed applicable thresholds, will include, but are not limited to, the mitigation measures recommended by SCAQMD (in its CEQA Air Quality Handbook or otherwise), to the extent feasible and applicable to the project. The types of measures shall include but are not limited to:

- Construction haul truck operators for demolition debris and import/export of soil shall use trucks that meet the CARB's 2020 engine emissions standards at 0.01 grams per brake horsepower-hour of particulate matter (PM) and 0.20 grams per brake horsepower-hour of NO_x emissions. Operators shall maintain records of all trucks associated with project construction to document that each truck used meets these emission standards and shall provide these records prior to permit issuance to the City of Anaheim.
- Vehicle idling shall be limited to five minutes as set forth in California Code of Regulations Title 13, Article 4.8, Section 2449. Signs shall be posted in areas where they will be seen by vehicle operators stating idling time limits. This requirement shall be included on the plans.
- Construction contractors shall utilize construction equipment that uses low polluting fuels (i.e., compressed natural gas, liquid petroleum gas, and unleaded gasoline) to the extent that they are available and feasible to use. This requirement shall be included on the plans.
- Heavy duty diesel-fueled equipment shall use low NO_x diesel fuel to the extent that it is available and feasible to use. This requirement shall be included on the plans.
- Construction contractors shall use electricity from power poles rather than temporary gasoline or diesel-powered generators, as feasible, or solar where available. This requirement shall be included on the plans.

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- Construction contractors shall maintain construction equipment in good, properly tuned operating condition, as specified by the manufacturer, to minimize exhaust emissions. Documentation demonstrating that the equipment has been maintained in accordance with the manufacturer's specifications shall be shared with the City of Anaheim prior to permit issuance.
- Construction contractors shall reroute construction trucks away from congested streets or sensitive receptor areas, as feasible. This requirement shall be included on the plans.

SC AQ-5 Prior to issuance of a grading permit, if two or more dust-generating construction projects occur within 1,000 meters of each other, which collectively will disturb 15 acres or more and which have demolition, excavation, or grading activity scheduled to occur concurrently, a Localized Significance Threshold analysis shall be prepared. If the LST analysis determines that the established Localized Significance Thresholds for NO_x, PM_{2.5}, or PM₁₀ would be exceeded, then modifications to construction equipment profiles, modifications to construction schedules, or additional pollution reduction measures shall be implemented.

SC AQ-6 Prior to issuance of a building permit for projects, the property owner/developer shall require the construction contractor and provide a note on construction plans indicating that:

- All coatings and solvents will have a volatile organic compound (VOC) content lower than required under Rule 1113 (i.e., super compliant paints).
- All architectural coatings shall be applied either by (1) using a high-volume, low-pressure spray method operated at an air pressure between 0.1 and 10 pounds per square inch gauge to achieve a 65 percent application efficiency; or (2) manual application using a paintbrush, hand-roller, trowel, spatula, dauber, rag, or sponge, to achieve a 100 percent applicant efficiency.
- The construction contractor shall also use precoated/natural colored building materials, where feasible.

The City shall verify compliance during normal construction site inspections.

SC AQ-7 Prior to issuance of a permit to construct project applicant shall retain a qualified air quality analyst to prepare an Air Quality Impact Analysis to analyze operational emissions for any project that would include more than 500 multi-family dwelling units, 10 single-family dwelling units, and 15,000 square feet of commercial development, or any equivalent combination thereof. The air quality analysis shall demonstrate that project emissions are less than applicable SCAQMD regional and Localized Significance Thresholds (LST), and as applicable may include, but is not limited to, the following mitigations:

- Implementation of a Transportation Demand Management Plan
 - Installation of additional electric vehicle charging stations
 - Public infrastructure improvements (e.g., bus stop shelter improvements)

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- Carpool or ridesharing programs
- Subsidized transit costs
- Unbundled parking costs
- Bicycle amenities (storage, showers, lockers, etc.)
- Use of all-electric appliances (i.e., elimination of natural gas service).
- Use solar or low emission water heaters that exceed Title 24 requirements.
- Increased walls and attic insulation beyond Title 24 requirements.
- Required use of landscape equipment.

SC AQ-8

Prior to the issuance of building permits, the property owner/developer for future development projects shall submit a Health Risk Assessment (HRA) prepared in accordance with policies and procedures of the state Office of Environmental Health Hazard Assessment (OEHHA) and the SCAQMD for projects within:

- 1) 1,000 feet from the truck bays of an existing distribution centers that accommodate more than 100 trucks per day, more than 40 trucks with operating transport refrigeration units, or where transport refrigeration unit operations exceed 300 hours per week;
- 2) 1,000 feet of an industrial facility which emits toxic air contaminants; or
- 3) 500 feet of I-5, SR-91, SR-57, or SR-55.

The HRA shall be submitted to the City Planning Department prior to issuance of building permits for any future discretionary residential or residential mixed-use project. If the HRA shows that the incremental cancer risk exceeds one in 100,000 (1.0E-05), or the appropriate noncancer hazard index exceeds 1.0, or if the PM₁₀ or PM_{2.5} exceeds the air district localized significance threshold over a 24-hour period of 2.5 µg/m³, the HRA shall identify the level of high-efficiency Minimum Efficiency Reporting Value (MERV) filter required to reduce indoor air concentrations of pollutants to achieve the cancer and/or noncancer and/or the 24-hour PM₁₀ or PM_{2.5} threshold of 2.5 µg/m³. Heating, ventilation, and air conditioning systems for units that are installed with MERV filters shall maintain positive pressure within the building's filtered ventilation system to reduce infiltration of unfiltered outdoor air. The property owner/developer shall be required to install high efficiency MERV filters in the intake of residential ventilation systems, consistent with the recommendations of the HRA. Heating, air conditioning and ventilation (HVAC) systems shall be installed with a fan unit power designed to force air through the MERV filter. To ensure long-term maintenance and replacement of the MERV filters in the individual units, the following shall occur:

- The developer, sale, and/or rental representative shall provide notification to all affected tenants/residents of the potential health risk for affected units.

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- For rental units, the owner/property manager shall maintain and replace MERV filters in accordance with the manufacturer's recommendations. The property owner shall inform renters of increased risk of exposure to diesel particulates when windows are open.
- For residential owned units, the Homeowner's Association (HOA) shall incorporate requirements for long-term maintenance in the Covenant Conditions and Restrictions (CC&Rs) and inform homeowners of their responsibility to maintain the MERV filter in accordance with the manufacturer's recommendations. The HOA shall inform homeowners of increased risk of exposure to diesel particulates when windows are open.
- For projects within 500 feet of the freeway, air intake on residential buildings shall be placed as far from the freeway as possible.
- For projects within 500 feet of the freeway, the residential buildings should be designed to limit the use of operable windows and/or balconies on portions of the site adjacent to and facing the freeway.

SC AQ-9 A project-specific Health Risk Assessment (HRA) shall be conducted for future industrial development proposed within 1,000 feet of sensitive receptors, pursuant to the recommendations set forth in the CARB Air Quality and Land Use Handbook. The HRA shall evaluate a project per the following SCAQMD thresholds:

- **Carcinogens:** Maximally Exposed Individual risk equals or exceeds 10 in one million. For cumulative cancer risk, the maximum exposed individual risk equals or exceeds significance thresholds established by SCAQMD.
- **Non-Carcinogens:** Emit toxic contaminants that equal or exceed 1 for the Maximally Exposed Individual.

If projects are found to exceed the SCAQMD's thresholds, mitigation shall be incorporated to reduce impacts to below SCAQMD thresholds. The HRA shall be submitted to the City Planning Department prior to issuance of building permits for any future discretionary residential or residential mixed-use project.

5.2.3 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 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.
- AQ-3 Expose sensitive receptors to substantial pollutant concentrations.

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AQ-4 Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people.

5.2.3.1 SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT THRESHOLDS

This analysis considers the thresholds of State CEQA Guidelines, Appendix G as described above, in determining whether implementation of the proposed project would result in direct or indirect impacts on air quality. The evaluation was based on a review of regulations and determining their applicability to the proposed project.

The baseline conditions and impact analyses rely on an analysis of aerial and ground-level photographs and review of various data available in public records, including local planning documents. Whether implementation of the proposed project would or would not result in substantial adverse effects on air quality is determined by the proposed project's compliance with relevant policies and regulations established by local and regional agencies.

Regional Significance Thresholds

The significance criteria established by SCAQMD may be relied upon to make the above determinations. According to the SCAQMD, an air quality impact is considered significant if implementation of the proposed project would violate any AAQs, contribute substantially to an existing or projected air quality violation, or expose sensitive receptors to substantial pollutant concentrations. The SCAQMD has established thresholds of significance for air quality during construction and operational activities of land use development projects, as shown in Table 5.2-6, *SCAQMD Emissions Thresholds*. The analysis below focuses on nonattainment pollutants. Certain pollutant have been excluded such as lead and vinyl chloride. Lead is only in nonattainment in a portion of Los Angeles County and vinyl chloride is released during certain less common industrial processes.

Table 5.2-6 SCAQMD Emissions Thresholds

Criteria Air Pollutants and Precursors	Construction-Related (pounds per day)	Operational-Related (pounds per day)
Reactive Organic Gases (ROG)/Volatile Organic Compounds (VOC)	75	55
Carbon Monoxide (CO)	550	550
Nitrogen Oxides (NO _x)	100	55
Sulfur Oxides (SO _x)	150	150
Coarse Particulates (PM ₁₀)	150	150
Fine Particulates (PM _{2.5})	55	55

Source: SCAQMD 2023.

Localized Significance Thresholds

The SCAQMD developed LSTs for emissions of NO₂, CO, PM₁₀, and PM_{2.5} generated at new development sites (off-site mobile source emissions are not included in the LST analysis). LSTs represent the maximum emissions that can be generated at a project without expecting to cause or substantially contribute to an

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exceedance of the most stringent CAAQs or NAAQs. LSTs are based on the ambient concentrations of that pollutant within the proposed project's source receptor area, as demarcated by the SCAQMD, and the distance to the nearest sensitive receptor. The City is located within Sensitive Receptor Area (SRA) 17, Central Orange County. LST analysis is applicable to all projects that are 5 acres or less. Table 5.2-7, *Anaheim Localized Significance Thresholds Within 25 Meters of Sensitive Receptors*, presents the SRA 17 LST values for construction within 25 meters (82 feet) of sensitive receptors, which are the most conservative thresholds. While these supplemental analyses are not conducted for the proposed project due to the proposed project's programmatic nature and absence of proposed physical development, future development facilitated by the proposed project would be required to comply with this regulation.

Table 5.2-7 Anaheim Localized Significance Thresholds Within 25 Meters of Sensitive Receptors

Project Size	Allowable Emissions (SRA 17) (pounds per day)			
	NO _x	CO	PM10	PM2.5
Construction				
1 Acre	81	485	4	3
2 Acres	115	715	6	4
5 Acres	183	1,253	13	7
Operations				
1 Acre	81	485	1	1
2 Acres	155	715	2	1
5 Acres	183	1,253	3	2

Source: SCAQMD 2008.

Health Risk Thresholds

Project health risks are determined by examining the types and levels of air toxics generated and the associated impacts on factors that affect air quality. While the final determination of significance thresholds is within the lead agency's purview pursuant to the state CEQA Guidelines, the SCAQMD recommends that lead agencies use the following air pollution thresholds in determining whether a project's impacts are significant. If the lead agency finds that the project has the potential to exceed the air pollution thresholds, a project's impacts should be considered significant. Table 5.2-8, *SCAQMD Incremental Risk Thresholds for TACs*, lists the TAC incremental risk thresholds for operation of a project.

Table 5.2-8 SCAQMD Incremental Risk Thresholds for TACs

Maximum Incremental Cancer Risk	≥ 10 in 1 million
Cancer Burden	> 0.5 excess cancer cases (in areas ≥ 1 in 1 million)
Chronic & Acute Hazard Index (project increment)	≥ 1.0 (project increment)

Source: SCAQMD 2023.

Cancer risk is expressed in terms of expected incremental incidence per million population. The SCAQMD adopted a threshold of an incidence rate of 10 persons per million as the maximum acceptable incremental

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cancer risk due to TAC exposure. This threshold is an upper-bound incremental probability to determine whether a given project has a potentially significant development-specific and cumulative impact, and to ensure an individual new source does not contribute a cumulatively significant impact. The 10 in one million standard is a health-protective significance threshold. A risk level of 10 in one million implies a likelihood that up to 10 persons out of one million equally exposed persons would contract cancer if exposed continuously (24 hours per day) to the TAC levels over a specified duration of time. This risk would be an excess cancer that is in addition to any cancer risk borne by a person not exposed to these TACs.

The SCAQMD has also established non-carcinogenic risk parameters for use in Health Risk Assessments (HRAs). Noncarcinogenic risks are quantified by calculating a "hazard index," expressed as the ratio between the ambient pollutant concentration and its toxicity or Reference Exposure Level (REL). A REL is a concentration at, or below which health effects are not likely to occur. A hazard index of less than 1.0 means that adverse health effects are not expected. Within this analysis, non-carcinogenic exposures of less than 1.0 are considered less than significant.

5.2.4 Environmental Impacts

5.2.4.1 METHODOLOGY

Implementation of the proposed project would be evaluated against the significance criteria/thresholds, as the basis for determining the impact's level of significance concerning air quality. In addition to the design characteristics of future development, this analysis considers the existing regulatory framework (i.e., laws, ordinances, regulations, and standards) that avoid or reduce the potentially significant environmental impact. Where significant impacts remain despite compliance with the regulatory framework, feasible mitigation measures are recommended, to avoid or reduce implementation of the proposed project's potentially significant environmental impacts.

This analysis of potential impacts to air quality emissions examines implementation of the proposed project's temporary (i.e., construction) and permanent (i.e., operational) effects-based significance criteria/threshold's application. For each criterion, the analyses address both temporary (construction) and long-term (operational) impacts, as applicable. The impact conclusions consider the potential for changes in environmental conditions, as well as compliance with the regulatory framework enacted to protect the environment.

Air Quality Plan Consistency

The SCAQMD is required, pursuant to the FCAA and CCAA, to reduce emissions of criteria pollutants for which the SoCAB is in nonattainment of the NAAQSs (i.e., O₃ and PM_{2.5}). The SCAQMD's AQMP contains a comprehensive list of pollution control strategies directed at reducing emissions and achieving the NAAQSs. These strategies are developed, in part, based on regional growth projections prepared by the SCAG. SCAG has the responsibility of preparing and approving portions of the AQMP relating to the regional demographic projections and integrated regional land use, housing, employment, and transportation programs, measures, and strategies. SCAG is required by law to ensure that transportation activities conform to, and are supportive of, the goals of regional and state air quality plans to attain the NAAQSs. The RTP/SCS includes transportation

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programs, measures, and strategies generally designed to reduce VMT, which are contained in the AQMP. SCAQMD combines its portion of the AQMP with those prepared by SCAG.

As part of its air quality planning, SCAG has prepared the Regional Comprehensive Plan and Guide and Connect SoCal, the 2024-2050 RTP/SCS. SCAG's Regional Council adopted the 2024-2050 RTP/SCS in April 2024. The 2024-2050 RTP/SCS was determined to conform to the federally mandated SIP for the attainment and maintenance of the NAAQSs. The 2024-2050 RTP/SCS will be incorporated into the SCAQMD's future AQMPs. Both the Regional Comprehensive Plan and AQMP are based, in part, on projections originating with county and city general plans.

The SCAQMD prepares AQMPs to accommodate growth, reduce the high levels of pollutants within the areas under their jurisdiction, return clean air to the region, and minimize the impact on the economy. Projects that are consistent with the assumptions used in the AQMP do not interfere with attainment because the growth is included in the projections utilized in the formulation of the AQMP. Thus, projects, uses, and activities that are consistent with the applicable growth projections and control strategies used in the development of the AQMP would not jeopardize attainment of the air quality levels identified in the AQMP, even if they exceed the SCAQMD's numeric indicators.

The CCAA requires air pollutant control districts (APCDs) and AQMDs in the State to aim to achieve and maintain CAAQs by the earliest practical date and to develop AQMPs and regulations specifying how the districts will meet this goal. California law does not require that CAAQs be met by specified dates as is the case with NAAQSs. Rather, according to CARB, California law requires incremental progress toward attainment (CARB 2024e). California law continues to mandate the CAAQs, although attainment of the NAAQSs has precedence over attainment of the CAAQs due to federal penalties for failure to meet federal attainment deadlines (CARB 2024e). The AQMPs also serve as the basis for preparation of the SIP for meeting NAAQSs.

Construction Emissions

Implementation of the proposed project may lead to simultaneous construction of various projects at any given point. Additionally, quantifying individual future developments' air emissions from short-term, temporary construction-related activities is not possible due to project-level variability and uncertainties concerning detailed site plans, construction schedules or duration, equipment requirements, etc., among other factors, which are presently unknown. Given these variabilities, precisely calculating construction emissions from all future development is not feasible and would not yield meaningful results. Instead, this analysis centers on quantifying the equipment demand and truck trips of individual phases which may surpass the significance thresholds set by SCAQMD. The analysis aims to identify and mitigate potential air quality impacts. Air quality impacts were assessed according to methodologies recommended by CARB and the SCAQMD.

Project-Level Screening Analysis

Construction equipment, trucks, worker vehicles, ground-disturbing, and architectural coating activities associated with construction from implementation of the proposed project would generate emissions of criteria air pollutants and precursors. The SCAQMD's California Emissions Estimator Model (CalEEMod), version 2022, was used to estimate construction emissions for example projects by analyzing individual construction

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phases. The scenario modeled was intended as a screening tool for future individual projects within the City in compliance with SC AQ-1. The modeling performed would be considered an analytical method to substantiate the construction parameters that result in a less than significant regional construction impact under CEQA that could be used as a screening tool for future development projects in the City. Some construction assumptions were made in the model such as 2,400 tons of demolition (30 hauling trips) for the demolition phase; 28-acres graded for the grading phase; 30 hauling trips of building construction phase; and 10 hauling trips for paving phase. CalEEMod defaults were utilized for construction duration, fleet mix, and construction equipment. Construction emissions were estimated for the following phases: demolition, grading, building construction, paving, and architectural coating. The construction emissions associated with each phase were quantified and compared to the daily criteria pollutant emissions significance thresholds to determine the significance of implementation of the proposed project's impacts on regional air quality. Table 5.2-9, *Construction Phase Scenarios*, presents assumptions associated with each construction phase.

Table 5.2-9 Construction Phase Scenarios

Construction Phase	Maximum Number of Pieces of Equipment Operating Simultaneously on the Peak Day
Demolition	
Equipment <375 hp (rubber tired dozers)	8
Equipment < 100 hp (tractors/ loaders/ backhoes, concrete saws)	18
Daily Hauling Trips	30
Grading	
Equipment <375 hp (rubber tired dozers)	7
Equipment 100-150 hp (graders, dozers/loaders/backhoes)	15
Daily Hauling Trips	75
Building Construction	
Equipment <375 hp (cranes)	15
Equipment 75-100 hp (forklifts, tractors/ loaders/ backhoes)	30
Equipment <50 hp (generator sets, welders)	32
Daily Hauling Trips	30
Paving	
Equipment 75-100 hp (tractors/ loaders/ backhoes, pavers, paving equipment)	63
Equipment <50 hp (rollers and cement and mortar mixers)	42
Daily Hauling Trips	10
Architectural Coating	
Equipment < 50 hp (air compressors)	110

Operational Emissions

According to the SCAQMD guidance on General Plans the AQMD and CARB have strong, comprehensive regulatory programs for new and existing sources of air pollution. However, local policies can enhance the effectiveness of these programs by addressing cumulative impacts in local areas. Note that SCAQMD significance thresholds for criteria pollutants do not distinguish between project-level Environmental Impact

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Reports (EIRs) (e.g., for an individual development) and program-level EIRs (e.g., for a long-range plan). The proposed project addresses the development of various land uses on a programmatic level. Therefore, the application of the SCAQMD thresholds for individual project-level impacts to a City-wide land use plan within a program-level EIR is highly conservative.

No specific development projects are currently proposed. Operations of future development projects under implementation of the proposed project would result in emissions of area sources (i.e., consumer products, architectural coating, and landscape equipment), energy sources (i.e., natural gas usage for space and water heating and cooking), and mobile sources (i.e., motor vehicles from generated vehicle trips generated by implementation of the proposed project). Each of these sources are described below.

- **Area Source Emissions.** Area source emissions would be generated due to household equipment, architectural coating, and landscaping that may be conducted on each future development site.
- **Energy Source Emissions.** Energy source emissions would be generated due natural gas usage associated with the future development operations. Primary uses of natural gas by the proposed project would be for heating and cooking.
- **Mobile Source.** Mobile sources are emissions from motor vehicles, including tailpipe and evaporative emissions. Depending upon the pollutant being discussed, the potential air quality impact may be of either regional or local concern. For example, ROG, NO_x, PM₁₀, and PM_{2.5} are all pollutants of regional concern. NO_x and ROG/VOC react with sunlight to form O₃, known as photochemical smog. Additionally, wind currents readily transport PM₁₀, and PM_{2.5}. However, CO tends to be a localized pollutant, dispersing rapidly at the source. Operations-generated vehicle emissions are based on the trip generations and would be incorporated into future studies and CalEEMod as recommended by the SCAQMD.

Project-Level Screening Analysis

In order to provide screening for some future projects, emissions associated with individual development projects were analyzed and compared to established project-level SCAQMD thresholds. Modeling was conducted for operations of the following three project scenarios based on typical project types within the City:

- Multi-family residential (500 units), Single-family residential (10 units), and Commercial (15,000 square feet)
- Multi-family residential (250 units) and Commercial (10,000 square feet)
- Multi-family residential (100 units), Townhome/Condo (200 units), and Commercial (5,000 square feet)

Cumulative Impacts

The SCAQMD CEQA Air Quality Handbook states that the “Handbook is intended to provide local governments, project proponents, and consultants who prepare environmental documents with guidance for analyzing and mitigating air quality impacts of projects” (SCAQMD 1993). The SCAQMD CEQA Air Quality Handbook also states that “[f]rom an air quality perspective, the impact of a project is determined by examining

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the types and levels of emissions generated by the project and its impact on factors that affect air quality. As such, projects should be evaluated in terms of air pollution thresholds established by the District.” The SCAQMD has also provided guidance on an acceptable approach to addressing the cumulative impacts issue for air quality as discussed: “As Lead Agency, the AQMD uses the same significance thresholds for project specific and cumulative impacts for all environmental topics analyzed in an Environmental Assessment or EIR... Projects that exceed the Project-specific significance thresholds are considered by the SCAQMD to be cumulatively considerable. This is the reason project-specific and cumulative significance thresholds are the same. Conversely, projects that do not exceed the project-specific thresholds are generally not considered to be cumulatively significant” (SCAQMD 2003).

Therefore, consistent with accepted and established SCAQMD cumulative impact evaluation methodologies, the potential for implementation of the proposed project to result in cumulative impacts from regional emissions is assessed based on the SCAQMD thresholds.

5.2.4.2 IMPACT ANALYSIS

The following impact analysis addresses thresholds of significance that are identified in brackets after the impact statement.

Impact 5.2-1: Buildout conditions associated with the proposed project would result in air quality emissions that would conflict with the applicable air quality plan. [Threshold AQ-1]

As discussed previously, the SCAQMD Governing Board adopted the 2022 AQMP on December 2, 2022. However, as noted above, the U.S. EPA’s approval of the 2022 AQMP portion of the SIP is still pending. Therefore, this analysis evaluates consistency with the 2016 AQMP (adopted by the SCAQMD Governing Board on March 3, 2017) and the 2022 AQMP. The AQMP establishes a program of rules and regulations directed at reducing air pollutant emissions and achieving NAAQSs and CAAQSs. The AQMP is a regional and multi-agency effort including the SCAQMD, the CARB, the SCAG, and the U.S. EPA. The AQMP pollutant control strategies and measures are based on the latest scientific and technical information and planning assumptions, including SCAG’s RTP/SCS, updated emission inventory methodologies for various source categories, and SCAG’s latest growth forecasts. SCAG’s latest growth forecasts were defined in consultation with local governments and with reference to local general plans. A project may be inconsistent with the AQMP if it would generate substantial population, housing, or employment growth that exceeds forecasts used in the development of the AQMP or if the project is inconsistent with applicable AQMP control measures.

Criteria for determining consistency with the AQMP are defined in the SCAQMD CEQA Handbook, Chapter 12, Section 12.2, and Section 12.3. The two principal criteria for conformance with an AQMP are:

1. Whether the project would exceed the assumptions in the AQMP.
2. Whether the project would result in an increase in the frequency or severity of existing air quality violations, cause or contribute to new violations, or delay timeline attainment of air quality standards.

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SCAG is SCAQMD's partner in the preparation of the AQMP, providing the latest economic and demographic forecasts and developing transportation measures. Regional population, housing, and employment projects developed by SCAG are based, in part, on general plan land use designations. These projections form the foundation for the emissions inventory of the AQMP.

Criterion 1

Table 5.2-10, *Comparison of Population and Employment Forecast*, compares the population and employment growth forecast under implementation of the proposed project to the existing conditions. Table 5.2-10 shows that implementation of the proposed project would result in an increase in VMT because of population growth; however, VMT per service population would decrease from the existing conditions as well as from the current General Plan. As a result, implementation of the proposed project provides a more efficient land use than existing conditions and a more efficient land use plan that reduces VMT per resident and employee. Therefore, implementation of the proposed project would be consistent with the AQMP under the first criterion.

Table 5.2-10 Comparison of Population and Employment Forecast

Scenario	Existing (2021)	Current General Plan	Proposed General Plan	Change from Existing		Change from the Current General Plan	
				Change	%	Change	%
Population	345,999	396,110	431,340	85,341	25%	35,230	9%
Employment	213,193	266,313	274,213	61,020	29%	7,900	3%
Total Weekday OD ¹ VMT	16,572,825	19,610,078	20,298,951	3,726,126	23%	688,873	4%
OD VMT/SP ²	25.67	24.97	24.18	-1.49	-6%	-0.79	-3%

Source: Fehr and Peers 2024, Kimley-Horn and Associates 2024

Notes:

1. OD = Origin/Destination; sums all weekday VMT generated by trips with at least one trip end in the study area and tracks those trips to their estimated origins/destinations.

2. SP = Service Population; the sum of population, enrollment and employment.

Criterion 2

The SoCAB is designated nonattainment for O₃ and PM_{2.5} under the CAAQSs and NAAQSs, nonattainment for NO₂ along State Route 60 under the CAAQSs, nonattainment for PM₁₀ under the CAAQSs, and nonattainment for lead (Los Angeles County only) under the NAAQSs (CARB 2023). Because implementation of the proposed project involves long-term growth associated with buildout of the City, cumulative emissions generated from operation of individual development projects would exceed the SCAQMD regional and localized thresholds (see Impact 5.2-2 and Impact 5.2-3). Consequently, emissions generated by development projects in addition to existing sources in the City are considered to cumulatively contribute to the nonattainment designations of the SoCAB. Buildout of the proposed land use plan associated with implementation of the proposed project could contribute to an increase in frequency or severity of air quality violations and delay attainment of the AAQSs or interim emission reductions in the AQMP, and emissions generated from buildout would result in a significant air quality impact. Therefore, implementation of the proposed project would potentially be inconsistent with the AQMP.

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A primary objective of the proposed project is to accommodate the development of adequate housing to meet housing needs associated with most recent SCAG forecasts of regional growth. Operation of development under the implementation of the proposed project would generate criteria air pollutant emissions associated with area, energy, and mobile sources. Future development emissions, depending on project type and size, could exceed the SCAQMD project-specific thresholds shown in Table 5.2-6 shown in Section 5.2.2, *Thresholds of Significance*. Such projects would be required to undergo independent, project-level CEQA review and include mitigation measures, if necessary, to address potentially significant impacts. This would generally reduce air pollutant emissions for most projects, although not all, to a less-than-significant level under project thresholds.

Consistency with the 2016 AQMP and 2022 AQMP is also a function of consistency with applicable AQMP control measures. The AQMPs include specific control measures to reduce air pollutant emissions to meet NAAQSs and CAAQSs. One of the most important methods the AQMP relies on to achieve its goals is the use of transportation control measures (TCMs). TCMs are defined in the 2016 AQMP and 2022 AQMP as projects that reduce vehicle use or change traffic flow or congestion conditions for the purposes of reducing transportation emissions sources and improving air quality (SCAQMD 2017, SCAQMD 2022). TCMs include the following three main categories of transportation improvement projects and programs: (1) transit, intermodal transfer, and active transportation measures; (2) high occupancy vehicle (HOV) lanes, high occupancy toll (HOT) lanes, and their pricing alternatives; and (3) information-based transportation strategies. The TCMs included in the AQMPs are described in SCAG's RTP/SCS. TCMs for the City of Anaheim are listed in AQMP Appendix IV-C Attachment A of each AQMP and include various traffic calming, pedestrian enhancements, bicycle paths, commuter service expansions, and intelligent transportation system upgrades (ORA151509, ORA152211, ORA172202, ORA085004, ORA112622, and ORA085004).

Additionally, the various existing General Plan policies would help reduce air pollutant emissions through promoting transportation and land use design factors such as promoting public transit, alternative transportation, and carpooling that would result in VMT reductions. For example, General Plan Circulation Element Policy 2.3-5 improves regional access for City residents and workers by coordinate with neighboring jurisdictions; General Plan Circulation Element Policies 7.1-1 through 7.1-11 require the City to protect and encourage bicycle travel; General Plan Circulation Element Policies 8.1-1 through 8.1-11 encourage pedestrian travel by providing pedestrian linkages, amenities, and transit stops; and General Plan Circulation Element Policies 9.1-1 through 9.1-4 encourage carpooling and vanpooling opportunities. Additionally, General Plan Green Element Policy 8.1-1 reduces vehicle emissions through traffic flow improvements; General Plan Green Element Policies 9.1-1 through 9.1-4 encourage transportation demand measures (e.g., carpooling, alternative work schedules, bicycle and pedestrian travel, etc.); General Plan Green Element Policies 12.1-1 through 12.1-4 encourage the use of electric and alternative fuel vehicles by converting City vehicle fleets and providing a clean Resort Transit Fleet; and General Plan Growth Management Element Policy 2.1-5 promotes public transportation and alternative modes of transportation.

Implementation of the proposed project would not conflict with implementation of TCMs from the AQMPs, or otherwise lessen emissions reductions associated with these measures. Implementation of the proposed project would help reduce reliance on automobiles and increase use of alternative transportation modes. As shown in Table 5.2-10, buildout of the existing land use designations would gradually increase vehicle trips and VMT; however, per the two service population scenarios, VMT would decrease due to reduced average trip

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lengths. Implementation of the proposed project would result in a slight reduction in per capita VMT, although overall VMT would increase when compared to the existing baseline due to the forecast population increase, which relies on SCAG's growth forecasts. This would generally reduce per capita air pollutant emissions associated with vehicle use. As implementation of the proposed project would not conflict with the implementation of AQMP TCMs and would include policies to further reduce air pollutant emissions through the promotion of transportation and land use design factors, implementation of the proposed project would be consistent with the AQMP control measures. Impacts would be less than significant.

Summary

Buildout of the proposed project would be consistent with the AQMP under the first criterion. Although air pollutant emissions associated with buildout of the proposed project would cumulatively contribute to the nonattainment designations in the SoCAB, it would not conflict with the implementation of AQMP TCMs and would include policies to further reduce air pollutant emissions through the promotion of transportation and land use design factors. Therefore, impacts would be less than significant.

Level of Significance Before Mitigation: Impact 5.2-1 would be less than significant.

Mitigation Measures: No mitigation measures are required.

Impact 5.2-2: Construction activities associated with future development that would be accommodated under the proposed project could result in cumulatively considerable net increase in emissions of criteria pollutants. [Threshold AQ-2]

The proposed project does not directly propose the development of specific construction activities within the City. Instead, the proposed project involves regulatory modifications which could facilitate land development in the future. Implementation of the project would remove the obstacles and allow for growth (see section 10). Nonetheless, growth would require construction emissions and result in operation from sources that would generate air quality emissions. City-wide it is difficult to estimate these patterns of growth. However, the City-wide analysis is included below as is a project-level construction screening.

Construction Emissions

Future development under implementation of the proposed project would result in air pollutant emissions generated during construction activities. Construction emissions would occur from the burning of fossil fuels and the generation of PM through fugitive dust and fuel combustion. Construction vehicles such as hauling trucks and ground-moving machinery would contribute to temporarily increased pollutant emissions. Construction activities such as demolition, site grading, and road paving would also result in the generation of emissions.

Fugitive dust emissions may have a substantial, temporary impact on local air quality. In addition, fugitive dust may be a nuisance to those living and working in the vicinity of the individual construction site(s). Uncontrolled dust from construction can become a nuisance and potential health hazard to those living and working nearby.

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Construction activities associated with future development would occur in incremental phases over time based upon numerous factors, including market demand and economic and planning considerations. Construction activities could include grading, demolition, excavation, cut-and-fill, paving, building construction, and application of architectural coatings. In addition, construction worker vehicle trips, building material deliveries, soil hauling, etc. would occur during construction. Construction-related emissions are typically site-specific and depend upon multiple variables. Quantifying individual future developments' air emissions from short-term, temporary construction-related activities is not possible due to project-level variability and uncertainties concerning detailed site plans, construction schedules/duration, equipment requirements, etc., among other factors, which are presently unknown. Since these parameters can vary widely, and individual project-related construction activities would occur over time which is dependent upon numerous factors, quantifying precise construction-related emissions and impacts would be impractical and speculative. City-wide construction could overlap and occur simultaneously at variety of project sites. Table 5.2-11, *2045 Proposed General Plan Update Construction Emissions*, presents the emissions of criteria air pollutants for City-wide construction in 2045. The construction emissions inventory is based on the City's proportion of Orange County CARB OFFROAD2021 Emissions Inventory for 2045. This would only include equipment registered in the City, not registered in neighboring cities and used within City boundaries (or vice versa). Therefore, this is a conservative worst-case estimate.

Table 5.2-11 2045 Proposed General Plan Update Construction Emissions

Source	Criteria Pollutant (pounds per day)					
	ROG	NO _x	CO	SO _x	PM10	PM2.5
Construction						
2045 Emissions	1,237	1,429	25,720	56	72	57

Source: CARB OFFROAD2021. See Appendix H for model outputs.

Compared to baseline construction emissions (Table 5.2-5 above) criteria pollutants such as ROG, NO_x, PM10, and PM2.5 would decrease as construction equipment fleets became cleaner. CO and SO_x would remain consistent (increase proportionally with increased growth) due to lack of technology readily commercially available for those pollutants. Depending on how development proceeds, construction-related emissions associated with future individual development could exceed SCAQMD thresholds of significance.

Project-Level Screening Analysis – Construction

To provide a reference of the types of air quality emissions associated with representative individual construction activities, a hypothetical scenario was modeled for a development that could occur under implementation of the proposed project. Modeling was conducted for construction of the development scenario.

The construction emission estimates were based on a construction scenario and do not assume overlapping construction phases. Default construction equipment was included in CalEEMod. It is also noted that these construction phases are considered a reasonable assumption of the development that could occur at any given

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time in the future. Table 5.2-12 *Forecasted Construction Emissions*, presents the estimated daily short-term construction emissions for the scenario modeled as 2025 construction activity, without application of the Standard Conditions of Approval to provide a conservative analysis. For the modeled scenario included in Table 5.2-12, emissions would result from on-site demolition, grading, building construction, paving, and architectural coating associated with the individual developments. With the assumptions modeled in 5.2-9 including maximum number of equipment per day, the following construction phase would remain below SCAQMD thresholds for criteria pollutants.

Table 5.2-12 Forecasted Construction Emissions

Construction Phase	Criteria Pollutant (pounds per day)					
	ROG	NO _x	CO	SO _x	PM10	PM2.5
Demolition						
Output	10.52	98.89	98.26	0.17	7.91	4.40
SCAQMD Threshold	75	100	550	150	150	55
Exceed Threshold?	No	No	No	No	No	No
Grading						
Output	10.32	99.42	97.04	0.18	56.04	28.53
SCAQMD Threshold	75	100	550	150	150	55
Exceed Threshold?	No	No	No	No	No	No
Building Construction						
Output	11.14	99.69	108.31	0.23	5.06	3.82
SCAQMD Threshold	75	100	550	150	150	55
Exceed Threshold?	No	No	No	No	No	No
Paving						
Output	11.31	99.19	149.58	0.20	7.88	4.78
SCAQMD Threshold	75	100	550	150	150	55
Exceed Threshold?	No	No	No	No	No	No
Architectural Coating						
Output	56.14	97.05	125.38	0.19	3.02	2.78
SCAQMD Threshold	75	100	550	150	150	55
Exceed Threshold?	No	No	No	No	No	No

Source: CalEEMod version 2022.1.1.28. See Appendix H for model outputs.

The emissions assume compliance with SCAQMD Rule 403, which would reduce fugitive dust emissions generated at future construction sites by requiring dust abatement measures. Rule 403 is required for all development projects and stipulates that excessive fugitive dust emissions shall be controlled by regular watering or other dust prevention measures. In addition, SCAQMD Rule 402 is required for implementation of dust suppression techniques to prevent fugitive dust from creating an off-site nuisance and stipulates that implementation of such techniques would reduce short-term fugitive dust impacts on nearby sensitive receptors. Future development would similarly be subject to compliance with SCAQMD Rules 1113 and 1143, which concern architectural coatings and reducing VOCs in consumer paint thinners and multi-purpose solvents, respectively. Emissions would not violate the SCAQMD thresholds under any of the construction phases modeled.

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The timing and implementation of future development projects under implementation of the proposed project would depend on market conditions and individual property owner decisions, with all developments subject to the City's review process. This analysis ensures that each future development project incorporates appropriate air quality improvement measures. Future development under implementation of the proposed project would be subject to the City's development review process and would occur as market conditions allow and at the discretion of the individual property owners. This means that any future development on housing sites would be required to incorporate additional measures related to improving air quality (both directly and indirectly). Standard condition SC AQ-1 through SC AQ-6 would also minimize construction emissions and associated impacts. For example, standard condition SC AQ-1 requires future development projects not exempt from CEQA to analyze construction emissions and identify feasible mitigation to reduce potentially significant impacts. Standard conditions SC AQ-2 requires fugitive dust control measures, while standard condition SC AQ-3 requires a clean equipment fleet that uses the Best Available Control Technology. Standard condition SC AQ-4 requires additional measures to minimize emissions, such as requiring lower-emissions haul trucks, idling limits, and other best practices. Furthermore, standard condition SC AQ-5 includes measures to reduce cumulative construction impacts and standard condition SC AQ-6 requires the use of low VOC paints and architectural coatings. As noted above, SCAQMD Rules 402 and 403 (e.g., prohibition of nuisances, watering of inactive and perimeter areas, track out requirements, etc.) would be applied to future developments on a project-by-project basis to minimize those potential negative air quality effects.

While individual projects under implementation of the proposed project may not exceed the SCAQMD regional significance thresholds, the likely scale and extent of the combined construction activities associated with the future development project under the proposed project would likely exceed the relevant SCAQMD thresholds. Overall, construction-related regional air quality impacts of developments that would be accommodated by implementation of the proposed project would be potentially significant at the programmatic level.

Level of Significance Before Mitigation: Impact 5.2-2 would be potentially significant.

Mitigation Measures: Refer to standard conditions SC AQ-1 through SC AQ-6.

Impact 5.2-3: Operational activities associated with future development accommodated under the proposed project could result in cumulatively considerable net increase in emissions of criteria pollutants. [Threshold AQ-2]

The proposed project does not directly propose specific development projects within the City. Instead, the proposed project involves regulatory modifications which could facilitate land development in the future.

Operational Emissions

As described above, operations of future development projects under implementation of the proposed project would result in emissions of area sources (e.g., consumer products, architectural coating, and landscape equipment), energy sources (i.e., natural gas usage for space and water heating and cooking), and mobile sources (i.e., motor vehicles from vehicle trips generated by implementation of the proposed project). Although no

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specific development projects are proposed at this time, future development operational emissions would be associated with area sources, energy sources, and mobile sources.

In analyzing cumulative impacts for development under implementation of the proposed project, an analysis must specifically evaluate a development's contribution to the cumulative increase in pollutants for which the CARB is designated as nonattainment for the CAAQSs and NAAQSs. The SoCAB is designated as a federal nonattainment area for O₃, and PM_{2.5}. The SoCAB is designated as a state nonattainment area for O₃, PM_{2.5}, and PM₁₀. The nonattainment status is the result of cumulative emissions from all sources of these air pollutants and their precursors within the SoCAB. The nonattainment status of these and other criteria pollutants are presented in Table 5.2-2. Future development would be required to demonstrate that VOC, NO_x, CO, SO₂, PM₁₀, and PM_{2.5} emissions would be below the significance thresholds for both construction and operational activities. Table 5.2-13, *2045 Proposed General Plan Update Buildout Emissions*, presents the criteria air pollutant emissions for City-wide operational in 2045.

Table 5.2-13 2045 Proposed General Plan Update Buildout Emissions

Source	Criteria Pollutant (pounds per day)					
	ROG	NO _x	CO	SO _x	PM ₁₀	PM _{2.5}
Existing						
Area	33,287	1,975	39,482	56	4,091	4,089
Energy	105	1,842	1,108	12	145	145
Mobile	7,813	7,214	66,246	138	11,838	3,071
Total Emissions	41,205	11,031	106,836	206	16,074	7,305
Operations						
Area	35,372	3,668	43,962	67	4,229	4,226
Energy	129	2,287	1,487	14	179	179
Mobile	5,001	3,076	42,148	122	14,399	3,681
Total Emissions	40,502	9,031	87,597	203	18,807	8,086
Net	703	-2,000	-19,239	-3	2,733	781

Note: CalEEMod version 2022.1.1.28. See Appendix I for model outputs.

Project-Level Screening Analysis – Operation

In order to provide screening for some future projects, emissions associated with individual development projects were analyzed and compared to established project-level SCAQMD thresholds. Specific data for the types and amounts of future development were entered into CalEEMod to determine the pollutant emissions anticipated for each development scenario. This data includes dwelling units, nonresidential land use square-

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footage, and VMT. Where project-specific data was not available, CalEEMod defaults were used. All three scenarios were modelled for operation.

Mobile and stationary source operational emissions would result from normal daily activities at each respective development site after occupancy (i.e., increased concentrations of O₃, PM₁₀, and CO). Mobile source emissions would be generated by the motor vehicles traveling to and from their respective sites. Stationary area source emissions would be generated by natural gas consumption for space and water heating devices, landscape maintenance equipment operations, and use of consumer products. Stationary energy emissions would result from energy consumption associated with the future development. The operational emissions associated with each of these sources are presented in Table 5.2-14, *Forecasted Operational Emissions*.

Table 5.2-14 Forecasted Operational Emissions

Operational Phase (2045)	Criteria Pollutant (pounds per day)					
	ROG	NO _x	CO	SO _x	PM ₁₀	PM _{2.5}
Multi-family residential (500 units), Single-family residential (10 units), Commercial (15,000 square feet)						
Area	14.53	<1.00	29.73	<1.00	<1.00	<1.00
Energy	<1.00	1.52	<1.00	<1.00	<1.00	<1.00
Mobile	6.36	3.98	55.32	<1.00	19.09	4.88
Total Emissions	20.98	5.77	85.71	<1.00	19.22	5.01
SCAQMD Threshold	55	55	550	150	150	55
Exceed Threshold?	No	No	No	No	No	No
Multi-family residential (250 units), Commercial (10,000 square feet)						
Area	7.09	<1.00	14.69	<1.00	<1.00	<1.00
Energy	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
Mobile	3.36	2.10	29.13	<1.00	10.05	<1.00
Total Emissions	10.49	2.94	44.13	<1.00	10.12	2.64
SCAQMD Threshold	55	55	550	150	150	55
Exceed Threshold?	No	No	No	No	No	No
Multi-family-residential (100 units), Townhome/Condo (200 units), Commercial (5,000 square feet)						
Area	8.75	<1.00	17.32	<1.00	<1.00	<1.00
Energy	<1.00	1.50	<1.00	<1.00	<1.00	<1.00
Mobile	4.15	2.60	36.25	<1.00	12.53	3.20
Total Emissions	12.99	4.26	54.21	<1.00	12.77	3.33
SCAQMD Threshold	55	55	550	150	150	55
Exceed Threshold?	No	No	No	No	No	No

Source: CalEEMod version 2022.1.1.28. See Appendix H for model outputs.

As identified in Table 5.2-14, the operational emissions for the three modeled scenarios would not exceed the SCAQMD's daily emissions thresholds. Therefore, operations of individual development projects with the same or less development intensity as these scenarios would not result in substantial pollutant contributions.

It is important to note that the SCAQMD significance thresholds do not distinguish between project-level EIRs and program-level EIRs; therefore, the application of the SCAQMD thresholds to the proposed project within

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a programmatic EIR is highly conservative. Future development under implementation of the proposed project would occur as market conditions and economic factors allow and would be required to comply with the established thresholds of significance (Table 5.2-6). Additionally, future development would be required to analyze potential conflicts in development with SCAQMD LSTs. The LSTs represent the maximum emissions that can be generated through the development and operation of a project without expecting to cause or substantially contribute to an exceedance of the most stringent NAAQSs or CAAQSs. Nonetheless, future development on housing sites under implementation of the proposed project may result in a cumulatively considerable net increase of a nonattainment criteria pollutant under an applicable NAAQS or CAAQS.

As addressed under Section 5.2.1.1, *Regulatory Background*, the City employs goals and policies related to air quality that would help reduce the long-term operational emissions associated with implementation of the proposed project. For example, General Plan Circulation Element Policy 2.3-5 improves regional access for City residents and workers by coordinate with neighboring jurisdictions; General Plan Circulation Element Policies 7.1-1 through 7.1-11 require the City to protect and encourage bicycle travel; and General Plan Circulation Element Policies 8.1-1 through 8.1-11 encourage pedestrian travel by providing pedestrian linkages, amenities, and transit stops. Additionally, General Plan Circulation Element Policies 9.1-1 through 9.1-4 encourage carpooling and vanpooling opportunities. General Plan Green Element Goals 8.1, 9.1, and 12.1 include several policies to reduce vehicle emissions. Specifically, General Plan Green Element Policy 8.1-1 reduces vehicle emissions through traffic flow improvements, Green Element Policy 8.1-2 reduces construction emissions, General Plan Green Element Policies 9.1-1 through 9.1-4 encourage transportation demand measures (e.g., carpooling, alternative work schedules, bicycle and pedestrian travel, etc.), and General Plan Green Element Policies 12.1-1 through 12.1-4 encourage the use of electric and alternative fuel vehicles by converting City vehicle fleets and providing a clean Resort Transit Fleet. Additionally, General Plan Growth Management Element Policy 2.1-5 promotes public transportation and alternative modes of transportation.

Standard condition SC AQ-7 would require air quality analysis and appropriate mitigation for projects that exceed screening criteria for operational emissions. The standard condition would generally reduce emissions of future development projects under implementation of the proposed project to less than significant levels. In addition, mobile emissions would gradually decline in the future with the expansion of electric vehicle infrastructure. However, due to the unknown nature of development activities under implementation of the proposed project, operational emissions from implementation of the proposed project could exceed the SCAQMD's regional significance thresholds with implementation of appropriate project-specific mitigation. In the absence of detailed information regarding the specific development proposed, it is not possible to preclude the possibility that operation would result in the cumulatively considerable net increase of any criteria pollutants. At a programmatic level of analysis, there are no feasible mitigation measures to reduce long-term emissions to levels below the SCAQMD's thresholds of significance. Therefore, a significant and unavoidable impact would occur.

Level of Significance Before Mitigation: Impact 5.2-3 would be potentially significant.

Mitigation Measures: Refer to standard condition SC AQ-7.

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Impact 5.2-4: The proposed project would expose sensitive receptors to substantial toxic air contaminant concentrations. [Threshold AQ-3]

Localized Pollutant Concentrations

As the specific details (e.g., size, construction phasing, equipment, earthwork volumes, etc.) for individual future residential projects are unknown at this time, project-level analysis for localized pollutant concentrations impacts cannot be accurately determined using SCAQMD's LST analysis methodology. LSTs were developed in response to SCAQMD Governing Boards' Environmental Justice Enhancement Initiative (I-4). The SCAQMD provided the Final Localized Significance Threshold Methodology (dated June 2003 [revised July 2008]) for guidance. The LST methodology assists lead agencies in analyzing localized impacts associated with project-specific level proposed projects and are not applicable to regional projects such as general plans or other long-term planning documents. The SCAQMD provides the LST lookup tables based on distance from the project (meters) for one-, two-, and five-acre projects emitting CO, NO_x, PM₁₀, or PM_{2.5}. The LST methodology and associated mass rates are not designed to evaluate localized impacts from mobile sources traveling over the roadways. The SCAQMD recommends that any project over five acres perform air quality dispersion modeling to assess impacts to nearby sensitive receptors. The City is located within SRA 17, Central Orange County.

As previously described, LSTs are applicable at the project-specific level and are not applicable to long-term planning documents such as a general plan. Depending on the size and location of each individual future development, construction and operational emissions could exceed LSTs. Future development projects' compliance with existing General Plan policies pertaining to air quality, City of Anaheim standard conditions, SCAQMD rules and regulations, and supplemental mitigation measures (if required) would reduce air pollutant emissions. However, the potential emissions reductions from implementation of these measures cannot be quantified because specific details such as individual project size, construction scheduling, and earthwork quantities that would occur within the City is not available. Therefore, it is not feasible to conclude that air pollutant emissions from future development projects would be reduced to levels below the SCAQMD LST thresholds. Therefore, localized air quality impacts would be significant and unavoidable.

Toxic Air Contaminants

One of the highest public health priorities is the reduction of DPM generated by vehicles on California's freeways and highways, as it is one of the primary TACs with the most direct and common implications for respiratory health problems. Per CARB criteria, heavily traveled roadways where average daily traffic (ADT) volumes exceed 100,000 vehicles can be sources of DPM from diesel-fueled engines (e.g., heavy-duty trucks). As discussed above, the proposed project does not propose any development; however, it would facilitate future development. Future development under the implementation of the proposed project is evaluated at a programmatic level, as discussed above. Future development projects will vary regarding construction intensity, duration, and location, and impacts of air quality will vary as well.

As described above, the SCAQMD's MATES V data show that carcinogenic risk from air toxics in the SoCAB, is approximately 40 percent lower than the monitored average in MATES IV and 84 percent lower than the average in MATES II (SCAQMD 2021a). MATES V cancer risk levels at the 1630 West Pampas Lane

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monitoring station show an excess cancer risk of 582 in one million in the City (SCAQMD 2024). DPM is included in this cancer risk along with all other TAC sources. DPM accounts for approximately 41.8 percent of the total risk.

Construction Health Risk

Exhaust from diesel engines contains a mixture of gases and solid particles. These solid particles are known as DPM. DPM contains hundreds of different chemicals, many of which are harmful to human health. The amount to which the receptors are exposed (a function of concentration and duration of exposure) is the primary factor used to determine health risk (i.e., potential exposure to TAC emission levels that exceed applicable standards). Health-related risks associated with diesel-exhaust emissions are primarily linked to long-term exposure and the associated risk of contracting cancer. The use of diesel-powered construction equipment would be episodic and would occur throughout the project sites of individual future development projects under implementation of the proposed project.

The specific locations, amount of heavy equipment use, and duration of construction activity resulting from implementation of the proposed project are not currently known. Future development projects would be subject to various regulations to minimize construction exhaust. For example, in accordance with California Off-Road Diesel-Fueled Fleet Regulations, equipment operators shall be registered using the Diesel Off-Road Online Reporting System (DOORS), and diesel-powered construction equipment with 25 horsepower or greater engines shall meet exhaust PM and NO_x emissions standards. Additionally, Section 2485 and Section 2449 of Title 13 of the CCR limits diesel-fueled motor vehicle idling to no more than five minutes. Section 2449 limits idling for off-road diesel-fueled fleets. Section 2485 limits idling for diesel-fueled commercial motor vehicles with GVWRs of greater than 10,000 pounds that are or must be licensed to operate on publicly maintained highways and streets within California. Construction under implementation of the proposed project is subject to and would comply with California regulations limiting equipment exhaust and limiting heavy-duty construction equipment idling to no more than five minutes, which would further reduce potential diesel exhaust emissions from construction. Additionally, entitlements for large projects are typically subject to discretionary approvals, and subsequent air quality analysis is required pursuant to CEQA to demonstrate that projects would not result in air quality impacts at nearby receptors.

As noted above, construction activities would limit idling to no more than five minutes, which would further reduce nearby sensitive receptors' exposure to temporary and variable DPM emissions. Furthermore, even during the most intense period of construction, emissions of DPM would be generated from different locations on the project site rather than in a single location because different types of construction activities (e.g., site preparation and building construction) would not occur at the same place at the same time. However, construction health risk would result in a potentially significant impact.

Industrial Land Uses

Warehousing or industrial operations generate substantial DPM emissions from off-road equipment use, truck idling, and/or use of transport refrigeration units for cold storage. Implementation of the General Plan Update would accommodate approximately 22,885,948 square-feet of additional industrial or warehousing developments that could generate new sources of TACs.

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However, due to the programmatic level of this analysis the specific location or types of projects and timing are unknown. General Plan Land Use Element Policy 12.1-2 encourages the on-going transition of heavy industrial uses to “cleaner” light industrial uses pursuant to the Zoning Code and General Plan land use designations. Additionally, development of future sensitive receptors within 1,000 feet of industrial sources or the development of industrial sources within 1,000 feet of sensitive receptors would require a more detailed site-specific analysis of TAC impacts, as required by standard condition SC AQ-9. Implementation of General Plan Land Use Element Policy 12.1-2 and standard condition SC AQ-9 would reduce localized impacts from existing and future development in the City. In addition, per SCAQMD Rule 1401 applicable land uses would be required to obtain a permit and install best available control technology. Therefore, air toxic impacts could result in a less than significant impact.

Permitted Stationary Sources

Various industrial and commercial processes (e.g., manufacturing, dry cleaning) allowed under the proposed land use plan would be expected to release TACs. Industrial land uses, such as chemical processing facilities, chrome-plating facilities, dry cleaners, and gasoline-dispensing facilities have the potential to be substantial stationary sources that would require a permit from SCAQMD. Emissions of TACs would be controlled by SCAQMD through permitting and would be subject to further study and HRAs prior to the issuance of any necessary air quality permits under SCAQMD Rule 1401, which would ensure less than significant impacts.

Level of Significance Before Mitigation: Impact 5.2-4 would be potentially significant.

Mitigation Measures: Refer to standard conditions SC AQ-8 and SC AQ-9.

Impact 5.2-5:	Implementation of the proposed project would not result in other emissions (such as those leading to odors) adversely affecting a substantial number of people. [Threshold AQ-4]
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Construction

Future development under implementation of the proposed project could result in odors from construction equipment, such as diesel exhaust, and VOCs from architectural coatings and paving activities. SCAQMD Rule 402 (Nuisance) states: “A person shall not discharge from any source whatsoever such quantities of air contaminants or other material which cause injury, detriment, nuisance, or annoyance to any considerable number of persons or to the public, or which endanger the comfort, repose, health, or safety of any such persons or the public, or which cause, or have a natural tendency to cause, injury or damage to business or property.”

Additionally, SCAQMD Rule 1113 limits the allowable amount of VOCs from architectural coatings and solvents. These odors are a temporary short-term impact that is typical of construction projects and would disperse rapidly. Since compliance with SCAQMD Rules governing these compounds is mandatory, no construction activities or materials are proposed that would create objectionable odors adversely affecting a substantial number of people. Therefore, no significant impact would occur, and no mitigation is required.

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Operations

Although offensive odors rarely cause physical harm, they can be unpleasant and generate citizen complaints. SCAQMD Rule 402 (Nuisance) places general limitations on nuisances including odors. These limitations are based on complaints and enforced by the local air pollution control officer. The SCAQMD CEQA Air Quality Handbook identifies certain land uses as sources of odors. These land uses include agriculture (farming and livestock), wastewater treatment plants, food processing plants, chemical plants, composting facilities, refineries, landfills, dairies, and fiberglass molding. The proposed project would not include any of the land uses that have been identified by the SCAQMD as odor sources. Therefore, implementation of the proposed project would not create objectionable odors, and a less than significant impact would occur.

Level of Significance Before Mitigation: Impact 5.2-5 would be less than significant.

Mitigation Measures: No mitigation measures are required.

5.2.5 Cumulative Impacts

Conflict with Applicable Air Quality Plan

Implementation of the proposed project does not encourage or promote growth beyond the SCAG forecasts of regional growth. Additionally, implementation of the proposed project would not conflict with the implementation of AQMP TCMs and would include policies to further reduce air pollutant emissions through the promotion of transportation and land use design factors. Therefore, implementation of the proposed project would not conflict with the growth assumptions used in the development of the AQMP. Like direct air quality impacts, cumulative air quality impacts would be less than significant.

Increase of Criteria Pollutants

Cumulative development could violate an air quality standard or contribute to an existing or projected air quality violation because the SoCAB is currently in nonattainment for O₃, PM₁₀, and PM_{2.5}. Regarding daily emissions and the cumulative net increase of any criteria pollutant for which the region is in nonattainment, implementation of the proposed project would result in a cumulatively considerable increase to nonattainment of O₃, PM₁₀, and PM_{2.5} standards in the SoCAB. Regarding the contribution from implementation of the proposed project, the SCAQMD has recommended methods to determine the cumulative significance of new land use projects. The SCAQMD methods are based on performance standards and emission reduction targets necessary to attain NAAQSs and CAAQSs as predicted in the AQMP. Because no information on individual projects is currently available, cumulative construction and operational emissions cannot be accurately quantified. Therefore, the contribution of daily construction and operational emissions from implementation of the proposed project is considered cumulatively significant and unavoidable.

Exposure of Sensitive Receptors to Substantial Pollutant Concentrations

Cumulative development has the potential to expose sensitive receptors to substantial pollutant concentrations. However, future projects under implementation of the proposed project would be subject to regulations regarding emissions in effect at the time of entitlement application for future development projects. Current

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models and methodologies for conducting health risk assessments are associated with longer-term exposure periods of 9, 30, and 70 years, which do not correlate well with the temporary and highly variable nature of construction activities. Furthermore, SCAQMD's MATES V shows that carcinogenic risk from air toxics in the SoCAB, based on the average concentrations at the 10 monitoring sites, is approximately 40 percent lower than the monitored average in MATES IV and 84 percent lower than the average in MATES II (SCAQMD 2021b). The results of SCAQMD's ongoing research in air toxics shows that risk levels are decreasing despite development and vehicle traffic growth. This trend is expected to continue with the implementation of the various statewide policies focused on reducing mobile source emissions.

Furthermore, for future development projects subject to discretionary review, compliance with the City's applicable standard conditions would be confirmed through the discretionary review process. Additionally, future development projects subject to a ministerial "by right" site plan review process would also be required to implement existing and proposed standard conditions pertaining to air quality. Therefore, implementation of the proposed project would result in a less-than-significant cumulative impact associated with the exposure of sensitive receptors to substantial pollutant concentrations. However, as no information on individual projects is currently available, cumulative construction and operational health risk cannot be accurately quantified. Therefore, the contribution of construction and operational health risk from implementation of the proposed project is considered cumulatively significant and unavoidable.

Objectionable Odors

Current projects anticipated for construction under implementation of the proposed project involve residential developments. Odors resulting from the construction of projects under implementation of the proposed project are not likely to affect a substantial number of people, given that construction activities are localized, and odors would cease upon completion of construction. Other odor impacts resulting from these projects are also not expected to affect a substantial amount of people, as solid waste from these projects would be stored in areas and in containers as required by the City. Therefore, construction and operation activities associated with implementation of the proposed project would result in a less than significant cumulative impact related to objectionable odors affecting a substantial number of people.

Level of Significance Before Mitigation: Cumulative impacts would be potentially significant.

Mitigation Measures: Refer to standard conditions SC AQ-1 through SC AQ-9.

Level of Significance After Mitigation: Cumulative impacts would be significant and unavoidable.

5.2.6 Level of Significance Before Mitigation

Upon implementation of regulatory requirements, General Plan goals and policies, and standard conditions of approval, Impact 5.2-1 would have a less than significant impact.

Without mitigation, these impacts would be potentially significant:

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- **Impact 5.2-2:** Construction associated with future development that would be accommodated under the proposed project could generate short-term emissions in exceedance of the SCAQMD's threshold criteria.
- **Impact 5.2-3:** Operations associated with future development that would be accommodated under the proposed project could generate long-term emissions in exceedance of the SCAQMD's threshold criteria.
- **Impact 5.2-4:** Localized construction and operational emissions associated with future development that would be accommodated under the proposed project could exceed the SCAQMD's LST thresholds.

5.2.7 Mitigation Measures

At a programmatic level of analysis, there are no feasible mitigation measures beyond the standard conditions that would reduce air quality impacts.

5.2.8 Level of Significance After Mitigation

Impact 5.2-2

Buildout of the proposed project would generate short-term construction emissions that would exceed SCAQMD's regional significance thresholds and cumulatively contribute to the nonattainment designations of the SoCAB. Implementation of standard conditions SC AQ-1 through SC AQ-6 and the General Plan goals and policies would reduce construction-related air pollutant emissions to the extent feasible. However, individual projects under implementation of the proposed project may exceed the SCAQMD regional significance thresholds. Therefore, construction-related regional air quality impacts of developments that would be accommodated by implementation of the proposed project under Impact 5.2-2 would remain significant and unavoidable.

Impact 5.2-3

General Plan buildout would generate operational emissions that would exceed SCAQMD's regional significance thresholds and cumulatively contribute to the nonattainment designations of the SoCAB. Standard condition SC AQ-7, in addition to the General Plan goals and policies, would reduce air pollutant emissions to the extent feasible. The conditions and policies covering topics such as expansion of the pedestrian and bicycle networks, promotion of public and active transit, and support to increase building energy efficiency and energy conservation would also reduce criteria air pollutants within the City. However, Impact 5.2-3 would remain significant and unavoidable due to the magnitude of the overall land use development associated with the implementation of the proposed project. Impact 5.2-3 would remain significant and unavoidable.

Criteria Pollutant Health Effects

Contributing to the nonattainment status would also contribute to elevating health effects associated to these criteria air pollutants. Known health effects related to O₃ include worsening of bronchitis, asthma, emphysema,

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and a decrease in lung function. Health effects associated with PM include premature death of people with heart or lung disease, nonfatal heart attacks, irregular heartbeat, decreased lung function, and increased respiratory symptoms. Reducing emissions would further contribute to reducing possible health effects related to criteria air pollutants.

It is speculative to determine how exceedance of regional thresholds due to implementation of the Focused General Plan Update, a broad-based policy plan, would affect the number of days the SoCAB is in nonattainment since mass emissions are not correlated with concentrations of emissions, or how many additional individuals in the SoCAB would be affected by the health effects cited above. This Draft PEIR quantifies the increase in criteria air pollutants emissions in the City. However, at a programmatic level analysis, it is not feasible to quantify the increase in TACs from stationary sources associated with implementation of the proposed project or meaningfully correlate how regional criteria air pollutant emissions above the SCAQMD significance thresholds correlate with basin-wide health impacts.

To determine cancer and noncancer health risk, the location, velocity of emissions, meteorology and topography of the area, and locations of receptors are equally important model parameters as the quantity of TAC emissions. The Association of Environmental Professionals (AEP) white paper titled “We Can Model Regional Emissions, But Are the Results Meaningful for CEQA?” describe several of the challenges of quantifying local effects, particularly health risks, for large-scale, regional projects; these challenges are applicable to both criteria air pollutants and TACs (AEP 2020). The following summarizes major points about the infeasibility of assessing health risks of criteria air pollutant emissions and TACs associated with implementation of a general plan.

To achieve and maintain NAAQSs and CAAQSs, the SCAQMD has established numerical emission indicators of significance for regional and localized air quality impacts for both construction and operational phases of a local plan or project. The SCAQMD has established the thresholds based on “scientific and factual data that is contained in the federal and state Clean Air Acts” and recommends “that these thresholds be used by lead agencies in making a determination of significance.” The numerical emission indicators are based on the recognition that the SoCAB is a distinct geographic area with a critical air pollution problem for which AAQSs have been promulgated to protect public health. The thresholds represent the maximum emissions from a plan or project that are expected not to cause or contribute to an exceedance of the most stringent applicable national or state AAQSs. By analyzing the plan’s emissions against the thresholds, an EIR assesses whether these emissions directly contribute to any regional or local exceedances of the applicable NAAQSs and CAAQSs.

SCAQMD currently does not have methodologies that would provide the City with a consistent, reliable, and meaningful analysis to correlate specific health impacts that may result from implementation of a proposed project’s mass emissions.² For criteria air pollutants, exceedance of the regional significance thresholds cannot

² In April 2019, the Sacramento Metropolitan Air Quality Management District (SMAQMD) published an Interim Recommendation on implementing *Sierra Club v. County of Fresno* (2018) 6 Cal.5th 502 (“Friant Ranch”) in the review and analysis of proposed projects under CEQA in Sacramento County. The SMAQMD guidance confirms the absence of an acceptable or reliable quantitative methodology that would correlate the expected criteria air pollutant emissions of projects to likely health consequences for people from project-generated criteria air pollutant emissions. The SMAQMD guidance explains that while it is in the process of developing a methodology to assess these impacts, lead agencies should follow the Friant Court’s advice to explain in meaningful detail why this

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be used to correlate a project to quantifiable health impacts unless emissions are sufficiently high to use a regional model. SCAQMD has not provided methodology to assess the specific correlation between mass emissions generated and their effect on health.

Ozone concentrations depend on a variety of complex factors, including the presence of sunlight and precursor pollutants, natural topography, nearby structures that cause building downwash, atmospheric stability, and wind patterns. Secondary formation of PM and O₃ can occur far from sources due to wind and topography (e.g., low-level jet stream). Photochemical modeling depends on all emission sources in the entire domain (i.e., modeling grid). Low resolution and spatial averaging produce “noise” and modeling errors that usually exceed individual source contributions. Because of the complexities of predicting ground-level O₃ concentrations in relation to the NAAQSs and CAAQSs, it is not possible to link health risks to the magnitude of emissions exceeding the significance thresholds.

Current models used in CEQA air quality analyses are designed to estimate potential project construction and operation emissions for defined projects. The estimated emissions are compared to significance thresholds, which are keyed to reducing emissions to levels that will not interfere with the region’s ability to attain the health-based NAAQSs and CAAQSs. This serves to protect public health in the overall region, but there is currently no CEQA methodology to determine the impact of emissions (e.g., pounds per day) on future concentration levels (e.g., parts per million or micrograms per cubic meter) in specific geographic areas. CEQA thresholds, therefore, are not specifically tied to potential health outcomes in the region.

The EIR prepared for a local general plan must provide an analysis that is understandable for decision making and public disclosure. Regional-scale modeling may provide a technical method for this type of analysis, but it does not necessarily provide a meaningful way to connect the magnitude of a project’s criteria pollutant emissions to health effects without speculation. Additionally, this type of analysis is not feasible at a general plan level because the locations of emissions sources and quantities of emissions are not known. However, because cumulative development within the City would exceed the regional significance thresholds, implementation of the proposed project could contribute to an increase in health effects in the SoCAB until the attainment standards are met in the SoCAB.

Impact 5.2-4

Localized Pollutant Concentrations

Standard conditions SC AQ-8 and SC AQ-9 would reduce the regional construction and operation emissions associated with buildout of the proposed project and therefore would also result in a reduction of localized construction- and operation-related criteria air pollutant emissions to the extent feasible. However, because existing sensitive receptors may be near construction activities and large emitters of on-site operation-related criteria air pollutant emissions generated by individual development projects accommodated by the proposed project, construction and operation emissions generated by such projects have the potential to exceed SCAQMD’s LSTs. Impact 5.2-4 would remain significant and unavoidable.

analysis is not yet feasible. Since this interim memorandum SMAQMD has provided methodology to address health impacts. However, a similar analysis is not available for projects within the SCAQMD region.

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Health Risk

Standard conditions SC AQ-8 and SC AQ-9 would also reduce the construction and operation health risk associated with buildout of the proposed project and therefore would also result in a reduction of health risks to the extent feasible. However, because existing sensitive receptors may be near construction activities and large emitters of on-site operation-related health risk generated by individual development projects accommodated by the proposed project, construction and operation health risk generated by such projects have the potential to exceed SCAQMD's health risk thresholds. Impact 5.2-4 would remain significant and unavoidable.

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5.3 BIOLOGICAL RESOURCES

This section of the Draft Program Environmental Impact Report (Draft PEIR) discusses the potential impacts to biological resources from implementation of the City of Anaheim's General Plan Focused Update (proposed project) and consistency with policies and programs related to biological resources.

The information in this section is based on the following technical report.

- *City of Anaheim: General Plan Focused Update Biological Resources Assessment*, First Carbon Solutions, December, 2024 (Appendix I)

One comment was received during the scoping period for the proposed project, which has been incorporated into the proposed project, that is related to biological resources (see Appendix A). The comment recommended that the proposed project maintain consistency with adopted natural community conservation plan/habitat conservation plan and that the EIR provide a list of flora and fauna and discuss impacts on biological resources. No comments were received during the scoping period for the Center City Corridors Specific Plan (C3SP), which has been incorporated into the proposed project as the Center City Corridors Implementation Plan (C3 Plan) that are related to biological resources (refer to Appendix B).

5.3.1 Environmental Setting

5.3.1.1 REGULATORY BACKGROUND

Federal and State

Endangered Species Act

The United States Fish and Wildlife Service (USFWS) has jurisdiction over species listed as threatened or endangered under the Endangered Species Act. Section 9 of the Endangered Species Act protects listed species from "take," which is broadly defined as actions taken to "harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or attempt to engage in any such conduct." The Endangered Species Act protects threatened and endangered plants and animals and their critical habitat. Candidate species are those proposed for listing; these species are usually treated by resource agencies as if they were actually listed during the environmental review process.

A proposed project may acquire permission to "take" listed and candidate species through implementation of sections of the Endangered Species Act. If the proposed project is funded by, authorized by, or otherwise involves a federal agency, Section 7 requires those agencies to consult with the USFWS to ensure that the project does not jeopardize the future existence of any listed species. The consultation results in either a concurrence letter from USFWS stating that the proposed action does not jeopardize the species, or a Biological Opinion issued by USFWS that includes a defined limit of "take" of listed species that is authorized for the action. When there is no federal nexus to pursue Section 7 permissions, USFWS may authorize "take" of listed species through Section 10, which allows private land owners, corporations, Native American Tribes, States, cities, and counties to implement projects that could affect listed species. Under this

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process, the project proponent seeks “take” permissions through completing and submitting for approval a Habitat Conservation Plan (HCP) approved by the USFWS. The HCP defines the project and potential for “take” of species, and outlines measures to mitigate or compensate for impacts that would occur during implementation of the project. Often a draft Implementing Agreement (IA) is included with the permit application for larger HCPs, such as a regional plan. An IA is a contract that describes the roles and responsibilities of the permit holder, the federal wildlife agency, and any other parties responsible for implementing the HCP.

Migratory Bird Treaty Act

The Migratory Bird Treaty Act (MBTA) implements international treaties between the United States and other nations devised to protect migratory birds, their parts, eggs, and nests from activities such as hunting, pursuing, capturing, killing, selling, and shipping, unless expressly authorized in the regulations or by permit. All migratory birds and their nests are protected from take and other impacts under the MBTA (16 US Code § 703 et seq.).

Bald and Golden Eagle Protection Act

The golden eagle (*Aquila chrysaetos*) and bald eagle (*Haliaeetus leucocephalus*) are afforded additional protection under the Eagle Protection Act, amended in 1973 (16 US Code § 669 et seq.) and the Bald and Golden Eagle Protection Act (16 US Code Sections 668–668d).

Clean Water Act

The United States Army Corps of Engineers (USACE) administers Section 404 of the federal Clean Water Act (CWA), which regulates the discharge of dredge and fill material into waters of the United States. The term “waters of the United States” was most recently defined in the Federal Register on September 8, 2023, in the USACE regulations at 33 Code of Federal Regulations Part 328.3(a) as:

1. Waters which are:
 - a. Currently used, or were used in the past, or may be susceptible to use in interstate or foreign commerce, including all waters which are subject to the ebb and flow of the tide;
 - b. The territorial seas; or
 - c. Interstate waters, including interstate wetlands;
2. Impoundments of waters otherwise defined as waters of the United States under this definition, other than impoundments of waters identified under paragraph (a)(5) of this section;
3. Tributaries of waters identified in paragraphs (a)(1) or (2) of this section:
 - a. That are relatively permanent, standing or continuously flowing bodies of water; or
4. Wetlands adjacent to the following waters:

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- a. Waters identified in paragraph (a)(1) of this section; or
 - b. Relatively permanent, standing or continuously flowing bodies of water identified in paragraph (a)(2) or (a)(3)(i) of this section and with a continuous surface connection to those waters; or
5. Intrastate lakes and ponds, streams, or wetlands not identified in paragraphs (a)(1) through (4) of this section:
- a. That are relatively permanent, standing or continuously flowing bodies of water with a continuous surface connection to the waters identified in paragraph (a)(1) or (a)(3)(i) of this section; or

USACE regulations at 33 Code of Federal Regulations Part 328.3(b) exclude the following from being “waters of the United States” even where they otherwise meet the terms of paragraphs (a)(2) through (5) above:

1. Waste treatment systems, including treatment ponds or lagoons, designed to meet the requirements of the CWA.
2. Prior converted cropland designated by the Secretary of Agriculture. The exclusion would cease upon a change of use, which means that the area is no longer available for the production of agricultural commodities. Notwithstanding the determination of an area’s status as prior converted cropland by any other federal agency, for the purposes of the CWA, the final authority regarding CWA jurisdiction remains with the United States Environmental Protection Agency (EPA).
3. Ditches (including roadside ditches) excavated wholly in and draining only dry land and that do not carry a relatively permanent flow of water.
4. Artificially irrigated areas that would revert to dry land if the irrigation ceased.
5. Artificial lakes or ponds created by excavating or diking dry land to collect and retain water and which are used exclusively for such purposes as stock watering, irrigation, settling basins, or rice growing.
6. Artificial reflecting or swimming pools or other small ornamental bodies of water created by excavating or diking dry land to retain water for primarily aesthetic reasons.
7. Waterfilled depressions created in dry land incidental to construction activity and pits excavated in dry land for the purpose of obtaining fill, sand, or gravel unless and until the construction or excavation operation is abandoned and the resulting body of water meets the definition of waters of the United States.
8. Swales and erosional features (e.g., gullies, small washes) characterized by low volume, infrequent, or short duration flow.

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- a. In the absence of wetlands, the limits of USACE jurisdiction in non-tidal waters, such as intermittent streams, extend to the ordinary high water mark (OHWM) which is defined at 33 Code of Federal Regulations 328.3(c)(4) as:
- b. .that line on the shore established by the fluctuation of water and indicated by physical characteristics such as clear, natural line impressed on the bank, shelving, changes in the character of soil, destruction of terrestrial vegetation, the presence of litter and debris, or other appropriate means that consider the characteristics of the surrounding areas.

“Wetland” refers to areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs, and seasonal wetlands. Wetlands are considered jurisdictional if they fall under one of the categories of waters of the United States defined above. The USACE jurisdiction typically extends up to the ordinary high water mark.

“Adjacent wetlands” are defined by 33 Code of Federal Regulations 328.3(c)(2) as wetlands having a continuous surface connection.

The USACE has established a series of nationwide permits that authorize certain activities in waters of the United States if a proposed activity can demonstrate compliance with standard conditions and the loss of waters of the United States is less than 0.50 acre. Normally, the USACE requires an individual permit for an activity that will affect an area equal to or in excess of 0.5 acre of waters of the United States.

In general, a USACE permit must be obtained before placing fill in wetlands or other waters of the United States. The type of permit depends on the impacted acreage, the purpose of the proposed fill, and other factors.

Section 401

As stated in Section 401 of the CWA, “any applicant for a federal permit for activities that involve a discharge to waters of the State, shall provide the federal permitting agency a certification from the State in which the discharge is proposed that states that the discharge will comply with the applicable provisions under the federal Clean Water Act.” Therefore, before the USACE will issue a Section 404 permit, applicants must apply for and receive a Section 401 Water Quality Certification from the Regional Water Quality Control Board (RWQCB).

State

California Endangered Species Act

The State of California enacted the California Endangered Species Act (CESA) in 1984. CESA pertains to State-listed endangered and threatened species. CESA requires State agencies to consult with the California Department of Fish and Wildlife (CDFW) when preparing CEQA documents to ensure that the State lead agency actions do not jeopardize the continued existence of a listed species or result in the destruction or adverse modification of habitat essential to the continued existence of those species, if there are reasonable

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and prudent alternatives available (Fish and Game Code [FGC] Section 2080). CESA directs agencies to consult with the CDFW on projects or actions that could affect listed species, directs the CDFW to determine whether jeopardy would occur, and allows the CDFW to identify “reasonable and prudent alternatives” to the project consistent with conserving the species. CESA allows the CDFW to authorize exceptions to the State’s prohibition against take of a listed species if the “take” of a listed species is incidental to carrying out an otherwise lawful project that has been approved under CEQA (FGC Section 2081). Under CESA, the California Fish and Game Commission may authorize taking of candidate species, and the CDFW may recommend that the Commission authorize (or not authorize) the taking of listed or candidate species (FGC Section 2084).

California Fish and Game Code

Rare, Threatened, and Endangered Species

Under CESA, the CDFW has the responsibility for maintaining a list of endangered and threatened species (FGC § 2070). Fish and Game Code Sections 2050 through 2098 outline the protection provided to California’s rare, endangered, and threatened species. Fish and Game Code Section 2080 prohibits the taking of plants and animals listed under the CESA, and Fish and Game Code Section 2081 established an Incidental Take Permit program for State-listed species. The CDFW maintains a list of “candidate species” that it formally notices as being under review for addition to the list of endangered or threatened species.

Fully Protected Species

Fish and Game Code Sections 3500 to 5500 outline protection for fully protected species of mammals, birds, reptiles, amphibians, and fish. Species that are fully protected by these sections may not be taken or possessed at any time. The CDFW cannot issue permits or licenses that authorize the take of any fully protected species except under certain circumstances such as scientific research and live capture and relocation of such species pursuant to a permit for the protection of livestock.

Species of Special Concern

In addition to formal listing under the Endangered Species Act and CESA, some species receive additional consideration by the CDFW and local lead agencies during the CEQA process. Species that may be considered for review are those listed as a “Species of Special Concern.” The CDFW maintains lists of “Species of Special Concern” that serve as species “watch lists.” Species with this status may have limited distributions or limited populations and/or the extent of their habitats has been reduced substantially, such that their populations may be threatened. Thus, their populations are monitored, and they may receive special attention during environmental review. While they do not have statutory protection, they may be considered rare under CEQA and specific protection measures may be warranted. In addition to Species of Special Concern, the CDFW Special Animals List identifies animals that are tracked by the California Natural Diversity Database (CNDDB) and may be potentially vulnerable but warrant no federal interest and no legal protection.

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Other Sensitive Species

Sensitive species that would qualify for listing but are not currently listed are afforded protection under CEQA. CEQA Guidelines Section 15065, Mandatory Findings of Significance, requires that a substantial reduction in numbers of a rare or endangered species be considered a significant effect. CEQA Guidelines Section 15380, Rare or Endangered Species, provides for the assessment of unlisted species as rare or endangered under CEQA if the species can be shown to meet the criteria for listing. Unlisted plant species on the California Native Plant Society (CNPS) List ranked 1A, 1B, and 2 would typically require evaluation under CEQA.

Native Bird Protection

Sections 3503, 3503.5, and 3513 protect native birds. Under FGC Section 3503, it is unlawful to take, possess, or needlessly destroy the nest or eggs of any native bird. Under FGC Section 3503.5, it is unlawful to take, possess, or destroy any birds in the orders of Falconiformes or Strigiformes (birds of prey) or to take, possess, or destroy the nest or eggs of any such bird. Under FGC Section 3513, it is unlawful to take or possess any native, migratory bird as designated in the MBTA except as provided by rules and provisions of the MBTA. Mitigation for avoidance of impacts to nesting birds is typically included in CEQA and other permitting documents to ensure project compliance with these Fish and Game Code sections.

Native Plant Protection Act

The Native Plant Protection Act of 1977 (FGC § 1900 et seq.) prohibits the taking, possessing, or sale within the State of any plants with a State designation of rare, threatened, or endangered (as defined by the CDFW). An exception to this prohibition in the Act allows landowners, under specified circumstances, to take listed plant species, provided that the owners first notify CDFW and give the agency at least 10 days to come and retrieve (and presumably replant) the plants before they are plowed under or otherwise destroyed. FGC Section 1913 exempts from “take” prohibition “the removal of endangered or rare native plants from a canal, lateral ditch, building site, or road, or other right-of-way.” Project impacts to these species are not considered significant unless the species are known to have a high potential to occur within the area of disturbance associated with construction of the proposed project.

Lake or Streambed Alteration

FGC Section 1602 requires any entity to notify the CDFW before beginning any activity that “may substantially divert or obstruct the natural flow of, or substantially change or use any material from the bed, channel, or bank of any river, stream, or lake” or “deposit debris, waste, or other materials that could pass into any river, stream, or lake.” “River, stream, or lake” includes waters that are episodic and perennial and ephemeral streams, desert washes, and watercourses with a subsurface flow. A Lake or Streambed Alteration Agreement will be required if the CDFW determines that project activities may substantially adversely affect fish or wildlife resources through alterations to a covered body of water.

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Natural Community Conservation Planning Act

Section 2800 of the California Fish and Game Code establishes the Natural Community Conservation Planning Act (NCCP Act), which allows the CDFW to authorize Natural Community Conservation Plans (NCCP) to allow “take” of species listed under CESA and other sensitive species and vegetation communities on a regional scale. The primary objective of the NCCP Act is to conserve covered natural communities and species at the ecosystem scale while accommodating compatible land uses, or covered activities. NCCPs must provide conservation and management of natural communities and species and in perpetuity within the area covered by permits. Each NCCP provides measures necessary to conserve and manage sensitive biological resources, including natural vegetation communities and the plant and wildlife species they support, within a Reserve System, while also allowing compatible developments and other projects to “take” species and habitats under special conditions outside of areas targeted for conservation. NCCPs are different from HCPs because the NCCP Act requires that conservation actions improve the long-term conservation of species, whereas HCPs typically only require avoidance of adverse impacts to species. Additionally, while HCPs can be implemented at a project or regional scale, an NCCP must be applied across regional scales to promote the long-term recovery of species, protection of habitats and natural communities, and maintenance of species diversity at the landscape level.

California Porter-Cologne Water Quality Control Act

The RWQCB regulates actions that would involve “discharging waste, or proposing to discharge waste, within any region that could affect the water of the State” (Water Code § 13260(a)), pursuant to provisions of the Porter-Cologne Water Quality Act. “Waters of the State” are defined as “any surface water or groundwater, including saline waters, within the boundaries of the State” (Water Code § 13050(e)).

California Native Plant Society Rare Plant Rankings

The CNPS maintains a rank of plant species native to California that have low population numbers, limited distribution, or are otherwise threatened with extinction. This information is published in the Inventory of Rare and Endangered Vascular Plants of California. Following are the definitions of the CNPS ranks:

- **Rank 1A:** Plants presumed extirpated in California and either rare or extinct elsewhere
- **Rank 1B:** Plants Rare, Threatened, or Endangered in California and elsewhere
- **Rank 2A:** Plants presumed extirpated in California but common elsewhere
- **Rank 2B:** Plants rare, threatened, or endangered in California but more common elsewhere
- **Rank 3:** Plants about which more information is needed
- **Rank 4:** Watch List: Plants of limited distribution

Potential impacts to populations of CNPS ranked plants receive consideration under CEQA review. All plants appearing on the CNPS List ranked 1 or 2 are considered to meet the CEQA Guidelines Section 15380 criteria. Rank 3 and 4 plants do not automatically meet this definition. Rank 4 plants do not clearly meet CEQA standards and thresholds for impact considerations.

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California Oak Woodlands Conservation Act (AB 242)

The State of California enacted the California Oak Woodlands Conservation Act in 2001. It established requirements for the preservation and protection of oak woodlands and trees, and allocated funding to be managed by the Wildlife Conservation Board that would support a variety of ways to preserve oak woodlands throughout the State. In order to qualify to use these funds, counties were required to adopt an oak woodland conservation management plan. In 2004, SB 1334 (Public Resources Code Section 21083.4) expanded this preservation effort by requiring that a county, “in determining whether CEQA requires an EIR, Negative Declaration (ND), or Mitigated Negative Declaration (MND), to determine whether a project in its jurisdiction may result in a conversion of oak woodlands that will have a significant effect on the environment, and would require the county, if it determines there may be a significant effect to oak woodlands, to require one or more of specified mitigation alternatives to mitigate the significant effect of the conversion of oak woodlands.”

Regional

County of Orange Natural Communities Conservation Plan/Habitat Conservation Plan

The CONCCP/HCP is one of the first regional plans developed and implemented in California under the NCCP Act. It was designed to conserve coastal sage scrub communities and species on a regional scale, as well as to assemble a reserve and linkage system that would facilitate wildlife movements between conserved areas and through the region. The CONCCP/HCP is authorized by the CDFW through the NCCP Act (FGC Section 2800) and Sections 2081 and 2084 of CESA, and by the USFWS through Sections 7 and 10 of the Endangered Species Act. Within the City of Anaheim, the CONCCP/HCP covers the eastern portion of the City, encompassing the Hill and Canyon Area (Exhibit 2). Under the CONCCP/HCP plan, lands in this area of the City include the Reserve System, Special Linkage Areas, and Existing Use Areas. The Reserve System consists of lands that are permanently preserved to conserve coastal sage scrub resources and associated habitats. Special Linkage Areas are private lands owned by Participating Landowners that are targeted for conservation within the Reserve System. Participating Landowners are parties that have committed to making land contributions to the Reserve System. Existing Use Areas are private lands owned by Non-participating Landowners that contain open space areas occupied by resources covered by the plan. Non-participating Landowners are private land owners that are not signatories to the CONCCP/HCP.

The CONCCP/HCP was designed primarily to address protection and management of Identified Species, coastal sage scrub (CSS), and other Covered Habitats, including oak woodlands, chaparral (for the Coastal Subregion of the CONCCP/HCP only), Tecate cypress forest, and cliff and rock habitats.

The CONCCP/HCP originally covered 39 Identified Species, but has been updated (as recently as April 2023) to cover 44 Identified Species:

- American peregrine falcon (*Falco peregrinus anatum*)
- arboreal salamander (*Aneides lugubris*)
- Arroyo toad (*Anaxyrus californicus*)
- blackbelly slender salamander (*Batrachoseps nigriventris*)

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- Blochman's dudleya (*Dudleya blochmaniae* ssp. *blochmaniae*)
- Catalina mariposa lily (*Calochortus catalinae*)
- cliff spurge (*Euphorbia misera*)
- coast horned lizard (*Phrynosoma coronatum blainvillii*)
- coastal cactus wren (*Campylorhynchus brunneicapillus couesi*)
- coastal California gnatcatcher (*Polioptila californica californica*)
- San Diegan tiger whiptail (*Aspidoscelis tigris stejnegeri*)
- Coronado Island skink (*Plestiodon skiltonianus interparietalis*)
- Coulter's matilija poppy (*Romneya coulteri*)
- coyote (*Canis latrans*)
- golden eagle
- gray fox (*Urocyon cinereoargenteus*)
- heart-leaved pitcher sage (*Lepichinia cardiophylla*)
- intermediate mariposa lily (*Calochortus weedii* var. *intermedius*)
- Laguna Beach dudleya (*Dudleya stolonifera*)
- least Bell's vireo (*Vireo bellii pusillus*)
- northern harrier (*Circus cyaneus*)
- Nuttall's scrub oak (*Quercus dumosa*)
- orange-throated whiptail (*Aspidoscelis hyperythra*)
- pacific pocket mouse (*Perognathus longimembris pacificus*)
- Palmer's grapplinghook (*Harpagonella palmeri*)
- prairie falcon (*Falco mexicanus*)
- Quino checkerspot butterfly (*Euphydryas editha quino*)
- red-diamond rattlesnake (*Crotalus ruber*)
- red-shouldered hawk (*Buteo lineatus*)
- Riverside fairy shrimp (*Streptocephalus woottoni*)
- rosy boa (*Charina trivirgata*)
- rough-legged hawk (*Buteo lagopus*)
- San Bernadino ringneck snake (*Diadophis punctatus modestus*)
- San Diego desert woodrat (*Neotoma lepida intermedia*)
- San Diego fairy shrimp (*Branchinecta sandiegonensis*)
- Santa Monica Mountains dudleya (*Dudleya cymosa* spp. *ovatifolia*)
- scrub oak (*Quercus berberidifolia*)
- sharp-shinned hawk (*Accipiter striatus*)
- small-flowered mountain mahogany (*Cercocarpus minutiflorus*)
- southern California rufous-crowned sparrow (*Aimophila ruficeps canescens*)
- southwestern willow flycatcher (*Empidonax traillii extimus*)
- Tecate cypress (*Hesperocyparis forbesii*)
- western dichondra (*Dichondra occidentalis*)

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- western spadefoot (*Spea hammondi*)

Three species—orange-throated whiptail, coastal California gnatcatcher, and coastal cactus wren—are identified as Target Species under the plan, as these species are obligate CSS species, meaning they are restricted to occupying this vegetation community/habitat type. Several species are considered conditionally covered under the CONCCP/HCP, including intermediate mariposa lily, arroyo toad, least Bell's vireo, southwestern willow flycatcher, Riverside fairy shrimp, San Diego fairy shrimp, golden eagle, and prairie falcon. Take of these species is authorized only when certain conditions are met, including, but not limited to, consultation with USFWS, species surveys, avoidance and minimizations measures, project redesign, or mitigation and monitoring plans.

The County of Orange is the lead agency in implementing the CONCCP/HCP under a Memorandum of Understanding (MOU) and IA with the CDFW and USFWS. Eleven cities within Orange County are also signatories to the MOU and IA. The Reserve System that would be assembled under the CONCCP/HCP includes portions of the following jurisdictions:

- City of Anaheim
- City of Costa Mesa
- City of Irvine
- City of Laguna Beach
- City of Newport Beach
- City of Orange
- City of San Juan Capistrano
- Unincorporated Orange County

Participating Landowners are public and private landowners that contribute significant land and/or funding toward implementing the Reserve System, and their activities and developments are covered under the CONCCP/HCP through their participation in it. Participating Landowners include:

- Southern California Edison
- Metropolitan Water District of Southern California
- Irvine Ranch Water District
- Santiago County Water District
- Transportation Corridor Agencies
- M.H. Sherman Company/Chandis Securities Company/Sherman Foundation
- The Irvine Company
- University of California, Irvine
- California Department of Parks and Recreation
- California Department of Fish and Wildlife
- County of Orange

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Other landowners in the CONCCP/HCP plan area who are not contributing significant land or funding toward implementing the Reserve System are Non-participating Landowners. Non-participating Landowners may take Identified and Target Species, CSS, and Covered Habitats within city jurisdictions either through payment of the CONCCP/HCP Mitigation Fee or, alternatively, through acquisition of State and/or federal Incidental Take Permits, as applicable. The CONCCP/HCP Mitigation fees are paid to the NCCP Not-Profit Corporation that uses the funds to manage the Reserve System lands and resources.

Signatory cities are required, under the CONCCP/HCP and as applicable, to:

1. Consider amending general plans, zoning ordinances, or other implementing ordinances to comply with State planning and zoning requirements;
2. Adopt fuel modification ordinances that are consistent with CONCCP/HCP fuel modification policies in areas bordering the Reserve System, and within Special Linkage Areas and Special Use Areas;
3. Review projects proposed within the Reserve System on city-owned lands to verify project compliance with the CONCCP/HCP;
4. Ensure that Non-participating Landowners provide evidence of payment of the CONCCP/HCP Mitigation Fee to the NCCP Nonprofit Organization if they choose this option for take of covered species;
5. Record and compile information about Identified Species, CSS, and other Covered Habitats occurrences and reporting losses and mitigation of these resources to the County annually;
6. Ensure that construction-related minimization measures in the CONCCP/HCP EIR/EIS are implemented by project owners;
7. Make efforts to acquire conservation easements in Existing Use Areas owned by Non-participating Landowners;
8. Formally commit and manage city-owned lands within the Reserve System;
9. Accepting and using the CONCCP/HCP EIR/EIS to guide CEQA mitigation of impacts of Planned Activities to CSS, other Covered Habitats, and Identified Species;
10. Recognize the mitigating values of preservation of non-CSS resources in the Reserve System; and
11. Commit to the CSS, Identified Species, and Covered Habitat mitigation assurances.

The reserve that will be assembled for conservation in the CONCCP/HCP plan area includes existing protected lands (parks and designated open space) and unprotected lands that contain Target Species habitat, habitat linkages, biodiversity habitat, and areas with restoration opportunities. The plan also identifies Special Linkages and Management Areas where proposed development projects or existing land uses provide either an opportunity to voluntarily conserve Target Species in an area that would otherwise be difficult to acquire for the reserve or an area where land uses are compatible with conservation. The goal of the CONCCP/HCP

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would be to enhance connectivity functions in these areas. Lands identified as Special Linkages provide opportunities to conserve habitat linkages for Target Species while also permitting projects or land uses that are compatible with conservation.

The CONCCP/HCP was executed in 1996 and has a term of 75 years.

Orange County General Plan

Land Use Element

The Land Use Element designates an Open Space and Open Space Reserve land use categories to support the open space and natural resource plans contained within the Resources Element and establishes standards for typical intensity, population density, characteristics, and uses of these land categories. The Land Use Element identifies major parks, beaches, forests, harbors, and other territory that will always remain open space, including urban regional parks, wilderness regional parks, and County wilderness areas. The Land Use Element achieves internal consistency with all other General Plan elements by incorporating and implementing their land use concerns and recommendations, including the CONCCP/HCP.

Resources Element

The Resources Element contains official County policies on the conservation and management of resources, including natural and water resources. The Natural Resources Component of the Resources Element contains policies and programs which are designed to protect and conserve these areas. The Resources Element outlined Goals and Objectives to managing resources, including:

Goal 1: Protect wildlife and vegetation resources and promote development that preserves these resources.

- **Objective 1.1.** To prevent the elimination of significant wildlife and vegetation through resource inventory and management strategies.

Programs included in the Resource Element to achieve these goals and objectives include:

- The County's Oak Resources Management Program, which seeks to preserve oak woodland areas through regional park and open space acquisitions.
- The CONCCP/HCP, which seeks to conserve CSS and other Covered Habitats and Identified Species.

The Resource Element also includes an Open Space Component that defines goals, objectives, policies, and programs to promote the preservation and protection of resource areas.

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Local

City of Anaheim General Plan

The City of Anaheim General Plan contains goals and policies in the Green Element concerned with protecting and preserving natural resources and open space areas. These natural resources and open space areas include wetland and riparian areas, fish and wildlife habitat, and vegetation-specific goals and policies.

Goal 14.1: Conserve natural habitat and protect rare, threatened, and endangered species.

- **Policy 14.1-1.** Support efforts to preserve natural habitat through continued participation in the County of Orange Central and Coastal Subregion Natural Communities Conservation Plan.

Goal 14.2: Support educational outreach programs related to habitat resources and conservation efforts.

- **Policy 14.2-1.** Encourage and support regional efforts to educate the public about habit resources and conservation efforts.

Goal 14.3: Ensure that future development near regional open space resources will be sensitively integrated into surrounding sensitive habitat areas.

- **Policy 14.3-1.** Require new development to mitigate light and glare impacts on surrounding sensitive habitat and open space areas, where appropriate.

City of Anaheim Municipal Code

- **Landmark Trees Designated by City Council (Municipal Code Section 11.12.010).** Upon recommendation of the Director of Community Services, the City Council may designate as a Landmark Tree any tree on public property. In making such a designation, the City Council shall consider the age, size, shape, species, location, historical association, visual quality, or other contribution which the tree makes to the City's character.
- **Removal of Landmark Trees Prohibited (Municipal Code Section 11.12.020).** No Landmark Tree shall be removed without prior approval of the City Council, which approval shall be based upon one or more of the following findings:
 - The Landmark Tree poses a threat to the public health or safety due to its general condition, the potential of the tree falling, the tree's proximity to existing or proposed structures, the tree's interference with utility services, and/or the tree's status as a host for parasitic plants, pests or diseases endangering other species of trees or plants with infection or infestations;
 - Removal is necessary to allow construction of improvements or otherwise allow economic or other reasonable enjoyment of adjoining property;
 - The Landmark Tree has or will have an adverse effect on soil retention, water retention, and/or diversion or increased surface water;

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- Removal of the Landmark Tree will not have an adverse effect on shade areas, air pollution, historic values, scenic beauty and the general welfare of the City as a whole given the number, species, size and location of existing trees in the area of the Landmark Tree; and
 - Removal of the Landmark Tree is consistent with good forestry practices such as, but not limited to, consideration of the number of healthy trees a given parcel of land will support.
- **Interference with Street Trees: Permission Required (Municipal Code Section 13.12.080).**
- No person shall top or in any other manner injure or damage any street tree. For purposes of this section, the term “top” shall mean to damage a tree by the practice of severely cutting back large diameter branches and/or the trunk of a tree which results in substantially reducing the overall size of the tree and/or destroying the symmetrical appearance or structural shape of the tree.
 - No person shall cut, trim, prune, plant, remove, spray, or in any other manner interfere with any street tree within the City of Anaheim without first having secured written permission from the Director of Community Services or his or her designee.
- **Tree Preservations (Municipal Code Section 18.18.040).**
- Established, single specimen trees such as oak (*Quercus spp.*), pepper (*Schinus spp.*), and sycamore (*Platanus spp.*) in the Scenic Corridor (SC) Overlay Zone shall require an Administrative Specimen Tree Removal Permit by the City’s Planning and Building Department to remove or “top” selected specimen trees.
 - Established a Discretionary Specimen Tree Removal Permit. A City Arborist shall review and provide a recommendation for all Discretionary Specimen Removal Permits.
 - Any specimen trees destroyed pursuant to a permit issued by the City shall be replaced on the same parcel, or in the public right-of-way located in the immediate vicinity, as directed by the City.

Standard Conditions of Approval

The City will be adopting Master Conditions of Approval that are applied to all development project through the plan-check review process. As a matter of practice, the City has been implementing the following conditions that relate to biological resources, compliance with which would reduce negative biological impacts. Compliance with standard conditions would be required for all new development and redevelopment in the City.

- **SC BIO-1:** For all areas of the City located outside the Central/Coastal NCCP/HCP, retention of rare communities shall be incorporated into building and project design by the owner/developer to the maximum extent practical. Rare communities include oak, riparian and wetland, walnut woodland, and coastal sage scrub. If retention is not practical, healthy specimens shall be relocated and/or replaced.

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- **SC BIO-2:** For all areas of the City located outside the Central/Coastal NCCP/HCP, property owners/developers shall be required to restore and revegetate where the loss of small and/or isolated habitat patches is proposed.
- **SC BIO-3:** If construction activity involves tree removals or construction activities in proximity to trees, and is timed to occur during the nesting season (typically February 1 through July 31), prior to the issuance of the first demolition/grading/building permit, owners/developers will be required to provide focused surveys to the Planning and Building Department for nesting birds pursuant to CDFW requirements. Such surveys shall identify avoidance measures taken to protect active nests.
- **SC BIO-4:** Any crushing of existing habitat during the breeding season of the gnatcatcher shall occur only under the supervision of a biological monitor and other mitigation measures as required by CDFW may apply.
- **SC BIO-5:** Preserved and/or protected areas will be identified by the project biologist and isolated with construction fencing or similar materials prior to clearing or grading activities. Protected areas include existing woodland and coastal sage scrub adjacent to revegetation areas and individual trees and patches of native habitat to be preserved within revegetation areas. Other mitigation measures as required by CDFW and/or USFWS may apply.
- **SC BIO-6:** Lighting in residential areas and along roadways shall be designed by the owner/developer to prevent artificial lighting from reflecting into adjacent natural areas, and plans shall be provided to the Planning and Building Department prior to the issuance of a building permit.
- **SC BIO-7:** Prior to the issuance of grading permits for any project potentially affecting riparian or wetland habitat, the owner/developer shall provide evidence that all necessary permits have been obtained from the CDFW (pursuant to FGC Sections 1601–1603) and USACE (pursuant to Section 404 of the CWA) or that no such permits are required, in a manner meeting the approval of the City of Anaheim Planning Department. If a Section 404 Permit from the USACE is required, a Section 401 Water Quality Certification will also be required from the California Regional Water Quality Control Board, Santa Ana Region.
- **SC BIO-8:** Prior to issuance of a grading permit for any project potentially affecting wildlife movement, the owner/developer shall submit a biological resources analysis which assesses potential impacts to wildlife movement.

5.3.1.2 EXISTING CONDITIONS

The City of Anaheim is mostly urbanized and is largely surrounded by other developed cities. Topographically, the western and central portions of the City are characterized by nearly flat ground that slopes gently to the southwest. This portion of the City is also characterized by a mix of suburban and urban development and is mostly urbanized and there are few remaining areas of natural habitat. The developed areas of the City support predominantly non-native species of plants that are associated with landscaping or disturbed areas and animals that are tolerant of human-altered landscapes.

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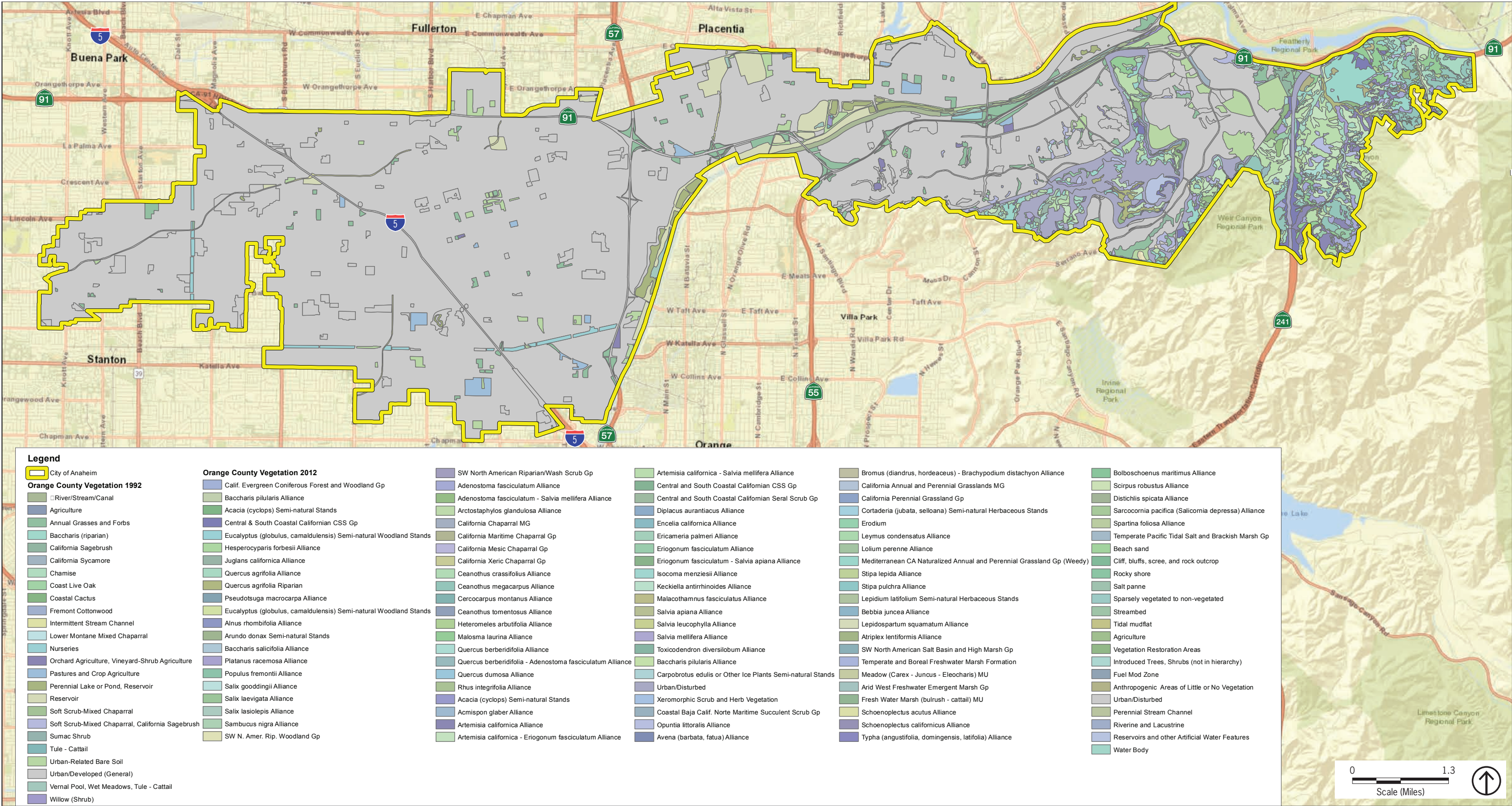
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The Hill and Canyon Area, located in the eastern portion of the City, includes undeveloped areas that support the majority of remaining significant biological resources in the City, including natural vegetation communities and special-status species. This area extends generally along the Santa Ana River to the Riverside County line and includes a mixture of developed and undeveloped hillside terrain (refer to Figure 5.3-1, *Vegetation Community/Land Cover Map*). The Hill and Canyon Area are topographically complex areas with steep, wooded and forested canyons and intervening scrub and chaparral-covered ridges. Residential development in the Hill and Canyon Area largely consists of the various hillside communities in the Anaheim Hills neighborhood situated south of the Riverside Freeway (SR-91) and the Eastern Transportation Corridor (SR-241). Other relatively flat areas of the Anaheim Hills neighborhood are located north of the Santa Ana River and east of Imperial Highway, and generally south of the Santa Ana River at the intersection of the Riverside (SR-91) and Costa Mesa (SR-55) freeways. The Canyon Area is located north side of the Riverside Freeway (SR-91) between the Orange Freeway (SR-57) and Imperial Highway (Figure 5.3-1). Significant portions of the Hill and Canyon Area are relatively undisturbed and contain protected parks and open spaces, including the Santa Ana River Trail, Yorba Regional Park, Santiago Oaks Regional Park, Weir Canyon National Preserve, Gypsum Canyon Nature Preserve, Chino Hills State Park, and Coal Canyon Ecological Reserve. Together, the Anaheim Hills neighborhood situated south of SR-91 and the Canyon Area encompass the Hill and Canyon Area. Much of the Hill and Canyon Area is under jurisdiction of the CONCCP/HCP (refer to Figure 5.3-2, *City and Local Vicinity Map* and Figure 5.3-3, *Special Linkage and Existing Use Areas*). Several blue line streams occur in this area of the City, as do several natural vegetation communities considered sensitive by CDFW due to their scarcity and their ability to support special-status species. Sensitive vegetation communities found within this area of the City and its immediate vicinity include coastal sage scrub (CSS) communities, coast live oak communities (oak savanna and oak woodland), Tecate cypress communities, nolina chaparral, needlegrass grassland, and riparian communities, described further below.

Soils

The Natural Resource Conservation Service Web Soil Survey mapped numerous soils series types in the undeveloped portions of the City that are part of one of the following orders: Alfisols, Entisols, Inceptisols, Mollisols, and Vertisols. Alfisols are in semi-arid to moist areas and are soils that have an argillic, a kandic, or a natric horizon (clay content) and a base saturation of 35 percent or greater. Entisols are soils that show little or no evidence of pedogenic horizon development and many are sandy or very shallow. Inceptisols are soils of semi-arid to humid environments that generally exhibit only moderate degrees of soil weathering and development. Mollisols are soils that have a dark colored surface horizon relatively high in content of organic matter and are base rich throughout and therefore quite fertile. Vertisols have a high content of expanding clay minerals and they undergo pronounced changes in volume with changes in moisture. These soil types are primarily found in the undeveloped areas, including the Hill and Canyon Area. Soils in the developed areas would be classified as Anthroposols due to the heavy modification by humans.

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Source: First Carbon Solutions, 2023.

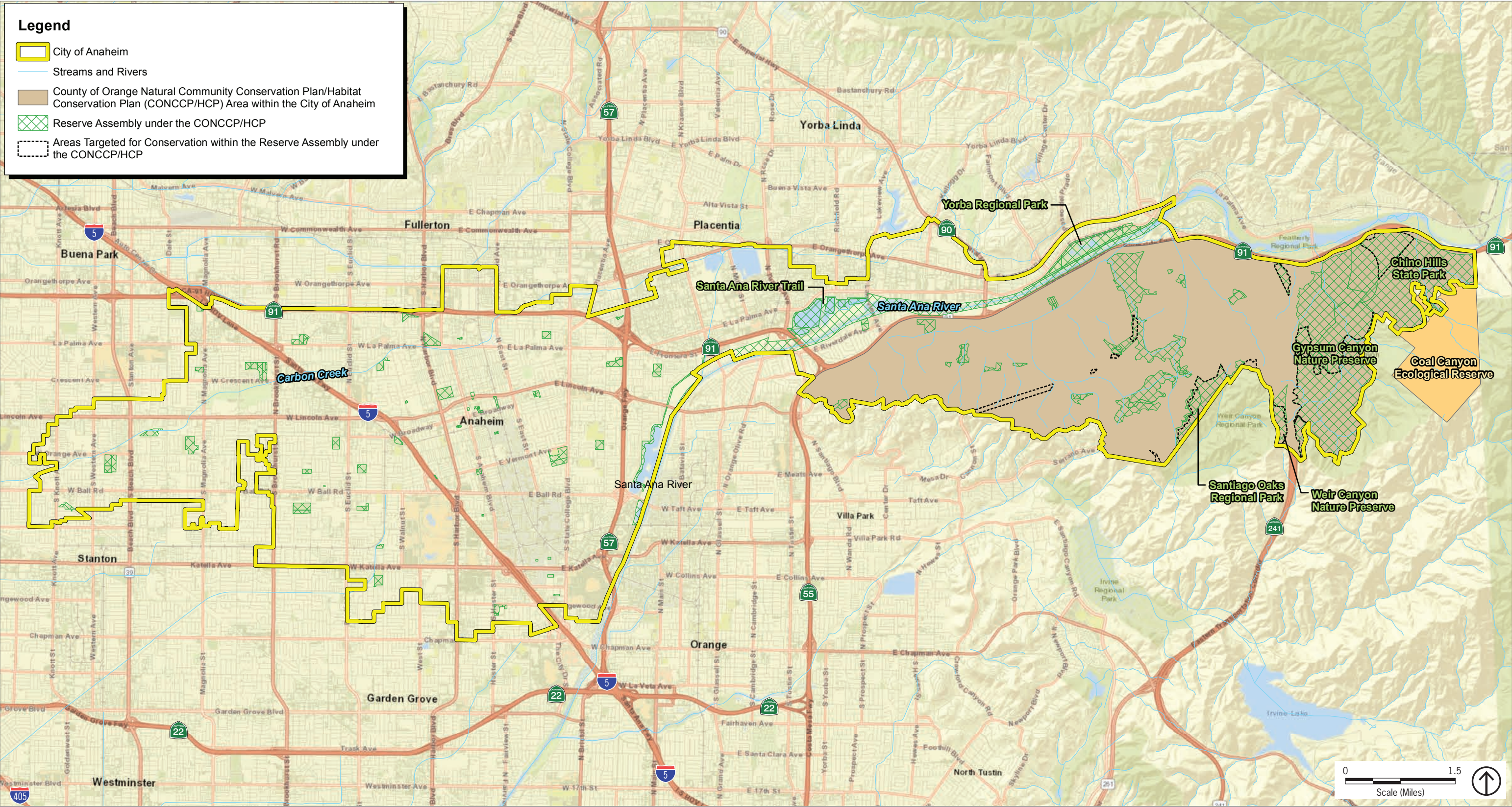
Figure 5.3-1
Vegetation Community/Land Cover Map

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Source: First Carbon Solutions, 2023.

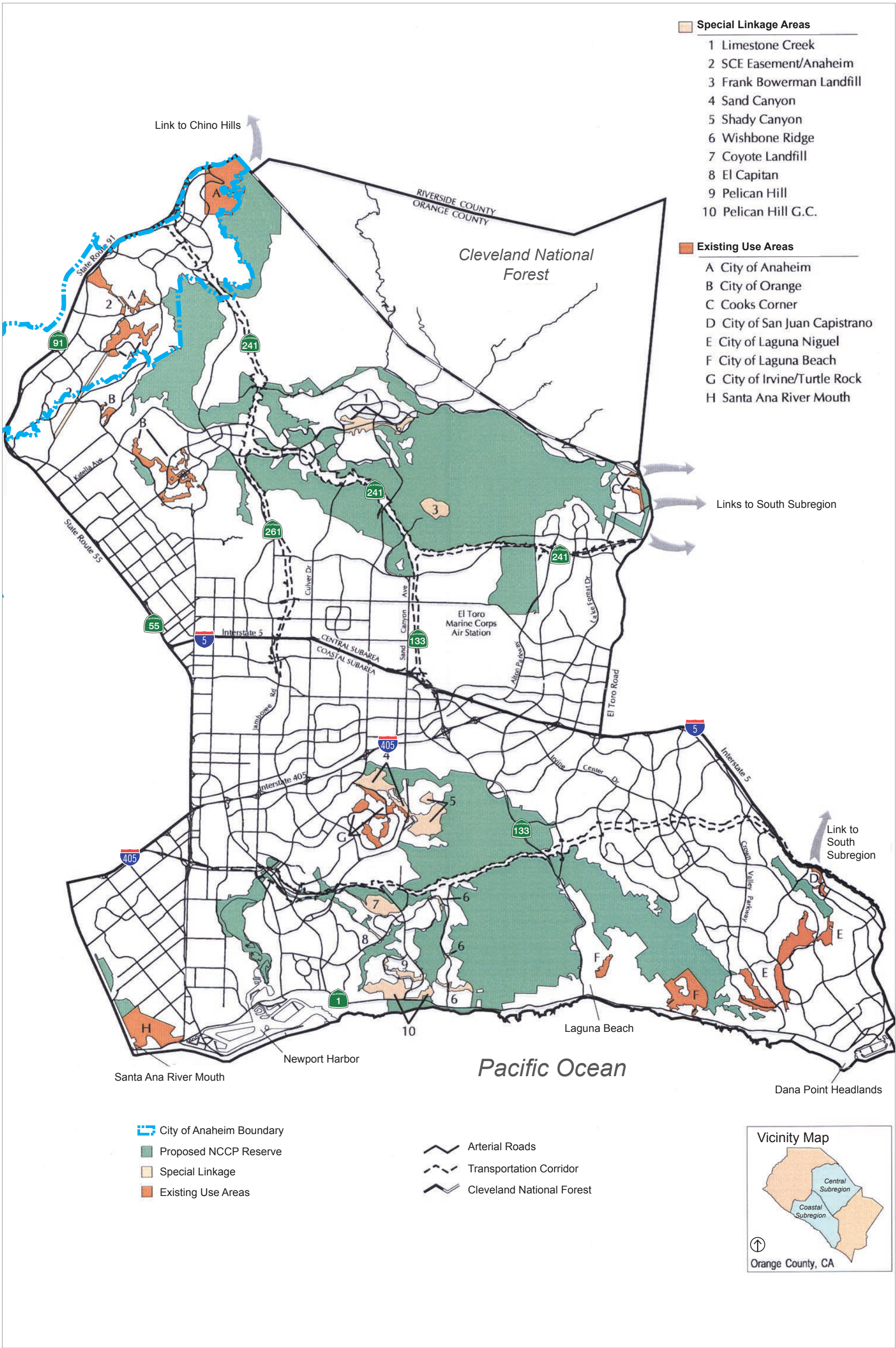
Figure 5.3-2
City and Local Vicinity Map

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Source: Robert Bein, William Frost & Associates, 2023.

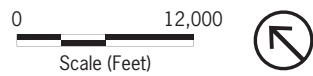


Figure 5.3-3
Special Linkage and Existing Use Areas

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Vernal Pool Soils

There are soils series present in the Hill and Canyon Area that are known to support vernal pool development. These soil series include Alo, Balcom, Bosanko, Calleguas, Cieneba, Cropley, and Myford soils series. If present, vernal pools could support certain rare plant species, special-status fairy shrimp species, and other vernal pool-dependent special-status species (FCS 2024).

Vegetation Communities and Land Use

The vegetation communities and land cover types recorded in the City and its immediate vicinity are described below (FCS 2024).

Grassland Communities

Grassland communities consist of low, herbaceous vegetation that are dominated by grasses but generally also harbor native forbs and bulbs as well as annual forbs. Topographic factors that contribute to grassland presence include lower slopes, swales, rocky hills, flat ridges, talus slopes, and, in canyons, and on sandy or gravelly alluvial fans in areas below 3,000 feet in elevation. Soils are coarse textured with no profile development. The species richness of grassland communities is dependent upon a number of land use factors, including intensity and duration of natural or anthropogenic disturbances such as grazing. Heavily grazed grasslands have a lower species richness. Common grassland alliances are described below. Other grassland alliances may be present in the Hill and Canyon Area and potentially other areas of the City.

Wild Oats and Brome Grasslands

Many of the grasslands in the City are likely comprised of wild oats and annual brome grasslands (Manual of California Vegetation (MCV)): *Avena* spp.–*Bromus* spp. Herbaceous Semi-Natural Alliance), particularly in areas that were previously disturbed or support historically grazed lands. This community is found in foothills, waste places, rangelands, openings in woodlands. It includes stands of primarily annual, non-native species, including slender wild oat (*Avena barbata*), common wild oat (*Avena fatua*), rip-gut brome (*Bromus diandrus*), soft brome (*Bromus hordeaceus*), red brome (*Bromus madritensis* ssp. *rubens*), and/or foxtail barley (*Hordeum murinum*), with other non-natives in the herbaceous layer.

Needle Grass–Melic Grass Grassland

Needle grass–melic grass grassland (MCV: *Nassella* spp.–*Melica* spp. Herbaceous Alliance) is found in relatively undisturbed areas, particularly those that contain deep soils derived from mudstone, sandstone, or serpentine substrates. These perennial grasslands include predominantly native species, including nodding needlegrass (*Stipa cernua*), foothill needlegrass (*Stipa lepida*), and/or purple needlegrass (*Stipa pulchra*), with other perennial grasses and herbs in the herbaceous layer.

Chaparral Communities

Chaparral communities consist of evergreen, medium to tall, sclerophyllous shrubs that form a dense cover on steep slopes. The dense, almost impenetrable cover allows very little to no understory growth, which

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usually consists mostly of leaf litter. Several types of chaparral exist within the Hill and Canyon Area depending upon the dominant species. Chaparral communities found within the City include nolina scrub, scrub-chaparral ecotone/sere, chamise-sagebrush, chamise-sage scrub, mixed chaparral, chamise chaparral, bigpod chaparral, scrub oak chaparral, and toyon-sumac chaparral.

Nolina Scrub

Nolia scrub (MCV: *Nolina (bigelovii, parryi)* Shrubland Alliance) occurs in the Canyon Area of the City, where it may be found on slopes and ridges with rocky soils, derived from bedrock or colluvium, with substrates largely granitic or crystalline metamorphic materials, including calcareous substrates. Chaparral nolina is dominant in the shrub canopy, which is characterized as open to intermittent.

Chamise Chaparral

Chamise chaparral (MCV: *Adenostoma fasciculatum* Shrubland Alliance) is a widespread and common chaparral association that is found in varied topographies with shallow soils over colluvium derived from many kinds of bedrock. Chamise (*Adenostoma fasciculatum*) is dominant in the shrub canopy, with other common species represented, including Eastwood manzanita (*Arctostaphylos glandulosa*), ceanothus (*Ceanothus* spp.), inland scrub oak, black sage (*Salvia mellifera*), and chaparral yucca (*Hesperoyucca whipplei*).

Chamise–Sage Chaparral

Chamise–sage chaparral (MCV: *Adenostoma fasciculatum*–*Salvia* spp. Shrubland Alliance) is found on lower to upper east-facing slopes in areas with rocky, shallow soils. Chamise, white sage (*Salvia apiana*) and black sage are co-dominant in the shrub canopy. Other species commonly found in this community include thickleaf yerba santa (*Eriodictyon crassifolium*), chaparral yucca, California buckwheat (*Eriogonum fasciculatum*), and deerweed (*Acmispon glaber*).

Scrub Oak Chaparral

Scrub oak chaparral (MCV: *Quercus berberidifolia* Shrubland Alliance) is primarily found on north-facing, steep slopes with deep to shallow rocky soils. Inland scrub oak is the dominant species in a typically continuous shrub canopy, with other co-dominants that include chamise, mountain mahogany (*Cercocarpus betuloides*), ceanothus species, and manzanita species (*Arctostaphylos* spp.). Scrub oak chaparral may qualify, in some instances, as oak woodlands that are considered Covered Habitats protected under the CONCCP/HCP.

Hollyleaf Cherry–Toyon–Greenbark Ceanothus Chaparral

Hollyleaf cherry–toyon–greenbark ceanothus chaparral (MCV: *Prunus ilicifolia*–*Heteromeles arbutifolia*–*Ceanothus spinosus* Shrubland Alliance) is found on steep north-facing slopes with an open or continuous canopy. Greenbark ceanothus (*Ceanothus spinosus*), toyon (*Heteromeles arbutifolia*), and/or hollyleaf cherry (*Prunus ilicifolia*) are dominant or co-dominant in the shrub canopy. Other species commonly found in this community include mountain mahogany, inland scrub oak, and California buckwheat.

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Birch Leaf Mountain Mahogany Chaparral

Birch leaf mountain mahogany chaparral (MCV: *Cercocarpus montanus* Shrubland Alliance) is found on upper slopes with shallow, rocky soils. Birch leaf mountain mahogany (*Cercocarpus cercocarpus*) is dominant or co-dominant in the shrub or small tree canopy. Other species commonly found in this community include chamise, manzanitas, ceanothus, chaparral yucca, inland scrub oak, toyon, laurel sumac (*Malosma laurina*), and hollyleaf cherry.

Coastal Scrub Communities

CSS communities consist of drought-deciduous, low, soft-leaved shrubs and herbs on gentle to steep slopes below 3,000 feet in elevation. Several dominant species occur within coastal scrub communities and some areas may be overwhelmingly dominated by one or two species. In addition, several coastal scrub communities support representative dominant species of two separate communities and are designated as such. CSS communities are Covered Habitats that are protected under the CONCCP/HCP.

California Sagebrush–(Purple Sage) Scrub

California sagebrush–(purple sage) scrub (MCV: *Artemisia californica*–[*Salvia leucophylla*] Shrubland Alliance) is found on steep slopes, low-gradient deposits along streams. California sagebrush (*Artemisia californica*) and/or San Luis purple sage (*Salvia leucophylla*) are dominant or co-dominant in the shrub canopy. Other species commonly found in this community include chamise, coyote brush (*Baccharis pilularis*), California buckwheat, ashleaf buckwheat (*Eriogonum cinereum*), deerweed, coast prickly pear (*Opuntia littoralis*), sugar bush (*Rhus ovata*), orange bush monkeyflower (*Diplacus aurantiacus*), and Menzies' goldenbush (*Isocoma menziesii*).

California Sagebrush–Black Sage Scrub

California sagebrush–black sage scrub (MCV: *Artemisia californica*–*Salvia mellifera* Shrubland Alliance) is found on steep, east- to southwest-facing slopes in soils that are usually derived from colluvial. California sagebrush and black sage are co-dominant, and other species commonly found in this community include chamise, orange bush monkeyflower, California brittlebush (*Encelia californica*), California buckwheat, chaparral yucca, deerweed, laurel sumac, sugar bush, lemonade berry (*Rhus integrifolia*), and white sage.

California Buckwheat–White Sage Scrub

California buckwheat–white sage scrub (MCV: *Eriogonum fasciculatum*–*Salvia apiana* Shrubland Alliance) is found on rocky, south-facing slopes in sandy loam soils. California buckwheat and white sage dominate the shrub canopy. Other species commonly found in this community include chamise, California sagebrush, sugar bush, and white sage.

White Sage Scrub

White sage scrub (MCV: *Salvia apiana* Shrubland Alliance) is found on dry slopes, benches, and rarely flooded low-gradient deposits along streams in shallow, coarse loams. Stands are dominated by white sage. Other species commonly found in this community include California sagebrush, orange bush monkeyflower,

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brittlebush (*Encelia farinosa*), California buckwheat, chaparral yucca, Menzies' goldenbush, chaparral bush mallow (*Malacothamnus fasciculatus*), and sugar bush.

Black Sage Scrub

Black sage scrub (MCV: *Salvia mellifera* Shrubland Alliance) is found on dry slopes and alluvial fans in shallow soils. Black sage is the dominant species. Other species commonly found in this community include chamise, California sagebrush, coyote brush, orange bush monkeyflower, California brittlebrush, California buckwheat, chaparral yucca, coast prickly pear, sugar bush, and white sage.

California Buckwheat Scrub

California buckwheat scrub (MCV: *Eriogonum fasciculatum* Shrubland Alliance) is found on upland slopes, in intermittently flooded arroyos, channels and washes in coarse, well drained soils. California buckwheat or chaparral yucca are dominant or co-dominant in the shrub layer. Other species commonly found in this community include California sagebrush, coyote brush, orange bush monkeyflower, California brittlebush, deerweed, Menzies' goldenbush, black sage, and white sage.

Coast Prickly Pear Scrub

Coast prickly pear scrub (MCV: *Opuntia littoralis*–*Opuntia oricola*–*Cylindropuntia prolifera* Shrubland Alliance) is found on south-facing slopes in shallow, loam and clay soils that may be rocky. Coast prickly pear is the dominant species. Other species commonly found in this community include California sagebrush, California brittlebush, chaparral yucca, California buckwheat, lemonade berry, and black sage.

California Brittle Bush–Ashy Buckwheat Scrub

California brittle bush–ashy buckwheat scrub (MCV: *Encelia californica*–*Eriogonum cinereum* Shrubland Alliance) is found on sunny, steep slopes that are often rocky or eroded, in soils developed from sandstone, shale, or volcanic substrates. California brittlebush and ashyleaf buckwheat are dominant or co-dominant. Other species commonly observed in this community include California sagebrush, coyote brush, bladderpod (*Cleome isomeris*), orange bush monkeyflower, California buckwheat, chaparral yucca, and coast prickly pear.

Quailbush Scrub

Quailbush scrub (MCV: *Atriplex lentiformis* Shrubland Alliance) is found on gentle to steep southeast- and southwest-facing slopes in clay soils. Big saltbrush (*Atriplex lentiformis*) is dominant in the shrub layer. Other species commonly found in this community include California sagebrush, coyote brush, California brittlebush, and laurel sumac.

Coyote Brush Scrub

Coyote brush scrub (MCV: *Baccharis pilularis* Shrubland Alliance) is found in coastal bluffs, terraces, stabilized dunes of coastal bars, spits along the coastline, river mouths, stream sides, open exposed slopes, ridges, and gaps in forest stands on sandy to heavy clay soils. Coyote brush, California coffeeberry (*Frangula californica*), and/or silk tassel bush (*Garrya elliptica*) are dominant to co-dominant in the shrub canopy. Other species

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commonly found in this community include California sagebrush, California buckwheat, orange bush monkeyflower, deerweed, white sage, and purple sage.

Lemonade Berry Scrub

Lemonade berry scrub (MCV: *Rhus integrifolia* Shrubland Alliance) is found on slopes and coastal bluffs in loam and clay soils. Lemonade berry is dominant or co-dominant in the shrub canopy. Other species commonly found in this community include chamise, California sagebrush, orange bush monkeyflower, California brittlebush, ashleaf buckwheat, California buckwheat, chaparral yucca, toyon, chaparral mallow, laurel sumac, coast prickly pear, and purple sage.

Riparian Scrub Communities

Riparian scrub communities are considered early succession stage communities that occur along washes or other watercourses that receive seasonal flooding and typically in recently or frequently disturbed or scoured areas. Structurally, riparian scrub communities range from sparse to dense in coverage with lower canopy heights that observed in Riparian woodlands and forests. Riparian scrub communities in the Hill and Canyon Area include salt bush, mule fat scrub, willows, and mixed riparian communities.

Mulefat Thickets

Mulefat thickets Scrub (MCV: *Baccharis salicifolia* Shrubland Alliance) are found in canyon bottoms, floodplains, irrigation ditches, lake margins, stream channels. Mulefat is dominant or co-dominant in the shrub canopy. Other species commonly found in this community include western sycamore (*Platanus racemosa*), Fremont cottonwood (*Populus fremontii*), oak (*Quercus spp.*) or willow (*Salix spp.*).

Arroyo Willow Thickets

Arroyo willow thickets (MCV: *Salix lasiolepis* Shrubland Alliance) are found along stream banks and benches, slope seeps, and stringers along drainages. Arroyo willows are dominant or co-dominant in the shrub canopy. Other species commonly found in this community include bigleaf maple, coyote brush, mule fat, American dogwood (*Cornus sericea*), western sycamore, Fremont cottonwood, black cottonwood (*Populus trichocarpa*), and blue elderberry (*Sambucus mexicana*).

Sandbar Willow Thickets

Sandbar willow thickets (MCV: *Salix exigua* Shrubland Alliance) are found in temporarily flooded floodplains, depositions along rivers and streams, and at springs. Sandbar willow (*Salix exigua*) is dominant or co-dominant in the shrub canopy. Other species commonly found in this community include coyote brush, California brickellbush (*Brickellia californica*), California wild rose (*Rosa californica*), blackberry, and arroyo willow.

Riparian Woodland and Forest Communities

Riparian woodland and forest communities in the Hill and Canyon Area include California sycamore coast live oak woodland and red willow woodland and forest.

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California Sycamore Coast Live Oak Riparian Woodlands California sycamore coast live oak riparian woodlands (MCV: *Platanus racemosa* and/or *Quercus agrifolia* Woodland Alliance) are found in gullies, intermittent streams, springs, seeps, stream banks, and terraces adjacent to floodplains that are subject to high-intensity flooding California sycamore and/or coast live oak is dominant or co-dominant in the tree canopy. Other species commonly found in this community include white alder (*Alnus rhombifolia*), southern California black walnut (*Juglans californica*), Fremont cottonwood, valley oak (*Quercus lobata*), sandbar willow, Goodding's willow (*Salix gooddingii*), red willow (*Salix laevigata*), and arroyo willow. California sycamore coast live oak riparian woodlands may qualify, in some instances, as oak woodlands that are considered Covered Habitats protected under the CONCCP/HCP.

Goodding's Willow–Red Willow Riparian Woodland and Forest

Goodding's willow–red willow riparian woodland and forest (MCV: *Salix gooddingii*–*Salix laevigata* Forest and Woodland Alliance) is found on terraces along large rivers, canyons, along floodplains of streams, seeps, springs, ditches, floodplains, lake edges, low-gradient depositions. Goodding's willow and/or red willow are dominant or co-dominant in the tree canopy. Other species commonly found in this community include mule fat, American dogwood, California wild rose, sandbar willow, arroyo willow, and blue elderberry.

Cismontane Woodland Communities

Cismontane woodland communities are primarily upland communities associated with multi-layered vegetation canopies with tree canopies that are at least 20 percent open, an open to intermittent shrub layer, and a sparse or grassy herbaceous layer. Cismontane woodland communities may be associated with watercourses and are common in canyons and hillsides. Cismontane woodland communities in the Hill and Canyon Area include coast live oak woodland, California walnut groves, southern coast live oak riparian forest, and blue elderberry.

Coast Live Oak Woodland

Coast live oak woodland (MCV: *Quercus agrifolia* Forest and Woodland Alliance) is found in canyon bottoms, slopes, and flats with deep soils. Coast live oak is dominant or co-dominant in the upland tree canopy. Other species commonly found in this community include bigleaf maple (*Acer macrophyllum*), Southern California black walnut, Engelmann oak (*Quercus engelmannii*), valley oak, and California laurel (*Umbellularia californica*). Coast live oak woodlands are considered Covered Habitats protected under the CONCCP/HCP.

California Walnut Groves

California walnut groves (MCV: *Juglans californica* Forest and Woodland Alliance) are found in riparian corridors. Southern California black walnut is dominant or co-dominant in the tree canopy. Other species commonly found in this community include white alder, California ash (*Fraxinus dipetala*), toyon, coast live oak, red willow, arroyo willow, blue elderberry, and laurel sumac.

Tecate Cypress–Piute Cypress Woodland

Tecate cypress–Piute cypress woodland (MCV: *Hesperocyparis forbesii*–*Hesperocyparis nevadensis* Woodland Alliance) is found in dry, exposed hillsides and ridgetops, stream banks, and arroyos. Tecate cypress is

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dominant or co-dominant in the tree canopy. Other species commonly found in this community include chamise, manzanitas, ceanothus (*Ceanothus spp.*), and laurel sumac. Tecate cypress–Piute cypress woodlands are considered Covered Habitats protected under the CONCCP/HCP.

Cliff and Rock Communities

Cliff and rock habitat is a Covered Habitat in the CONCCP/HCP. Communities in this habitat type are characterized by an assortment of vascular plants and lichens scattered on steep cliffs and rock outcrops. Cliff and rock communities within the Hill and Canyon Area include xeric cliffs, vascular plant xeric cliffs, and rock outcrops.

Liveforever–lichen/moss sparse herbaceous rock outcrop

Liveforever–lichen/moss sparse herbaceous rock outcrop (MCV: *Dudleya cymosa*–*Dudleya lanceolata*/Lichen–Moss Sparsely Vegetated Alliance) is found on steep slopes, cliffs, and rocky outcroppings. Moss and/or lichen are often abundant and well-developed. Other species commonly found in this community include canyon liveforever (*Dudleya cymosa*), lanceleaf liveforever (*Dudleya lanceolata*), birchleaf mountain mahogany, orange bush monkeyflower, California buckwheat, and toyon. Liveforever–lichen/moss sparse herbaceous rock outcrop is considered cliff and rock habitat, which is a Covered Habitat under the CONCCP/HCP.

Developed

Developed, urbanized lands are characteristic of the western and central portions of the City. Developed areas are characterized by urbanization that includes a combination of a developed and hardscaped features, landscaped and manicured vegetation, and disturbed areas with bare soil surfaces supporting ruderal vegetation. Developed and hardscaped areas include buildings, paved roads, parking lots, and sidewalks. Manicured, landscaped areas typically feature street/shade trees, lawns, and shrubs with little or no exposed soil substrates. Irrigation and fertilization of landscaped areas allow for tropical and other non-native and ornamental species to flourish in urban areas. Trees are often grown in a spaced pattern with an open understory, and lawns are typically one species maintained at a continuous, uniform height. Shrubs are grown as spaced individuals or in tight rows that are hedged. Developed areas often include areas with bare soil surfaces and weedy vegetation primarily composed of non-native, annual plant species. Developed areas provide habitat to a low diversity of wildlife that are tolerant of human-modified environments.

Wildlife

The vegetation community and land cover types discussed above provide habitat for wildlife species that are tolerant of urban environments and human activities. The following discussions regarding the wildlife species that have a potential to occur within the City are organized by area of the City and taxonomic group. Each discussion contains representative examples of a particular taxonomic group expected to occur in different areas of the City (FCS 2024).

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Undeveloped Areas of the City

A number of wildlife species are known to occur or have the potential to occur in undeveloped portions of the Hill and Canyon Area in the eastern portion of the City. Land within this area contains natural vegetation communities that have the potential to support diverse wildlife populations and important foraging, dispersal, migratory, and wildlife corridors for many sensitive species.

Amphibians

Amphibian species that have the potential to occur within the Hill and Canyon Area include Pacific chorus frog (*Pseudacris regilla*), or the western toad (*Anaxyrus boreas*), which may be present at times in the Santa Ana River.

Birds

Avian species that have the potential to occur in the Hill and Canyon Area include red-tailed hawk (*Buteo jamaicensis*), Cooper's hawk (*Accipiter cooperii*), red-shouldered hawk, turkey vulture (*Cathartes aura*), mourning dove (*Zenaidura macroura*), California scrub jay (*Aphelocoma californica*), common raven (*Corvus corax*), Bewick's wren (*Thryomanes bewickii*), wrentit (*Chamaea fasciata*), Costa's hummingbird (*Calypte costae*), ash-throated flycatcher (*Myiarchus cinerascens*), western kingbird (*Tyrannus verticalis*), Say's phoebe (*Sayornis saya*), yellow warbler (*Setophaga petechia*), yellow-rumped warbler (*Setophaga coronata*), California thrasher (*Toxostoma redivivum*), California towhee (*Melospiza crissalis*), spotted towhee (*Pipilo maculatus*), lark sparrow (*Chondestes grammacus*), white-crowned sparrow (*Zonotrichia leucophrys*), house finch (*Haemorhous mexicanus*), and lesser goldfinch (*Spinus psaltria*).

Mammals

Mammalian species that have the potential to occur in the Hill and Canyon Area include coyote, gray fox, bobcat (*Lynx rufus*), mule deer (*Odocoileus hemionus*), California ground squirrel (*Otospermophilus beecheyi*), desert cottontail rabbit (*Sylvilagus audubonii*), and San Diego black-tailed jackrabbit (*Lepus californicus bennettii*).

Reptiles

Reptilian species that have the potential to occur in the Hill and Canyon Area include San Diegan tiger whiptail, western fence lizard (*Sceloporus occidentalis*), California kingsnake (*Lampropeltis getula californica*), San Diego gophersnake (*Pituophis catenifer annectens*), and southern Pacific rattlesnake (*Crotalus oreganus helleri*).

Developed Areas of the City

The vegetation communities and land cover types in the developed portions of the City provide habitat for wildlife species that are tolerant of urbanized areas.

Amphibians

Common disturbance-tolerant amphibian species that have the potential to occur in the City include Pacific chorus frog, or the western toad, which may be present at times in the Santa Ana River.

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Birds

Common, native, disturbance-tolerant passerines and corvids that have the potential to occur in the City include mourning dove, northern mockingbird (*Mimus polyglottos*), American crow (*Corvus brachyrhynchos*), common raven, black phoebe (*Sayornis nigricans*), bushtit (*Psaltiriparus minimus*), house finch, lesser goldfinch, and others. Several non-native avian species occur in developed areas of the City, including Eurasian collared dove (*Streptopelia decaocto*), rock pigeon (*Columba livia*), European starling (*Sturnus vulgaris*), and house sparrow (*Passer domesticus*).

Mammals

Common disturbance-tolerant mammalian species that have the potential to occur in the City include coyote, desert cottontail rabbit, California ground squirrel, and striped skunk (*Mephitis mephitis*).

Reptiles

Common disturbance-resistant reptilian species that have the potential to occur in the City include gopher snake (*Pituophis catenifer*) and western fence lizard.

Sensitive Natural Communities

Sensitive Plant Communities

Sensitive natural communities are vegetation communities or special wildlife habitats that are rare or occur in limited distributions or provide specific habitat requirements for special-status plant or wildlife species. The CDFW maintains a list of natural vegetation communities found in California and ranks them based on rarity. Communities ranked S1-S3 are considered sensitive natural communities (FCS 2024).

The CNDDDB identified nine sensitive natural communities—Southern Dune Scrub, Southern Foredunes, Southern Interior Cypress Forest, Southern Coastal Salt Marsh, Southern Cottonwood Willow Riparian Forest, Southern Riparian Scrub, Southern Willow Scrub, Riversidian Alluvial Fan Sage Scrub, and California Walnut Woodland—within the 12-quadrangle search area. Four of these communities—Southern Cottonwood Willow Riparian Forest, Southern Willow Scrub, Riversidian Alluvial Fan Sage Scrub, and California Walnut Woodland—have been recorded within City limits. Some of these occurrences were recorded in the Hill and Canyon Area, while others were recorded in other parts of the City, such as the Oak Canyon Nature Center (refer to Figure 5.3-4, *Special-Status Species Occurrences*) (FCS 2024).

Riparian Habitats

Riparian vegetation communities have been recorded along Gypsum Creek and Coal Creek in the Hill and Canyon Area of the City. Communities in this area include California sycamore coast live oak riparian woodland, red willow riparian woodland scrub, and mixed riparian communities. The CNDDDB also contains records of coast live oak riparian forest and sycamore alder riparian woodland in this area along creeks. There are riparian areas associated with Santa Ana River in the eastern portion of the City. However, the Santa Ana River is mostly channelized within city limits (FCS 2024).

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Special-Status Plant Species

A query of the databases determined that 75 special-status plant species have been recorded in the CNDDDB, within the 12-quadrangle search area of the CNPSEI, in the IPaC (see Appendix B, Table 1, of Appendix I) or are Identified Species covered by the CONCCP/HCP. Table 1 in Appendix B includes the species' status, required habitat, and a summary analysis of the potential for each species to occur in the City. The assessments of potential for occurrence of each species was based on current biological conditions in the City and presence and locations of suitable habitats, soil types, and proximity and number of occurrences recorded in the CNDDDB (FCS 2024).

Potential for Occurrence of Special-Status Plants

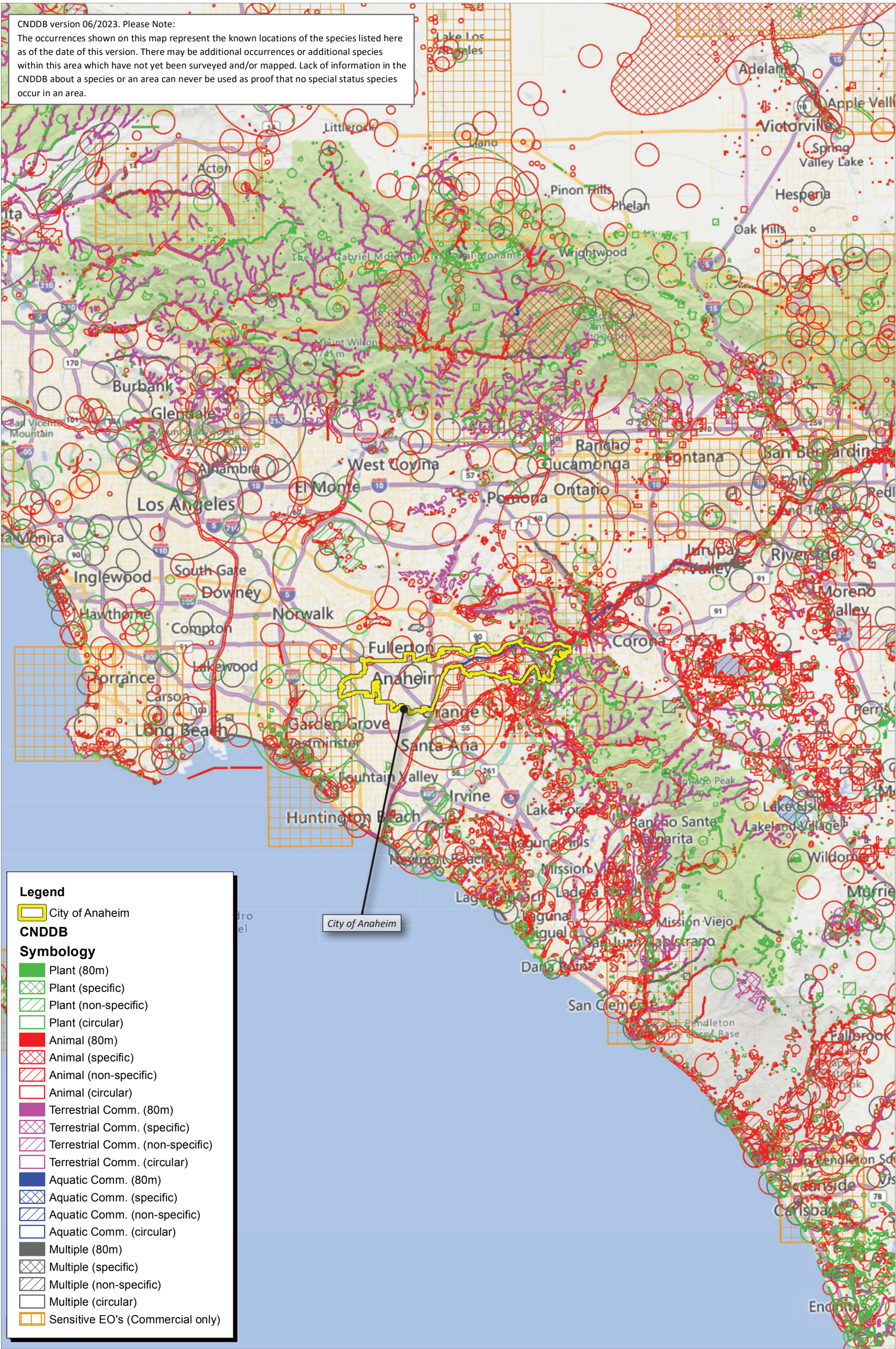
Urbanization of the western and central portions of the City has eliminated the potential for persistence and occurrence of populations of special-status plant species, but undeveloped areas in the Hill and Canyon Area, which are topographically complex and contain natural vegetation communities and undisturbed surface soils, provide potential for occurrence of many special-status plant species. Lands to the east of this area support additional undeveloped and undisturbed open space areas with similar habitats (FCS 2024).

High Potential for Occurrence

The Hill and Canyon Area of the City contains suitable soils, vegetation communities, and other habitat conditions that provide high potential for occurrence for 17 special-status plant species, as well as 2 additional Identified Species covered by the CONCCP/HCP:

- Tecate cypress
- Braunton's milk-vetch (*Astragalus brauntonii*)
- paniculate tarplant (*Deinandra paniculata*)
- western dichondra
- many-stemmed dudleya (*Dudleya multicaulis*)
- Mesa horkelia (*Horkelia cuneata* var. *puberula*)
- southern California black walnut
- heart-leaved pitcher sage (*Lepechinia cardiophylla*)
- Robinson's pepper-grass (*Lepidium virginicum* var. *robinsonii*)
- small-flowered microseris (*Microseris douglasii* ssp. *platycarpha*)
- intermediate monardella (*Monardella hypoleuca* ssp. *intermedia*)
- Hubby's phacelia (*Phacelia hubbyi*)
- Engelmann oak (*Quercus engelmannii*)
- Coulter's matilija poppy
- Fish's milkwort (*Polygala cornuta* var. *fishiae*)
- white rabbit-tobacco (*Pseudognaphalium leucocephalum*)
- Catalina mariposa lily
- intermediate mariposa lily

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Source: First Carbon Solutions, 2023.



Figure 5.3-4
Special-Status Species Occurrences

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- ocellated Humboldt lily (*Lilium humboldtii* ssp. *ocellatum*)
- chaparral nolina (*Nolina cismontana*)

Tecate Cypress

The Tecate cypress is a perennial, evergreen tree in the family Cupressaceae. This species occurs in clay and sometimes gabbroic soils in closed-cone coniferous forest and chaparral communities. The Tecate cypress is ranked as 1B.1 in the CNPS Inventory of Rare Plants and is covered under the CONCCP/HCP. There are five recent and one historical records in the 12-quad search area encompassing the City. This species is known to occur within the Hill and Canyon Area in Tecate cypress woodland vegetation community (FCS 2024).

Braunton's Milk-vetch

Braunton's milk-vetch is a perennial herb in the family Fabaceae. This species occurs in carbonate and sandstone soils in chaparral, coastal scrub, and valley and foothill grassland communities. It blooms between January and August. Braunton's milk-vetch is listed as Endangered under the Endangered Species Act and ranked as 1B.1 in the CNPS Inventory of Rare Plants. It is not covered under the CONCCP/HCP. There are seven recent records in the 12-quad search area encompassing the City, including three recent (2019, 2020, 2020) records within City limits. Suitable habitat for this species is in chaparral, coastal scrub, and grassland communities in the Hill and Canyon Area (FCS 2024).

Paniculate Tarplant

The paniculate tarplant is an annual herb in the family Asteraceae. This species occurs in sandy soils (sometimes) and usually in vernal mesic soils in coastal scrub, valley and foothill grassland, vernal pool communities. It blooms between April and November. The paniculate tarplant is ranked as 4.2 in the CNPS Inventory of Rare Plants. The CNDDB does not track occurrences of this species. Suitable habitat for this species is in coastal scrub and grassland communities in the Hill and Canyon Area (FCS 2024).

Western Dichondra

The western dichondra is a perennial rhizomatous herb in the family Convolvulaceae. This species occurs in chaparral, cismontane woodland, coastal scrub, and valley and foothill grassland communities. It blooms between March and July. The western dichondra is ranked as 4.2 in the CNPS Inventory of Rare Plants and it is covered under the CONCCP/HCP. The CNDDB does not track occurrences of this species. Suitable habitat for this species is in chaparral, coastal scrub, and grassland communities in the Hill and Canyon Area (FCS 2024).

Many-stemmed Dudleya

The many-stemmed dudleya is a perennial herb in the family Crassulaceae. This species occurs usually in clay soils in chaparral, coastal scrub, and valley and foothill grassland communities. It blooms between April and July. The many-stemmed dudleya is ranked as 1B.2 in the CNPS Inventory of Rare Plants. There are 15 recent and 30 historical records in the 12-quad search area encompassing the City. This species is known to occur in the Hill and Canyon Area where suitable habitat is located within grassland, coastal scrub, coastal bluff scrub, and chaparral communities (FCS 2024).

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Mesa Horkelia

Mesa horkelia is a perennial herb in the family Rosaceae. This species occurs in chaparral, coastal scrub, and cismontane woodland communities. It blooms between February and July. Mesa horkelia is ranked as 1B.1 in the CNPS Inventory of Rare Plants. There is one recent (2008) record in the 12-quad search area encompassing the City, which falls within City limits. Suitable habitat for this species is in chaparral and coastal scrub communities in the Hill and Canyon Area (FCS 2024).

Southern California Black Walnut

Southern California black walnut is a perennial, deciduous tree in the family Juglandaceae. This species occurs in chaparral, cismontane woodland, coastal scrub, and riparian woodland communities. It blooms between March and August. Southern California black walnut is ranked as 4.2 in the CNPS Inventory of Rare Plants. The CNDDDB does not track occurrences of this species. Suitable habitat for this species is in chaparral, coastal scrub, and riparian woodland communities within the Hill and Canyon Area (FCS 2024).

Heart-Leaved Pitcher Sage

Heart-leaved pitcher sage is a perennial shrub in the family Lamiaceae. This species occurs in closed-cone coniferous forest, chaparral, and cismontane woodland communities. It blooms between April and July. Heart-leaved pitcher sage is ranked as 1B.2 in the CNPS Inventory of Rare Plants and it is covered under the CONCCP/HCP. There are seven recent and three historical records in the 12-quad search area encompassing the City, including one recent (2003) record within City limits. Suitable habitat for this species is in chaparral community in the Hill and Canyon Area (FCS 2024).

Robinson's Pepper-grass

Robinson's pepper-grass is an annual herb in the family Brassicaceae. This species occurs in dry soils in chaparral and coastal scrub communities. It blooms between January and July. Robinson's pepper-grass is ranked as 4.3 in the CNPS Inventory of Rare Plants. There are five recent and one historical records in the 12-quad search area encompassing the City, including one recent (2008) record within City limits. Suitable habitat for this species is in chaparral and coastal scrub communities in the Hill and Canyon Area (FCS 2024).

Small-flowered Microseris

Small-flowered microseris is an annual herb in the family Asteraceae. This species occurs in clay soils in cismontane woodland, coastal scrub, valley and foothill grassland, and vernal pool communities. It blooms between March and May. Small-flowered microseris is ranked as 4.2 in the CNPS Inventory of Rare Plants. The CNDDDB does not track occurrences of this species. Suitable habitat for this species is in coastal scrub and grassland communities in the Hill and Canyon Area (FCS 2024).

Intermediate Monardella

Intermediate monardella is a perennial rhizomatous herb in the family Lamiaceae. This species occurs in chaparral, cismontane woodland, and lower montane coniferous forest communities. It blooms between April and September. Intermediate monardella is ranked as 1B.3 in the CNPS Inventory of Rare Plants. There are

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four recent and five historical records in the 12-quad search area encompassing the City, including one recent (2008) record within City limits. Suitable habitat for this species is in chaparral communities in the Hill and Canyon Area (FCS 2024).

Hubby's Phacelia

Hubby's phacelia is an annual herb in the family Hydrophyllaceae. This species occurs in gravelly, rocky, and talus soils in chaparral, coastal scrub, and grassland communities. It blooms between April to July. Hubby's phacelia is ranked as 4.2 in the CNPS Inventory of Rare Plants. The CNDDDB does not track occurrences of this species. Suitable habitat for this species is in chaparral, coastal scrub, and grassland communities in the Hill and Canyon Area (FCS 2024).

Engelmann Oak

Engelmann oak is a perennial, deciduous tree in the family Fagaceae. This species occurs in chaparral, cismontane woodland, riparian woodland, and valley and foothill grassland communities. It blooms between March and June. Engelmann oak is ranked as 4.2 in the CNPS Inventory of Rare Plants. The CNDDDB does not track occurrences of this species. Suitable habitat for this species is in chaparral, grassland, and riparian woodland communities in the Hill and Canyon Area (FCS 2024).

Coulter's Matilija Poppy

The Coulter's matilija poppy is a perennial, rhizomatous herb in the family Papaveraceae. This species occurs in chaparral and coastal scrub, often in burned areas. It blooms between March and July. The Coulter's matilija poppy is ranked as 4.2 in the CNPS Inventory of Rare Plants and is covered under the CONCCP/HCP. The CNDDDB does not track occurrences of this species. This species is known to occur in the Hill and Canyon Area where suitable habitat is located within coastal scrub and chaparral communities (FCS 2024).

Fish's Milkwort

Fish's milkwort is a perennial deciduous shrub in the family Polygalaceae. This species occurs in chaparral, cismontane woodland, and riparian woodland communities. It blooms between May and August. Fish's milkwort is ranked as 4.3 in the CNPS Inventory of Rare Plants. The CNDDDB does not track occurrences of this species. Suitable habitat for this species is in chaparral and riparian woodland communities in the Hill and Canyon Area (FCS 2024).

Catalina Mariposa Lily

Catalina mariposa lily is a perennial, bulbiferous herb in the family Liliaceae. This species occurs in chaparral, cismontane woodland, coastal scrub, and valley and foothill grassland communities. It blooms between March and June. Catalina mariposa lily is ranked as 4.2 in the CNPS Inventory of Rare Plants and is covered under the CONCCP/HCP. The CNDDDB does not track occurrences of this species. Suitable habitat for this species is in chaparral, coastal scrub, and grassland communities in the Hill and Canyon Area (FCS 2024).

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White Rabbit-Tobacco

White rabbit-tobacco is a perennial herb in the family Asteraceae. This species occurs in gravelly and sandy soils in chaparral, cismontane woodland, coastal scrub, and riparian woodland communities. It blooms between August and November. White rabbit-tobacco is ranked as 2B.2 in the CNPS Inventory of Rare Plants. There are one recent and one historical records in the 12-quad search area encompassing the City. Suitable habitat for this species is in chaparral, coastal scrub, and riparian woodland communities in the Hill and Canyon Area (FCS 2024).

Intermediate Mariposa Lily

Intermediate mariposa lily is a perennial, bulbiferous herb in the family Liliaceae. This species occurs in calcareous soils on rocky areas in coastal scrub, chaparral, and valley and foothill grassland communities. It blooms between May and July. Intermediate mariposa lily is ranked as 1B.2 in the CNPS Inventory of Rare Plants and is covered under the CONCCP/HCP. There are 66 recent and 11 historical records in the 12-quad search area encompassing the City, including nine recent and two historical records within City limits. Suitable habitat for this species is in chaparral, coastal scrub, and grassland communities in the Hill and Canyon Area (FCS 2024).

Ocellated Humboldt Lily

Ocellated Humboldt lily is a perennial, bulbiferous herb in the family Liliaceae. This species occurs in openings in chaparral, cismontane woodland, coastal scrub, lower montane coniferous forest, and riparian woodland communities. It blooms between March and July. Ocellated Humboldt lily is ranked as 4.2 in the CNPS Inventory of Rare Plants. The CNDDDB does not track occurrences of this species. Suitable habitat for this species is in chaparral, coastal scrub, and riparian woodland communities in the Hill and Canyon Area (FCS 2024).

Chaparral Nolina

Chaparral nolina is a perennial, evergreen shrub in the family Ruscaceae. This species occurs in gabbroic soils and sometimes in sandstone in chaparral and coastal scrub communities. It blooms between May and July. Chaparral nolina is ranked as 1B.2 in the CNPS Inventory of Rare Plants. There are 28 recent and four historical records in the 12-quad search area encompassing the City. This species is known to occur in the Hill and Canyon Area where suitable habitat is located within coastal scrub and chaparral communities (FCS 2024).

Moderate Potential for Occurrence

The Hill and Canyon Area of the City contains suitable soils, vegetation communities, and other habitat conditions that provide moderate potential for occurrence for 14 special-status plant species:

- Brewer's calandrinia (*Calandrinia breweri*)
- Lewis' evening-primrose (*Camissoniopsis lewisii*)
- long-spined spineflower (*Chorizanthe polygonoides* var. *longispina*)

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- small-flowered morning-glory (*Convolvulus simulans*)
- Santa Monica Mountains dudleya (*Dudleya cymosa* ssp. *ovatifolia*)
- San Diego button-celery (*Eryngium aristulatum* var. *parishii*)
- Palmer's grapplinghook
- southern California black walnut
- Coulter's goldfields (*Lasthenia glabrata* ssp. *coulteri*)
- small-flowered microseris (*Microseris douglasii* ssp. *platycarpha*)
- south coast branching phacelia (*Phacelia ramosissima* var. *austrolitoralis*)
- Fish's milkwort
- San Diego County viguiera (*Viguiera laciniata*)
- Plummer's mariposa lily (*Calochortus plummerae*)

Brewer's Calandrinia

Brewer's calandrinia is an annual herb in the family Montiaceae. This species occurs in burned (sometimes) and in disturbed areas (sometimes) in loam (sometimes) and sandy (sometimes) soils in chaparral and coastal scrub communities. It blooms between March and June. Brewer's calandrinia is ranked as 4.2 in the CNPS Inventory of Rare Plants. The CNDDB does not track occurrences of this species. Suitable habitat for this species is in chaparral and coastal scrub communities in the Hill and Canyon Area.

Lewis' Evening-primrose

Lewis' evening-primrose is an annual herb in the family Onagraceae. This species occurs in clay (sometime) and sandy (sometimes) soils in coastal bluff scrub, cismontane woodland, coastal dunes, coastal scrub, and valley and foothill grassland communities. It blooms between March and May. Lewis' evening-primrose is ranked as 3 in the CNPS Inventory of Rare Plants. The CNDDB does not track occurrences of this species. Suitable habitat for this species is in coastal scrub and grassland communities in the Hill and Canyon Area.

Long-Spined Spineflower

The long-spined spineflower is an annual herb in the family Polygonaceae. This species occurs in valley and foothill grassland, coastal scrub, chaparral, meadows and seeps, and vernal pool communities. It blooms between April and July. The long-spined spineflower is ranked as 1B.2 in the CNPS Inventory of Rare Plants. There is one historical record in the 12-quadrant search area encompassing the City (Exhibit 5). This species is known to occur within the Hill and Canyon Area of the City where suitable habitat is located within grassland, coastal scrub, and chaparral communities.

Small-Flowered Morning Glory

Small-flowered morning glory is an annual herb in the family Convolvulaceae. This species occurs in clay soils, seeps, and serpentine soils in openings in chaparral, coastal scrub, and valley and foothill grassland communities. It blooms between March and July. Small-flowered morning glory is ranked as 4.2 in the CNPS Inventory of Rare Plants. The CNDDB does not track occurrences of this species. Suitable habitat for this species is in chaparral, coastal scrub, and grassland communities in the Hill and Canyon Area.

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Santa Monica Mountains Dudleya

Santa Monica Mountains dudleya is a perennial herb in the family Crassulaceae. This species occurs in rocky and sometimes volcanic soils in chaparral and coastal scrub. It blooms between March and June. Santa Monica Mountains dudleya is listed as Threatened under the Endangered Species Act and ranked as 1B.1 in the CNPS Inventory of Rare Plants and is covered under the CONCCP/HCP. There are no CNDDB records in the 12-quad search area encompassing the City (Exhibit 5). Suitable habitat for this species is in the chaparral and coastal scrub communities in the Hill and Canyon Area.

San Diego Button-celery

San Diego button-celery is an annual/perennial herb in the family Apiaceae. This species occurs in mesic soils in coastal scrub, valley and foothill grassland, and vernal pools. It blooms between April and June. San Diego button-celery is listed as Endangered under the Endangered Species Act and a candidate for listing under CESA and ranked as 1B.1 in the CNPS Inventory of Rare Plants. There is one recent record in the 12-quad search area encompassing the City (Exhibit 5). Suitable habitat for this species is in coastal scrub and grassland communities in the Hill and Canyon Area.

Palmer's Grapplinghook

Palmer's grapplinghook is an annual herb in the family Boraginaceae. This species occurs in clay soils and openings in chaparral, coastal scrub, and valley and foothill grassland communities. It blooms between March and May. The western dichondra is ranked as 4.2 in the CNPS Inventory of Rare Plants and it is covered under the CONCCP/HCP. The CNDDB does not track occurrences of this species. Suitable habitat for this species is in chaparral, coastal scrub, and grassland communities in the Hill and Canyon Area.

Coulter's Goldfields

Coulter's goldfields is an annual herb in the family Asteraceae. This species occurs in marshes and swamps, playas, and vernal pools. It blooms between February and June. Coulter's goldfields is ranked as 1B.1 in the CNPS Inventory of Rare Plants. There are one recent and 10 historical records in the 12-quad search area encompassing the City, including one historical record within City limits (Exhibit 5). Suitable habitat for this species is in wetland and vernal pool communities in the Hill and Canyon Area.

South Coast Branching Phacelia

South coast branching phacelia is a perennial herb in the family Hydrophyllaceae. This species occurs in rocky (sometimes) and sandy soils in chaparral, coastal dunes, coastal scrub, and coastal salt marshes and swamps. It blooms between March and August. South coast branching phacelia is ranked as 3.2 in the CNPS Inventory of Rare Plants. The CNDDB does not track occurrences of this species. Suitable habitat for this species is in chaparral and coastal scrub communities in the Hill and Canyon Area.

San Diego County Viguiera

San Diego County viguiera is a perennial shrub in the family Asteraceae. This species occurs in chaparral and coastal scrub communities. It blooms between February and June. San Diego County viguiera is ranked as 4.3

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in the CNPS Inventory of Rare Plants. The CNDDDB does not track occurrences of this species. Suitable habitat for this species is in chaparral and coastal scrub communities in the Hill and Canyon Area.

Plummer's Mariposa Lily

The Plummer's mariposa lily is a perennial, bulbiferous herb in the family Liliaceae. This species occurs in granitic and rocky soils in chaparral, cismontane woodland, coastal scrub, lower montane coniferous forest, and valley and foothill grassland communities. It blooms between May and July. The Plummer's mariposa lily is ranked as 4.2 in the CNPS Inventory of Rare Plants. There are six recent and four historical records in the 12-quadrant search area encompassing the City (Exhibit 5). This species may occur in the Hill and Canyon Area where suitable habitat is located within grassland, coastal scrub, and chaparral communities.

Potential Occurrence for Other CONCCP/HCP-Covered Plant Species

Other plant species not detected or tracked in the CNDDDB, CNPSEI, or IPaC searches, but that are Identified Species covered by the CONCCP/HCP may have potential to occur in the City. Of these species, two were assessed to have high potential to occur: inland scrub oak and Nuttall's scrub oak. Suitable habitat for these species is in chaparral and coastal scrub communities in the Hill and Canyon Area.

Special-Status Wildlife Species

Seventy-six special-status wildlife species were identified as occurring in the 12-quadrangle search area as recorded in the CNDDDB, and an additional species was identified in the USFWS IPaC review (Appendix B, Table 2, of Appendix I). Four additional species are Identified Species covered by the CONCCP/HCP. Table 2 in Appendix B includes the legal status of each species, their required habitat types and features, and their potential to occur in the City. The table also includes special-status wildlife species that have been determined to have no or low potential to occur in the City, primarily based on the City being situated outside of the range of the species or absence of suitable habitat or the lack of recent records in the vicinity, along with other justification(s) for their exclusion from further discussion. Special-status wildlife species with moderate to high potential to occur in the City are analyzed further below. The potential for wildlife to occur in the City was based on presence of suitable habitats and proximity and recency of occurrences recorded in the CNDDDB.

Sensitive wildlife includes those species listed as endangered or threatened under the Endangered Species Act or CESA, candidates for listing by the USFWS or CDFW, Species of Special Concern to the USFWS or CDFW, and Identified Species covered by the CONCCP/HCP. Regardless of their federal or State status, species included in the CONCCP/HCP are considered sensitive because they are associated with sensitive habitat (e.g., CSS), and are covered as though they are listed species.

Potential for Occurrence of Special-Status Wildlife

Many species with records in the vicinity of the City have potential to occur in the Hills and Canyon Area. Species that were assessed as having no or low potential to occur because the City is outside of the known distributional range of the species or because the City does not support suitable habitat are included in the

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table (Appendix B, Table 2, of Appendix I) but are not discussed further. The following species were assessed as having moderate or high potential to occur in the City. These species are discussed further below.

High Potential for Occurrence

The City contains suitable habitat conditions that provide high potential for occurrence for 15 special-status wildlife species, as well as four additional Identified Species covered by the CONCCP/HCP:

- Crotch's bumble bee (*Bombus crotchii*)
- western spadefoot
- orange-throated whiptail
- San Diegan tiger whiptail
- red-diamond rattlesnake
- coast horned lizard (*Phrynosoma blainvillii*)
- coast patch-nosed snake (*Salvadora hexalepis virgultea*)
- Cooper's hawk
- southern California rufous-crowned sparrow
- coastal cactus wren (*Campylorhynchus brunneicapillus sandiegensis*)
- white-tailed kite (*Elanus leucurus*)
- yellow-breasted chat (*Icteria virens*)
- coastal California gnatcatcher
- yellow warbler
- least Bell's vireo

Crotch's Bumblebee

The Crotch's bumblebee is a species of bee in the family Apidae. This species occurs primarily in California, including coastal habitats, western Mojave Desert, San Joaquin Valley, and adjacent foothills through most of southwestern California. It inhabits arid grasslands, desert scrub, and coastal scrub communities, and its food sources include milkweed, pincushion, lupine, clover, phacelia, sage, clarkia, poppy, and buckwheat. Threats to this species include climate change, pesticide use, competition from non-native bees, reduced genetic diversity, and habitat loss and degradation, including agricultural intensification in California's northern Central Valley and rapid urbanization in the southern Central Valley. In June of 2019, the California Fish and Game Commission voted 3-1 that listing the Crotch's bumblebee may be warranted under CESA; however, a Superior Court ruling in January 2021 blocked the listing. The listing decision by the Commission was ultimately upheld and the species' candidacy was reinstated under CESA on September 30, 2022. Suitable habitat and food plants for Crotch's bumblebee occur in coastal scrub and grassland communities in the Hill and Canyon Area. There are seven recent and six historical records in the 12-quadrant search area encompassing the City (refer to Figure 5.3-4) (FCS 2024).

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Western Spadefoot

Western spadefoot is an Anuran amphibian in the family Pelobatidae. This species prefers open areas with sandy or gravelly soils in a variety of habitats including mixed woodlands, grasslands, coastal scrub, chaparral, sandy washes, lowlands, river floodplains, alluvial fans, playas, alkali flats, foothills, and mountains. Western spadefoot breed in seasonally ephemeral pools of water that do not contain bullfrogs, fish, or crayfish. Breeding sites include vernal pools and other temporary rain pools, cattle tanks, and occasionally in pools within intermittent streams. Suitable breeding pools must support standing water for at least 4 to 11 weeks for the larval stages of this species to transform. Typically, the pools are turbid with little or no cover. Western spadefoot are nocturnal and almost completely terrestrial, entering water only to breed. They burrow underground using the hardened spades on their hind feet and can remain buried underground for most of the year, emerging during periods of rain for breeding. Breeding may take place from January to May, peaking in February and March, but may breed at any time of the year if conditions are favorable. Western spadefoot eat a variety of invertebrates, including adult beetles, larval and adult moths, crickets, flies, ants, and earthworms, and can consume enough in several weeks to survive the long period of underground dormancy. Western spadefoot is designated as a California Species of Special Concern and is covered under the CONCCP/HCP. Suitable habitat for this species is located in chaparral, coastal scrub, and grassland communities in the Hills and Canyon Area. There are 23 recent and 15 historical records in the 12-quadrant search area encompassing the City, including two recent (2010, 2010) and one historical record within City limits (refer to Figure 5.3-4) (FCS 2024).

Orange-throated Whiptail

The orange-throated whiptail is a species of lizard in the family Teiidae. This species is found on coarse soils in open coastal scrub communities. This species forages near perennial plants for a variety of small arthropods, especially termites, and will seek cover under rocks, logs, decaying vegetation and boards. The orange-throated whiptail is designated as a California Watch List species and is covered under the CONCCP/HCP, and identified as a Target Species in the plan. This species is known to occur within the Hill and Canyon Area of the City where suitable habitat is located within coastal scrub communities. There are five recent and 16 historical records in the 12-quadrant search area encompassing the City (refer to Figure 5.3-4) (FCS 2024).

San Diegan Tiger Whiptail

The San Diegan tiger whiptail is a species of lizard in the family Teiidae. This species typically occurs in arid desert scrub and coastal scrub communities with sparse vegetation, but may also be found in forests, woodlands, chaparral, and riparian areas. It feeds on small invertebrates, especially spiders, scorpions, centipedes, and termites, as well as other small lizards. The San Diegan tiger whiptail is designated as a California Species of Special Concern and is covered under the CONCCP/HCP. This species is known to occur in the Hill and Canyon Area where suitable habitat is located in the chaparral, coastal scrub, woodland, and riparian communities. There are four recent and five historical records in the 12-quadrant search area encompassing the City (refer to Figure 5.3-4) (FCS 2024).

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Red-Diamond Rattlesnake

Red-diamond rattlesnake is a species of rattlesnake (pit vipers in the family Viperidae) that can be found in southwestern California, from the Morongo Valley west to the coast and south along the peninsular ranges to mid Baja California. This species occurs in chaparral, woodland, grassland, and desert habitats, especially rocky areas with dense vegetation. Microhabitats include rodent burrows, cracks in rocks, or other surface cover. The red-diamond rattlesnake is designated as a California Species of Special Concern and is covered under the CONCCP/HCP. This species is known to occur in the Hill and Canyon Area where suitable habitat is located in chaparral, coastal scrub, woodland, and grassland communities. There are one recent and eight historical records in the 12-quad search area encompassing the City (refer to Figure 5.3-4) (FCS 2024).

Coast Horned Lizard

Coast horned lizard is a lizard in the family Phrynosomatidae. This species occurs primarily in western California, where it frequents a wide variety of habitats, most commonly in grasslands, coniferous forests, woodlands, desert scrub, coastal scrub, and chaparral, with open areas and patches of loose soil. This species requires open areas for sunning, bushes for cover, patches of loose soil for burial, and abundant supply of ants and other insects. Populations of this species are threatened by habitat destruction from human development and agriculture, and the spread of non-native ants, such as Argentine ant (*Linepithema humile*) which displace the native ant food source. Before commercial collecting was banned in 1981, this lizard was extensively exploited by the pet trade and the curio trade. The coast horned lizard is designated as a Special Species of Concern, and is covered under the CONCCP/HCP. This species is known to occur in the Hill and Canyon Area where suitable habitat is located in coastal scrub, chaparral, coniferous forest, woodland, and grassland communities. There are three recent and 19 historical records in the 12-quad search area encompassing the City (refer to Figure 5.3-4) (FCS 2024).

Coast Patch-Nosed Snake

The coast patch-nosed snake is a snake in the family Colubridae. This species occurs in openings in coastal scrub and chaparral communities. It is found in brushy or shrubby vegetation and is dependent on small mammal burrows. The coast patch-nosed snake is designated as a California Special Species of Concern. Suitable habitat for this species is located within coastal scrub and chaparral communities in the Hills and Canyon Area. There are four historical records in the 12-quad search area encompassing the City (refer to Figure 5.3-4) (FCS 2024).

Cooper's Hawk

Cooper's hawk is a hawk in the family Accipitridae. This species occurs in riparian forests and woodlands throughout California, including urban forests. It prefers patchy wooded areas, such as groves with edges with snags for perching. It nests in dense stands with moderate crown-depths, usually nests in second-growth conifer stands, or in deciduous riparian areas, usually near streams. Cooper's hawk prey on mid-sized birds such as pigeons, jays, starlings, and doves, but they also consume small rodents. The species captures prey from cover or while flying quickly through dense vegetation, relying on surprise. The Cooper's hawk is designated as a California Species of Special Concern. Their nests are protected by the MBTA and California Fish and Game Code pertaining to native nesting avian species. This species is known to occur in the Hill and

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Canyon Area where suitable foraging and nesting habitat is located in the forest and woodland communities. This species may also occur in developed portions of the City where they may forage and nest in areas containing urban forests. There are three recent and two historical records in the 12-quad search area encompassing the City (refer to Figure 5.3-4) (FCS 2024).

Southern California Rufous-Crowned Sparrow

Southern California rufous-crowned sparrow is a sparrow in the family Passerellidae. This species occurs in coastal scrub and sparse mixed chaparral habitats, but will also frequent relatively steep, rocky hillsides with grass and forb patches. It forages in the litter beneath shrubs, oak trees, and herbaceous cover. The southern California rufous-crowned sparrow is designated as a California Watch List species, and is covered under the CONCCP/HCP. Their nests are protected by the MBTA and California Fish and Game Code pertaining to native nesting avian species. This species is known to occur in the Hill and Canyon Area where suitable foraging and nesting habitat is located in the chaparral and coastal scrub communities. There are four recent and seven historical records in the 12-quad search area encompassing the City (refer to Figure 5.3-4) (FCS 2024).

Coastal Cactus Wren

The coastal cactus wren is a wren in the family Troglodytidae. This species occurs in coastal scrub. It requires tall opuntia cactus for nesting and roosting. The coastal cactus wren is designated as a California Species of Special Concern, and is covered under the CONCCP/HCP, in which it is listed as a Targeted Species. Their nests are protected by the MBTA and California Fish and Game Code pertaining to native nesting avian species. This species is known to occur in the Hill and Canyon Area where suitable foraging and nesting habitat is located within coastal scrub communities. There are seven recent and 25 historical records in the 12-quad search area encompassing the City (refer to Figure 5.3-4) (FCS 2024).

White-Tailed Kite

The white-tailed kite is a hawk in the family Accipitridae. This species inhabits open habitats such as grasslands, marshes, and farmlands, and is often found near agricultural areas. It prefers areas with trees for perching and nesting, and forages in open areas that support diurnal rodent populations. Preferred nesting habitat consists of oak woodlands or trees along marsh edges. Suitable nesting substrates include trees or shrubs of moderate height, such as eucalyptus, cottonwoods, toyons, and coyote bush, with the nests placed near the tops of the shrubs or trees. Nesting occurs in February through August with peak activity in March, April, and May. The white-tailed kite is designated as a California Fully Protected species. Their nests are protected by the MBTA and California Fish and Game Code pertaining to native nesting avian species. Suitable foraging and nesting habitat is present in coastal scrub and grassland communities in the Hill and Canyon Area. There are 22 recent records in the 12-quad search area encompassing the City (refer to Figure 5.3-4) (FCS 2024).

Yellow-Breasted Chat

The yellow-breasted chat is a passerine bird in the family Icteridae. This species is a Neotropical migrant that breeds in California. It frequents thickets along streams and breeds in very dense scrub (such as willow

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thickets) along streams or at the edges of swamps or ponds. The yellow-breasted chat also inhabits dry, overgrown pastures, hedgerows, and upland thickets near woodland margins. The species is omnivorous, foraging on insects and berries. The yellow-breasted chat is designated as a California Species of Special Concern. Their nests are protected by the MBTA and Fish and Game Codes pertaining to native nesting avian species. Suitable foraging and nesting habitats are present in the coastal scrub and riparian communities in the Hills and Canyon Area. There are eight recent and four historical records in the 12-quad search area encompassing the City (refer to Figure 5.3-4) (FCS 2024).

Coastal California Gnatcatcher

The coastal California gnatcatcher is a passerine bird in the family Polioptilidae. This species is a year-round, obligatory resident of CSS communities in elevations below 2,500 feet. It is insectivorous, and nests and forages in moderately dense stands of sage scrub occurring on arid hillsides, mesas, and in washes. The coastal California gnatcatcher is listed as a federally threatened species and is designated as a California Species of Special Concern, and is covered under the CONCCP/HCP, under which it is listed as a Target Species. Their nests are protected by the MBTA and California Fish and Game Code pertaining to native nesting avian species. This species is known to occur in the Hill and Canyon Area where suitable foraging and nesting habitat is located in the coastal scrub communities. There are 174 recent and 45 historical records in the 12-quad search area encompassing the City (refer to Figure 5.3-4) (FCS 2024).

Yellow Warbler

The yellow warbler is a passerine bird in the family Parulidae. This species prefers moist habitats with a high insect abundance, such as wetlands and mature riparian woodlands dominated by cottonwoods, alders, willow, and ash trees. However, it is known to also inhabit drier areas of thickets, orchards, or farmlands. The yellow warbler is designated as a California Species of Special Concern. Their nests are protected by the MBTA and Fish and Game Codes pertaining to native nesting avian species. Suitable foraging and nesting habitats are present in the riparian woodland communities in the Hills and Canyon Area. There are nine recent records in the 12-quad search area encompassing the City (refer to Figure 5.3-4) (FCS 2024).

Least Bell's Vireo

Least Bell's vireo is a passerine bird in the family Vireonidae. This species is a Neotropical migrant that breeds in California. This species occurs and nests in willow-dominated, riparian woodland or scrub habitats in the vicinity of water or in dry river bottoms. Least Bell's vireo is federally and State-listed as an Endangered species, and is covered under the CONCCP/HCP. Their nests are protected by the MBTA and Fish and Game Codes pertaining to native nesting avian species. There are CNDDDB records of this species in the City and suitable habitat is located in riparian woodlands and forests in the Hill and Canyon Area. There are 50 recent and five historical records in the 12-quad search area encompassing the City, including one recent (2017) record within City limits (refer to Figure 5.3-4) (FCS 2024).

Moderate Potential for Occurrence

The project site contains suitable habitat conditions that provide a moderate potential for occurrence for 17 special-status wildlife species, as well as eight additional CONCCP/HCP-covered species:

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- monarch butterfly (*Danaus plexippus*)
- San Diego fairy shrimp
- Riverside fairy shrimp
- southern California legless lizard (*Anniella stebbinsi*)
- California glossy snake (*Arizona elegans occidentalis*)
- western pond turtle (*Emys marmorata*)
- two-striped gartersnake (*Thamnophis hammondi*)
- tricolored blackbird (*Agelaius tricolor*)
- grasshopper sparrow (*Ammodramus savannarum*)
- golden eagle (*Aquila chrysaetos*)
- great blue heron (*Ardea herodias*)
- long-eared owl (*Asio otus*)
- burrowing owl (*Athene cunicularia*)
- ferruginous hawk (*Buteo regalis*)
- southwestern willow flycatcher
- California horned lark (*Eremophila alpestris actia*)
- American peregrine falcon
- bank swallow (*Riparia riparia*)
- California least tern (*Sternula antillarum browni*)
- pallid bat (*Antrozous pallidus*)
- northwestern San Diego pocket mouse (*Chaetodipus fallax fallax*)
- western mastiff bat (*Eumops perotis californicus*)
- western yellow bat (*Lasiurus xanthinus*)
- Yuma myotis (*Myotis yumanensis*)
- San Diego desert woodrat
- southern grasshopper mouse (*Onychomys torridus ramona*)
- American badger (*Taxidea taxus*)

Monarch Butterfly

The monarch butterfly is listed as a Candidate for federal listing as a threatened species and wintering roosts are protected under California Fish and Game Code. Preferred monarch foraging habitat includes vegetation communities that offer diverse nectar sources. Native milkweeds (*Asclepias spp.*) and other nectar sources provide monarchs with breeding habitat, resting and refueling stops during migration, and food at overwintering sites. Overwintering begins in September or October. Overwintering typically occurs in tree groves within 1.5 miles of the Pacific coastline. Suitable grove conditions include temperatures above freezing, high humidity, dappled sunlight, access to water and nectar, and protection from high winds and storms. Monarchs will select native tree species when they are available but will also utilize non-native eucalyptus species if other optimal habitat conditions are met. During breeding season in the late spring and summer, female monarch butterflies lay their eggs on the underside of young leaves or flower buds of milkweeds. Larvae (caterpillars) hatch in 3 to 5 days and transform to pupa (chrysalis) after 11 to 18 days.

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Fully formed adults (butterflies) emerge from the pupae in 8 to 14 days. Foraging habitat for this species is located in coastal scrub and grassland communities in the Hills and Canyon Area. Areas that support milkweed populations would allow the monarch butterfly to breed there. There are seven recent records in the 12-quad search area encompassing the City (refer to Figure 5.3-4) (FCS 2024).

San Diego Fairy Shrimp

The San Diego fairy shrimp is a fairy shrimp in the family Branchinectidae. This species is a habitat specialist found in small, shallow (less than 1 meter deep), moderately alkaline vernal pools, which range in depth from 5 to 30 centimeters (cm) and in water temperature from 10 to 20 degrees Celsius (C). The "resting" or "summer" eggs are capable of withstanding heat, cold, and prolonged drying. When the pools refill in the same or subsequent rainy seasons, some but not all of the eggs may hatch. Adult San Diego fairy shrimp are usually observed from January to March; however, in years with early or late rainfall, the hatching period may be extended. The San Diego fairy shrimp is federally listed as an Endangered species and is covered under the CONCCP/HCP. The City contains suitable habitat, including soils known to support vernal pools, that could support occurrence of this species. There are three recent records in the 12-quad search area encompassing the City (refer to Figure 5.3-4) (FCS 2024).

Riverside Fairy Shrimp

The Riverside fairy shrimp is a fairy shrimp in the family Streptocephalidae. This species is only found in deep, cool lowland vernal pools that retain water through the warmer weather of late spring. The minimum habitat size for the vernal pools is 750 square meters, with a minimum depth of 30 cm at maximum filling. When the vernal pools dry, the eggs remain on the surface of the pool or embedded within the top few centimeters of soil. There they survive the hot, dry summers and cold, wet winters that follow until the vernal pools and swales fill with rainwater and conditions are right for hatching. The Riverside fairy shrimp is federally listed as an Endangered species, and is covered under the CONCCP/HCP. The City contains suitable habitat, including soils known to support vernal pools, that could support the occurrence of this species. There are two recent and one historical records in the 12-quad search area encompassing the City (refer to Figure 5.3-4) (FCS 2024).

Southern California Legless Lizard

The southern California legless lizard is a lizard in the family Anniellidae. This species is found in coastal sand dunes and a variety of interior habitats, including sandy washes and alluvial fans. Much of the coastal dune habitat the species occupied has been destroyed by coastal development. The southern California legless lizard species is designated as a California Special Species of Concern. Suitable habitat for this species is located on the alluvial fans in the Hill and Canyon Area. There are three recent and seven historical records in the 12-quad search area encompassing the City, including two historical records within City limits (refer to Figure 5.3-4) (FCS 2024).

California Glossy Snake

The California glossy snake is a snake in the family Colubridae. This species is found in areas of rocky washes and loose, sandy soils and for burrowing in desert scrub grassland, coastal sage and Riversidean alluvial fan

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sage scrub, and chaparral habitats. They may be encountered in burrows, under rocks, under artificial cover or buried in soft soil. The California glossy snake is designated as a California Species of Special Concern. Suitable habitat for this species is located in the coastal scrub and chaparral communities in the Hill and Canyon Area. There is one historical record in the 12-quad search area encompassing the City (refer to Figure 5.3-4) (FCS 2024).

Western Pond Turtle

The western pond turtle is a turtle in the family Emydidae. This species is aquatic and found in ponds, marshes, rivers, streams, and irrigation ditches with rocks and logs for basking. It only leaves aquatic habitat to reproduce and overwinter. This species requires basking sites and suitable (grassy open fields) upland habitat for egg-laying. Eggs are buried in nests that are usually found within 250 meters of water. The western pond turtle is designated as a California Species of Special Concern. Suitable habitat for this species is located in the water bodies, including Gypsum Creek and Coal Creek, found in the Hill and Canyon Area. There are five recent and 18 historical records in the 12-quad search area encompassing the City.

Two-Striped Garter Snake

The two-striped garter snake is a snake in the family Colubridae. This species occurs in marshes and swamps, riparian scrub, riparian woodlands, and wetlands. This snake is highly aquatic and forages primarily in and along streams. Its primary food source is fish, especially trout and Sculpin and their eggs, and amphibians and amphibian larvae. The two-striped gartersnake is designated as a California Species of Special Concern. Suitable habitat for this species is located in the riparian communities in the Hills and Canyon Area. There are records, one recent and one historical, in the 12-quad search area encompassing the City.

Tricolored Blackbird

Tricolored blackbird is a passerine bird in the family Icteridae. It is often found near fresh water and prefers emergent wetlands with tall, dense cattails or tules, but can also found in thickets of willow, blackberry, wild rose, and other tall herbs. This species is known to forage on the ground in croplands, grassy fields, flooded land, and along the edges of ponds. The tricolored blackbird diet generally consists of insects and spiders as a juvenile, and seeds and cultivated grains, such as rice and oats, as an adult. The tricolored blackbird is State-listed as a Threatened species and is designated as a California Species of Special Concern. Their nests are protected by the MBTA and California Fish and Game Code pertaining to native nesting avian species. This species may occur in the Hill and Canyon Area where suitable foraging and nesting habitat is located in the riparian communities. There are three recent and nine historical records in the 12-quad search area encompassing the City (refer to Figure 5.3-4) (FCS 2024).

Grasshopper Sparrow

The grasshopper sparrow is a passerine bird in the family Passerellidae. This species occurs and nests in dense grasslands on rolling hills, lowland plains, in valleys and on hillsides on lower mountain slopes. The grasshopper sparrow is designated as a California Species of Special Concern. Their nests are protected by the MBTA and California Fish and Game Code pertaining to native nesting avian species. Suitable habitat for

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this species is located in the grassland community in the Hill and Canyon Area. There are three recent and one historical records in the 12-quad search area encompassing the City (refer to Figure 5.3-4) (FCS 2024).

Golden Eagle

The golden eagle is an eagle in the family Accipitridae. This species resides in rolling foothills, mountain areas, sage-juniper flats, and deserts from sea level to 11,500 feet (3,833 m). It feeds mostly on lagomorphs and rodents, and occasionally other mammals, birds, reptiles and some carrion. This eagle hunts in open terrain including grasslands, deserts, savannas, and early successional stages of forest and shrub habitats. This species nests in large trees in open areas on cliffs. The golden eagle is designated as a California Fully Protected species and is covered under the CONCCP/HCP. This species is afforded additional protection under the Bald and Golden Eagle Protection Act. Their nests are protected by the MBTA and California Fish and Game Code pertaining to native nesting avian species. This species may occur in the Hill and Canyon Area where suitable foraging habitat is located within coastal scrub and grassland communities. There are one recent and two historical records in the 12-quad search area encompassing the City (refer to Figure 5.3-4) (FCS 2024).

Great Blue Heron

The great blue heron is a heron in the family Ardeidae. This species occurs and nests in tall trees, cliffsides, and sequestered spots on marshes. Foraging areas for this species include marshes, lake margins, tide-flats, rivers and streams, wet meadows. Their rookery sites (colonial nesting areas) are considered a sensitive resource by CDFW and their nests are protected by the MBTA and California Fish and Game Code pertaining to native nesting avian species. Nesting rookeries for this species have been recorded within City limits according to the CNDDB, and suitable habitat is located in the Hill and Canyon Area in riparian communities. There is one recent (2004) record in the 12-quad search area encompassing the City, which falls within City limits (refer to Figure 5.3-4) (FCS 2024).

Long-Eared Owl

The long-eared owl is an owl in the family Strigidae. This species nests in riparian habitat, live oak thickets, and other dense stands of trees. This owl feeds mostly on voles and other rodents, occasional birds, and other vertebrates. It usually hunts for prey in open areas, including grasslands, meadows, and shrublands, but is known to hunt in woodland and forested habitats. The long-eared owl is designated as a California Fully Protected species. Their nests are protected by the MBTA and California Fish and Game Code pertaining to native nesting avian species. Suitable foraging and nesting habitat is present in coastal scrub, chaparral, grassland, and riparian communities in the Hills and Canyon Area. There are three historical records in the 12-quad search area encompassing the City (refer to Figure 5.3-4) (FCS 2024).

Burrowing Owl

The burrowing owl is an owl in the family Strigidae. Burrowing owls occur in open, dry, annual, or perennial grasslands, desert scrub, and coastal scrub communities characterized by low growing vegetation and open spaces. This species utilizes, modifies, and nests in burrows created by other species, most notably those of the California ground squirrel but also those excavated by coyotes, desert kit foxes, desert tortoises, American

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badgers, and other burrowing mammals. Burrowing owl populations are threatened by habitat loss, pesticide use, and ground squirrel eradication programs, which limit suitable burrowing habitat. On October 10, 2024, the California Fish and Game Commission designated the burrowing owl as a Candidate for listing under the California Endangered Species Act (CESA). As a Candidate species, burrowing owls receive full protections under CESA, and any projects or activities that could result in “take” would need to avoid project impacts to avoid taking burrowing owls. Limited take of habitat of this species is currently covered under the CONCCP/HCP under certain conditions; however, CDFW may require that project owners obtain an Incidental Take Permit (ITP) if a project has the potential to take burrowing owls. The nesting burrows of burrowing owls are protected by the MBTA and California Fish and Game Code pertaining to native nesting avian species and take permissions are never provided for take of nests. Suitable foraging and nesting habitats are present in coastal scrub and grassland communities that containing California ground squirrels and other medium-sized burrowing mammals in the Hill and Canyon Area. There are 15 recent and eight historical records in the 12-quadrangle search area encompassing the City

Ferruginous Hawk

The ferruginous hawk is a hawk in the family Accipitridae. This species is migratory and is a somewhat common winter resident of southwestern California, where it frequents open grasslands, sagebrush flats, desert scrub, low foothills surrounding valleys, and fringes of pinyon-juniper habitats. Ferruginous hawks generally arrive in California in September and depart by mid-April. Urban development may contribute to the loss of suitable wintering habitat in California. This species is on the CDFW Watch List. Suitable foraging habitat is present in coastal scrub and grassland communities in the Hill and Canyon Area City. There are three historical records in the 12-quad search area encompassing the City.

Southwestern Willow Flycatcher

The southwestern willow flycatcher is a passerine bird in the family Tyrannidae. This species occurs on the edges of wet meadows, ponds, or backwaters where dense willow thickets predominate and have low, exposed branches for perching. Threats include loss and degradation of riparian habitats due to development or clearing, disturbance due to grazing, and parasitism by brown-headed cowbirds. The southwestern willow flycatcher is federally and State-listed as an Endangered species, and is covered under the CONCCP/HCP. Their nests are protected by the MBTA and California Fish and Game Code pertaining to native nesting avian species. This species may occur in the Hill and Canyon Area where suitable foraging and nesting habitat is located in the riparian woodland communities. There are one recent and one historical records in the 12-quad search area encompassing the City (refer to Figure 5.3-4) (FCS 2024).

California Horned Lark

The California horned lark is a passerine bird in the family Alaudidae. This species is a common to abundant year-round resident that inhabits a variety of open habitats, such as desert scrub, grasslands, and other open habitats with low, sparse vegetation, and typically where trees and large shrubs are absent. California horned lark nest on the ground, building grass-lined nests in a cup-shaped depression on open ground. This species is very gregarious and often forms large flocks that forage and roost together after the breeding season. California horned larks eat insects, snails, and spiders during breeding season and grass and forb seeds and

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other plant matter outside of the breeding season. The California horned lark is on the CDFW Watch List. Their nests are protected by the MBTA and California Fish and Game Code pertaining to native nesting avian species. Suitable foraging and nesting habitats are present in grassland communities in the Hill and Canyon Area. There are five recent and one historical records in the 12-quad search area encompassing the City (refer to Figure 5.3-4) (FCS 2024).

American Peregrine Falcon

The American peregrine falcon is a falcon in the family Falconidae. This species occurs near bodies of water, including wetlands, lakes, and rivers and in open areas with cliffs, ledges, and canyons nearby for cover and nesting. They also nest on banks, dunes, and mounds. They nest on human-made structures, and occasionally use trees or snag cavities or old nests of other raptors. The American peregrine falcon is delisted from both federal and State listings but is designated as a California Fully Protected species and is covered under the CONCCP/HCP. Their nests are protected by the MBTA and California Fish and Game Code pertaining to native nesting avian species. There are CNDDDB records of this species in the City of Anaheim and suitable habitat is located in riparian communities and rocky bluffs in the Hill and Canyon Area. There is one recent (2015) record in the 12-quad search area encompassing the City, which falls within city limits (refer to Figure 5.3-4) (FCS 2024).

Bank Swallow

The bank swallow is a passerine bird in the family Hirundinidae. This species occurs in vertical banks and cliffs with fine-textured or sandy soils near streams, rivers, ponds, lakes, and the ocean for nesting. It feeds primarily over grassland, shrubland, savanna, and open riparian areas during breeding season and over grassland, brushland, wetlands, and cropland during migration. The bank swallow is State-listed as a Threatened species. Their nests are protected by the MBTA and Fish and Game Codes pertaining to native nesting avian species. Suitable foraging and nesting habitat is present in the coastal scrub, grassland, and riparian communities in the Hill and Canyon Area. There are three historical records in the 12-quad search area encompassing the City (refer to Figure 5.3-4) (FCS 2024).

California Least Tern

California least tern is a seabird in the family Laridae. This species occurs and nests on bare or sparsely vegetated, flat substrates, including sand beaches, alkali flats, landfills, or paved areas. Its nests are usually on sandy or gravelly substrates. The California least tern is listed as federally and State Endangered and is designated as a California Fully Protected species. Their nests are protected by the MBTA and California Fish and Game Code pertaining to native nesting avian species. Suitable habitat for this species is located within the Hill and Canyon Area. There are six recent and seven historical records in the 12-quad search area surrounding the project area, including two recent (2016, 2018) records within City limits (refer to Figure 5.3-4) (FCS 2024).

Pallid Bat

The pallid bat is a member of the vesper bat family, Vespertilionidae. This species occurs in deserts, grasslands, shrublands, woodlands, and forests and is most common in open, dry habitats with rocky areas for

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roosting. The pallid bat is designated as a California Species of Special Concern. Suitable habitat is present in the grassland, shrub, and woodland communities in the Hill and Canyon Area. There is one historical record in the 12-quad search area encompassing the City (refer to Figure 5.3-4) (FCS 2024).

Northwestern San Diego Pocket Mouse

The northwestern San Diego pocket mouse is a species pocket mouse in the family Heteromyidae. It occurs in chaparral, grasslands, sage scrub, forests, and deserts and prefers low growing vegetation or rocky outcroppings, and sandy soil for burrowing. The northwestern San Diego pocket mouse is designated as a California Species of Special Concern. Suitable habitat is present in the chaparral, coastal scrub, and grassland communities in the Hill and Canyon Area. There is one recent record in the 12-quad search area encompassing the City (refer to Figure 5.3-4) (FCS 2024).

Western Mastiff Bat

The western mastiff bat is a member of the free-tailed bat family, Molossidae. This species occurs in open, semi-arid to arid habitats, including conifer and deciduous woodlands, coastal scrub, grasslands, chaparral, and roosts in crevices in cliff faces, high buildings, trees, and tunnels. It forages primarily on moths, but also takes crickets and katydids. The western mastiff bat is designated as a California Species of Special Concern. Suitable habitat is present in the coastal scrub, grassland, and chaparral communities in the Hill and Canyon Area. There are 11 historical records in the 12-quad search area encompassing the City, including two historical records within City limits (refer to Figure 5.3-4) (FCS 2024).

Western Yellow Bat

The western yellow bat is a member of the vesper bat family, Vespertilionidae. This species occurs in valley foothill riparian, desert riparian, desert wash, and palm oasis habitats and roosts in skirts of dead fronds in both native and non-native palm trees. The western yellow bat is designated as a California Species of Special Concern. Suitable habitat is present in the riparian communities in the Hill and Canyon Area. There is one historical record in the 12-quad search area encompassing the City (refer to Figure 5.3-4) (FCS 2024).

Yuma Myotis

Yuma myotis is a member of the vesper bat family, Vespertilionidae. This species occurs in open forests and woodlands with sources of water over which to feed. Suitable habitat is present in woodland communities containing water sources in the Hill and Canyon Area. There is one historical record in the 12-quad search area encompassing the City, which is within city limits (refer to Figure 5.3-4) (FCS 2024).

San Diego Desert Woodrat

San Diego desert woodrat is a subspecies woodrat (pack rat) in the family Muridae. It occurs in southern California coastal scrub habitats from San Diego County to San Luis Obispo County. This species prefers habitats with moderate to dense shrub canopies. They are particularly abundant in rock outcrops, rocky cliffs, and rocky slopes. The San Diego desert woodrat is designated as a California Species of Special Concern, and is covered under the CONCCP/HCP. Suitable habitat is present in coastal scrub and chaparral communities

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in the Hill and Canyon Area. There are one recent and one historical records in the 12-quadrant search area encompassing the City (refer to Figure 5.3-4) (FCS 2024).

Southern Grasshopper Mouse

The southern grasshopper mouse is a mouse in the family Cricetidae. This species occurs in desert areas, especially scrub habitats with friable soils for digging. It prefers low to moderate shrub cover. The southern grasshopper mouse is designated as a California Species of Special Concern. Suitable habitat is present in the scrub community in the Hill and Canyon Area. There is one recent record in the 12-quadrant search area encompassing the City (refer to Figure 5.3-4) (FCS 2024).

American Badger

The American badger is a carnivore in the family Mustelidae. This species occurs in drier open stages of shrubs, forest, and herbaceous habitats with friable soils for burrowing. It preys on rodents, including mice, squirrels, and groundhogs. The American badger is designated as a California Species of Special Concern. Suitable habitat is present in coastal scrub, grassland, and forest communities in the Hill and Canyon Area. There are one recent and one historical records in the 12-quadrant search area encompassing the City (refer to Figure 5.3-4) (FCS 2024).

Potential for Occurrence of Other CONCCP/HCP-Covered Wildlife Species

Other wildlife species not detected in the CNDDB, CNPSEI, or IPaC searches, but that are listed as Identified Species in the CONCCP/HCP may have potential to occur in the City. Of these species, four were assessed to have high potential to occur: sharp-shinned hawk, red-shouldered hawk, coyote, and gray fox. Suitable habitat for these species is in chaparral and coastal scrub, and grassland communities in the Hill and Canyon Area. Suitable nesting and foraging habitats exist there for sharp-shinned hawk and red-shouldered hawk. Coyote are tolerant of human disturbance and have potential to occur throughout the City. Suitable habitat for gray fox is in the chaparral and woodland areas near water features in the Hill and Canyon Area.

Eight other Identified Species were assessed to have moderate potential to occur: arboreal salamander, blackbelly slender salamander, rosy boa, San Bernardino ringneck snake, Coronado Island skink, rough-legged hawk, northern harrier, and prairie falcon. Suitable habitat for each of these species is in the Hill and Canyon Area. For arboreal salamander, habitat is within the oak woodland communities. For blackbelly salamander, habitat is within the chaparral and oak and sycamore woodland communities. For rosy boa, habitat is within the shrub and chaparral communities. For San Bernardino ringneck snake, habitat is within the chaparral, grassland, and riparian woodland communities. For Coronado Island skink, habitat is within the grassland and chaparral communities. For rough-legged hawk, foraging habitat is within the grassland, shrubland, and forest communities. For northern harrier, foraging habitat is within the grassland and wetland communities. For prairie falcon, foraging habitat is within the grassland communities and nesting habitat is in areas supporting cliffs and bluffs.

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Wildlife Movement Corridors

The open spaces in the Hill and Canyon Area contain significant resources that support wildlife movements through the local area and surrounding region, and many of these areas are conserved or targeted for conservation, per the CONCCP/HCP. Undeveloped lands surrounding Coal Canyon provide an important wildlife movement corridor between the Cleveland National Forest and the Chino Hills State Park. Portions of Coal Canyon located just east of the city limits are preserved in Coal Canyon Ecological Reserve, a State reserve that was established to allow wildlife movement through the area. Adjacent portions of the Hill and Canyon Area in the City also function as part of this wildlife movement corridor. Within developed portions of the Anaheim Hills, undeveloped hillsides and washes likely serve as minor movement corridors for local wildlife populations. Additionally, the Santa Ana River channel may provide a movement corridor between coastal areas and the Santa Ana Mountains for terrestrial wildlife species that are tolerant of anthropogenic landscape, such as coyotes.

Wildlife Nursery Sites

The City contains natural vegetation communities in undeveloped areas and trees, shrubs, and anthropogenic nesting platforms (e.g., buildings, utility poles) in developed areas that could provide suitable nesting habitat for bird species protected under the MBTA and the Fish and Game Code. Undeveloped areas of the City support nesting habitat for special-status avian species, such as Cooper's hawk, coastal cactus wren, white-tailed kite, southwestern willow flycatcher, California horned lark, prairie falcon, American peregrine falcon, yellow-breasted chat, coastal California gnatcatcher, bank swallow, yellow warbler, least Bell's vireo, and others, plus many common native avian species. Developed areas of the City support nesting habitat for native bird species that are tolerant of anthropogenic landscapes and activities, such as mourning dove, northern mockingbird, American crow, common raven, black phoebe, bushtit, house finch, lesser goldfinch, and others.

Potentially Jurisdictional Water and Wetlands

The Santa Ana River Watershed is the largest in Orange County, covering 153.2 square miles. The river begins almost 75 miles away in the San Bernardino Mountains, crossing central Orange County before emptying into the Pacific Ocean. The Orange County portion of the watershed includes portions of the cities of Anaheim, Brea, Huntington Beach, Orange, Placentia, Santa Ana, Villa Park, and Yorba Linda. The river serves as the main tributary to the watershed with Santiago Creek being the largest tributary within Orange County. Portions of the Santa Ana River provide wetland and riparian habitat.

There are waters and wetland features present in undeveloped and developed areas of the City that would be considered potentially jurisdictional by USACE and potentially jurisdictional by State regulatory agencies including the RWQCB and CDFW. A map showing blue line streams as mapped in the National Wetlands Inventory is presented in Figure 5.3-2. The washes, canyons, drainages, and riparian habitats present in the Hills and Canyon Area of the City are likely jurisdictional under State agency review. Blue line streams, including Gypsum Creek and Coal Creek, in the Hills and Canyon Area may also be jurisdictional under federal agency review. The Santa Ana River runs through the City and is likely jurisdictional under State and

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federal agency review. Drainage ditches, culverts, and channels in developed areas of the City may be jurisdictional under State agency review, particularly if they connect to waters downstream.

Trees and Oak Woodlands

Trees that are protected under City Municipal Ordinances or oak woodlands protected under the California Oak Woodlands Conservation Act, the County Oak Resources Management Plan, and the CONCCP/HCP are present in the City. Undeveloped areas of the City support oak woodlands containing several species, including coast live oak (*Quercus agrifolia*), inland scrub oak, canyon live oak (*Quercus chrysolepis*), and Engelmann oak (*Quercus engelmannii*), among others. Designated Landmark Trees on public lands and Street Trees along City streets are protected from removal or modification (e.g., pruning, topping) under City Municipal Ordinances. Tree species that may be considered Landmark Trees or Street Trees include native species such as oaks (*Quercus spp.*), Fremont cottonwood, western sycamore, elderberry (*Sambucus spp.*), and southern California black walnut, among others. Non-native, ornamental trees are also planted throughout the developed portion of the project area and may be protected under City Municipal Ordinances.

5.3.2 Proposed General Plan Goals and Policies and Standard Conditions

The proposed project does not include any new or updated general plan goals and policies related to biological resources. However, it does include certain standard conditions of approval that would be applicable to future development projects in the City, in addition to those listed in Section 5.4.1.1. These additional standard conditions are identified below.

SC BIO-9 Prior to the issuance of a demolition permit, grading permit, or building permit, whichever occurs first, a letter detailing the proposed schedule for vegetation removal and building demolition activities shall be submitted to the Planning and Building Department, verifying that removal shall take place between February 1 to July 31 to avoid the bird nesting season.

SC BIO-10 Prior to the issuance of a demolition permit, grading permit, or building permit, whichever occurs first, and if project demolition and/or vegetation clearing must occur during the bird nesting season (February 1 to July 31), a pre-construction nesting bird survey of structures to be demolished and/or vegetation to be removed shall be conducted by a qualified Biologist no more than three days prior to such work occurring. If the Biologist does not find any active nests within or immediately adjacent to the impact area, the Biologist's findings shall be submitted to the Planning and Building Department and the vegetation clearing/construction work shall be allowed to proceed. The pre-construction nesting bird survey shall be updated following any work stoppage of two weeks or longer.

If an active nest of a bird species protected under California Fish and Game Code or the Migratory Bird Treaty Act is identified within or immediately adjacent to the construction area, and the Biologist determines that the nest may be impacted or breeding activities substantially disrupted, the Biologist shall delineate an appropriate no-impact buffer zone (at a minimum of 25 feet) around the nest depending on the sensitivity of the species and the nature of the construction activity. All nests and associated buffers shall be mapped on the

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construction plans. The active nest shall be protected until nesting activity has ended. The following restrictions to clearing and/or construction activities shall be required until nest(s) are no longer active, as determined by a qualified Biologist: (1) clearing limits shall be established within a buffer around any occupied nest (the buffer shall be 25 to 100 feet for nesting birds and 300 to 500 feet for nesting raptors), unless otherwise determined by a qualified Biologist; and (2) access shall be restricted within the buffer of any active nest, unless otherwise determined by a qualified Biologist. Encroachment into the buffer area around a known nest shall only be allowed if the Biologist determines that the proposed activity would not disturb the nest occupants. Once the qualified Biologist has determined that fledglings have left the nest, there is no evidence of a second nesting attempt, or the nest has failed, the Biologist's findings shall be submitted to the Planning and Building Department and construction can proceed within the buffer zone.

5.3.3 Thresholds of Significance

The City of Anaheim considers a project to have a significant effect on the environment if the project would:

- BIO-1 Have a substantial 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.
- BIO-2 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.
- BIO-3 Have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means.
- BIO-4 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.
- BIO-5 Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance.
- BIO-6 Conflict with the provisions of an adopted habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan.

5.3.4 Environmental Impacts

The following impact analysis addresses thresholds of significance that are identified in brackets after the impact statement.

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Impact 5.3-1: Implementation of the proposed project would have a substantial 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 [Threshold BIO-1]

Areas within the City that are undeveloped or support natural vegetation communities or undisturbed soils have the potential to support special-status plant and/or wildlife species. Areas that contain habitats that could support special-status species occurrence are primarily located in the eastern portion of the City in the Hill and Canyon Areas, but could also be located in other, undeveloped areas of the City, such as some areas along the Santa Ana River. Special-status plant species that could occur in the City include Tecate cypress, Braunton's milk-vetch, long-spined spineflower, paniculate tarplant, western dichondra, many-stemmed dudleya, mesa horkelia, heart-leaved pitcher sage, Robinson's pepper-grass, intermediate monardella, Hubby's phacelia, Engelmann oak, Coulter's matilija poppy, Catalina mariposa lily, intermediate mariposa lily, ocellated Humboldt lily, chaparral nolina, Brewer's calandrinia, Lewis' evening-primrose, small-flowered morning-glory, Santa Monica Mountains dudleya, San Diego button-celery, Palmer's grapplinghook, Southern California black walnut, Coulter's goldfields, small-flowered microseris, south coast branching phacelia, Fish's milkwort, white rabbit-tobacco, San Diego County viguiera, Plummer's mariposa lily, scrub oak, and Nuttall's scrub oak, and potentially others. Special-status wildlife species that could occur in the City include Crotch's bumble bee, western spadefoot, orange-throated whiptail, San Diegan tiger whiptail, red-diamond rattlesnake, coast horned lizard, coast patch-nosed snake, Cooper's hawk, southern California rufous-crowned sparrow, coastal cactus wren, white-tailed kite, yellow-breasted chat, coastal California gnatcatcher, yellow warbler, least Bell's vireo, monarch butterfly, San Diego fairy shrimp, Riverside fairy shrimp, southern California legless lizard, California glossy snake, western pond turtle, two-striped gartersnake, tricolored blackbird, grasshopper sparrow, golden eagle, great blue heron, long-eared owl, burrowing owl, ferruginous hawk, southwestern willow flycatcher, California horned lark, American peregrine falcon, bank swallow, California least tern, pallid bat, northwestern San Diego pocket mouse, western mastiff bat, western yellow bat, Yuma myotis, San Diego desert woodrat, southern grasshopper mouse, American badger, sharp-shinned hawk, red-shouldered hawk, coyote, gray fox, arboreal salamander, blackbelly salamander, rosy boa, San Bernadino ringneck snake, Coronado Island skink, rough-legged hawk, northern harrier, prairie falcon, and potentially others.

For projects in developed and urbanized parts of the City, implementation of standard conditions of approval and compliance with local, state, and federal requirements described above would ensure impacts are addressed. While there are limited land use and zoning changes in the eastern part of the City, future projects implemented that are in or near areas that could potentially support special-status species occurrences have a potential to cause impacts to these special-status species. An impact to special-status plant or wildlife species would be considered significant if project construction and/or operations result in either (1) direct harm resulting in injury or death; or (2) substantial, adverse changes in any of the physical conditions, including habitat loss/modification within the area affected by the project. Project take of special-status that are covered under the CONCCP/HCP may be allowed in the CONCCP/HCP plan area under certain conditions. Therefore, depending on location of future projects, impacts to species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the CDFW or FWS could be potentially significant.

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Level of Significance Before Mitigation: Impact 5.3-1 would be potentially significant.

Mitigation Measures: Mitigation measure MM BIO-1 is required.

Impact 5.3-2: Implementation of the proposed project would 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. [Threshold BIO-2]

For projects in developed and urbanized parts of the City, implementation of standard conditions of approval and compliance with local, state, and federal requirements described above would ensure impacts are addressed. The City contains the Santa Ana River and other significant riparian areas that support riparian vegetation communities, as do canyons and washes in the Hill and Canyons Area. While there are limited land use and zoning changes in this part of the City, projects implemented in or adjacent to these areas could impact riparian vegetation communities. The City also contains natural vegetation communities that are considered sensitive by CDFW, particularly within the Hill and Canyon Area. Sensitive natural vegetation communities ranked S1 to S3 are protected under CEQA and subject to its environmental review processes. Sensitive riparian habitats and vegetation communities that are present or could occur in the City include Southern Dune Scrub, Southern Foredunes, Southern Interior Cypress Forest, Southern Coastal Salt Marsh, Southern Cottonwood Willow Riparian Forest, Southern Riparian Scrub, Southern Willow Scrub, Riversidian Alluvial Fan Sage Scrub, California Walnut Woodland, CSS communities, coast live oak communities (oak savanna and oak woodland), Tecate cypress communities, nolina chaparral, and needlegrass grassland. Future projects in the City that support sensitive natural vegetation communities could potentially cause impacts to these communities, which may be considered significant under CEQA. An impact to sensitive natural communities or riparian habitat would be considered significant if the proposed construction or operation results in substantial adverse changes to any of the physical conditions, such as the removal of vegetation within the area affected by a project. Therefore, depending on location of future projects, impacts to riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by the CDFW or USFWS could be potentially significant.

Level of Significance Before Mitigation: Impact 5.3-2 would be potentially significant.

Mitigation Measures: Mitigation measure MM BIO-2 is required.

Impact 5.3-3: Implementation of the proposed project would have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means. [Threshold BIO-3]

The City contains the Santa Ana River and numerous washes, canyons, or drainages that may be considered jurisdictional by the USACE, RWQCB, and/or CDFW and would meet definitions of State- or federally protected waters. These include larger drainages, such as the Santa Ana River, Gypsum Creek, Coal Creek, and Santiago Creek, and many smaller tributaries of these drainages. Projects implemented near these resources could result in direct impacts to these potentially jurisdictional drainages through the loss/modification of these features, as well as have adverse impacts on downstream water quality. An impact

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to State- or federally protected waters or wetlands would be considered significant if construction or operation of future development projects results in substantial, adverse physical changes (permanent or temporary) as a result of filling, water diversion, or other hydrological interruption of protected waters and wetlands within the City. Physical changes that result in adverse effects to downstream water quality could also be considered significant. Therefore, impacts related to substantial adverse effects on state or federally protected wetlands are considered potentially significant.

Level of Significance Before Mitigation: Impact 5.3-3 would be potentially significant.

Mitigation Measures: Mitigation measure MM BIO-3 is required.

Impact 5.3-4: Implementation of the proposed project would 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. [Threshold BIO-4].

Much of the western and central portions of the City consists of developed or urbanized land and existing barriers to wildlife movements, including buildings, roadways, fences, and other anthropogenic features and structures. However, the Santa Ana River channel and undeveloped lands in the Hill and Canyon Area of the City contain habitats and features that allow for wildlife movement corridors. Future development within the City has the potential to impede the movement of wildlife through these areas. The construction of new roadways, in particular, could create new barriers to wildlife movement, as could any project implemented within relatively undeveloped areas of the Hill and Canyon Area. Projects that restrict, constrict, or otherwise affect wildlife movement through existing corridors would be considered a significant impact under CEQA.

Additionally, implementation of future projects in the City may impact breeding and/or nesting activities of native birds. Construction activities that occur during the avian nesting season, defined as February 1 through July 31 in the urbanized areas of the City and February 1 through September 30 in the Hill and Canyon Area, could disturb nesting sites for bird species protected under the FGC or the MBTA. The removal of trees and other vegetation during the nesting season could result in direct harm to nesting birds, while noise, light, and other human disturbances may cause nesting birds to abandon their nests. Native bird species could potentially nest in all areas of the City, including developed areas that support trees, shrubs, or other nesting platforms, such as buildings or bare ground. Any project impacts to active nests of native bird species protected by the MBTA and/or FGC would be considered significant under CEQA. Therefore, potential impacts related to substantial interference with the movement of any native resident or migratory fish or wildlife species, or with established native resident or migratory wildlife corridors, or effects to the use of native wildlife nursery sites is considered potentially significant.

Level of Significance Before Mitigation: Impact 5.3-4 would be potentially significant.

Mitigation Measures: Mitigation measure MM BIO-4 is required.

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Impact 5.3-5: Implementation of the proposed project would conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance [Thresholds BIO-5]

Projects implemented in developed areas of the City have the potential to impact Landmark Trees that are protected from removal (Anaheim Municipal Code [AMC] Chapter 11.12.010) and Street Trees that are protected from cutting, trimming, pruning, planting, removing, spraying, or interfering without permissions from the City (AMC Chapter 13.12.080). Also, there are specimen trees located in the SC Overlay Zone that are protected from removal or topping without permissions from the City (AMC Chapter 18.18.040). Finally, projects implemented in the Hill and Canyon Area of the City have the potential to impact oak woodlands that are protected from removal, topping, cutting, or encroaching into their root zones without implementing conservation measures under the California Oak Woodlands Conservation Act, the County Oak Resources Management Plan, and the CONCCP/HCP are present in the City. Projects implemented in the City that could remove, cut, top, prune, trim, or spray trees or impact their canopies or root zones have the potential to conflict with any of these policies, as applicable. Therefore, future projects could conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance, resulting in potentially significant impacts.

Level of Significance Before Mitigation: Impact 5.3-5 would be potentially significant.

Mitigation Measures: Mitigation measure MM BIO-5 is required.

Impact 5.3-6: Implementation of the proposed project would conflict with the provisions of an adopted habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan. [Threshold BIO-6]

The Hill and Canyon Area of the City is within the boundaries of the CONCCP/HCP. Under this plan, USFWS and CDFW authorize incidental “take” of 44 Identified Species to the County, the City, and other signatories to the plan for projects and other actions that would occur as a result of: (1) construction activities undertaken pursuant to local government authorizations; (2) public utilities and public recreational activities undertaken pursuant to authorization of the particular public utility or public agency; and (3) ongoing maintenance of existing and future permitted facilities. Ten species are covered conditionally, and their “take” is authorized only when certain conditions are met by project proponents or Non-participating Landowners. Within the Hill and Canyon Area of the City, the Conditionally Covered Species include intermediate mariposa lily, arroyo toad, least Bell’s vireo, southwestern willow flycatcher, Riverside fairy shrimp, San Diego fairy shrimp, golden eagle, and prairie falcon. For these Conditionally Covered Species, Non-participating Landowners or other project proponents/applicants must consult with USFWS to conduct surveys, avoid/mitigate habitats, redesign projects to avoid impacts, and/or develop a mitigation plan prior to receiving authorization to “take” these species or their habitats. “Take” of these and other Identified Species and Covered Habitats, including CSS, is authorized for Non-participating Landowners that opt to participate in the CONCCP/HCP through payment of the CONCCP/HCP Mitigation Fee and implementation of construction-related minimization measures. Future projects implemented within the CONCCP/HCP area have the potential to conflict with this plan if implemented projects are not consistent with the plan.

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Therefore, future projects could conflict with the provisions of an adopted habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan, resulting in potentially significant impacts.

Level of Significance Before Mitigation: Impact 5.3-6 would be potentially significant.

Mitigation Measures: Mitigation measures MM BIO-1 and MM BIO-6 are required.

5.3.5 Cumulative Impacts

The area considered for cumulative impacts on biological resources in the City as well as potential loss of biological resources within the Southern California region depending on a species' range. Future development projects would result in potentially significant impacts to sensitive species and upland habitats and wetland habitats, which could include jurisdictional wetlands. The combined impacts of multiple projects could result in a cumulatively significant impact to these biological resources. Future development would adhere to applicable federal, State, and local regulations, standard conditions of approval, and General Plan policies focused on the protection and preservation of biological resources. Additionally, land use and zoning changes proposed by the project are focused in highly developed and urbanized parts of the City that contain more limited natural resources. Therefore, the combined incremental contribution of individual projects to cumulative biological resources impacts would be less than significant.

Level of Significance Before Mitigation: Cumulative impacts would be potentially significant.

Mitigation Measures: Mitigation measures MM BIO-1 through MM BIO-6 are required.

Level of Significance After Mitigation: Cumulative impacts would be less than significant.

5.3.6 Level of Significance Before Mitigation

Upon implementation regulatory requirements and standard conditions of approval, no impacts would be less than significant.

Without mitigation, these impacts would be potentially significant:

- **Impact 5.3-1** Buildout under the General Plan Focused Update could impact plant and animal species and habitat that are sensitive or protected under federal and/or California regulations
- **Impact 5.3-2** Buildout under the General Plan Focused Update could impact sensitive natural communities or riparian habitats.
- **Impact 5.3-3** Buildout under the General Plan Focused Update could impact wetlands and jurisdictional waterways.

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- **Impact 5.3-4** Buildout of the General Plan could affect wildlife movement and impact migratory birds.
- **Impact 5.3-5** Buildout of the General Plan could conflict with tree or vegetation protection policies.
- **Impact 5.3-6** Buildout of the General Plan could conflict with an adopted NCCP/HCP.

5.3.7 Mitigation Measures

Impacts 5.3-1 and 5.3-6

MM BIO-1 Completion of a Biological Study. Prior to the issuance of grading permits, for all future development projects within the City that could contain special-status species that are not covered by the CONCCP/HCP, or habitat conducive to hosting such species, inclusive of foraging, breeding, or dispersal habitats for wildlife, the project applicant shall employ a qualified Biologist to prepare a Biological Study to evaluate potential impacts to sensitive biological resources regulated by the United States Wildlife Service (USFWS), the California Department of Fish and Wildlife (CDFW), or other local, regional plans or policies that may result from the development of the specific project. The qualified Biologist shall conduct, at a minimum, a site-specific literature review, which shall consider the future development project, site location, Geographic Information System (GIS) information and known sensitive biological resources. The qualified Biologist shall, if the project site has potential support habitat for special-status species or other species protected by federal, State, or local laws or policies, conduct a site visit as part of project review.

The review shall assess the site for State or federally listed plants and/or wildlife or other special-status species, aquatic resources, riparian or sensitive natural communities, wildlife movement corridors, or nurseries, or potential nesting or roosting sites, or other regulated biological resources covered by the Endangered Species Act, or California Endangered Species Act (CESA) that could be affected by the proposed project. In some cases, such as a project site that is previously completely developed and contains no potential habitat for protected species, a literature review would be sufficient for the Biologist to make a no impact and/or a less than significant impact determination for all six of the thresholds of significance for biological resources. In other cases, such as project sites that are all or partially undeveloped or contain features that could provide soil substrates for special-status plants or foraging, breeding, nesting, roosting, or dispersal habitats for special-status wildlife, a site survey may be needed to assess the biological conditions on-site.

The qualified Biologist employed by each project applicant shall assess potential project impacts to non-listed, non-covered, special-status species, identify threshold of significance with a significance conclusion, and document the findings in a report. Additionally, future development projects may be required to incorporate additional mitigation depending on results of such future biological studies. This may include acquisition of take permits if any

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project proponent proposes take of federal or State-listed or candidate species. If take is proposed, the project proponent shall consult with the CDFW and/or the USFWS, as applicable, regarding an Incidental Take Permit pursuant to Section 2081 of CESA or Sections 7 or 10 of the federal Endangered Species Act.

MM BIO-6 Shall also apply.

Impact 5.3-2

MM BIO-2a **Mapping of Riparian Habitat and/or Sensitive Vegetation Communities.** Prior to the issuance of grading permits, for all future development projects within the City that may impact riparian habitat or natural vegetation communities that are considered sensitive by the California Department of Fish and Wildlife (CDFW), the project proponent shall employ a qualified Biologist to map and fully document the sensitive resources. Additional studies, documentation, or permitting may be required, depending on the results of the sensitive community mapping prepared for each project. During implementation of the biological study performed under MM BIO-2, the qualified Biologist employed by each project applicant shall assess potential project impacts to riparian habitats or sensitive vegetation communities, identify threshold of significance with a significance conclusion, and document the findings in a report that is submitted to the City and the CDFW. The results of the mapping effort may be presented in the Biological Study prepared during implementation of MM BIO-1 or MM BIO-6.

MM BIO-2b **On-Site and/or Off-Site Mitigation.** If riparian habitats or other natural vegetation communities considered sensitive by the California Department of Fish and Wildlife (CDFW) are discovered on any future development site, and it is determined that the project will impact those resources, the project proponent shall consult with CDFW to mitigate for the loss of these resources. If the project impacts to these resources would be temporary in nature, the project proponent shall implement on-site mitigation, such as habitat restoration. If the project will result in permanent impacts to these resources, the project proponent shall purchase off-site mitigation lands or credits at a 1:1 ratio. Any credits purchased off-site shall be from mitigation banks approved by CDFW. Any lands or purchased off-site shall be protected in perpetuity under a conservation easement to protect the sensitive community from direct and indirect negative impacts, including any future development and zone changes, restrictions on access, proposed land dedications, control of illegal dumping, water pollution, and increased human intrusion. The conservation easement shall be dedicated to a local land conservancy or other appropriate entity approved to hold and manage mitigation lands pursuant to Senate Bill 1094 (Land use: mitigation lands: nonprofit organizations).

Impact 5.3-3

If during implementation of MM BIO-1 or MM BIO-6, potentially jurisdictional wetlands or water of the State/United States are discovered on a proposed project site, the project proponent shall implement MM BIO-3a-c.

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- MM BIO-3a **Determination of Project Impacts to Potentially Jurisdictional Water and Wetlands.** Prior to the issuance of grading permits, if any future development projects are in areas that may result in impacts to potentially jurisdictional wetlands or waters of the State/United States within the City, the project proponent shall employ a qualified Biologist/Delineator to conduct a jurisdictional delineation which would establish the jurisdictional limits of potential wetlands or waters of the State/United States. If waters of the United States are delineated on-site, the project proponent shall prepare a jurisdictional delineation report and submit the jurisdictional delineation report to the United States Army Corps of Engineers for verification. If the project could potentially impact wetlands or waters of the State/United States, the project proponent shall seek permissions from the resource agencies, as described in MM BIO-3b.
- MM BIO-3b **Obtain Agency Permits for Impacts to Wetlands.** If any future development projects in the City are expected to impact wetlands or waters of the State/United States in the City, the project proponent shall seek permission from the State regulatory agencies (Regional Water Quality Control Board [RWQCB] and California Department of Fish and Wildlife [CDFW]) for the proposed impacts to State waters and implement the mitigation measures as prescribed in the Clean Water Act 401 (from RWQCB) and State of California Fish and Game Code 1602 (from CDFW) permits. If the project will impact waters of the United States, the project proponent shall seek permission from the United States Army Corp of Engineers for the proposed impacts. The project proponent shall comply with any mitigation measures contained in the permits, such as measures pertaining to on-site habitat restoration or off-site habitat acquisition, among other measures. Copies of the regulatory permits shall be submitted to the City prior to ground disturbance within the regulated jurisdictional waters.
- MM BIO-3c **Apply for Permits from Regulatory Agencies.** Any project proponent that proposes impacts to jurisdictional waters or wetlands within the City shall consult with the California Department of Fish and Wildlife regarding a Section 1602 Streambed Alteration Agreement Permit, the United States Army Corps of Engineers regarding a Clean Water Act Section 404 Permit, and the Regional Water Quality Control Board regarding a CWA Section 401 Certification. The project applicant shall be required to obtain these permits as a condition of approval and prior to the issuance of any grading, construction, or building permits from the City and prior to the commencement of any grading or construction activities. The project applicant shall implement the mitigation measures as prescribed in the permits.

Impact 5.3-4

If during implementation of MM BIO-1 or MM BIO-6, wildlife movement corridors or wildlife nursery sites are discovered on a proposed project site, the project proponent shall implement MM BIO-4a-c.

- MM BIO-4a **Mapping of Wildlife Movement Corridors.** If a wildlife movement corridor, such as a riparian zone or other natural feature that facilitates movements of wildlife, is discovered on

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any future development site, and it is determined that the project will impact wildlife movements, the project proponent shall employ a qualified Biologist to assess potential project impacts to these resources, identification of the threshold of significance with a significance conclusion, and documentation of the findings in a report. The results of the mapping effort may be presented in the Biological Study prepared during implementation of MM BIO-1 or MM BIO-6. The project proponent shall submit the report to the City and California Department of Fish and Wildlife (CDFW). Additionally, future development projects may be required to incorporate additional mitigation depending on results of such future biological studies. The project proponent shall consult with CDFW to mitigate for any loss of these resources or impediments to wildlife movements. If the impacts to wildlife movements would be temporary in nature, the project proponent shall design project elements that would avoid the resource or provide on-site mitigation to allow wildlife movements to proceed uninhibited following implementation of the project. If the project will result in permanent impacts to wildlife movements, the project proponent shall purchase off-site mitigation lands or credits at a 1:1 ratio through a CDFW-approved mitigation bank or Regional Conservation Investment Strategies Program.

MM BIO-4b Identification of Wildlife Nursery Sites. For all future development projects within the City that may impact wildlife nursery sites, such as active bird nests or bat maternity roosts, the project proponent shall employ a qualified Biologist to map and fully document the sensitive resources. Additional studies, documentation, or permitting may be required, depending on the results of the wildlife nursery site mapping prepared for each project. During implementation of MM BIO-4a, the qualified Biologist employed by each project applicant shall assess potential project impacts to nesting birds protected by the Migratory Bird Treaty Act (MBTA) or Fish and Game Code or bat maternity roosts, identify threshold of significance with a significance conclusion, and document the findings in a report that is submitted to the City and the California Department of Fish and Wildlife (CDFW). The results of the assessment may be presented in the Biological Study prepared during implementation of MM BIO-1 or MM BIO-6. If avian nesting habitat is determined to be on or adjacent to a future project site that may be impacted by implementation of the project, the project proponent shall implement MM BIO-4c. If potential bat maternity roosts are identified on or adjacent to a future project site that may be impacted by implementation of the project, the project proponent shall implement MM BIO-4d.

MM BIO-4c Avoidance of Nesting Avian Species. For all future development projects within the City that contain habitats or features that could provide nesting habitat for bird species protected under the Migratory Bird Treaty Act (MBTA) and Fish and Game Code, the following measures shall apply:

- Removal of native vegetation shall be limited to only those necessary to construct a proposed future project as reflected in the relevant project approval documents.

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- To the extent possible, vegetation shall be removed outside of the avian nesting season, or from August 1 through January 31 (for urbanized areas of the City) or October 1 through January 31 (for the Hill and Canyon Area).
- If a proposed future project requires vegetation to be removed during the nesting season, or between February 1 and July 31 (for urbanized areas of the City) or between February 1 and September 30 (for the Hill and Canyon Area), pre-construction surveys shall be conducted 7 days prior to tree removal to determine whether or not active nests are present.
- If an active nest is located during a pre-construction survey, a qualified Biologist shall determine an appropriately sized avoidance buffer based on the species and anticipated disturbance level. A qualified Biologist shall delineate the avoidance buffer using Environmentally Sensitive Area (ESA) fencing, pin flags, and or yellow caution tape. The buffer zone shall be maintained around the active nest site(s) until the young have fledged and are foraging independently. No construction activities or construction foot traffic is allowed to occur within the avoidance buffer(s).
- The qualified Biologist shall monitor the active nest during construction activities to prevent any potential impacts that may result from the construction of the proposed project until the young have fledged.

MM BIO-4d

Avoidance of Bat Maternity Roosts. For all future development projects within the City that contain habitats or features that could provide maternal roosts for bat species, the project proponent shall employ a qualified Biologist to perform a pre-construction survey for bats within 30 days prior to removal of the potential habitat. If no bats are found present, then the trees, structures, or other potential habitat may be demolished and no further mitigation shall be required. If bats are found present, bats may be safely evicted during two seasonal periods of bat activity. For most species that occur in the City, bats can be evicted safely between approximately March 1 (or when evening temperatures are above 45°F (degree Fahrenheit) and rainfall less than 0.5 inch in 24 hours occurs) and April 15, prior to parturition of pups. The next acceptable period is after pups become self-sufficiently volant, generally accepted to be between September 1 through October 15 (or prior to evening temperatures dropping below 45°F and onset of rainfall greater than 0.5 inch in 24 hours). Evictions shall be implemented by a qualified Biologist accordingly:

- There are two methods for evicting bats from occupied tree cavities or structures. The first, utilized mainly when the cavity or building is in good condition and the work is feasible, is “humane eviction,” or “bat exclusion,” which relies on the bats’ own ability to fly out of the roost. In this method, all potential but currently unused entry points into the cavity or structure are sealed. The active entry points are fitted with one-way exits, which are left in place 7 to 10 days to allow all bats to emerge normally during nightly feeding flights. The one-way exits are then removed, and the remaining openings sealed until demolition if it will occur more than 30 days before demolition. If the interval

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between successful eviction and demolition will be short (less than 4 weeks), the one-way exits may often be left in place until demolition. This eviction work must be conducted by or under direct supervision or instruction of a qualified Biologist.

- In some cases, the physical condition of the cavity or structure is so poor that humane eviction as described above is not feasible. If that occurs, the tree or building must be carefully and selectively dismantled in such a way that the internal environment is altered to a degree sufficient to cause bats to abandon the roost and not return. This must occur under the guidance of a bat Biologist qualified in partial dismantling of tree cavities or structures for bat eviction.

Impact 5.3-5

If during implementation of MM BIO-1 or MM BIO-6, wildlife movement corridors or wildlife nursery sites are discovered on a proposed project site, the project proponent shall implement MM BIO-5a-e.

- MM BIO-5a **Identification and Recording of Protected Trees.** If a protected tree, such as a designated Landmark Tree, street tree, or specimen tree, or an oak woodland is discovered on any future development site, and city staff determines that the project will impact these resources, the project proponent shall employ a qualified Biologist to conduct an inventory of on-site vegetation, assess potential for project impacts to the trees or oak woodlands, identify the threshold of significance with a significance conclusion, and document the findings in a report. Additionally, future development projects may be required to incorporate additional mitigation depending on results of such future biological studies. The additional actions identified through this evaluation process shall be implemented by the project proponent.
- MM BIO-5b **Permissions for Project Impacts to Landmark Trees.** If any future development project would remove a designated Landmark Tree, the project proponent shall seek permission from the City Council prior to its removal according to the Anaheim Municipal Code Chapter 11.12.020.
- MM BIO-5c **Permissions for Project Impacts to Street Trees.** If any future development project would remove, top, trim, prune, plant, remove, spray, or in any other manner interfere with any street tree located on public property, the project proponent shall seek permission from the Director of Community Services before performing such actions according to the Anaheim Municipal Code Chapter 13.12.080.
- MM BIO-5d **Permissions for Project Impacts to Specimen Trees.** If any future development project would remove or top a Specimen Tree such as an oak, pepper, or sycamore tree located in the Scenic Corridor (SC) Overlay Zone, the project proponent shall seek an Administrative Specimen Tree Removal Permit and/or Discretionary Specimen Tree Removal Permit by the City's Planning and Building Department according to the Anaheim Municipal Code Chapter 18.18.040. Additionally, the project proponent shall replace the specimen tree(s) on the same

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parcel or in the public right-of-way in the immediate vicinity, according to the Anaheim Municipal Code Chapter 18.18.040 and as directed by the City.

MM BIO-5e **Avoidance and Mitigation for Project Impacts to Oak Woodlands.** If any future development project would impact oak woodland resources, the project proponent shall implement goals of the County of Orange Oak Woodland Management Program, which seeks to preserve oak woodlands through open space acquisitions and conservation within the County of Orange Natural Communities Conservation Plan/Habitat Conservation Plan (CONCCP/HCP) reserve area. The project proponent shall employ a qualified Biologist/Arborist to assess potential project impacts to oak woodlands, including number of trees and acreage of woodland affected in the City. For projects located outside of the CONCCP/HCP, the project proponent shall mitigate loss of oaks and woodland community at a 1:1 ratio on County open space through the County of Orange Oak Woodland Management Program. For projects located in the CONCCP/HCP plan area, conservation would be achieved through implementing MM BIO-6, including payment of the CONCCP/HCP mitigation fee.

Impact 5.3-6

MM BIO-1 shall apply.

MM BIO-6a **Conduct Biological Study/CONCCP/HCP Consistency Analysis.** For all proposed development projects in the County of Orange Natural Communities Conservation Plan/Habitat Conservation Plan (CONCCP/HCP) plan area, Non-participating Landowners or other project applicants shall employ a qualified Biologist to prepare a Biological Study to evaluate potential impacts to coastal sage scrub (CSS), Covered Habitats, and Identified and Target Species that are covered under the CONCCP/HCP that could result from project implementation. The qualified Biologist shall conduct, at a minimum, a site-specific literature review, which shall consider the future development project, site location, Geographic Information System (GIS) information and known sensitive biological resources. The qualified Biologist shall, if the project site has potential support CSS, Covered Habitats, or Identified or Target Species, conduct a site visit as part of project review.

The review shall assess the site to determine whether any Conditionally Covered Species occur or could occur on-site, to determine the CONCCP/HCP Mitigation Fee required, and to recommend appropriate construction-related minimization measures, as applicable. For projects located in Special Linkages/Management Areas, the study will offer recommendations for compatible development or use that conserves habitat or functions as a linkage for Target Species. Projects proposed on lands targeted for the reserve assembly would need to demonstrate consistency with the goals of the CONCCP/HCP. The study shall also assess whether other sensitive resources protected under CEQA but not covered under the CONCCP/HCP are present on the site and could be affected by project

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implementation, including but not limited to aquatic resources, riparian or sensitive natural communities, wildlife movement corridors or nurseries, or potential nesting or roosting sites.

If Conditionally Covered Species occur or could occur on-site, the project applicant shall implement MM BIO-6b. All projects implemented by Non-participating Landowners that opt to participate in the CONCCP/HCP shall implement MM BIO-6d. If take of Conditionally Covered Species or take of non-covered, listed species, is proposed, or if the Non-Participating Landowner declines to participate in the CONCCP/HCP, the project proponent shall consult with the California Department of Fish and Wildlife and/or the United States Fish and Wildlife Service, as applicable, regarding an Incidental Take Permit pursuant to Section 2081 of the California Endangered Species Act or Sections 7 or 10 of the federal Endangered Species Act.

MM BIO-6b Payment of CONCCP/HCP Mitigation Fee. For Non-participating Landowners that opt to participate in the County of Orange Natural Communities Conservation Plan/Habitat Conservation Plan (CONCCP/HCP), payment of the CONCCP/HCP Mitigation Fee would be required. This payment would be made to the Nonprofit Corporation on a per-acre basis.

MM BIO-6c Avoidance and Mitigation of Conditionally Covered Species. If any future development project has the potential to support or contain habitat for Conditionally Covered Species, including intermediate mariposa lily, arroyo toad, least Bell's vireo, southwestern willow flycatcher, Riverside fairy shrimp, San Diego fairy shrimp, golden eagle, and prairie falcon, the project proponent shall be required to consult with United States Fish and Wildlife Service to determine whether surveys, habitat avoidance/mitigation, project redesign, and/or submission of a mitigation plan prior would be required in order to receive authorization to "take" these species or their habitats.

MM BIO-6d Implement CONCCP/HCP Construction-related Minimization Measures. Non-participating Landowners or other project applicant(s) shall provide the City evidence that construction-related minimization measures are implemented on their projects. These construction-related minimization measures are designed to avoid, minimize, reduce, and/or offset impacts of any activities resulting in incidental take, or habitat disturbance of Identified or Target Species, and include but are not limited to:

- To the maximum extent practicable, no grading of Covered Habitats that is occupied by special-status species shall occur during the County of Orange Natural Communities Conservation Plan/Habitat Conservation Plan (CONCCP/HCP)-defined breeding season (February 25 through July 15). It is expressly understood that this provision and the remaining provisions of these "construction-related minimization measures" are subject to public health and safety considerations. These considerations include unexpected slope stabilization, erosion control measures and emergency facility repairs. In the event of such public health and safety circumstances, landowners or public

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agencies/utilities shall provide United States Fish and Wildlife Service (USFWS)/California Department of Fish and Wildlife (CDFW) with the maximum practicable notice (or such notice as is specified in the CONCCP/HCP) to allow for capture of identified Target Species that are not otherwise flushed and shall carry out the following measures only to the extent as practicable in the context of the public health and safety considerations.

- Prior to the commencement of grading operations or other activities involving significant soil disturbance, all areas of Covered Habitat to be avoided under the provisions of the CONCCP/HCP, shall be identified with temporary fencing or other markers clearly visible to construction personnel. Additionally, prior to the commencement of grading operations or other activities involving disturbance of Covered Habitat, a survey shall be conducted to locate identified Target Species within 100 feet of the outer extent of projected soil disturbance activities and the locations of any such species shall be clearly marked and identified on the construction/grading plans.
- A monitoring Biologist, acceptable to USFWS/CDFW shall be on-site during any clearing of Covered Habitat. The landowner or relevant public agency/utility shall advise USFWS/CDFW to work with the monitoring Biologist in connection with bird flushing/capture activities. The monitoring Biologist shall flush identified Target Species (avian or other mobile Identified Species) from occupied habitat areas immediately prior to brush-clearing and earthmoving activities. If birds cannot be flushed, they shall be captured in mist nets, if feasible, and relocated to areas of the site to be protected or to the CONCCP/HCP Reserve System. It shall be the responsibility of the monitoring Biologist to assure that identified target avian species shall not be directly impacted by brush-clearing and earthmoving equipment in a manner that also allows for construction activities on a timely basis.
- Following the completion of initial grading/earth movement activities, all areas of Covered Habitat shall be avoided by construction equipment and personnel shall be marked with temporary fencing or other appropriate markers clearly visible to construction personnel. No construction access, parking or storage of equipment or materials shall be permitted within such marked areas.
- In areas bordering the CONCCP/HCP Reserve System or Special Linkage/Special Management areas containing Target Species identified in the CONCCP/HCP for protection, vehicle transportation routes between cut-and-fill locations shall be restricted to a minimum number during construction consistent with project construction requirements. Waste, dirt, or rubble shall not be deposited on adjacent Covered Habitats identified in the CONCCP/HCP for protection. Pre-construction meetings involving the monitoring Biologist, construction supervisors and equipment operators shall be conducted and documented to ensure maximum practicable adherence to these measures.

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- Covered Habitats identified in the CONCCP/HCP for protection and location within the likely dust drift radius of construction areas shall be periodically sprayed with water to reduce accumulated dust on the leaves as recommended by the monitoring Biologist.

5.3.8 Level of Significance After Mitigation

Impact 5.3-1 and Impact 5.3-6

Buildout of the proposed project has the potential to impact sensitive plant and animal species in the City. Mitigation measure MM BIO-1 would require the completion of a biological study to assess potential project impacts to these species, identify threshold of significance with a significance conclusion, and document the findings in a report. Additionally, future development projects may be required to incorporate additional mitigation depending on results of such future biological studies. The implementation of MM BIO-1 would allow each project proponent to identify potential impacts to special-status species outside of the CONCCP/HCP plan area that are not covered by the CONCCP/HCP and avoidance or mitigation measures that would reduce impacts to less than significant levels. If a proposed project is located in the CONCCP/HCP plan area and all special-status species with potential to occur on the proposed project site are covered by the CONCCP/HCP, the project proponent would implement MM BIO-6a through MM BIO-6d.

Implementation of MM BIO-1 and MM BIO-6a through MM BIO-6d would ensure that impacts to special status species and conflicts with an adopted NCCP/HCP would be avoided and/or minimized. Impacts would be less than significant.

Impact 5.3-2

Growth accommodated through long-term buildout of the City has the potential to result in loss of habitat. Coordination with the USFWS and CDFS would ensure that, on a project-by-project basis, habitat is replaced or conserved in accordance with MM BIO-2a and BIO-2b. Implementation of MM BIO-1, MM BIO-6a through MM BIO-6d, in conjunction with MM BIO-2a and MM BIO-2b would ensure that impacts on sensitive communities would be less than significant.

Impact 5.3-3

Buildout of the proposed project has the potential to impact riparian habitats, including jurisdictional waters. Mitigation measures MM BIO-3a would require preparation of jurisdictional delineations mapping waters, wetlands, and riparian habitats jurisdictional to CDFW and specifying impacts to such resources. MM BIO-3b and MM BIO-3c would require project proponents to obtain permits and authorizations from regulatory agencies specifying measures to avoid, minimize, and mitigate impacts. Impacts to jurisdictional waters and/or riparian habitats would be less than significant.

Impact 5.3-4

Implementation of the proposed project would involve development in area that may impact wildlife movement. If, during implementation of MM BIO-1 or MM BIO-6, wildlife movement corridors or wildlife

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nursery sites (e.g., avian nesting habitat or bat maternity roost) are discovered on a proposed project site, the project proponent shall implement MM BIO-4a through MM BIO-4c, which would require habitat connectivity/wildlife corridor evaluation for each project proposed in a wildlife movement corridor, identification of wildlife nursery sites, avoidance of nesting avian species, and avoidance of bat maternity roosts. Implementation of MM BIO-4a through MM BIO-4d would ensure that impacts on wildlife movement, including migratory birds, would be less than significant.

Impact 5.3-5

Buildout of the proposed project has the potential to result in impacts on protected trees. If, during implementation of MM BIO-1 or MM BIO-6, designated Landmark Trees, Street Trees, specimen trees, or oak woodlands are discovered on a proposed project site, the project proponent shall implement MM BIO-5a through MM BIO-5e, which would require each project proposed that has an existing protected tree inventory the on-site vegetation, seek permission to remove protected trees, and avoid impacts and identify mitigation for impacts to Oak Woodlands. Implementation of MM BIO-4a through MM BIO-4d would ensure that impacts on protected trees would be less than significant.

5.3.9 References

Anaheim, City of. 2004, May. City of Anaheim General Plan. <http://www.anaheim.net/712/General-Plan>.

First Carbon Solutions (FCS). 2024. City of Anaheim General Plan Focused Update Biological Resources Assessment. (Appendix I)

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5.4 CULTURAL RESOURCES

This section of the Draft Program Environmental Impact Report (Draft PEIR) discusses the potential impacts to cultural resources from implementation of the City of Anaheim's Focused General Plan Update (proposed project), including archaeological and historical resources, and consistency with policies and programs related to cultural resources.

The information in this section is based on the following technical report.

- *Cultural Resources Existing Conditions Report for the Anaheim General Plan Focused Update, Anaheim, California*, City of Anaheim, December 2024 (Appendix J)

One comment was received from the Native American Heritage Commission during the scoping period for the proposed project (see Appendix A) and one comment was received from the Commission during the scoping period for the Center City Corridors Specific Plan (C3SP), which has been incorporated into the proposed project as the Center City Corridors Implementation Plan (C3 Plan), related to tribal consultation (see Appendix B).

5.4.1 Environmental Setting

5.4.1.1 REGULATORY BACKGROUND

Federal

National Historic Preservation Act

The National Historic Preservation Act of 1966 (NHPA) coordinates public and private efforts to identify, evaluate, and protect the nation's historic and archaeological resources. The act authorized the National Register of Historic Places, which lists districts, sites, buildings, structures, and objects that are significant in American history, architecture, archaeology, engineering, and culture.

Section 106 (Protection of Historic Properties) of the NHPA requires federal agencies to take into account the effects of their undertakings on historic properties. Section 106 Review ensures 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.

National Register of Historic Places

The National Register of Historic Places (NRHP) was established by the NHPA as "an authoritative guide to be used by federal, state, and local governments, private groups and citizens to identify the Nation's historic resources and to indicate what properties should be considered for protection from destruction or impairment" (Code of Federal Regulations Title 36, Section 60.2). The NRHP recognizes a broad range of cultural resources that are significant at the national, state, and local levels and can include districts, buildings, structures, objects, prehistoric archaeological sites, historic-period archaeological sites, traditional cultural properties, and cultural

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landscapes. As noted above, a resource that is listed in or eligible for listing in the NRHP is considered a “historic property” under Section 106 of the NHPA. To be eligible for listing, a property must be significant in American history, architecture, archaeology, engineering, or culture. Properties of potential significance must meet one or more of the following four established criteria:

- A. Are associated with events that have made a significant contribution to the broad patterns of our history.
- B. Are associated with the lives of persons significant in our past.
- C. Embody the distinctive characteristics of a type, period, or method of construction or that represent the work of a master, or that possess high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction.
- D. Have yielded, or may be likely to yield, information important in prehistory or history.

In addition to meeting one or more of the criteria of significance, a property must have integrity. Integrity is defined as the ability of a property to convey its significance. The NRHP recognizes seven qualities that, in various combinations, define integrity, including location, design, setting, materials, workmanship, feeling, and association. To retain historic integrity, a property must possess several, and usually most, of these seven aspects. Thus, the retention of the specific aspects of integrity is paramount for a property to convey its significance. Ordinarily, religious properties, moved properties, birthplaces or graves, cemeteries, reconstructed properties, commemorative properties, and properties that have achieved significance within the past 50 years are not considered eligible for the NRHP unless they meet one of the Criteria Considerations (A through D) in addition to meeting at least one of the four significance criteria and possessing integrity.

Archaeological Resources Protection Act

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

Native American Graves Protection and Repatriation Act

NAGPRA is a federal law passed in 1990 that mandates 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 or culturally affiliated Indian tribes.

State

California Register of Historic Resources

In 1992, Assembly Bill (AB) 2881 was signed into law establishing the California Register of Historic Resources (CRHR). The CRHR is an authoritative guide in California to be used by State and local agencies, private groups, and citizens to identify the State’s historical resources and to indicate what properties are to be protected, to the extent prudent and feasible, from substantial adverse change. Eligibility for the CRHR is determined by the California Office of Historic Preservation in a formal review process in which a resource is proposed for listing. The CRHR is maintained by the Office of Historic Preservation’s State Historic Preservation Officer.

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For a historic resource to be listed, the resource must meet one or more of the following criteria:

1. Is associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage;
2. Is associated with lives of persons important in our past;
3. Embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of an important creative individual, or possesses high artistic values; or
4. Has yielded, or may be likely to yield, information important in prehistory or history.

California Public Resources Code

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

PRC Sections 5020 to 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 designating State Historical Landmarks and Historical Points of Interest.

PRC Sections 5079 to 5079.65 define the functions and duties of the Office of Historic Preservation, which administers federal- and state-mandated historic preservation programs in California as well as the California Heritage Fund.

PRC Sections 5097.9 to 5097.991 provide protection to Native American historical and cultural resources and sacred sites; identify the powers and duties of the Native American Heritage Commission; require that descendants be notified when Native American human remains are discovered; and provide for treatment and disposition of human remains and associated grave goods.

Local

City of Anaheim General Plan

The City of Anaheim General Plan Community Design Element includes policies and actions specifically designed to address the conservation and protection of historical resources.

Goal 13.1 Anaheim has a vibrant, distinctive and pedestrian-friendly Downtown that respects its historic context and provides civic, shopping, employment, and entertainment opportunities for residents and visitors.

- **Policy 13.1-1.** Use the Anaheim Colony Vision, Principles and Design Guidelines to ensure that new development reflects the diverse architectural heritage, and that the detailing and scale of the area is maintained and/or enhanced.

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- **Policy 13.1-2.** Incorporate historic themes and community symbols into the design of the Downtown area to distinguish it as Anaheim's historic/civic core.

Goal 14.1 The Anaheim Colony District and residential neighborhoods are a living example of the architectural heritage and community pride of the City.

- **Policy 14.1-1.** The Anaheim Colony Design Guidelines should be the basis for design review of renovations, remodeling, and new construction within residential neighborhoods in the Anaheim Colony Historic District.
- **Policy 14.1-2.** Continue to preserve and/or restore the Colony's historic structures and streetscapes to reflect the diverse architectural styles, historic features, character, scale and materials of the original house and community
- **Policy 14.1-3.** Restore and/or incorporate original streetscape patterns including consistent setbacks, parkways, alleys and landscape themes as part of the Colony's continuing preservation efforts.
- **Policy 14.1-4.** Continue to support the use of the Mills Act Program for owners of eligible historic properties.
- **Policy 14.1-5.** Pursue the rezoning of select residential areas within the Anaheim Colony Historic District as a disincentive for demolition of historic homes and to preclude more intense development.
- **Policy 14.1-6.** Incorporate edges and boundary treatments into the design guidelines of the Anaheim Colony Historic District, including exploring the feasibility of restoring parts of the original colony gates in selected areas as a visual reminder of the City's origins.
- **Policy 14.1-7.** Designate select residential areas adjacent to the Anaheim Colony Historic District, which contains historic structures as zones of influence subject to the Design Guidelines of the Anaheim Colony.

Anaheim Colony Design Guidelines

The Colony Visions, Principles & Design Guidelines for Anaheim's Colony area represent the policy framework for the City's Community Design Element. The Colony Design Guidelines is meant to provide design guidance to preserve and restore existing structures and streetscapes, but also for new construction. The design principles and guidelines contained in the Colony Design Guidelines should be applied to other historic properties and areas adjacent to or near the Colony.

Citywide Historic Preservation Plan

In May 2010, the Anaheim City Council approved the Citywide Historic Preservation Plan ("Plan"), a list of Contributors (contributing structures) in the local historic districts, and a complete list of Citywide historic structures. This Plan provides procedures for designating historical resources and criteria for selecting special properties that merit historic designation. Official classification and designation does not occur until the

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Planning and Building Director or the City Council certifies at the end of the application process that a building, structure, object, or district meets the required criteria.

The City of Anaheim has three levels of recognition: (1) Historic Districts; (2) Historically Significant Structures; and (3) List of Structures of Historical Interest. “Historic Districts” are typically contiguous groups of buildings that are best evaluated together due to their common history and physical characteristics that contribute to the significance of the district. “Historically Significant Structures” are single properties outside of historic districts that are visually identifiable reminders of the City’s history and the development of its built environment. The City maintains a “List of Structures of Historical Interest” to track properties outside of existing districts that have been identified by City staff or the public. These properties are simply a part of the City’s record for planning purposes. With further research, many of the properties on the list may be considered eventually for the higher designation of Historically Significant Structure.

Historic districts in the City include the Anaheim Colony Historic, Five Points, Historic Pam, and Hoskins Districts. A historic district is a single historic resource comprised of individual properties in geographical proximity that tell a story when considered together in a group. There are two historic districts in the City that are listed on the National Register of Historic Places. These include the Melrose-Backs Neighborhood Houses and Kroeger-Melrose District.

City Historic Preservation Program

When the owner of a designated historic property or a potentially historic property (i.e., one included on the Structures of Historical Interest list) applies to the Building Division for a building permit, the property is flagged for consultation with Historic Preservation program staff. All buildings identified as Contributors to historic districts, Historically Significant Structures, and buildings on the Citywide Structures of Historical Interest list that have been surveyed using a California Department of Parks and Recreation Form 523a require review prior to issuance of a demolition permit by the City’s Building Division. This process is not intended to apply to demolitions ordered by the Building Division Official or Fire Chief of the City of Anaheim to remedy conditions determined to be dangerous to life, health, safety, or property.

Described in the Citywide Historic Preservation Plan, the Mills Act is a preservation tool that encourages local historic property owners to restore and maintain their historic structures. The Mills Act grants local governments the authority to enter into contracts with owners of historic properties who agree to preserve their property in exchange for a reduction in local property taxes, based on State formula. The program maintains the integrity of historic homes and increases the values of both the property and the surrounding neighborhood. Participation in the Mills Act Program is voluntary, but each contract is automatically passes on to subsequent owners and remains binding on the property.

Eligible properties are those listed on the National Register of Historic Places, California Register, and/or Anaheim’s list of Qualified Historic Structures. The last category includes Qualified Historic Structures within designated historic districts and officially listed Historically Significant Structures outside the districts.

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Standard Conditions of Approval

The City will be adopting Master Conditions of Approval that are applied to all development projects through the plan-check review process. As a matter of practice, the City has been implementing the following conditions that relate to cultural resources, compliance with which would reduce impacts to cultural resources. Compliance with standard conditions would be required for all new development and redevelopment in the city.

- **SC CUL-1:** City staff shall require property owners/developers to provide studies to document the presence/absence of historic resources for areas with documented or inferred resource presence. On properties where resources are identified, 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 specialist.
- **SC CUL-2:** City staff shall require property owners/developers to provide studies to document the presence/absence of archaeological and/or paleontological resources for areas with documented or inferred resource presence (i.e., presence of native soils that would be disturbed). On properties where resources are identified or a potential for presence exists, 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 specialist.
- **SC CUL-3:** All archaeological resources shall be subject to the provisions of CEQA (Public Resources Code) Section 21083.2.
- **SC CUL-4:** Before and during construction, if human remains are discovered on-site, no further disturbance shall occur until the County Coroner has made a determination of origin, and disposition pursuant to California Public Resources Code Section 5097.98 and California Health and Safety Code Section 7050.5 has occurred.

5.4.1.2 EXISTING CONDITIONS

The following is a brief overview of the prehistoric and historic background of the City, which provides context to understand the relevance of resources found in the City. This section is not intended to be a comprehensive review of the current resources available; rather, it serves as a general overview.

Prehistoric and Ethnographic Background

Paleoamericans

In North America, radiocarbon dates from existing samples of archaeological materials demonstrates human presence as early as 15,000 years Before Present (BP). The lithics from the earliest documented sites in North America (14,000 to 15,000 BP) include cores, flakes, and flake tools (e.g., 5 blades, 14 bladelets, 12 bifaces, one discoidal flake core, and 23 edge-modified tools, including scrapers and graters, from the Debra L. Friedkin site in Texas) with an absence of projectile points. The first known projectile points in North America are from 13,000 years BP, with lanceolate fluted points (Clovis Complex) in sites from central and eastern North America and stemmed projectile points from sites in non-glaciated areas of western North America. (Jenkins et al. 2012;

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Beck and Jones 2010) Glennan (1972) provides an early study of the hypothesis of Pre-Clovis in Southern California. The oldest California radiocarbon date from archaeological materials, as of 2007, confirms a human presence in the northeastern part of the State (from site CA-SIS-218) as early as 13,500 years BP. The radiocarbon date corresponds to the period of fluted points and fluted points have been found throughout California, although projectile points and other chronologically and culturally informative materials are absent from the SIS-218 sample.

Pleistocene flora and fauna are regularly uncovered from sediments at the La Brea Tar Pits, deep construction-related excavations in coastal Orange County, and the Santa Ana watershed. Such studies reinforce the idea that much of Southern California exhibited a climate similar to that of Monterey or the San Francisco Bay Area during this Period, with slightly drier conditions away from the coast.

Millingstone Complex or Early Period

During the early Post-Glacial Period, after 8500 BP, the Southern California climate became warmer and drier. Groundstone artifacts that include manos and metates correspond to the Early Period. The Early Period in Southern California begins as early or earlier than 8000 BP and ends by about 2800 BP. The Early Period corresponds to the earliest known sites in Southern California with year-round habitation and cemeteries. Manos and metates consist of a variety of types. Manos and metates of the Early Period in Southern California correspond to types from studies in the U.S. Southwest that efficiently grind small, oily annual and biennial wild seeds. Most annual and biennial wild seed plant types in Southern California are best adapted for warm and dry environments (e.g., *Hemizonia fasciculata*, which is a summer seed source). Annual and biennial seed crops are highly reliable, nutritious, and productive. Annual and biennial seed producers are also diverse and afford reliable seed production throughout the year. Compared to later periods, utilitarian artifacts are most frequently found with Early Period burials.

Manos and metates are “kitchen tools” and concentrate within residential areas of Early Period habitation sites in Southern California. Other kinds of lithics that correspond to the Early Period include many kinds of core tools (e.g., hammers, choppers, and scraper planes), knives, bifaces, scrapers (many types), graters, burins, dart points, and compound bone fishhooks. Sedentism apparently increased in areas with abundant resources that were available for longer periods. Arid inland regions and offshore desert islands (e.g., San Nicolas Island) provided less opportunity for long-term residence without trade and possibly for more mobile subsistence. The Early Period ends about 2800 BP.

Middle Period

The Middle Period lasted from about 2800 BP to 750 BP. Excavated assemblages retain many attributes of the Early Period but with more diverse artifact types. Middle Period sites can contain large-stemmed or notched small projectile points suggestive of bow and arrow use, especially near the end of the Period, and the use of portable grinding tools continued. Intensive use of mortar and pestles signaled processing of acorns as the primary vegetative staple as opposed to a mixed diet of seeds and acorns. Because of a general lack of data, neither the settlement and subsistence systems nor the cultural evolution of this Period are well understood, but it is very likely that the nomadic ways continued. It has been proposed that sedentism increased with the

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exploitation of storable food resources, such as acorns, but coastal sites from the Period exhibit higher fishing activity than in previous periods. The first permanently occupied villages make their appearance in this Period.

Late Prehistoric

Extending from 750 BP to Spanish Contact in 1769, the Late Prehistoric includes changes in trade networks and political and secular economic subsystems. There was also a differentiation of types of political economies. Exploitation of marine resources continued to intensify. Assemblages characteristically contained projectile points, and toward the end of this Period the size of the points decreased and notched and stemmed bases appeared, which implies the use of the bow and arrow. Personal ornaments, such as shell beads, were widely distributed east of the coast, suggesting well-organized and codified trade networks. Additional assemblages in this Period included steatite bowls, asphaltum, grave goods, and elaborate shell ornaments. The use of bedrock milling stations was widespread during this horizon. Increased hunting efficiency and widespread exploitation of acorns provided reliable and storable food resources. Village size increased during this time, and some of these villages may have held 1,500 or more residents. Analyses of skeletons showed that the first signs of malnutrition appeared in this Period, signaling greater competition for food resources.

The earliest part of the Late Prehistoric Period may have seen an incursion of Cupan-Takic speakers from the Great Basin (the “Shoshonean wedge” of Kroeber 1925) who may have replaced the Hokan speakers in the area. At the time of Spanish conquest, Cupan-Takic speakers (Gabrieliño, Juaneño, and Cahuilla peoples) were distributed throughout Orange County, western Riverside County, and the Los Angeles Basin. Serran-Takic speakers are now represented by the Serranos in the San Bernardino Mountains. Recent work suggests that the “Shoshonean wedge” is misnamed—the original Los Angeles inhabitants replaced by the incoming Takic-speakers may have actually been Yuman speakers (similar to those in the California Delta region of the Colorado River) and not Hokan Salinan-Seri (Chumash) speakers as was suggested by Kroeber.

At the time of Spanish conquest, local indigenous groups were composed of constantly moving and shifting clans and cultures. Early ethnographers applied the concept of territorial boundaries to local indigenous groups purely as a conceptualization device, and the data was based on fragmented information provided to them from second-hand sources.

The Tongva (Gabrieliño)

Ethnographic accounts of Native Americans indicate that the Tongva (or Gabrieliño) once occupied the region that encompasses the project area. At the time of contact with Europeans, the Tongva were the main occupants of the southern Channel Islands, the Los Angeles Basin, and much of Orange County and extended as far east as the western San Bernardino Valley. The term “Gabrieliño” came from the tribe’s association with Mission San Gabriel Arcangel, established in 1771. However, today the tribe prefers to be known by their ancestral name, Tongva. The Tongva are believed to have been one of the most populous and wealthy Native American tribes in Southern California prior to European contact, second only to the Chumash.

The Tongva occupied numerous villages with populations ranging from 50 to 200 inhabitants. Residential structures within the villages were domed, circular, and made from thatched tule or other available wood. Tongva society was organized by kinship groups, with each group composed of several related families who

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together owned hunting and gathering territories. Settlement patterns varied according to the availability of floral and faunal resources. Vegetable staples consisted of acorns, chia, seeds, piñon nuts, sage, cacti, roots, and bulbs. Animals hunted included deer, antelope, coyote, rabbits, squirrels, rodents, birds, and snakes, and the Tongva also fished.

By the late eighteenth century, the Tongva population had significantly dwindled due to the introduction of diseases and dietary deficiencies. Tongva communities near the missions disintegrated as individuals succumbed to Spanish control, fled the region, or died. Later, many of the Tongva fell into indentured servitude to Anglo-Americans. By the early 1900s, few Tongva people had survived and much of their culture had been lost. However, in the 1970s, a revival of the Tongva culture began which continues to this day with growing interest and support.

The Luiseño

Of all the Southern California native groups, the Luiseño have been the most ethnographically studied and the literature is rich in detail. The tribe was once affiliated with the San Luis Rey Mission at Oceanside, California. Historically, the Luiseño spoke a language that belongs to the Cupan group of the Takic subfamily of the Uto-Aztecan language family, a language family that includes the Shoshonean groups of the Great Basin. The Luiseño occupational areas encompass over 1,500 square miles of Southern California, as well as the Channel Islands. Luiseño villages were found along the Pacific Ocean from Agua Hedionda on the south to Aliso Creek on the northwest in present day Orange County. Their territory extended inland to Santiago Peak, to the eastern side of the Elsinore Fault Valley, moving southward to the east of Palomar Mountain, then to the southern slope above the Valley of San José, and finally returning to the sea along the Agua Hedionda Creek. The villages were determined according to their proximity to a defined water source, access to a food gathering locale, and whether they were situated in a defensible location. Spatially, these villages were commonly located along valley bottoms, streams, or coastal strands. The Luiseño characteristically lived in sedentary and autonomous village groups. Ownership, whether tangible or intangible, ranged from communal to personal property that was owned either by the chief, an individual, a family, or by a group of individuals; therefore, one clan or family occupied several food gathering locations and aggressively guarded these areas against other clans.

Luiseño thatched house structures were constructed of reeds, brush and/or bark, and any other locally available materials. The houses had a slightly conical roof with a floor that was usually excavated two feet below ground surface. All homes were built with a small fire pit in the center and a slight smoke hole in the roof just above the fire. These house structures were known by the Spanish term ramadas. The larger structures, such as ceremonial structures, wamkis, were typically constructed with forked posts supporting wood ceiling beams and were completely covered in thatch that was lightly mixed with sand or soil. Ceremonial structures were located within the center of the village and enclosed with fencing. Raised altars with a skin and feather image upon them would sometimes be in the ceremonial area. Sweat houses were of similar thatch design to that of the smaller house pattern but varied in their construction in that they stood on two forked posts connected by a log and were shaped like an ellipse, with an entrance on one of the longer sides of the structure covered with a layer of mud.

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The pottery associated with the Luiseño was constructed simply, made for functionality, and tended to lack ornamental design, although Bean and Shipek (1978) note that if designs were included, “a simple line decoration was either painted or incised with a fingernail or stick.” The Luiseño made pots from the basis of a coil form, in which pieces of coiled clay were gradually added to the edge of the pot while it was being shaped with a wooden paddle and finished with a polishing stone. After completion, the pot was sunbaked and fired. Typical uses of pottery were for cooking, water jugs, containers, and a water vessel with two spouts used while gathering food. Plant fibers were also commonly used for purposeful household implements, such as brooms, brushes, nets, pouches, twine, and cedar bark skirts for women. The process of creating such items from plant fiber tended to rely on soaking, stretching, and then rolling the fiber.

Ceremony and ritual were of great importance to all native peoples, and the Luiseño had their own variety of traditional practices. Frequently practiced ceremonies included multiple rituals for mourning the dead, the eagle dance, separate ceremonies for the initiation of boys and girls, and a summer and winter solstice celebration. These ceremonies offered gatherers an opportunity to witness reenactments, songs, and the oral recitation of their history. Important equipment during rituals included blades made of obsidian, stone bowls, clay figurines, and headdresses constructed of eagle feathers. Ritual dances were limited to three standard dances, such as the fire dance, which was used during the Toloache Cult initiation for boys at puberty. Also, of great significance during the boys’ initiation were masterfully designed sand paintings, once thought to have originated in the Southwest though presently culturally identified with the Luiseño. Although not necessarily limited to ritual, Heizer and Whipple (1971) comment that the Luiseño of Riverside County decorated their rock designs in the same form as that of the native peoples of the Great Basin, which appeared as pecked abstracts displayed on boulders.

Personal adornment was a common practice among the Luiseños. Ornamental items such as beads and pendants were made of clay, shell, stone, deer hooves, bear claws, and mica sheets. Men would wear ear and nose ornaments, sometimes made of bone or cane with beads attached. Body painting and tattooing were done purely for rituals.

The Luiseño encountered Europeans as early as 1796, with the arrival of the Gaspar de Portola Expedition. The rapid decline of the population began with the spread of European diseases and ideas, coupled with the living conditions in the missions and the ranchos. Many coastal village people were moved into missions, and Indians from distant villages were moved into the San Juan Capistrano Mission where they were taught, among many other things, the Spanish language, the Roman Catholic faith, and European crafts. San Luis Rey Mission’s policy was to continue to maintain the settlement patterns of the Luiseño. When the missions became secularized in 1834, political imbalance among resulted in Indian revolts and uprisings against the Mexican rancheros. Many Indians left the ranchos and missions and joined more inland groups. Some acquired land grants and entered the conventional Mexican culture.

The Juaneño

The Juaneño people ethnographically occupied Orange County and parts of San Diego County, Los Angeles County, and Riverside County. Archaeological evidence shows that the tribe inhabited the region for over 10,000 years. The Juaneño get their name from their association to Mission San Juan Capistrano. They resided in

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permanent villages ranging between 30 inhabitants to 300 inhabitants, with leadership consisting of single hereditary lineage with a dominant clan joining other families to form powerful affiliations and settlements. Each clan maintained their political autonomy, forming connections with other clans through trade or social networks that usually manifested in arranged marriages. Typically, the clan chief's duties included the continuation of community rites and coordination with the council of elders in the implementation of ceremonial and religious rites.

Upon contact with the Spanish, the lives of the Juaneño were drastically transformed. In addition to disease, the Spanish were intent in spreading Christianity and laying claim to the newly discovered land. This was immediately followed by an aggressive campaign of mission construction and transforming the countryside to support the thousands of cattle and population. By the mid-1800s, the Juaneño population had declined to less than 800. After the Treaty of Guadalupe Hidalgo, a smallpox outbreak took the lives of 129 Juaneño people, bringing the population down to 227; however, there was strong sentiment among the remaining Juaneño to remain in the San Juan Capistrano region and preserve the traditions of their forefathers.

Historic Background

Regional

Spanish and Mexican Exploration and Settlement

The Spanish Period (1769–1821)

The first Europeans to pass through the region of modern-day Los Angeles County was Captain Gaspar de Portola, during the Portola Expedition. Portola was accompanied by Father Juan Crespi, who played a central role in mapping the early routes of California. Portola and his expedition arrived in present day San Gabriel Valley on July 30, 1769, with a 64-person garrison, before continuing on their route to Monterey Bay. In 1771, the region was visited by Father Francisco Garces, who arrived at modern day San Gabriel Valley in search of mission sites. His trek from Colorado to modern day Los Angeles County became the main overland route during the Spanish Period. On January 8, 1774, Juan Bautista de Anza, accompanied by Father Garces and Father Juan Diaz, engaged in the De Anza Expedition, whose goal was to establish a colony and scout locations for Spanish missions. Reaching Mission San Gabriel Arcangel, de Anza and 30 Spanish families form one of the first colonies in California (San Diego and San José supersede Mission San Gabriel), paving the way for the establishment of El Pueblo de la Reina de Los Angeles Sobre el Rio de la Porciuncula. As the influence of Mission San Gabriel grew, so did the land that it controlled. At its height, Mission San Gabriel controlled roughly 1,500,000 acres of land, extending from the ocean to the San Bernardino Mountains.

In addition to the growth of mission influence, Los Angeles was expanding as well following the assignment of the first three land grants to three soldiers, and by 1810, the population of Los Angeles County had grown to 2,537. The region continued to grow, and the success of the citrus orchards brought a lot of prosperity to the region. Nevertheless, civil unrest and fear of the liberal regime that had taken control of Spain sparked the flames of the Mexican Revolution.

The Mexican Period (1821–1848)

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In 1821, Mexico overthrew Spanish rule and the monopoly that the missions had in the area began to decline. By 1833, the Mexican government passed the Secularization Act, and the missions, reorganized as parish churches, lost their vast land holdings. In an act of rebellion against the Secularization Act, mission fathers ordered the slaughter of over 100,000 cattle. (County of Los Angeles 2020) Following the Secularization Act, the Mexican government initially planned on redistributing the land to the Native Americans; instead, they were redistributed to prominent citizens. The large ranchos became important financial and social centers with the focus going toward cattle and agriculture. The prosperity in the region attracted Americans from the east to the region seeking to make their own fortune. The influx of American settlers raised tension in the region, eventually leading to the Mexican-American War (1846–1848), with Mexico ceding its northern territories to the United States after the Treaty of Guadalupe Hidalgo.

Orange County

Prior to European contact, the area that would become Orange County was originally inhabited by the Tongva, Juaneño, and Luiseño Native American tribes. The first European to enter the region was Captain Gaspar de Portola, who entered the area in 1769 in what is known as the Portola Expedition. The party was on route to Northern California from San Diego in an excursion to claim the Southern and Northern California for Spain. This was followed by the establishment of the first community centered around Mission San Juan Capistrano, which was founded on November 1, 1776.

Following the annexation of California to the United States, the area of Orange County was subsumed within Los Angeles County when the latter was incorporated on February 18, 1850. In the mid-nineteenth century, the region's economy centered around agriculture, cattle ranching, and viticulture. In fact, the growing success of the wine industry in the region enticed 50 Germans from San Francisco to migrate southward. In 1857, they established the first American town in the area, Anaheim. In 1868, the U.S. government put up vast areas on both sides of the Santa Ana River to be sold. The towns of Santa Ana, Tustin, Orange, Westminster, and Garden Grove were subsequently founded.

In 1887, the discovery of silver in the Santa Ana Mountain brought an influx of settlers into the area. As the townships rapidly grew, its inhabitants sought to break away from the County of Los Angeles to form their own county, citing the lack of resources directed toward them from Los Angeles. This initiative was spearheaded by the 13,000 residents of Anaheim, Santa Ana, and Orange. They succeeded in attaining a two-thirds majority in the State legislature on June 4, 1889, and on August 1, 1889, the County of Orange was incorporated.

Before 1945, agriculture remained the major industry in Orange County, supplemented by the discovery of oil fields in La Habra, Brea Canyon, and Olinda. By 1930, over one-third of the Valencia oranges grown in the U.S. came from the county. However, Orange County's economy would change during the 1940s. During World War II, the U.S. established several military bases in Orange County. These included the El Toro Marine Corps Air Station, the Seal Beach Naval Weapons station, the Los Alamitos Joint Forces Training Base, and the Santa Ana Army Air Base. After the war, many veterans decided to settle in the area. Aerospace and manufacturing hubs grew around these bases during the Cold War. In 1955, the opening of Disneyland brought tourists to the area and made Orange County an international travel destination. By 1960, the county's population had grown to over 700,000 people. Agricultural production in Orange County declined as manufacturing, tourism, and the

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service industry came to dominate the local economy. Today there are 34 cities in the county with a total population of 3.176 million as of 2019.

City of Anaheim

The City of Anaheim was founded in 1857 when 50 German settlers migrated from San Francisco southward to find a suitable area to grow grapes. The town's name was a shortened amalgamation of the Santa Ana River, "Ana," and the German word "heim" meaning "home." George Hansen, one of the leaders of the group, formed the Anaheim Wine Company. They planted over 400,000 vines along the Santa Ana River. The wine industry grew, and other settlers moved in to establish their own wineries. By 1875, there were more than 50 wineries in the town, producing over a million gallons of wine per year. However, a grape blight in 1884 destroyed numerous vineyards, and the wine industry never recovered in Anaheim. Agricultural production switched to growing oranges, sugar beets, lima beans, and celery.

By 1950, Anaheim's population had grown to over 14,000 people but the City was poised on the edge of major changes. The construction and opening of Disneyland in 1955 brought tourists to the City and made it an international travel destination. Hotels, housing, and restaurants grew around Disneyland to cater to tourists and employees. In 1964, the City undertook two ambitious projects: the construction of the Anaheim Convention Center and Anaheim Stadium. Finished in 1966, the Anaheim Stadium continues to be the home to the Los Angeles Angels while serving as a large music venue in the off season. Opened in 1967, the Anaheim Convention Center remains a hub for large conferences and business gatherings today.

Anaheim is a major tourist and business center today with numerous commercial shopping centers, business parks, office complexes, and hotels. The City has expanded greatly from its early beginnings as the first small agricultural town in Orange County into an important and vibrant Southern California city.

Historical Resources

On March 18, 2022, a record search/literature review of archaeological and historic built environment resources was conducted at the South Central Coastal Information Center (SCCIC) for the C3SP project that consisted of 2,600 acres. At the direction of the City of Anaheim, the C3SP project expanded to the entire City as part of the General Plan Area as the Center City Corridors Implementation Plan (C3 Plan). The results of the C3 Plan records search and a search of the Built Environment Resource Directory for Orange County were reviewed to determine the presence and/or absence of built environment historical resources on the City-provided Historic Inventory List for the General Plan Update. As a result of this expansion in the study area, additional records searches were conducted at the SCCIC on May 23, 2023; June 5, 2023; and June 27, 2023. The purpose of this review was to determine whether previously recorded historic architectural resources exist within the General Plan area (i.e., City limits including its sphere of influence). The record search/literature review was also conducted to evaluate whether the General Plan area contains any historic properties listed on or determined eligible for listing on the NRHP, CRHR, the California Historic Landmarks list, or the California Points of Historical Interest list.

The results of cross-referencing the SCCIC records search results for the C3SP and the Built Environment Resource Directory for Orange County determined that 17 of the 1,336 structures and buildings on the

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inventory list were previously recorded. As part of the 2023 SCCIC record searches, the remaining 1,319 structures and buildings were reviewed to determine recordation/eligibility status. Currently, 692 structures and buildings built between 1892 and 1978 have not been evaluated for the CRHR or the NRHP. There are 207 buildings and structures built between 1979 and 1983 that are 1 to 5 years from the 45-year threshold. The remaining 420 structures and buildings contained no information pertaining to the year they were built, and some parcels consist of vacant land. Figure 5.4-1, *Historical Inventory Map*, identifies the historic evaluation status of historic resources in the City.

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.

Archeological sites are often located along creek areas, ridgelines, and vistas. Many of these types of landforms are located within the Hill and Canyon Area of the City and its sphere of influence, and one major cultural resource site (CA-Ora-303) has been identified and registered. This site was first recorded in 1970 and listed a series of small, north-facing rock shelters adjacent to State Route 91 (SR-91). The artifact assemblage consisted of manos, hammerstones, choppers, lithic flakes, and some faunal bone (Anaheim 2004).

5.4.2 Thresholds of Significance

The City of Anaheim considers a project to have a significant effect on the environment if the project would:

- CUL-1 Cause a substantial adverse change in the significance of a historical resource pursuant to Section 15064.5.
- CUL-2 Cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5.
- CUL-3 Disturb any human remains, including those interred outside of dedicated cemeteries.

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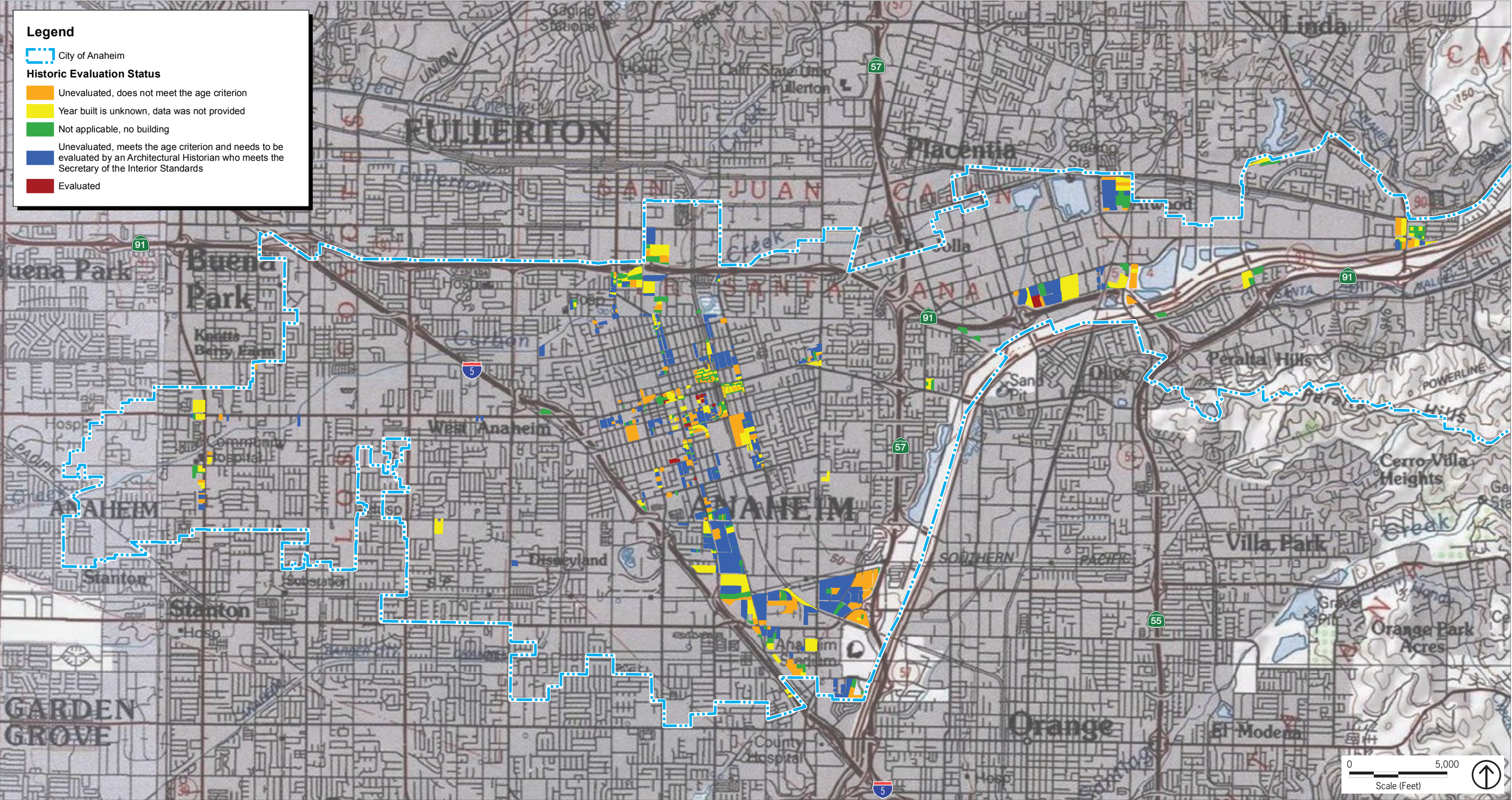


Figure 5.4-1
Historical Inventory Map

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5.4.3 Proposed General Plan Goals and Policies and Standard Conditions

The proposed project does not include any new or updated general plan goals and policies related to cultural resources. However, it does include certain standard conditions of approval that would be applicable to future development projects in the City, in addition to those listed above in Section 5.4.1.1. These additional standard conditions are identified below.

SC CUL-5 If an archaeological assessment does not identify potentially significant archaeological resources but indicates the area to be of medium sensitivity for archaeological resources, an Archaeologist who meets the Professional Qualified Standards shall be retained on an on-call basis. The Archaeologist shall inform all construction personnel prior to construction activities about the proper procedures in the event of an archaeological discovery. The training shall be held in conjunction with the project's initial on-site safety meeting and shall explain the importance and legal basis for the protection of significant archaeological resources. In the event that archaeological resources (artifacts or features) are exposed during ground-disturbing activities, construction activities within 100 feet of the discovery shall be halted while the on-call Archaeologist is contacted. If the discovery proves to be significant, the qualified Archaeologist shall make recommendations to the Lead Agency (City of Anaheim) on the measures that shall be implemented to protect the discovered resources, including but not limited to excavation of the finds and evaluation of the finds in accordance with Section 15064.5 of the CEQA Guidelines.

SC CUL-6 Potentially significant cultural resources consist of, but are not limited to, stone, bone, fossils, wood, or shell artifacts or features, including hearths, structural remains, or historic dumpsites. Any previously undiscovered resources found during construction within the project site should be recorded on appropriate California Department of Parks and Recreation forms and evaluated for significance in terms of CEQA Guidelines. Appropriate mitigation measures for significant resources could include avoidance or capping, incorporation of the site in green space, parks, or open space, or data recovery excavations of the finds. No further grading shall occur in the area of the discovery until the Lead Agency approves the measures to protect these resources. Any archaeological artifacts recovered as a result of mitigation shall be donated to a qualified scientific institution approved by the Lead Agency, where they would be afforded long-term preservation to allow future scientific study.

5.4.4 Environmental Impacts

The following impact analysis addresses thresholds of significance that are identified in brackets after the impact statement.

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Impact 5.5-1: Implementation of the proposed project could cause a substantial adverse change in the significance of a historical resource pursuant to Section 15064.5. [Threshold CUL-1]

As previously discussed, the City is primarily a built-out community, limiting new development to underutilized parcels, vacant parcels, or on parcels built with existing uses. Implementation of the proposed project would occur throughout the City, but would focus development and redevelopment in the western and central portions of the City. As shown on Figure 5.5-1, the western and central portions of the City contain historic built resources that have been evaluated as well as resources that meet the age criterion and would require further evaluation. Therefore, future development and redevelopment permitted under the proposed project could result in changes that affect historic resources.

Potential future development under the proposed project may include site preparation, demolition, and construction activities. These activities could have the potential to result in the physical demolition, destruction, relocation, or alteration of potential historical resources. The goals and policies in the Community Design Element of the General Plan, standard conditions of approval, and the City's Historic Preservation Program would help reduce impacts to historical resources. Additionally, future development facilitated by the proposed project would also be subject to the provisions of applicable federal, State, and local cultural resource regulations. However, there would still be potential for development to impact historical resources. Therefore, impacts to historical resources would be potentially significant.

Level of Significance Before Mitigation: Impact 5.5-1 would be potentially significant.

Mitigation Measures: Mitigation measures MM CUL-1 through MM CUL-4 are required.

Impact 5.5-2: Implementation of the proposed project could cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5. [Threshold CUL-2]

As previously discussed, archeological sites are often located along creek areas, ridgelines, and vistas, and these landforms are within the Hills and Canyon Area of the City. These areas are within the eastern portion of the City and there is one recorded site adjacent to SR-91. Impacts can also occur in areas where native soils would be affected by ground disturbing activities associated with individual future projects.

Effects on archaeological resources can only be determined once a specific project has been proposed because the effects are highly dependent on both the individual project site conditions and the characteristics of the proposed ground disturbing activities. However, ground-disturbing activities associated with development facilitated by the proposed project have the potential to damage or destroy previously unknown archaeological resources that may be present on or below the ground surface. Potential impacts to archaeological resources are most likely to occur in areas that have not been previously developed with urban uses, have not been studied through a cultural resource investigation, or when excavation extends to depths lower than previous disturbance. Consequently, damage to or destruction of previously unknown subsurface cultural resources could occur as a result of development facilitated by the proposed project. Therefore, impacts related to archaeological resources would be potentially significant.

Level of Significance Before Mitigation: Impact 5.5-2 would be potentially significant.

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Mitigation Measures: Mitigation measures MM CUL-2 through MM CUL-7 are required.

Impact 5.5-3: Implementation of the proposed project would not disturb any human remains, including those interred outside of dedicated cemeteries. [Threshold CUL-3]

California Health and Safety Code, Section 7050.5, CEQA Section 15064.5, and Public Resources Code, Section 5097.98, mandate the process to be followed in the event of an accidental discovery of any human remains in a location other than a dedicated cemetery. Specifically, California Health and Safety Code, Section 7050.5, requires that if human remains are discovered on a project site, disturbance of the site shall remain halted until the coroner has conducted an investigation into the circumstances, manner, and cause of any death, and the recommendations concerning the treatment and disposition of the human remains have been made to the person responsible for the excavation, or to his or her authorized representative, in the manner provided in Section 5097.98 of the Public Resources Code. If the coroner determines that the remains are not subject to his or her authority and if the coroner recognizes or has reason to believe the human remains to be those of a Native American, he or she shall contact, by telephone within 24 hours, the Native American Heritage Commission. Although soil-disturbing activities associated with development in accordance with the General Plan Update could result in the discovery of human remains, compliance with existing law would ensure that significant impacts to human remains would be less than significant.

Level of Significance Before Mitigation: Impact 5.5-3 would be less than significant.

Mitigation Measures: No mitigation measures are required.

5.4.5 Cumulative Impacts

Although impacts to historical resources are generally site-specific, cumulative impacts to historical resources may occur when a project, combined with other nearby projects, substantially diminish the number of historical resources within the same or similar context or property types. In addition, a significant cumulative impact could occur if the combined effect of other projects in the vicinity of a project site would result in alterations to the setting or other impacts that would affect the integrity of historical resources within the cumulative setting.

As stated under Impact 5.5-1, known historical resources exist within the City, as do sites with potential historical resources that have not yet been evaluated and could be eligible for listing on the NRHP, CRHR, or local listing. Development facilitated by the proposed project could cause a substantial adverse change to a historical resource if development were to be located on, within, or near a historical resource. Although Mitigation Measure MM CUL-1 through MM CUL-4 would be required to reduce impacts to these resources to the maximum extent feasible, cumulative development and redevelopment could nonetheless cause the loss of built-environment historical resources. Alteration or demolition of historical resources remains a possibility throughout the Planning Area and immediate surroundings with potentially cumulative impacts. As such, the incremental effect of the proposed project would be cumulatively considerable. Therefore, the cumulative impact related to historical resources would be significant and unavoidable.

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As described in Impact 5.5-2, an increase in development in previously undisturbed areas contributes to regional impacts on existing and previously undisturbed areas where archaeological resources could be present. While impacts to archaeological resources are generally project specific, certain archaeological resources may have regional significance. For example, an archaeological resource that represents a last known example of its kind would constitute a regional impact if it were affected by proposed development. As such, cumulative impacts to archaeological resources would be significant. The proposed project would implement Mitigation Measures MM CUL-5 through MM CUL-7 to ensure that project-level impacts to unknown archaeological resources are adequately mitigated. These mitigation measures provide for archaeological assessment, testing, cultural resources training, as recommended for projects with ground disturbance. These measures also identify the steps to be taken if archaeological resources are encountered. Therefore, the proposed project's contribution to cumulative impacts to archaeological resources would not be cumulatively considerable.

The disturbance of human remains is largely site specific, and the disturbance of remains at one site is generally not considered additive at another site. In addition, the disturbance of human remains is regulated under the California Health and Safety Code Section 7050.5 and PRC Section 5097.98. Together, these regulations set standard procedures for the discovery of human remains and further evaluation if the remains are determined to be of Native American origin. While cumulative development has at least the possibility of uncovering unidentified human remains, all cumulative development would be subject to the requirements set forth within California Health and Safety Code Section 7050.5 and PRC Section 5097.98. Consequently, the cumulative disturbance of human remains would not be significant.

Level of Significance Before Mitigation: Cumulative impacts would be potentially significant.

Mitigation Measures: Mitigation measures MM CUL-1 through MM CUL-7 are required.

Level of Significance After Mitigation: Cumulative impacts would be significant and unavoidable.

5.4.6 Level of Significance Before Mitigation

Upon implementation of regulatory requirements, GP goals and policies, and standard conditions of approval, the following impact would be less than significant: 5.5-3.

Without mitigation, these impacts would be potentially significant:

- **Impact 5.5-1** Implementation of the proposed project could impact historic resources.
- **Impact 5.5-2** Implementation of the proposed project could impact archaeological resources.

5.4.7 Mitigation Measures

Impact 5.5-1

MM CUL-1 Prior to the issuance of a demolition permit that may affect historical resources (i.e., structures 45 years or older), a historical resources assessment shall be performed by an architectural historian or historian who meets the Secretary of the Interior's Professionally Qualified

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Standards in architectural history or history. This shall include a records search to determine whether any resources that may be potentially affected by the project have been previously recorded, evaluated, and/ or designated in the National Register of Historic Places, California Register of Historical Resources, or a local register. Following the records search, the qualified architectural historian shall conduct a survey in accordance with the California Office of Historic Preservation guidelines to identify any previously unrecorded potential historical resources that may be potentially affected by the proposed project. The criteria for determining a historically significant building or structure shall meet one or more of the following criteria:

- Is associated with events that have made a significant contribution to the broad patterns of local, regional, or national history; or
- Is associated with the lives of persons significant in local, regional, or national history; or
- Embodies the distinctive characteristics of a significant architectural style, property type, period, or method of construction; represent the work of an architect, designer, engineer, or builder who is locally, regionally, nationally significant, or it is a significant visual feature of the City; possess high artistic values, represent a significant and distinguishable entity whose components may lack individual distinction; or
- That have yielded, or may be likely to yield, information important in prehistory or history.

MM CUL-2 Properties identified as historically significant resources, shall contain proper documentation meeting the Historic American Building Survey Guidelines that shall be prepared and implemented, as approved by the qualified historian meeting the Secretary of the Interior's Professional Qualifications Standards. Such documentation shall include drawings, photographs, and written data for each building/structure/element and provide a detailed mitigation plan, including a monitoring program, recovery, rehabilitation, redesign, relocation, and/or *in situ* preservation plan.

MM CUL-3 To ensure that projects requiring the relocation, rehabilitation, or alternation of a historical resource do not impact the resource's significance, the Secretary of Interior's Standards for the Treatments of Historic Properties shall be used to the maximum extent possible. The application of the standards shall be overseen by a qualified architectural historian or historic architect meeting the Professional Qualified Standards. Prior to any construction activities that may affect the historical resource, a report identifying and specifying the treatment of character-defining features and construction activities shall be provided to the City of Anaheim for review and approval.

MM CUL-4 If a proposed project would result in the demolition or significant alteration of historical resource, such demolition cannot be mitigated to a less than significant level. However, recordation of the resource prior to construction activities will assist in reducing adverse impacts to the resource to the greatest extent possible. Recordation shall take the form of Historic American Buildings Survey, Historic American Engineering Record, or Historic

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American Landscape Survey documentation, and shall be performed by an architectural historian or historian who meets the Professional Qualified Standards. Documentation shall include an architectural and historical narrative; medium- or large-format black and white photographs, negatives, and prints; and supplementary information such as building plans and elevations, and/or historical photographs that could be accessed from location such as Cal State Fullerton or Anaheim Heritage Center. Documentation shall be reproduced on archival paper and placed in appropriate local, State, or federal institutions. The specific scope and details of documentation are to be developed in coordination with the City of Anaheim.

Impact 5.5-2

- MM CUL-5 For future projects that propose ground disturbing activities greater than current foundations present on a given site, and/or for projects in areas with documented or inferred resource presence, City staff shall require future property owners/developers to provide studies to document the presence/absence of archaeological resources. Mitigation measures MM CUL-6 through MM CUL-7 shall apply, depending on results of the study. On properties where resources are identified, 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 specialist. The archaeological resources assessment shall be performed under the supervision of an Archaeologist that meets the Secretary of the Interior's Professional Qualified Standards in either prehistoric or historic archaeology. The assessments shall include a California Historical Resources Information System records search at the South Central Coastal Information Center and a search of the Sacred Lands File maintained by the Native American Heritage Commission. The records searches shall determine if the proposed project has been previously surveyed for archaeological resources, identify and characterize the results of previous cultural resource surveys, and disclose any cultural resources that have been recorded and/or evaluated. Based on results of records search and project site conditions, a Phase I pedestrian survey may be undertaken, based on recommendations from the Qualified Archaeologist.
- MM CUL-6 If potentially significant archaeological resources are identified through an archaeological resources assessment, and impacts to these resources cannot be avoided, a Phase II Testing and Evaluation investigation shall be performed by an Archaeologist who meets the Professional Qualified Standards prior to any construction-related ground-disturbing activities to determine significance. If resources determined significant or unique through Phase II testing, and site avoidance is not possible, appropriate site-specific mitigation measures shall be established and undertaken. These might include a Phase III data recovery program that would be implemented by a qualified Archaeologist and shall be performed in accordance with the Office of Historic Preservation's Archaeological Resource Management Reports.
- MM CUL-7 If the archaeological assessment did not identify potentially significant archaeological resources within the proposed project area but indicated the area to be highly sensitive for archaeological resources, this shall be followed by monitoring of all ground-disturbing

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construction and pre-construction activities in areas with previously undisturbed soil by a qualified Archaeologist.

In this event, the property owner/developer or contractor as designee shall provide evidence in the form of an executed Agreement to the City of Anaheim Planning and Building department that they have retained a qualified Archaeologist to provide third-party monitoring (Monitor) during specified excavation and grading activities and to recover and catalogue resources as necessary.

The agreement shall include (i) professional qualifications of Monitor; (ii) detailed scope of services to be provided including but not limited to pre-construction education, observation, evaluation, protection, salvage, notification, and/or curation requirements, as applicable, with final documentation/report to Public Works Inspector; (iii) contact information; (iv) communication protocols between Contractor and Monitor for scheduling to facilitate timely performance; (v) acknowledgment that if the Monitor is unavailable or unresponsive based on terms stipulated in the agreement, property owner/developer or contractor as designee may contract with another qualified Monitor acceptable to the City. The selection of the qualified professional(s) shall be subject to City acceptance based on generally accepted professional qualifications and certifications, as applicable.

The cover sheet of the grading plans shall include a note to identify that (a) third party monitoring for archaeological resources is required during specified excavation and grading activities in accordance with the City-approved Agreement; and (b) contact information for approved Monitor shall be provided by the Contractor to the City inspector at the pre-construction meeting.

The Archaeologist shall inform all construction personnel prior to construction activities of the proper procedures in the event of an archaeological discovery. The training shall be held in conjunction with the project's initial on-site safety meeting and shall explain the importance and legal basis for the protection of significant archaeological resources. In the event that archaeological resources (artifacts or features) are exposed during ground-disturbing activities, construction activities within 100 feet of the discovery shall be halted while the resources are evaluated for significance by an Archaeologist who meets the Professional Qualified Standards. If the discovery proves to be significant, the qualified Archaeologist shall make recommendations to the Lead Agency (City of Anaheim) on the measures that shall be implemented to protect the discovered resources, including but not limited to excavation of the finds and evaluation of the finds in accordance with Section 15064.5 of the CEQA Guidelines.

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5.4.8 Level of Significance After Mitigation

Impact 5.5-1

Implementation of Mitigation Measures MM CUL-1 through MM CUL-4 would reduce potential adverse impacts on historical resources to the extent feasible by requiring an identification of historic-age built environment features; an evaluation of historical resources in compliance with the State Office of Historic Preservation, if necessary; compliance with the Secretary of the Interior's Standards for the Treatments of Historic Properties if necessary; and if demolition is required, recordation in the form of Historic American Buildings Survey, Historic American Engineering Record, or Historic American Landscape Survey documentation. However, it cannot be guaranteed that historical resources would not be demolished as a result of development facilitated by the proposed project; therefore, impacts remain significant and unavoidable.

Impact 5.5-2

Implementation of Standard Conditions of Approval SC CUL-1 through CUL-6 and Mitigation Measures MM CUL-5 through CUL-7 would reduce potential impacts to archaeological resources to a less-than-significant level by requiring the identification and evaluation of any archaeological resources that may be present prior to construction and by providing steps for the evaluation. Impacts would be less than significant.

5.4.9 References

Anaheim, City of. 2004. Anaheim General Plan and Zoning Code Update Environmental Impact Report No. 330. <https://www.anaheim.net/932/EIR-No-330-Volume-I-FEIR>.

Anaheim, City of. 2024. Cultural Resources Existing Conditions Report for the Anaheim General Plan Focused Update, Anaheim, California. (Appendix J)

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5.5 ENERGY

This section of the Draft Program Environmental Impact Report (Draft PEIR) discusses the potential impacts to energy resources from implementation of the City of Anaheim's General Plan Focused Update (proposed project) and consistency with policies and programs related to energy. Energy calculations are included in Appendix H, *Air Quality, Greenhouse Gas, and Energy Modeling*, of this Draft PEIR.

Comments were received during the scoping period for both the proposed project (see Appendix A) and the Center City Corridors Specific Plan (C3SP), which has been incorporated into the proposed project as the Center City Corridors Implementation Plan (C3 Plan), that are related to energy impacts (see Appendix B).

5.5.1 Environmental Setting

5.5.1.1 REGULATORY BACKGROUND

Federal

National Energy Conservation Policy Act

The National Energy Conservation Policy Act serves as the underlying authority for federal energy management goals and requirements. Signed into law in 1978, it has been regularly updated and amended by subsequent laws and regulations. This act is the foundation of most federal energy requirements.

Energy Policy Act of 1992 and 2005

The Energy Policy Act of 1992 was passed to reduce the country's dependence on foreign petroleum and improve air quality. The act includes several parts intended to build an inventory of alternative fuel vehicles (AFVs) in large, centrally fueled fleets in metropolitan areas. The act requires certain federal, state, and local government and private fleets to purchase a percentage of light-duty AFVs capable of running on alternative fuels each year. Financial incentives are also included in the act. Federal tax deductions are allowed for businesses and individuals to cover the incremental cost of AFVs. States are also required by the Energy Policy Act to consider a variety of incentive programs to help promote AFVs. The Energy Policy Act of 2005 provides renewed and expanded tax credits for electricity generated by qualified energy sources, such as landfill gas; provides bond financing, tax incentives, grants, and loan guarantees for clean renewable energy and rural community electrification; and establishes a federal purchase requirement for renewable energy.

Energy Independence and Security Act of 2007

- The Energy Independence and Security Act (EISA; Public Law 110-140) was signed into law by President George W. Bush on December 19, 2007. The EISA's goal is to achieve energy security in the United States (U.S.) by increasing renewable fuel production, improving energy efficiency and performance, protecting consumers, improving vehicle fuel economy, and promoting research on greenhouse gas (GHG) capture and storage. Under the EISA, the Renewable Fuel Standard (RFS) program (RFS2) was expanded in several key ways:

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- Directed the California Energy Commission (CEC) to formulate and adopt the nation's first energy conservation standards for both buildings constructed and appliances sold in California;
- Expanded the RFS program to include diesel, in addition to gasoline;
- Increased the volume of renewable fuel required to be blended into transportation fuel;
- Established new categories of renewable fuel and set separate volume requirements for each; and
- Required the U.S. Environmental Protection Agency (U.S. EPA) to apply lifecycle GHG performance threshold standards to ensure that each category of renewable fuel emits fewer GHGs than the petroleum fuel it replaces.

RFS2 lays the foundation for achieving significant reductions of GHG emissions from the use of renewable fuels, reducing imported petroleum, and encouraging the development and expansion of our nation's renewable fuels sector.

The EISA also includes a variety of new standards for lighting and for residential and commercial appliance equipment. The equipment includes residential refrigerators, freezers, refrigerator-freezers, metal halide lamps, and commercial walk-in coolers and freezers.

Federal Energy Regulatory Commission

The Federal Energy Regulatory Commission (FERC) regulates the interstate transmission of electricity, natural gas, and oil. FERC is the federal agency with jurisdiction over interstate electricity sales, wholesale electric rates, hydroelectric licensing, natural gas pricing, and oil pipeline rates. FERC also reviews and authorizes liquefied natural gas terminals, interstate natural gas pipelines, and nonfederal hydropower projects. Electricity is run by the states; however, FERC has jurisdiction over certain matters.

State

Warren-Alquist Act

The California Legislature passed the Warren-Alquist Act in 1974, which gives statutory authority to the CEC. The legislation also incorporated the following three key provisions designed to address the demand side of the energy equation:

- It directed the CEC to formulate and adopt the nation's first energy conservation standards for both buildings constructed and appliances sold in California.
- It removed the responsibility of electricity demand forecasting from the utilities, which had a financial interest in high demand projections and transferred it to the more impartial CEC.
- It directed the CEC to embark on an ambitious research and development program, with a particular focus on fostering what were characterized as "non-conventional" energy sources.

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Advanced Clean Cars II

The Advanced Clean Cars II regulations will rapidly scale down light-duty-passenger, pickup truck, and sports utility vehicle emissions starting with the 2026 model year through 2035. The regulations amend the Zero-emission Vehicle Regulation to require an increasing number of zero-emission vehicles (ZEVs) and rely on currently available advanced vehicle technologies (i.e., battery-electric, hydrogen fuel cell electric, and plug-in hybrid) to meet air quality and climate change emissions standards. Second, the Low-emission Vehicle Regulations were amended to include increasingly stringent standards for gasoline cars and heavier passenger trucks to continue to reduce smog-forming emissions. The regulations aim to substantially reduce air pollutants that cause climate change and threaten public health. In addition, the regulations provide public health benefits of at least 12 billion dollars over the life of reductions by reducing premature deaths, hospitalizations, and lost workdays associated with exposure to air pollution.

Advanced Clean Trucks

The Advanced Clean Trucks regulations is a manufacturers ZEV sales requirement and a one-time reporting requirement for fleets and large entities. The development and use of advanced clean trucks aims to help California Air Resources Board (CARB) achieve its emissions reduction strategies as outlined in the State Implementation Plan (SIP), Sustainable Freight Action Plan, Senate Bill (SB) 350, and Assembly Bill (AB) 32.

State Alternative Fuels Plan

AB 118 of 2007 requires the CEC to prepare a plan to increase the use of alternative fuels in California. The State Alternatives Fuels Plan was prepared by the CEC with the CARB and in consultation with other federal, state, and local agencies to reduce petroleum consumption, increase use of alternative fuels (e.g., ethanol, natural gas, liquefied petroleum gas, electricity, and hydrogen), reduce GHG emissions, and increase in-state production of biofuels. The State Alternative Fuels Plan recommends a strategy that combines private capital investment, financial incentives, and advanced technology that aim to increase the use of alternative fuels, result in significant improvements in the energy efficiency of vehicles and reduce trips and vehicle miles traveled (VMT) through changes in travel habits and land management policies.

Renewable Portfolio Standards

In 2002, California established its Renewable Portfolio Standard program with the goal of increasing the annual percentage of renewable energy in the state's electricity mix by the equivalent of at least one percent of sales, with an aggregate total of 20 percent by 2017. The California Public Utilities Commission (CPUC) subsequently accelerated that goal to 2010 for retail sellers of electricity (Public Utilities Code Section 399.15(b)(1)). Then-Governor Schwarzenegger signed California Executive Order S-14-08 in 2008, increasing the target to 33 percent renewable energy by 2020. In September 2009, Governor Schwarzenegger continued California's commitment to the Renewable Portfolio Standard by signing California Executive Order S-21-09, which directs CARB under its AB 32 authority to enact regulations to help the state meet its Renewable Portfolio Standard goal of 33 percent renewable energy by 2020. In September 2010, CARB adopted its Renewable Electricity Standard regulations, which require all the state's load-serving entities to meet this target. In October 2015, then-Governor Jerry Brown signed into legislation SB 350, which requires retail sellers and publicly owned

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utilities to procure 50 percent of their electricity from eligible renewable energy resources by 2030. Signed in 2018, SB 100 revised the goal of the program to achieve the 50 percent renewable resources target by December 31, 2026, and to achieve a 60 percent target by December 31, 2030.

SB 100 established a further goal to have an electric grid entirely powered by clean energy by 2045. Under SB 100, the state cannot increase carbon emissions elsewhere in the western grid or allow resource shuffling to achieve the 100 percent carbon-free electricity target. Approved in 2022, SB 1020 revised the state policy to provide that eligible renewable energy resources and zero-carbon resources supply 90 percent of all retail sales of electricity to California end-use customers by December 31, 2035; 95 percent of all retail sales of electricity to California end-use customers by December 31, 2040; 100 percent of all retail sales of electricity to California end-use customers by December 31, 2045; and 100 percent of electricity procured to serve all state agencies by December 31, 2035.

California 2008 Energy Action Plan Update

The 2008 Energy Action Plan Update is the state's principal energy planning and policy document. The plan describes a coordinated implementation strategy to ensure that California's energy resources are adequate, affordable, technologically advanced, and environmentally sound. In accordance with this plan, the state and its electricity providers would invest first in energy efficiency and demand-side resources, followed by renewable resources, and only then in clean conventional electricity supply to meet its energy needs.

Integrated Energy Policy Reports

Pursuant to SB 1368, the CEC is responsible for preparing integrated energy policy reports, which identify emerging trends related to energy supply, demand, conservation, public health and safety, and maintenance of a healthy economy. The 2023 Integrated Energy Policy Report, adopted February 2024, discusses speeding connection of clean resources to the electricity grid, the potential use of clean and renewable hydrogen, and the California Energy Demand Forecast to 2040. The report also provides updates on topics such as gas decarbonization, energy efficiency, the Clean Transportation Program, and publicly owned utilities' progress toward peak demand reserves and margins.

Senate Bill 1368

On September 29, 2006, then-Governor Schwarzenegger signed into law SB 1368. The law limits long-term investments in baseload generation by the state's utilities to power plants that meet an emissions performance standard (EPS) jointly established by the CEC and the CPUC. The CEC has designed regulations that:

- Establish a standard for baseload generation owned by or under long-term contract to publicly owned utilities of 1,100 pounds carbon dioxide (CO₂) per megawatt-hour. This would encourage the development of power plants that meet California's growing energy needs while minimizing their emissions of GHGs;
- Require posting of notices of public deliberations by publicly owned utilities on long-term investments on the CEC website. This would facilitate public awareness of utility efforts to meet customer needs for energy over the long-term while meeting the state's standards for environmental impacts; and

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- Establish a public process for determining the compliance of proposed investments with the EPS.

California Building Code: Building Energy Efficiency Standards

Energy conservation standards for new residential and nonresidential buildings were adopted by the California Energy Resources Conservation and Development Commission (now the CEC) in June 1977 and are updated every three years (California Code of Regulations [CCR] Title 24, Part 6; also called the Energy Code). 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 9, 2018, the CEC adopted the 2019 Building Energy Efficiency Standards, which went into effect on January 1, 2020. The 2022 Building Energy Efficiency Standards were adopted in August 2021 and went into effect on January 1, 2023.

The 2022 Building Energy Efficiency Standards improve upon the previous 2019 Building Energy Efficiency Standards. Among other updates, including strengthened ventilation standards for gas cooking appliances, the 2022 Energy Code includes updated standards in the following three major areas:

- New electric heat pump requirements for residential uses, schools, offices, banks, libraries, retail, and grocery stores;
- The promotion of electric-ready requirements for new homes, including the addition of circuitry for electric appliances, battery storage panels, and dedicated infrastructure to allow for the conversion from natural gas to electricity; and
- The expansion of solar photovoltaic (PV) and battery storage standards to additional land uses including high-rise multifamily residences, hotels and motels, tenant spaces, offices (including medical offices and clinics), retail and grocery stores, restaurants, schools, and civic uses (including theaters auditoriums, and convention centers).

Buildings whose permit applications were submitted on or after January 1, 2023, must comply with the 2022 Energy Code. The 2025 Energy Code is currently in the pre-rulemaking process. If approved, the 2025 Energy Code would be effective January 1, 2026.

California Green Building Standards Code

The California Green Building Standards Code (CCR, Title 24, Part 11), commonly referred to as the CALGreen Code, is a statewide mandatory construction code that was developed and adopted by the California Building Standards Commission and the California Department of Housing and Community Development. CALGreen standards require new residential and commercial buildings to comply with mandatory measures under five green building areas: planning and design; energy efficiency; water efficiency and conservation; material conservation and resource efficiency; and environmental quality. CALGreen also provides voluntary measures (CALGreen Tier 1 and Tier 2) that local governments may adopt to encourage or require additional measures in the five green building topics. The CEC approved the 2022 California Green Building Standards

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Code in September 2022 that went into effect on January 1, 2023. The 2025 CALGreen Code, if approved by the California Building Standards Commission, will be effective January 1, 2026.

California Executive Order B-30-15, SB 350, and SB 100

- In April 2015, the Governor issued California Executive Order B-30-15, which established a GHG reduction target of 40 percent below 1990 levels by 2030. SB 350 (Chapter 547, Statutes of 2015) advanced these goals through two measures. First, the law increases the renewable power goal from 33 percent renewables by 2020 to 50 percent by 2030. Second, the law requires the CEC to establish annual targets to double energy efficiency in buildings by 2030. The law also requires the CPUC to direct electric utilities to establish annual efficiency targets and implement demand-reduction measures to achieve this goal. In 2018, SB 100 revised the goal of the program to achieve the 50 percent renewable resources target by December 31, 2026, and to achieve a 60 percent target by December 31, 2030. SB 100 also established a further goal to have an electric grid entirely powered by clean energy by 2045.

Local

City of Anaheim General Plan

The City of Anaheim has long recognized its role in promoting energy conservation. The General Plan's Green Element and the Community Design Element provide policy guidance that are consistent with federal and state programs. The following goals in the existing 2004 General Plan relate to energy conservation and efficiency in the City :

Green Element

Goal 15.1: Continue to lead the County in energy conservation programs, practices and community outreach.

- **Policy 15.1-1.** Continue to maintain and update energy conservation programs and information provided on the City's website.

Goal 15.2: Continue to encourage site design practices that reduce and conserve energy.

- **Policy 15.2-1.** Encourage increased use of passive and active solar design in existing and new development (e.g., orienting buildings to maximize exposure to cooling effects of prevailing winds and locating landscaping and landscape structures to shade buildings).
- **Policy 15.2-2.** Encourage energy-efficient retrofitting of existing buildings throughout the City.
- **Policy 15.2-3.** Continue to provide free energy audits for the public.

Goal 17.1: Encourage building and site design standards that reduce energy costs.

- **Policy 17.1-1.** Encourage designs that incorporate solar and wind exposure features such as daylighting design, natural ventilation, space planning and thermal massing.

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Community Design Element

Goal 11.1: Architecture in Anaheim has diversity and creativity of design and is consistent with the immediate surroundings.

- **Policy 11.1-5.** Encourage energy and environmental efficiency – such as “Green Development Standards” (see Green Element) – in the design and approval of new projects.

City of Anaheim Municipal Code

Buildings and Housing

The City of Anaheim Municipal Code, Title 15, Buildings and Housing, establishes building standards codes, which includes energy efficiency standards.

- **Adoption of Building Standards Codes (Section 15.03.010.0106).** The City of Anaheim adopted the 2022 California Energy Code (CCR Title 24, Part 6) as part of their municipal code to establish energy efficiency standards for both residential and non-residential buildings.
- **Adoption of Building Standards Codes (Section 15.03.010.0109).** The City of Anaheim adopted the 2022 California Green Buildings Standards Code (CCR, Title 24, Part 11), with specified amendments.

Anaheim Public Utilities Greenhouse Gas Reduction Plan

The Greenhouse Gas Reduction Plan (GHG Plan) by Anaheim Public Utilities (APU) outlines the utility’s vision for developing sustainable and environmentally friendly electric and water resources while maintaining affordability and reliability for customers. Created in 2015 and updated in 2020, the plan establishes baseline metrics, tracks progress, and sets new targets for 2030 and 2045, aligning with California’s goal of 100 percent clean energy by 2045. The plan focuses on reducing greenhouse gas emissions through various initiatives including renewable power transition, energy efficiency, water conservation, and electric transportation, while incorporating community feedback and designing programs specifically for Anaheim’s needs.

The GHG Plan identifies renewable energy and energy conservation targets for APU for the years 2020, 2030, and 2045. APU met its 2020 renewable energy procurement goal of 33 percent, and plan to procure 60 percent by year 2030, and 100 percent by 2045. In 2020, the City installed 34,000 kW of photovoltaic systems, 50,000 kW of photovoltaic systems are expected to be installed by 2030, and 75,000 kW of photovoltaic systems are expected to be installed by 2045.

Standard Conditions of Approval

The City will be adopting Master Conditions of Approval that are applied to all development projects through the plan-check review process. As a matter of practice, the City has been implementing the following conditions that relate to energy, compliance with which would reduce negative energy impacts. Compliance with standard conditions would be required for all new development and redevelopment in the City.

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- **SC EN-1:** The owner/developer shall ensure that all Landscape Plans shall comply with the City of Anaheim adopted Landscape Water Efficiency Guidelines. This ordinance is in compliance with the State of California Model Water Efficient Landscape Ordinance (AB 1881).

5.5.1.2 EXISTING CONDITIONS

Electricity

Historically, California has relied heavily on oil- and gas-fired plants to generate electricity. Spurred by regulatory measures and tax incentives, California's electrical system has become more reliant on renewable energy sources, including cogeneration, wind energy, solar energy, geothermal energy, biomass conversion, transformation plants, and small hydroelectric plants. Unlike petroleum production, electricity generation is not usually tied to the location of the fuel source and can be delivered great distances via the electrical grid. The generating capacity of a unit of electricity is expressed in megawatts (MW). Net generation refers to the gross amount of energy produced by a unit minus the amount of energy the unit consumes. Generation is typically measured in megawatt-hours (MWh), kilowatt-hours (kWh), or gigawatt-hours (GWh). For the baseline year 2021, overall electricity consumption in California was 280,180 GWh.¹

APU provides electrical services to the City. APU operates the only municipal electric system in Orange County. Between 1976 to 2003, APU received power from conventional energy sources, including coal, natural gas, and nuclear energy. Starting in 2003, APU began providing customers with renewable resources. In calendar year 2021, 35.9 percent of APU's energy was produced from renewable resources. In 2021, total existing electricity demand in the City was approximately 2 billion kWh, as shown in Table 5.5-1, *Existing Electricity Demand*.

Table 5.5-1 Existing Electricity Demand

Area	Electricity Usage (kWh per year)
Residential	630,443,000
Nonresidential	1,399,656,000
Total	2,030,099,000

Note: Electricity data provided by APU for Fiscal Year 2021. Excludes the customer type "Other Utilities."

Existing electricity use intensities are estimated based on the existing land uses from Table 3-1 from Chapter 3, *Project Description*, of this Draft PEIR, and existing electricity demand, as shown in Table 5.5-2, *Existing Electricity Use Intensity*.

Table 5.5-2 Existing Electricity Use Intensity

Area	Electricity Use Intensity
Residential	5,625 kWh/dwelling unit/year
Nonresidential	19 kWh/square foot/year

Note: Electricity data provided by APU for Fiscal Year 2021. Excludes the customer type "Other Utilities."

¹ U.S. Energy Information Administration's State Energy Data System, <https://www.eia.gov/state/seds/?sid=CA>

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Natural Gas

The Southern California Gas Company (SoCal Gas) provides natural gas services to the City. SoCal Gas is the largest natural gas distribution utility in the nation, and provides energy to about 21.1 million consumers within a 24,000 square mile service territory throughout Central and Southern California. In 2021, total natural gas consumption in the SoCal Gas service area was 5,101 million therms (SoCal Gas 2024).

Natural gas is a hydrocarbon fuel found in reservoirs beneath the Earth's surface and primarily composed of methane (CH₄). It is used for space and water heating, process heating and electricity generation, and as transportation fuel. Use of natural gas to generate electricity is expected to increase in coming years because it is a relatively clean alternative to other fossil fuels (e.g., oil and coal). In California and throughout the western U.S., many new electrical generation plants fired by natural gas are being brought online. Thus, there is great interest in importing liquefied natural gas from other parts of the world. California's natural gas-fired electric generation increased by 2 percent in 2021, accounting for 50 percent of in-state generation (CEC 2021). Natural gas is typically measured using therms, which is a unit of heat equivalent to 100,000 British thermal units (BTU).

Based on data provided by SoCal Gas, total existing natural gas demand in the City was approximately 71 million therms in 2021, as shown in Table 5.5-3, Existing Natural Gas Demand.

Table 5.5-3 Existing Natural Gas Demand

Area	Natural Gas Usage (Therms per year)
Residential	34,782,590
Nonresidential	36,304,076
Total	71,086,666

Note: Natural gas data provided by SoCal Gas for calendar year 2021.

Existing natural gas use intensities are estimated based on the existing land uses from Table 3-1 from Chapter 3, *Project Description*, of this Draft PEIR, and existing natural gas demand, as shown in Table 5.5-4, *Existing Natural Gas Use Intensity*.

Table 5.5-4 Existing Natural Gas Use Intensity

Area	Natural Gas Use Intensity
Residential	310 therms/dwelling unit/year
Nonresidential	0.5 therms/square foot/year

Note: Natural gas data provided by SoCal Gas for calendar year 2021.

Transportation Fuels

Transportation energy demand in California is largely related to vehicular traffic (e.g., passenger vehicles, light duty trucks, semi-trucks, etc.), with most transportation-related energy demand currently met by gasoline and diesel fuel. In 2021, California consumed 17.9 billion gallons of fuel (gasoline and diesel) based on data from

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California Emission FACTor (EMFAC) 2021 Version 1.0.2. In Orange, approximately 1.3 billion gallons of fuel (gasoline and diesel) were consumed in 2021 based on EMFAC.

5.5.2 Proposed General Plan Goals and Policies and Standard Conditions

The proposed project does not include any new or updated general plan goals and policies related to energy. However, it does include certain standard conditions of approval that would be applicable to future development projects in the City, in addition to those listed in Section 5.5.1.1. These additional standard conditions are identified below:

SC EN-2 Prior to the issuance of building permits for new development projects, the project applicant shall show on the building plans that all major appliances (dishwashers, refrigerators, clothes washers, and dryers) to be provided/installed are Energy Star certified appliances or appliances of equivalent energy efficiency. Installation of Energy Star or equivalent appliances shall be verified by the City of Anaheim prior to the issuance of a Certificate of Occupancy.

SC EN-3 Prior to issuance of building permits for non-single-family residential and mixed-use residential development projects, the project applicant shall indicate on the building plans that the following features have been incorporated into the design of the building(s). Proper installation of these features shall be verified by the City of Anaheim prior to the issuance of a Certificate of Occupancy.

- Electric vehicle charging shall be provided as specified in Section A4.106.8.2 (Residential Voluntary Measures) of the CALGreen Code.
- Bicycle parking shall be provided as specified in Section A4.106.9 (Residential Voluntary Measures) of the CALGreen Code.

SC EN-4 Prior to the issuance of building permits for nonresidential development projects, project applicants shall indicate on the building plans that the following features have been incorporated into the design of the building(s). Proper installation of these features shall be verified by the City of Anaheim Building Division prior to the issuance of a Certificate of Occupancy.

- For buildings with more than ten tenant-occupants, changing/shower facilities shall be provided as specified in Section A5.106.4.3 (Nonresidential Voluntary Measures) of the CALGreen Code.
- Preferential parking for low-emitting, fuel-efficient, and carpool/van vehicles shall be provided as specified in Section A5.106.5.1 (Nonresidential Voluntary Measures) of the CALGreen Code.
- Facilities shall be installed to support future electric vehicle charging at each nonresidential building with 30 or more parking spaces. Installation shall be consistent with Section A5.106.5.3 (Nonresidential Voluntary Measures) of the CALGreen Code.

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- SC EN-5** Any new system improvements (e.g., substation, line connections), if required and prior to final approval, shall be constructed in accordance with the City's Electric Rates, Rules and Regulations and Electrical Specifications. Electrical Service Fees and other applicable fees will be assessed in accordance with the current Electric Rates, Rules and Regulations and Electrical Specifications.
- SC EN-6** Prior to approval of each final building and zoning inspection, the property owner/developer shall implement a program, as required, to reduce the demand on natural gas supplies. The Southern California Gas Company has developed several programs which are intended to assist in the selection of most energy-efficient water heaters and furnaces.
- SC EN-7** Prior to issuance of each building permit, the property owner/developer shall demonstrate on plans that fuel-efficient models of gas-powered building equipment have been incorporated into the proposed project to the extent feasible.
- SC EN-8** Prior to issuance of a building permit, the property owner/developer shall incorporate feasible renewable energy generation measures into the project. These measures may include but not be limited to use of renewable biofuels, solar and small wind turbine sources on new and existing facilities and the use of solar powered lighting in parking areas.

5.5.3 Thresholds of Significance

The City of Anaheim considers a project to have a significant effect on the environment if it would:

- E-1 Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation.
- E-2 Conflict with or obstruct a state or local plan for renewable energy or energy efficiency.

The impact analysis also utilizes considerations identified in Appendix F of the CEQA Guidelines, as appropriate, to assist in addressing the E-1 threshold. The factors to evaluate energy impacts under CEQA Guidelines threshold E-1 include:

- The project's energy requirements and its energy use efficiencies by amount and fuel type for each stage of the project including construction, operation, maintenance and/or removal. If appropriate, the energy intensiveness of materials may be discussed.
- The effects of the project on local and regional energy supplies and on requirements for additional capacity.
- The effects of the project on peak and base period demands for electricity and other forms of energy.
- The degree to which the project complies with existing energy standards.
- The effects of the project on energy resources.

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- The project's projected transportation energy use requirements and its overall use of efficient transportation alternatives

5.5.4 Environmental Impacts

5.5.4.1 METHODOLOGY

This analysis considers the state CEQA Guidelines, Appendix G thresholds, as described above, in determining whether implementation of the proposed project would result in the inefficient, wasteful, or unnecessary use of energy. The evaluation was based on a review of regulations and determining their applicability to the proposed project. The impact analysis is based on analysis and review of various data available in public records, including local planning documents. Potential energy impacts were evaluated by reviewing the change in land uses that could occur from implementation of the proposed project. Whether implementation of the proposed project would or would not result in substantial adverse effects on energy resources is determined by the proposed project's compliance with relevant policies and regulations established by local and regional agencies.

5.5.4.2 IMPACT ANALYSIS

The following impact analysis addresses thresholds of significance that are identified in brackets after the impact statement.

Impact 5.5-1: Implementation of the proposed project would not result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources during project construction or operation. [Threshold E-1]

Short-Term Construction Impacts

Future development projects under implementation of the proposed project would consume construction energy in two general forms: (1) the fuel energy consumed by construction vehicles and equipment; and (2) bound energy in construction materials, such as asphalt, steel, concrete, pipes, and manufactured or processed materials such as lumber and glass.

Fossil fuels used for construction vehicles and other energy-consuming equipment would be used during site clearing, grading, and construction. Fuel energy consumed during construction would be temporary and would not represent a significant demand on energy resources. In addition, some incidental energy conservation would occur during construction through compliance with state requirements which specify that equipment not in use for more than five minutes must be turned off (CCR Title 13, Section 2485). Project construction equipment would also be required to comply with the latest U.S. EPA and CARB engine emissions standards, which require highly efficient combustion systems that maximize fuel efficiency and reduce unnecessary fuel consumption. Due to increasing transportation costs and fuel prices, contractors and owners have a strong financial incentive to avoid wasteful, inefficient, and unnecessary consumption of energy during construction. There is also growing recognition among developers and retailers that sustainable construction is not prohibitively expensive, and that there is a significant cost-savings potential in green building practices and materials.

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Substantial reductions in energy inputs for construction materials can be achieved by selecting building materials composed of recycled materials that require substantially less energy to produce than non-recycled materials. The project-related incremental increase in the use of energy bound in construction materials such as asphalt, steel, concrete, pipes and manufactured or processed materials (e.g., lumber and gas) would not substantially increase demand for energy compared to overall local and regional demand for construction materials. It is reasonable to assume that production of building materials such as concrete, steel, etc., would employ all reasonable energy conservation practices in the interest in minimizing the cost of doing business.

Unlike an individual project for which project-specific construction information is available, it is impractical to quantify construction-related energy consumption from all the future development projects under implementation of the proposed project. Although construction equipment would primarily use energy in the form of fuel consumption, the amount of construction-related fuel cannot be determined at this time due to the lack of project-specific construction information associated with future development. Rather, construction energy consumption would be evaluated for specific development projects as future development applications are processed by the City. It is noted that construction fuel use is temporary and would cease upon completion of construction activities. Further, there are no unusual project characteristics that would necessitate the use of construction equipment that would be less energy-efficient than at comparable construction sites in the region or state. Therefore, construction fuel consumption associated with future development projects under implementation of the proposed project would not be any more inefficient, wasteful, or unnecessary than other similar residential developments. A less than significant impact would occur.

General Construction Guidance

During construction, some incidental energy conservation would occur through compliance with state requirements that construction equipment not in use for more than five minutes be turned off. Construction equipment would also be required to comply with the latest U.S. EPA and CARB engine emissions standards. These engines use highly efficient combustion engines to minimize unnecessary fuel consumption. Project-related construction activities would consume energy, primarily in the form of diesel fuel (e.g., mobile construction equipment) and electricity (e.g., power tools).

Any future development under implementation of the proposed project and subject to CALGreen regulations is required to divert 65 percent of waste generated during construction from landfills. Recycling construction and demolition waste not only keeps it from being transported to the landfill, but also reduces the “upstream” energy consumption from the manufacturing of virgin material.

Future construction activities associated with future development would also be required to monitor air quality emissions using applicable regulatory guidance such as the South Coast Air Quality Management District CEQA Guidelines. There are no aspects of implementation of the proposed project that would foreseeably result in the inefficient, wasteful, or unnecessary consumption of energy during construction activities.

As discussed above, there are no unusual characteristics that would necessitate the use of construction equipment that would be less energy efficient than at comparable construction sites in the region or state. Therefore, it is expected that construction fuel consumption associated with implementation of the proposed project would not be any more inefficient, wasteful, or unnecessary than other similar projects of this nature.

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Therefore, impacts to energy resources associated with the future developments' construction activities would be less than significant, and no mitigation is required.

Long-Term Impacts During Operation

Future development projects under implementation of the proposed project would permanently increase the operational energy demand when compared to existing conditions. Existing conditions and operational energy consumption from implementation of the proposed project would occur from building energy (electricity and natural gas) use, water use, and transportation-related fuel use. The methodology for each category is discussed below. Annual energy consumption during existing conditions and operations from implementation of the proposed project is shown in Table 5.5-5, *Annual Energy Consumption During Operations*. The estimated energy demand associated with future development projects under implementation of the proposed project is also compared to the existing overall energy demand of the City to provide context for the projected changes in energy demand.

Table 5.5-5 Annual Energy Consumption During Operations

Land Use	Project Source	Annual Energy Consumption		
		Existing Conditions (2021)	Project Forecast (Year 2045)	Net Change
Residential	Electricity Use (GWh)			
	Area ¹	720	795	75
	Water ²	126	147	21
	Total Electricity	847	942	95
	Natural Gas Use (Therms)			
	Area ¹	41,942,915	41,566,952	-375,963
Nonresidential	Electricity Use (GWh)			
	Area ¹	1,310	1,941	632
	Natural Gas Use (Therms)			
	Area ¹	29,143,751	46,088,530	16,944,779
All Land Uses (Residential+ Nonresidential)	Electricity Use (GWh)			
	Area ¹	2,030	2,736	706
	Water ¹	126	147	21
	Total Electricity	2,156	2,884	727
	Natural Gas Use (Therms)			
	Area ¹	71,086,666	87,655,482	16,568,816
	Mobile (Gallons) ³	268,194,322	222,058,667	-46,135,655

Source: Appendix H

Notes: GWh = gigawatt hours

¹ The electricity and natural gas are based on CalEEMod defaults. Energy consumption values do not account for reductions due to increases in energy efficiency from compliance with future Building Energy Efficiency Standards and updates to CALGreen.

² Water data for the project was provided by the Water Supply Assessment prepared by Psomas (Appendix L). All water gallons Citywide were added to one land use in CalEEMod, therefore the water shown in residential includes nonresidential land uses, large landscapes, losses, fire, and recycled water.

³ Calculated based on VMT and fleet-average fuel consumption (in gallons per mile) from EMFAC2021 for operational years 2021 and 2045. Includes gasoline, diesel, plug-in hybrid, CNG.

Electricity

The electricity uses during existing conditions and operations from implementation of the proposed project is based on actual City usage data and future growth projections. Implementation of the proposed project would

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use approximately 2,736 GWh of electricity per year (Table 5.5-5). The electricity associated with operational water use is estimated based on the annual water use and the energy intensity factor is the CalEEMod default energy intensity per gallon of water for South Coast hydrologic region. Project area water use is based on actual City usage data and future growth projections. Implementation of the proposed project would use approximately 66,293 acre feet per year or 21.6 billion gallons of water annually which would require approximately 147 GWh per year for conveyance and treatment. In total, implementation of the proposed project would use approximately 2,884 GWh of electricity per year. When compared to existing conditions, implementation of the proposed project would increase electricity consumption by 727 GWh.

Natural Gas

The methodology used to calculate the natural gas use associated with implementation of the proposed project is based on data provided by SoCal Gas and future growth projections. Implementation of the proposed project would use 8.8 billion kilo-British Thermal Units (kBtu), or approximately 87,655,482 therms of natural gas per year; refer to Table 5.5-5. When compared to existing conditions, implementation of the proposed project would increase natural gas consumption by 16,568,816 therms.

Petroleum Fuel

The gasoline and diesel fuel associated with on-road vehicular trips is calculated based on total VMT from the *DRAFT Anaheim Housing Element Update SB 743 Analysis*, prepared by Kimley-Horn and Associates, Inc. (dated November 14, 2024), and average fuel efficiency from the EMFAC2021 model. As summarized in Table 5.5-5, the total gasoline and diesel fuel associated with on-road trips would be approximately 222,058,667 gallons per year. When compared to existing conditions, implementation of the proposed project would decrease fuel consumption by 46,135,655 gallons, or approximately 17 percent. This could be explained by improved land use efficiency created by the General Plan Update's proposed higher density and improved fuel economy for the future years shown in EMFAC from fleet turnover regulatory improvements such as the CAFE standards.

Effects of Project Operations on Local and Regional Energy Supplies

Californians used 280,180 GWh of electricity in 2021, of which Orange County used 19,214 GWh (CEC 2024). Implementation of the proposed project's estimated electricity consumption does not include reductions associated with compliance with the 2022 Title 24 building code and compliance with the CALGreen standards per CalEEMod default modeling. The APU generated 2,721,438 MWh of electricity in 2023 (APU 2023). APU would review implementation of the proposed project's estimated electricity consumption to ensure that the estimated power requirement would be part of the total load growth forecast for their service area and accounted for in the planned growth of the power system. Based on these factors, it is anticipated that APU's existing and planned electricity capacity and electricity supplies would be sufficient to serve the proposed project's electricity demand.

Regarding natural gas, Californians used 5,101 million therms of natural gas and 580 million therms of natural gas in Orange County in 2021. Therefore, the operational natural gas use associated with implementation of the proposed project would represent 0.002 percent of the natural gas use in the state and 15 percent of the natural gas use in the County. Natural gas consumption associated with implementation of the proposed project

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would be 87,655,482 therms per year, which represents an increase when compared to existing conditions. Based on the 2024 California Gas Report, the California Energy and Electric Utilities estimates natural gas consumption within SoCal Gas' planning area will be approximately 2,307 million cubic feet (cf) per day in 2024 (2022). Accordingly, the 87,655,482 therms (8,434,499,524 cf) of annual natural gas consumption associated with implementation of the proposed project would account for less than 0.001 percent of the forecasted natural gas consumption in the SoCal Gas service area. As such, the consumption of natural gas associated with implementation of the proposed project is expected to fall within SoCal Gas' projected consumption and supplies for the area. According to the U.S. Energy Information Administration, the U.S. currently has over 86 years of natural gas reserves based on 2021 consumption.

In 2045, Californians are anticipated to use approximately 14,590,307,711 gallons of fuel, of which Orange County is projected to use approximately 1,056,918,009 gallons of fuel (EMFAC 2024). Transportation fuels (gasoline and diesel) are produced from crude oil, which can be domestic or imported from various regions around the world. Based on current proven reserves, current crude oil production would be sufficient to meet 50 years of worldwide consumption (BP Global 2022). Operational use of gasoline and diesel fuel associated with implementation of the proposed project would represent a 17 percent decrease when compared to existing conditions. Fuel demands associated with implementation of the proposed project would not require the construction of additional gas stations or refineries.

Compliance with Energy Efficiency Measures

As discussed above, California's Energy Efficiency Standards for Residential and Non-Residential Buildings create uniform building codes to reduce California's energy use and provide energy efficiency standards for residential and non-residential buildings. These standards are incorporated within the California Building Code and are expected to substantially reduce the growth in electricity and natural gas use. 2022 Title 24 standards for new residential and nonresidential buildings focus on encouraging electric heat pump technology and use, promote electric-ready buildings to get owners to use cleaner electric heating, cooking, and vehicle charging, expand solar photovoltaic systems and battery storage systems to reduce reliance on fossil fuel transportation and power plants.

Regarding water energy conservation, implementation of the proposed project would incorporate drought-tolerant landscaping throughout portions of the site. Water-efficient irrigation controls would also be used in landscape areas. Buildings would incorporate water-efficient fixtures and appliances, to comply with Title 24.

It should also be noted that APU is subject to California's Renewables Portfolio Standard (RPS). The RPS requires investor-owned utilities, electric service providers, and community choice aggregators to increase total procurement from eligible renewable energy resources to 50 percent by 2030. SB 100 revised the goal of the program to achieve the 50 percent renewable resources target by December 31, 2026, and to achieve a 60 percent target by December 31, 2030. SB 100 also established a further goal to have an electric grid that is entirely powered by clean energy by 2045. Renewable energy is generally defined as energy that comes from resources which are naturally replenished within a human timescale such as sunlight, wind, tides, waves, and geothermal heat.

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Energy Consumption Analysis During Operations

As discussed above, California's Energy Efficiency Standards create uniform building codes to reduce California's energy use and provide energy efficiency standards for residential and non-residential buildings. These standards are incorporated within the California Building Code and are expected to substantially reduce the growth in electricity and natural gas use.

In addition to the Building Energy Efficiency Standards and CALGreen, the proposed project includes standard conditions to increase energy efficiency and reduce wasteful, inefficient use of energy resources. Standard conditions SC EN-1 through SC EN-8 would support energy efficiency and renewable energy improvements for future development projects under implementation of the proposed project. Specifically, SC EN-1 through SC EN-8 would require future development projects to reduce natural gas consumption, install electric vehicle charging, and generate renewable energy. Encouraging sustainable and energy-efficient building practices and using more renewable energy strategies would further reduce energy consumption and move closer to achieving zero net energy goals.

Future development under implementation of the proposed project would be required to comply with energy and fuel efficiency laws and regulations; thus, implementation of the proposed project would not result in a wasteful or inefficient use of energy.

Level of Significance Before Mitigation: Impact 5.5-1 would be less than significant with implementation of standard conditions SC EN-1 through SC EN -8.

Mitigation Measures: No mitigation measures are required.

Impact 5.5-2: The proposed project would not conflict with or obstruct a state or local plan for renewable energy or energy efficiency. [Threshold E-2]

Future development under implementation of the proposed project would be required to comply with California Title 24 energy standards and the 2022 CALGreen Code. Incorporating the applicable energy standards (i.e., Title 24 energy standards and the 2022 CALGreen Code) into future development projects under implementation of the proposed project would ensure that implementation of the proposed project would not result in the use of energy in a wasteful manner and would help facilitate state and local goals for energy efficiency. The proposed project would also include standard conditions SC EN-1 through SC EN-8, which would require future development projects to reduce natural gas consumption, install electric vehicle charging, and generate renewable energy. The proposed project would also be required to comply with relevant goals and policies set forth in the APU's GHG Plan. Furthermore, as discussed under Impact 5.10-2 of Chapter 5.10 of this Draft PEIR, the proposed project would not conflict with the stated goals of the Southern California Association of Government's (SCAG's) 2024-2050 Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS), adopted in April 2024, to reduce fuel consumption. The RTP/SCS integrates transportation, land use, and housing to meet GHG reduction targets set by CARB, thereby reducing fuel consumption. Compliance with state and local energy efficiency standards and plans, and incorporation of standard conditions SC EN-1 through SC EN-8, would ensure that the proposed project would not conflict

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with applicable plans for renewable energy or energy efficiency. Therefore, impacts associated with renewable energy or energy efficiency plans would be considered less than significant.

Level of Significance Before Mitigation: Impact 5.5-2 would be less than significant with implementation of standard conditions SC EN-1 through SC EN-8.

Mitigation Measures: No mitigation measures are required.

5.5.5 Cumulative Impacts

Construction and operation of future development projects under implementation of the proposed project would result in the use of energy, but not in a wasteful manner. The use of energy would not be substantial in comparison to existing electricity, natural gas, and fuel demand; refer to Table 5.5-5. APU would review the estimated electricity consumption associated with implementation of the proposed project to ensure that the estimated power requirement would be part of the total load growth forecast for their service area and accounted for in the planned growth of the power system. The natural gas consumption linked to implementation of the proposed project would account for approximately 0.002 percent of the natural gas consumption in the state. It should be noted that the planning projections of APU and SoCal Gas consider planned development for their service areas and are in and of themselves providing for cumulative growth. Therefore, it is likely that the cumulative growth associated with the related projects is already accounted for in the planning of future supplies to cover projected demand.

Further, transportation fuels (gasoline and diesel) are produced from crude oil, which can be domestic or imported from various regions around the world. Based on current proven reserves, current crude oil production would be sufficient to meet 50 years of worldwide consumption. As such, it is expected that existing and planned transportation fuel supplies would be sufficient to serve the construction and operational demand associated with implementation of the proposed project. New capacity or supplies of energy resources would not be required. Additionally, the proposed project would be subject to compliance with all federal, state, and local requirements for energy efficiency.

As described in the impact analysis above (see Impact 5.5-1 and Impact 5.5-2), future development under implementation of the proposed project would be required to comply with the Building Energy Efficiency Standards and CALGreen. Additionally, the proposed project includes standard conditions to increase energy efficiency and reduce wasteful, inefficient use of energy resources. Standard conditions SC EN-1 through SC EN-8 would support energy efficiency and renewable energy improvements for future development projects under implementation of the proposed project. Incorporating these applicable energy standards into future development projects under implementation of the proposed project would ensure that implementation of the proposed project would not result in the use of energy in a wasteful manner and would help facilitate state and local goals for energy efficiency.

The proposed project and new development projects located within the cumulative study area would also be required to comply with all the same applicable federal, state, and local measures aimed at reducing fossil fuel consumption and the conservation of energy. The anticipated impacts from implementation of the proposed project, in conjunction with cumulative development in the vicinity, would increase urbanization and result in

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increased energy use. Potential land use impacts are site-specific and require evaluation on a case-by-case basis. As noted above, the proposed project would not result in significant impacts to state or local plans for renewable energy or energy efficiency. Therefore, the proposed project and identified cumulative projects are not anticipated to result in a significant cumulative impact. Therefore, potential impacts are considered less than significant.

Level of Significance Before Mitigation: Cumulative impacts would be less than significant with implementation of standard conditions SC EN-1 through SC EN-8.

Mitigation Measures: No mitigation measures are required.

5.5.6 Level of Significance Before Mitigation

Upon implementation of regulatory requirements, General Plan goals and policies, and standard conditions SC EN-1 through SC EN-8, Impacts 5.5-1 and 5.5-2 would have less than significant impacts.

5.5.7 Mitigation Measures

No significant impacts were identified, and no mitigation measures are necessary.

5.5.8 Level of Significance After Mitigation

Impacts 5.5-1 and 5.5-2 would be less than significant with compliance with all applicable regulatory requirements and standard conditions SC EN-1 through SC EN-8.

5.5.9 References

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5.6 GEOLOGY AND SOILS

This section of the Draft Program Environmental Impact Report (Draft PEIR) discusses the potential impacts to geological and soil resources in the City of Anaheim from implementation of the City of Anaheim's General Plan Focused Update (proposed project), including geological and soil resources, paleontological resources, or unique geologic features, and consistency with policies and programs related to geological and soil resources.

No comments related to geology and soils impacts were received during the scoping period for either the proposed project (see Appendix A) or the Center City Corridors Specific Plan (C3SP), which has been incorporated into the proposed project as the Center City Corridors Implementation Plan (C3 Plan) (see Appendix B).

5.6.1 Environmental Setting

5.6.1.1 REGULATORY BACKGROUND

Federal

The National Environmental Policy Act of 1969

The National Environmental Policy Act of 1969 recognizes the continuing responsibility of the federal government to “preserve important historic, cultural, and natural aspects of our national heritage” (42 US Code Section 4321). With the passage of the Paleontological Resources Preservation Act, paleontological resources are considered a significant resource, and it is therefore now standard practice to include paleontological resources in National Environmental Policy Act studies in all instances where there is a possible impact.

Antiquities Act of 1906

The Antiquities Act of 1906 (16 US Code Sections 431–433) prohibits appropriation, excavation, or destruction of any object of antiquity, which has been interpreted to include fossils by federal agencies. However, the act does not specifically mention paleontological resources, so agencies are hesitant to interpret this act as governing paleontological resources on lands not administered by federal agencies.

Paleontological Resources Preservation Act

The Paleontological Resources Preservation Act was enacted as Public Law 111-11, Title VI Subtitle D of the Omnibus Public Land Management Act of 2009 (16 U.S. Code Section 470aaa–470aaa-11) and directs the Department of Agriculture (US Forest Service) and the Department of the Interior (National Park Service, Bureau of Land Management, Bureau of Reclamation, and Fish and Wildlife Service) to implement comprehensive paleontological resource management programs. The US Forest Service published the Department of Agriculture version of the Preservation Act regulations in the Federal Register in April 2015.

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State

Alquist-Priolo Earthquake Fault Zone

The Alquist-Priolo Earthquake Fault Zoning Act of 1972 was intended to mitigate the hazard of surface fault rupture by prohibiting the location of structures for human occupancy across the trace of an active fault. The act delineates “Earthquake Fault Zones” along faults that are “sufficiently active” and “well defined.” The act also requires that cities and counties withhold development permits for sites within an earthquake fault zone until geologic investigations demonstrate that the sites are not threatened by surface displacement from future faulting. Pursuant to this act, structures for human occupancy are not allowed within 50 feet of the trace of an active fault. As described later, no Alquist-Priolo zones are delineated in Anaheim (Anaheim 2023).

Seismic Hazard Mapping Act

Earthquakes can cause significant damage even if surface ruptures do not occur. The Seismic Hazard Mapping Act (SHMA) of 1990 was intended to protect the public from the hazards of nonsurface fault rupture from earthquakes, including strong ground shaking, liquefaction, seismically induced landslides, or other ground failure. The California Geological Survey prepares and provides local governments with seismic hazard zone maps that identify areas susceptible to nonsurface fault hazards. SHMA requires responsible agencies to approve projects within seismic hazard zones only after a site-specific investigation to determine if the hazard is present, and the inclusion, if a hazard is found, of appropriate mitigation(s). Orange County has been issued maps showing nonsurface fault hazards, discussed later in this chapter.

California Building Code

Every public agency enforcing building regulations must adopt the provisions of the California Building Code (CBC), which is Title 24, Part 2 of the California Code of Regulations. The most recent version is the 2022 CBC (effective January 1, 2023). The CBC is updated every three years and provides minimum standards to protect property and public safety by regulating the design and construction of excavations, foundations, building frames, retaining walls, and other building elements to mitigate the effects of seismic shaking and adverse soil conditions. The CBC also contains provisions for earthquake safety based on factors including occupancy type, the types of soil and rock on-site, and the strength of ground shaking with specified probability of occurring at a site. A city may adopt more restrictive codes than state law based on conditions in their community.

Mobile Home Parks and the Special Occupancy Parks Act

Mobile homes are prefabricated homes placed on piers, jack stands, or masonry block foundations. Floors and roofs are usually plywood, and outside surfaces are covered with sheet metal. Severe damage can occur when mobile homes fall off their supports, severing utility lines and piercing the floor with jack stands. The California Health and Safety Code governs mobile homes and special-occupancy parks. In 2011, regulations were adopted that address park construction, maintenance, use, occupancy, and design. However, the amendments do not require earthquake-resistant bracing systems. Because the City has nearly 4,000 mobile

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homes (many of which are occupied by seniors) and mobile homes generally fare poorly in earthquakes, ensuring the safety of mobile home occupants is a concern (Anaheim 2014).

California General Plan Law and General Plan Guidelines

State law (Government Code Section 65302) requires cities to adopt a comprehensive long-term general plan that includes a safety element. The safety element is intended to provide guidance for protecting the community from any unreasonable risks associated with the effects of seismically induced surface rupture, ground shaking, ground failure, tsunami, seiche, and dam failure; slope instability leading to mudslides and landslides; subsidence; liquefaction; other seismic hazards identified by Public Resources Code (PRC) Sections 2691 et. seq.; and other geologic hazards known to the legislative body. The seismic safety element must also include mapping of known seismic and geologic hazards from the California Geological Survey and a series of responsive goals, policies, and implementation programs to improve public safety.

California Environmental Quality Act

CEQA is the principal statute governing environmental review of projects occurring in the state and is codified at PRC Sections 21000 et seq. CEQA requires lead agencies to determine if a proposed project would have a significant effect on the environment, including significant effects on paleontological resources. Guidelines for the implementation of CEQA, as amended (California Code of Regulations Section 15000 et seq.), define procedures, types of activities, persons, and public agencies required to comply with CEQA and include as one of the questions in the Environmental Checklist: “Will the proposed project directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?” (Section 15023; Appendix G).

Public Resources Code Section 5097.5

Requirements for paleontological resource management are included in PRC Sections 5097.5 and 30244. These statutes prohibit the removal of any paleontological site or feature without permission. As a result, local agencies are required to comply with PRC Section 5097.5 for permit action, construction, and maintenance activities. PRC Section 5097.5 also establishes the removal of paleontological resources as a misdemeanor and requires reasonable mitigation of adverse impacts to paleontological resources from developments on public (state, county, city, and district) lands.

Soils Investigation Requirements

Requirements for soils investigations for subdivisions requiring tentative and final maps and for other specified types of structures are in California Health and Safety Code, Sections 17953 to 17955, and in Section 1802 of the CBC. Testing of samples from subsurface investigations is required, such as from borings or test pits. Studies must be done as needed to evaluate slope stability, soil strength, position and adequacy of load-bearing soils, the effect of moisture variation on load-bearing capacity, compressibility, liquefaction, differential settlement, and expansiveness.

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Local

Anaheim General Plan

The following General Plan policies are applicable to mitigating hazards related to geology and soils:

Green Element

Goal 1.1: Maintain strict standards for hillside grading to preserve environmental and aesthetic resources.

- **Policy 1.1-1.** Require that infill hillside development minimize alteration of the natural landforms and natural vegetation
- **Policy 1.1-2.** Limit grading to the amount necessary to provide stable areas for structural foundations, street rights-of-way, parking facilities, and other intended uses.
- **Policy 1.1-3.** Minimize import/export associated with grading.
- **Policy 1.1-4.** Grading for infill projects should be kept to an absolute minimum, with developments following the natural contours of the land, and prohibited in steep slope areas.

Goal 7.1: Reduce urban run-off from new and existing development.

- **Policy 7.1-1.** Ensure compliance with the Federal Clean Water Act requirements for National Pollutant Discharge Elimination System (NPDES) permits, including developing and requiring the development of Water Quality Management Plans for all new development and significant redevelopment in the City.
- **Policy 7.1-4.** Require new development and significant redevelopment to utilize site preparation, grading and best management practices that provide erosion and sediment control to prevent construction-related contaminants from leaving the site and polluting waterways.
- **Policy 7.1-5.** Coordinate with appropriate Federal, State, and local resource agencies on development projects and construction activities affecting waterways and drainages.

Public Services and Facilities Element

Goal 5.1: Provide a safe and effective sewer system that meets the needs of the City's residents, businesses, and visitors.

- **Policy 5.1-1.** Ensure that appropriate sewer system mitigation measures are identified and implemented in conjunction with new development based on the recommendations of prior sewer studies and/or future sewer studies that may be required by the City Engineer.

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Safety Element

Goal 1.1: A community prepared and responsive to seismic and geologic hazards

- **Policy 1.1-1.** Minimize the risk to public health and safety and disruptions to vital services, economic vitality, and social order resulting from seismic and geologic activities.
- **Policy 1.1-2.** Minimize the risk to life and property through the identification of potentially hazardous geologic areas.
- **Policy 1.1-3.** Require geologic and geotechnical investigations in areas of potential seismic or geologic hazards as part of the environmental and/or development review process for all structures.
- **Policy 1.1-4.** Enforce structural setbacks from faults and other geologic hazards identified during the development review process.
- **Policy 1.1-5.** Enforce the requirements of the California Seismic Hazards Mapping and Alquist Priolo Earthquake Fault Zoning Acts when siting, evaluating, and constructing projects within the City.
- **Policy 1.1-6.** Require that engineered slopes be designed to resist earthquake-induced failure.
- **Policy 1.1-7.** Require removal or rehabilitation of hazardous or substandard structures that may collapse in the event of an earthquake.
- **Policy 1.1-8.** Require that lifelines crossing a fault or located within a geologic hazard be designed to resist damage resulting from a hazard event.
- **Policy 1.1-9.** Require new construction, redevelopment, and major remodels located within potential landslide areas be evaluated for site stability, including the potential impact to other properties, during project design and review.

Community Design Element

Goal 21.1: Preserve the Hill and Canyon Area's sensitive hillside environment and the community's unique identity.

- **Policy 21.1-5.** Use grading techniques that incorporate rounded slopes or curved contours to minimize disturbance to the site and to blend with the existing topography.
- **Policy 21.1-6.** Where grading has occurred, revegetate primarily with drought-tolerant native species to control erosion and create a more environmentally sound condition.

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Anaheim Municipal Code

The Anaheim Municipal Code (AMC) and other City development policies and procedures provide guidance on addressing specific geologic and seismic hazards in Anaheim. Among others, these include:

- **Chapter 10.09, National Pollution Discharge Elimination System (NPDES).** This chapter states that new development and significant redevelopment within the city may have to comply with a water quality management plan as determined by the Director. If such a determination is made, the applicant must obtain a State General Permit, State Project Specific Permit, or Local Discharge Permit and undertake inspections to determine compliance with the permit.
- **Chapter 15.03, Building Standards Codes and Administrative Provisions Pertaining to Building and Construction.** The City of Anaheim adopted, by reference, the 2022 Editions of the California Building Code, California Residential Code, California Electrical Code, California Mechanical Code, California Plumbing Code, California Energy Code, California Historical Building Code, California Existing Building Code, Green Building Standards, and California Referenced Standards Code. Additionally, the City of Anaheim adopted, by reference, the 1997 Edition of the Uniform Code for the Abatement of Dangerous Buildings. Moreover, Scope and Administration Section Chapter 1 of the 2018 Edition of the International Building Code will replace all Administration Section and Chapters of all Codes and Standards adopted.
- **Chapter 15.07, Earthquake Hazard Reduction in Existing Buildings.** The purpose of this chapter is to promote public safety and welfare by reducing the risk of death or injury that may result from the effects of earthquakes on unreinforced masonry bearing wall buildings. The provisions of this chapter are intended as minimum standards for structural seismic resistance established primarily to reduce the risk of life loss or injury. The chapter also provides systematic procedures and standards for identification and classification of unreinforced masonry bearing wall buildings based on their present use. Moreover, the chapter states that qualified Historical Buildings shall comply with the State Historical Building (SHBC) established under Part 8, Title 24 of the California Administrative Code.
- **Chapter 17.06, Grading, Excavations, and Fills in Hillside Areas.** The provisions set forth in this chapter of shall apply to all land within the corporate limits of the City falling within the classification of “Hillside Area.” “Hillside Area” is defined as an area within which the lot grading necessary to create a building pad would involve a cut or fill of three feet or more in vertical height below or above the natural ground or a summation of cut and fill which amounts to five feet or more where the natural gradient of the site is five horizontal to one vertical or greater. Under this chapter, applicants shall provide to the City Engineer an engineering geological investigation and report based on the grading plan. Additionally, the applicant shall submit to the City Engineer a preliminary soils report based on the grading plan.

The City of Anaheim Building Official may put additional requirements on the construction of infrastructure, buildings, and other improvements based on the findings from plan check, soils testing, and geotechnical investigations.

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Local Hazard Mitigation Plan

The Local Hazard Mitigation Plan (LHMP) was approved and adopted on May 19, 2022. It provides a comprehensive analysis of the natural and human-caused hazards that threaten the City, with a focus on mitigation. It keeps the City of Anaheim eligible to receive additional federal and state funding to assist with emergency response and recovery, as permitted by the federal Disaster Mitigation Act of 2000 and California Government Code Sections 8685.9 and 65302.6; and it complements the efforts undertaken by the Safety Element. The LHMP complies with all requirements set forth under the federal Disaster Mitigation Act of 2000 and received approval from the Federal Emergency Management Agency in 2018.

Standard Conditions of Approval

The City will be adopting Master Conditions of Approval that are applied to all development projects through the plan-check review process. As a matter of practice, the City has been implementing the following conditions that relate to geology and soils, compliance with which would reduce negative geological or soil impacts. Compliance with standard conditions would be required for all new development and redevelopment in the City.

- **SC GEO-1:** Prior to the issuance of a grading permit, the owner/developer shall prepare and submit final grading plan showing building footprints, pad elevations, finished grades, drainage routes, retaining wall, erosion control, slope easements, and other pertinent information in accordance with Anaheim Municipal Code and the California Building Code, latest edition.
- **SC GEO-2:** Prior to issuance of a grading permit, the owner/developer shall submit a Preliminary Geotechnical Report to the Public Works Department Services Division for review and approval. The report shall address any proposed infiltration features of the Water Quality Management Plan.
- **SC GEO-3:** Prior to the issuance of a grading permit, the owner/developer shall submit an interim soils report including pad compaction and site stability prepared by the project's Geotechnical Engineer of Record. The pad compaction report needs to include a site plan showing the compaction testing locations.

5.6.1.2 EXISTING CONDITIONS

Geologic Setting

Anaheim varies from generally flat with a gentle slope toward the west and southwest to moderately hilly on the eastern portion of the City (USGS 2015a, 2015b, 2015c, 2015d, 2015e). The City of Anaheim is in the Peninsular Ranges Geomorphic Province, which encompasses an area that extends approximately 900 miles from the Transverse Ranges and the Los Angeles Basin to the southern tip of Baja California. The City extends from the southern portion of the Los Angeles Basin easterly into the northern portions of the Santa Ana Mountains. The western portions of the City are in the Central Block of the Los Angeles Basin. The Central Block is characterized by thick layers of alluvium overlying predominantly sedimentary rock of

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Pleistocene through Cretaceous age. Below these deposits lie Miocene and late Cretaceous sedimentary rocks (Anaheim 2004).

The Peninsular Ranges Province is traversed by a group of sub-parallel and fault zones trending roughly northwest. Major fault systems include the active San Andreas, San Jacinto, Whittier-Elsinore, and Newport-Inglewood fault zones. These major fault systems form a regional tectonic framework comprised primarily of right-lateral, strike-slip movement. The City of Anaheim is situated between two major, active fault zones: the Newport-Inglewood zone located to the southwest and the Whittier-Elsinore fault zone located to the northeast. Other potentially active faults in close proximity to the study area are the El Modeno, Peralta Hills, and Norwalk faults (Anaheim 2004).

The Richter Scale is used to describe the magnitude of an earthquake. Each one-point increase in magnitude (M) represents a 10-fold increase in earthquake wave size and a 30-fold increase in energy release (strength). For example, an M8 earthquake produces 10 times the ground motion amplitude of an M7 earthquake, 100 times that of an M6 quake, and 1,000 times the motion of a magnitude 5. However, the M8 earthquake is 27,000 times stronger than an M5 quake. Typically, earthquakes of M5 or greater are considered strong earthquakes capable of producing damage.

Table 5.6-1, *Earthquake Faults Near Anaheim*, provides a summary of the key faults that could produce significant earthquakes (exceeding M5) that could impact Anaheim. Table 5.6-1 also includes the maximum associated magnitudes of earthquakes along each fault.

Table 5.6-1 Earthquake Faults Near Anaheim

Fault	Description of Earthquake Fault Zone	Maximum Hazard
Whittier	The Whittier Fault Zone consists of a series of disconnected, northeast-trending fault segments which extend Puente Hills in Los Angeles County toward the Santa Ana Mountains in Orange County. Although no major rupture has occurred since the 1987 Whittier Narrows quake (5.9 M), the fault is considered active and is zoned under the Alquist-Priolo Earthquake Fault Zone Act. The fault is located about 10 to 15 miles north of the City.	M 7.1
Newport-Inglewood	The Newport-Inglewood Fault Zone consists of a series of disconnected, northwest-trending fault segments which extend from Los Angeles, through Long Beach and Torrance, to Newport Beach and offshore south past Oceanside. Although no major rupture has occurred since the 1933 Long Beach quake (6.4 M), the fault is considered active and is zoned under the Alquist-Priolo Earthquake Fault Zone Act. The fault is located about 15 to 20 miles west of the City.	M 7.1
Elsinore Glen Ivy Segment	The Glen Ivy segment of the Elsinore Fault Zone is located about 25 to 30 miles east of the City. The Elsinore Fault Zone extends through areas near Lake Elsinore and Temescal Valley, moving northwest towards Corona. Dominant movement along this fault is right-lateral strike-slip. The Glen Ivy segment is zoned under the Alquist-Priolo Earthquake Fault Zone Act.	M 6.8
San Joaquin Hills Blind Thrust	Located at depth about nine miles south of the City, the San Joaquin Hills Blind Thrust Fault is approximately 17 miles long and is characterized by reverse dip-slip movement. This fault is responsible for the uplift of the San Joaquin Hills. The San Joaquin Hills Blind Thrust Fault is considered active and is not zoned under the Alquist-Priolo Earthquake Zone Act.	M 6.6

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Table 5.6-1 Earthquake Faults Near Anaheim

Fault	Description of Earthquake Fault Zone	Maximum Hazard
Chino-Central Avenue	The Chino-Central Avenue Fault branches away from the Elsinore (Glen Ivy) Fault and extends northwest 16 miles through the Prado Basin and into the Puente Hills. Dominant movement along the fault is right-lateral reverse oblique slip. The Chino Fault is about 16 miles northeast of the City and is zoned under the Alquist-Priolo Earthquake Zone Act.	M 6.7
Puente Hills Blind Thrust	Located between 5 to 10 miles north of the City, the Puente Hills Blind Thrust Fault is approximately 27 miles long running under the cities of Whittier, La Habra, and Downtown Los Angeles. The fault is characterized by reverse dip-slip movement. The fault runs beneath the surface, making it a "blind" thrust fault. This means the fault does not have a visible surface trace. The Puente Hills Blind Thrust Fault is considered active and is not zoned under the Alquist-Priolo Earthquake Fault Zone Act.	M 7.1
Lower Elysian Park Blind Thrust	The Lower Elysian Park Blind Thrust Fault is located 25 to 30 miles northwest of the City. The fault is approximately 12 miles long running beneath the central Los Angeles area. The fault is characterized by reverse dip-slip movement. The fault runs beneath the surface, making it a "blind" thrust fault. This means the fault does not have a visible surface trace. The Upper Elysian Park Blind Thrust Fault is considered active and is not zoned under the Alquist-Priolo Earthquake Fault Zone Act.	M 6.4
San Jose	The San Jose Fault is 12 miles long, extending southwest and west from near the mouth of San Antonio Canyon on the southern front of the San Gabriel Mountains about 25 to 30 miles northeast of the City. The fault is characterized by left-lateral reverse oblique-slip movement, and was responsible for the 1990 M 5.4 Upland earthquake.	M 6.9
Peralta Hills	The Peralta Hills Fault is a west to southeast trending fault. This fault is located 5 to 10 miles northeast of the City, extending 6.2 miles long. The fault is characterized by reverse dip-slip movement.	M 6.5
San Jacinto	The San Jacinto Fault, located about 40 to 50 miles east of the City, is considered to be the most active fault in southern California. The fault zone extends 130 miles and is characterized by right-lateral strike-slip movement. The San Jacinto Fault is considered active and is capable of a maximum moment magnitude 6.9 earthquake. The fault is zoned under the Alquist-Priolo Earthquake Fault Zone Act.	M 6.9
Sierra Madre Fault Zone	Located 25-30 miles north of the City, this fault zone extends 35 miles long, from Claremont and following the southern front of the San Gabriel Mountains to San Fernando. This fault zone is characterized by reverse dip-slip movement. The western portion of the Sierra Madre Fault is zoned under the Alquist-Priolo Earthquake Fault Zone Act.	M 7.2
Palos Verdes	The Palos Verdes Fault is located offshore about 15 to 20 miles southwest of the City. The fault zone extends for about 50 miles southeast from the northern front of the Palos Verdes Peninsula. The fault zone is characterized by reverse right-lateral oblique-slip movement. The fault is not zoned under the Alquist-Priolo Earthquake Fault Zone Act.	M 7.3
San Andreas	The San Bernardino and Southern segments of the San Andreas Fault are located about 40 to 45 miles northeast of the City. Past work estimates that the recurrence interval for a M 8.0 earthquake along the entire fault zone is 50–200 years, and a 140–200 year recurrence interval for a M 7.0 earthquakes along the southern fault zone segment.	M 7.5+

Sources: CGS 2024; USGS 2024; Google Earth Pro 2024.

Seismic Hazards

Historically, Anaheim has not experienced a major destructive earthquake. However, based on a search of earthquake databases of the United States Geological Survey National Earthquake Information Center, several major earthquakes (magnitude 5.8 or more) have been recorded within approximately 60 miles of the

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City since 1769 (USGS 2024). The latest of these were the Northridge earthquake and Granada Hills aftershock in 1994, about 45 miles from the City.

The primary seismic hazards related to earthquakes are summarized below.

Faulting and Seismicity

The City of Anaheim is located in an area considered to be seismically active, as is most of Southern California. Major active fault zones are located southwest and northeast of the City. Based on review of the referenced geologic and seismic literature, there are no known Alquist-Priolo Earthquake Fault Zones within the City limits. However, there are active and potentially active faults located close to Anaheim.

Major fault systems include the active San Andreas, San Jacinto, Whittier-Elsinore, and Newport-Inglewood fault zones. These major fault systems form a regional tectonic framework comprised primarily of right-lateral, strike-slip movement. The City of Anaheim is situated between two major, active fault zones: the Newport-Inglewood zone located to the southwest and the Whittier-Elsinore fault zone located to the northeast. The surrounding fault systems are described below.

Newport-Inglewood Fault Zone

The Newport-Inglewood fault zone consists of a series of disconnected, northwest-trending fault segments which extend from Los Angeles, through Long Beach and Torrance, to Newport Beach. No historic (1769 to present) evidence exists for tectonic fault rupture along fault traces in the Newport-Inglewood fault zone in Orange County. Although no onshore surface fault rupture has taken place in historic time, the fault zone is considered capable of generating an earthquake of magnitude 6.9.

Whittier-Elsinore Fault

The Elsinore Fault Zone extends from near the United States–Mexico border northwest to the northern Santa Ana Mountains. At the northern end, the zone of mapped faults branches into two segments west and east, the Whittier Fault and the Chino-Central Avenue Fault. The northern portion of the Elsinore fault zone is also referred to as the Glen Ivy fault (CDMG 1998). The Glen Ivy fault is zoned under the Alquist-Priolo Earthquake Fault Zone Act. Dominant movement along the fault is right-lateral strike-slip. The Glen Ivy fault could produce a maximum moment magnitude 6.8 earthquake (Morton & Miller 2006; SCEDC 2024a).

The Whittier fault zone extends approximately 24 miles from Whittier Narrows in Los Angeles County, southeasterly to Santa Ana Canyon where it merges with the Elsinore fault zone. The fault branches away from the Elsinore (Glen Ivy) Fault and extends northwest for a distance of approximately 13 miles through the Prado Basin and into the Puente Hills. Dominant movement along the fault is right-reverse oblique slip.¹ The Chino Fault could produce an earthquake with a maximum magnitude of 6.9 on the Richter Scale. The Chino Fault is zoned under the Alquist-Priolo Earthquake Zone Act (SCEDC 2024a).

¹ Compressional force bringing the sides of faults together in a down-slip motion.

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The Whittier Fault Zone extends approximately 24 miles from Whittier Narrows in Los Angeles County, southeasterly to the Santa Ana Canyon where it merges with the Elsinore Fault Zone. The Whittier Fault Zone averages 1,000 to 2,000 feet in width and is made up of many subparallel fault lines and an echelon fault splay² that merge and branch along their course. The Whittier Fault Zone does not extend inside the City boundary, but the Elsinore segment does. Available information indicates that the Whittier Fault Zone is active and may be capable of generating an earthquake of magnitude 6.8 accompanied by surface rupture along one or more of its fault traces. The Whittier Fault portion of the Elsinore Fault Zone is zoned under the Alquist-Priolo Earthquake Fault Zone Act northwest of the City in the cities of Chino Hills and Whittier.

San Andreas Fault

The overall San Andreas Fault Zone trends generally northwest for almost the entire length of California, from Cape Mendocino to near the Mexican border. Past studies estimated the recurrence interval for an 8.0M earthquake on the Richter Scale along the entire fault zone is between 50 and 200 years, and a 140- to 200-year recurrence interval for major (magnitudes of 7.0 to 7.9) to great (magnitudes of 8.0 or larger) earthquakes along the southern fault zone segment (SCEDC 2024c).

Norwalk Fault

The Norwalk Fault is buried beneath Holocene alluvial deposits, but has been recognized from subsurface oil well and water well data. The Norwalk fault extends from Norwalk in Los Angeles County to the south edge of the West Coyote Hills just north of the City limits. The “Whittier” earthquake of 1929 was attributed to the Norwalk fault by Charles Richter. The offset of Holocene deposits or the presence of geomorphic features, which would suggest the fault is active, have not been established. It should be noted that because the fault is buried, the data available regarding the location of the Norwalk fault is approximate, and in some areas inconclusive. The Norwalk fault is not currently zoned under the Alquist-Priolo Earthquake Fault Zone Act.

Surface (Fault) Rupture

Seismic activity has been known to cause surface rupture, or ground displacement, along a fault or within the general vicinity of a fault zone. In accordance with the Alquist-Priolo Earthquake Fault Zoning Act (AP Zoning Act), the State Geologist has established fault zones along known active faults in California. No active surface faults are mapped and zoned under the AP Zoning Act in Anaheim (Anaheim 2023).

Primary ground rupture usually results in a relatively small percentage of the damage caused by an earthquake. Primary fault rupture is rarely confined to one fault; it often spreads out into complex patterns of secondary faulting and ground deformation. Secondary faulting involves a web of interconnected faults that rupture in response to a primary rupture. Secondary ground deformation can include fracturing, shattering, warping, tilting, uplift, and/or subsidence. Such deformation may be relatively confined along the rupturing fault or spread over a large region. Deformation and secondary faulting can also occur without primary ground rupture, as in the case of ground deformation above a blind (buried) thrust fault.

² Fault line fold.

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Strong Seismic Ground Shaking

Ground shaking refers to vibration of the ground from an earthquake. Shaking above Magnitude 5 on the Richter Scale is known to damage structures. Earthquakes are common to southern California, and geologic evidence is used to determine the likelihood and magnitude of ruptures along a fault. Peak horizontal ground acceleration (PHGA) values that could be expected in Anaheim are based on types and characteristics of fault sources, distances and estimated maximum earthquake magnitude, and subsurface site geology. The PHGA estimate depends on the method of determination. The maximum magnitude (M_{max}) is considered the largest earthquake expected to occur along a fault and is based in part on fault characteristics (length, style of faulting, and historic seismicity). The Newport-Inglewood Fault is the dominant active fault that could significantly impact the City.

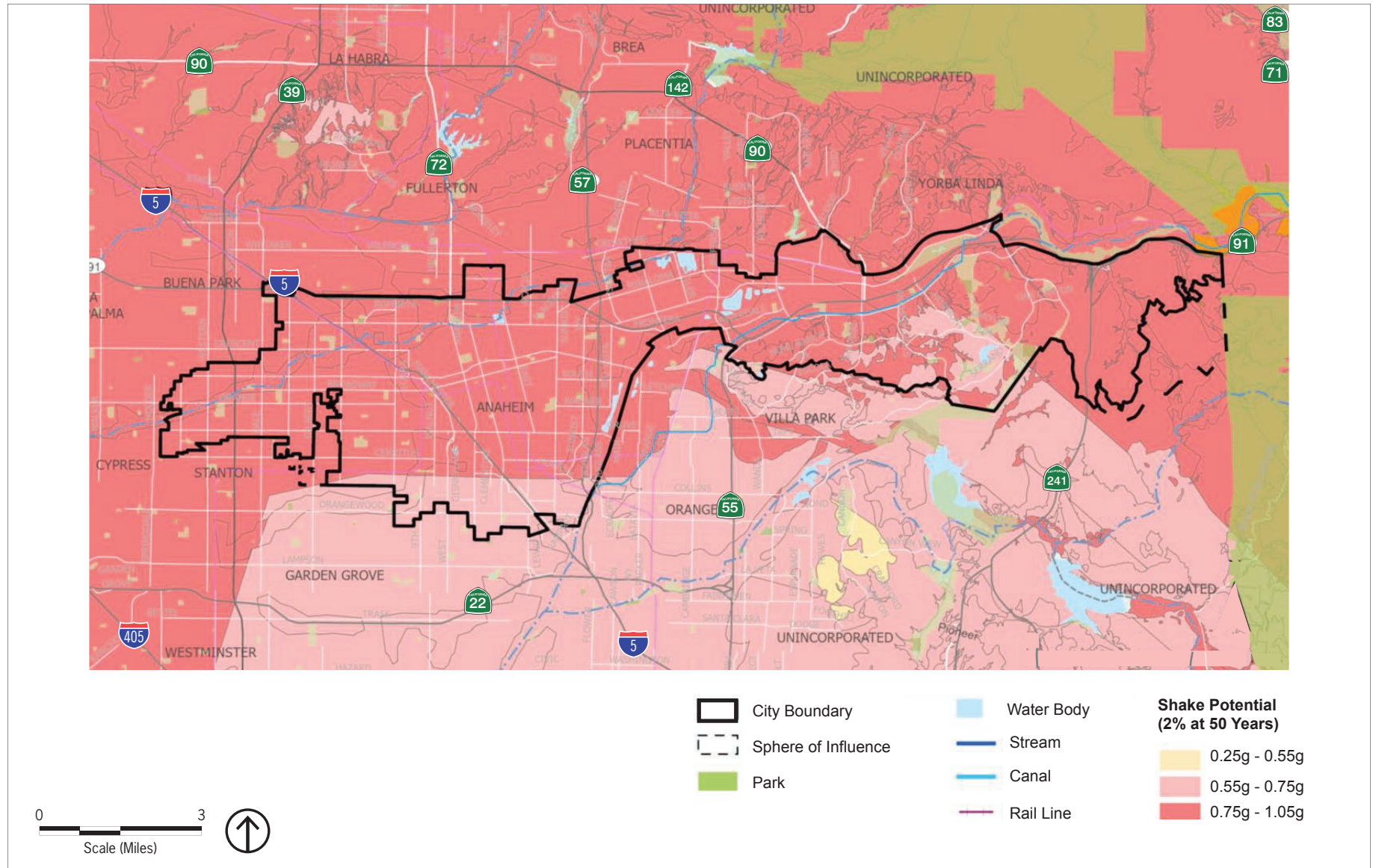
Ground motion will generally amplify as it passes from the bedrock and through the softer, deep alluvial deposits. The PHGA at the surface of a site depends substantially on the thickness of sedimentary deposits beneath the site. Based on US Geological Survey estimates for the Anaheim area and a 1.0-second spectral acceleration, site effects from the geologic units underlying the city may have three times the effect of crystalline bedrock at the same location (Anaheim 2023). The Anaheim Local Hazard Mitigation Plan identifies that there is up to a 20 percent probability of a magnitude 6.7 or greater earthquake to occur along numerous faults within southern California in the next 20 years. Figure 5.6-1, *Seismic Shaking Potential*, depicts the seismic shaking potential associated with a strong earthquake. Anaheim is anticipated to experience strong shaking throughout most of the community

Liquefaction and Related Ground Failure

Liquefaction happens when strong earthquake shaking causes sediment layers that are saturated with groundwater to lose strength and behave as a fluid. This subsurface process can lead to near-surface or surface ground failure. Surface ground failure is usually expressed as lateral spreading, flow failures, ground oscillation, and/or general loss of bearing strength. Sand boils (injections of fluidized sediment) commonly accompany these different types of failure. Liquefaction can damage building foundations, structures, and infrastructure, leading to collapse.

Susceptibility to liquefaction typically depends on 1) the intensity and duration of ground shaking; 2) the age and textural characteristic of the alluvial sediments; and 3) the depth to the groundwater. Loose, granular materials at depths of less than 50 feet, with silt and clay contents of less than 30 percent, and saturated by relatively shallow groundwater table are most susceptible to liquefaction. These geological conditions are typical in parts of southern California, in valley regions and alluvial floodplains. In Anaheim, most of the City is in areas that are susceptible to liquefaction, including the western portion of the City (west of approximately Brookhurst Street) and the eastern portion of the City along the margins of the Santa Ana River (Anaheim 2023). Figure 5.6-2, *Liquefaction Prone Areas*, depicts the areas of potential liquefaction susceptibility in the City.

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Source: City of Anaheim General Plan Safety Element, 2023.

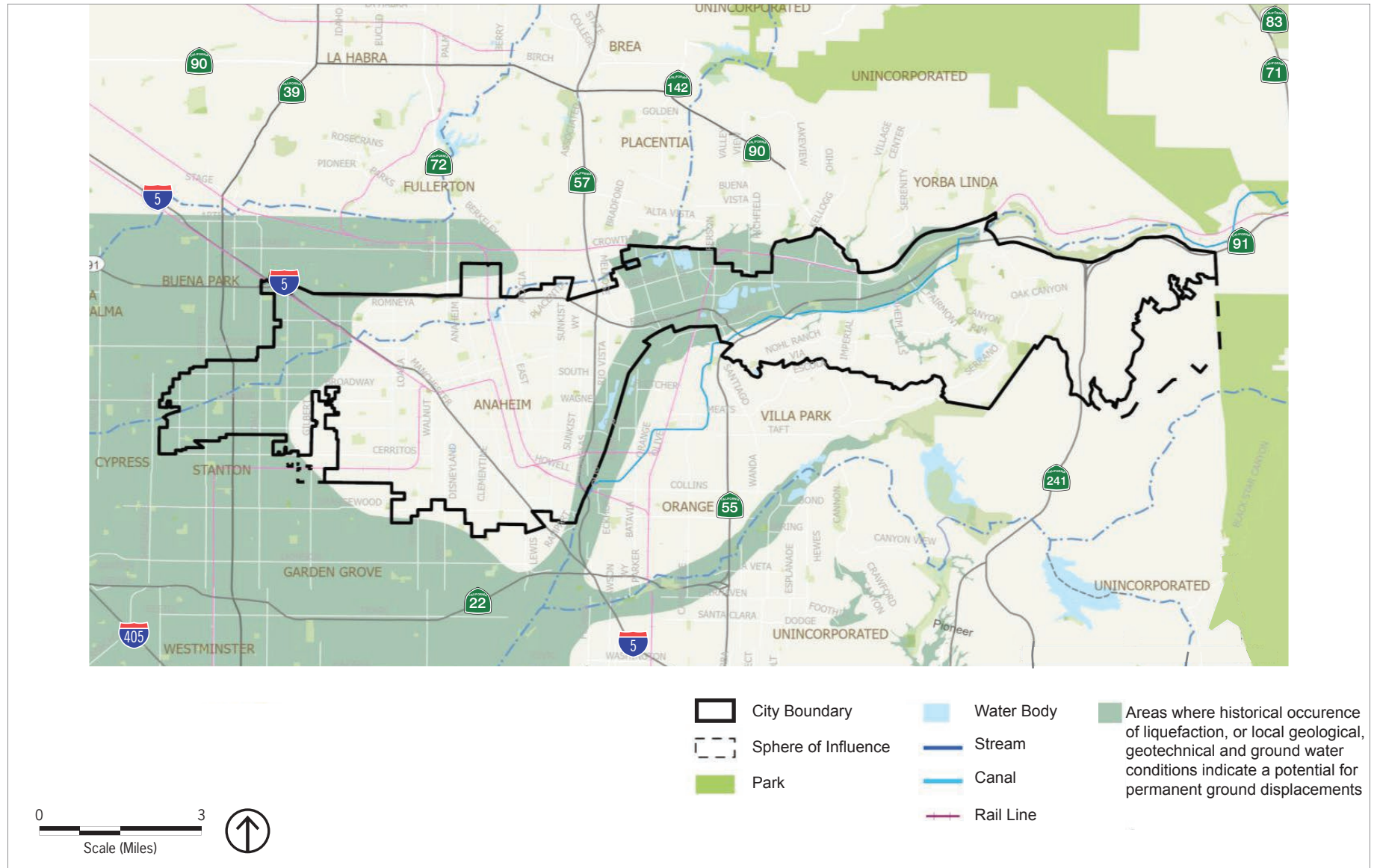
Figure 5.6-1
Seismic Shaking Potential

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Source: City of Anaheim General Plan Safety Element, 2023.

Figure 5.6-2
Liquefaction Prone Areas

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Slope Failure (Landslides)

Landslides are perceptible downward movements of soil, debris, rock, or a combination of these under the influence of gravity. Landslide materials are commonly porous and very weathered in the upper portions and margins of the slide. They may also have open fractures or joints. Slope failures can occur during or after periods of intense rainfall or in response to strong seismic shaking. Landslides are distinguished from minor debris flows because in a landslide, the majority of material moved is bedrock materials, and a minor debris flow is the surface slippage of soil. Fire events in areas of high topographic relief can lead to conditions conducive to debris flows.

Landslides, debris flows, or any movement of earth or rock are most common in areas of high topographic relief, such as steep canyon walls or steep hillsides. Areas considered to have a potential for earthquake-induced landsliding are generally found in the Hill and Canyon area of the City and its sphere-of-influence in the eastern portion of Anaheim (USGS 2015a, 2015b, 2015c, 2015d, 2015e; Anaheim 2023). Figure 5.6-3, *Landslide Susceptibility*, depicts the anticipated risk of landslide in the City.

Mining Activity and Oil and Gas Wells

Mining activities and petroleum exploration in the City and its sphere-of-influence have resulted in open pits and wells located throughout the project area. In some cases, pits and wells may have long been abandoned and backfilled with undocumented fill materials. Existing pits and wells back-filled with undocumented fill materials may be subject to differential settlement.

Flood Inundation

Flood inundation resulting from dam failure due to a strong earthquake is a potential seismic hazard to the City and its Sphere-of-Influence. The biggest inundation threat comes from the Prado Dam. The Prado Dam is located approximately 2.5 miles east of the City limits. Other potential sources of inundation include Diamond Valley East Lake, Carbon Canyon Reservoir, and Walnut Canyon Reservoir. Figure 5.9-6, *Dam Inundation Areas*, in Chapter 5.9, *Hydrology and Water Quality*, of this Draft PEIR depicts the dam inundation areas for the City.

Geologic Hazards

Based on available studies and public documents, the most likely geologic hazards in Anaheim include expansive soils, corrosive soils, and settlement/collapsible soils (to a lesser degree). Each of these potential hazards is discussed below.

Expansive Soils

Expansive and collapsible soils are two of the most widely distributed and costly of geologic hazards. Expansive soils will shrink or swell as the moisture content decreases or increases. Expansive soil and rocks are typically characterized by clayey material that shrinks as it dries and swells as it becomes wet. Homes, infrastructure, and other structures built on these soils may experience shifting, cracking, and breaking as soils

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shrink and subside or expand. Expansive soils are also known to cause damage to the foundation of structures.

Based on the presence of alluvial materials in the City, there is some potential for expansive soils throughout Anaheim (USDA 2024). Expansive soils are possible wherever clays and elastic silts may be present, including alluvial soils, weathered granitic, and fine-grained sedimentary rocks. Expansive soils are tested prior to grading as part of a soil engineering report—as required by the CBC and the City of Anaheim—and are mitigated as necessary.

Corrosive Soils

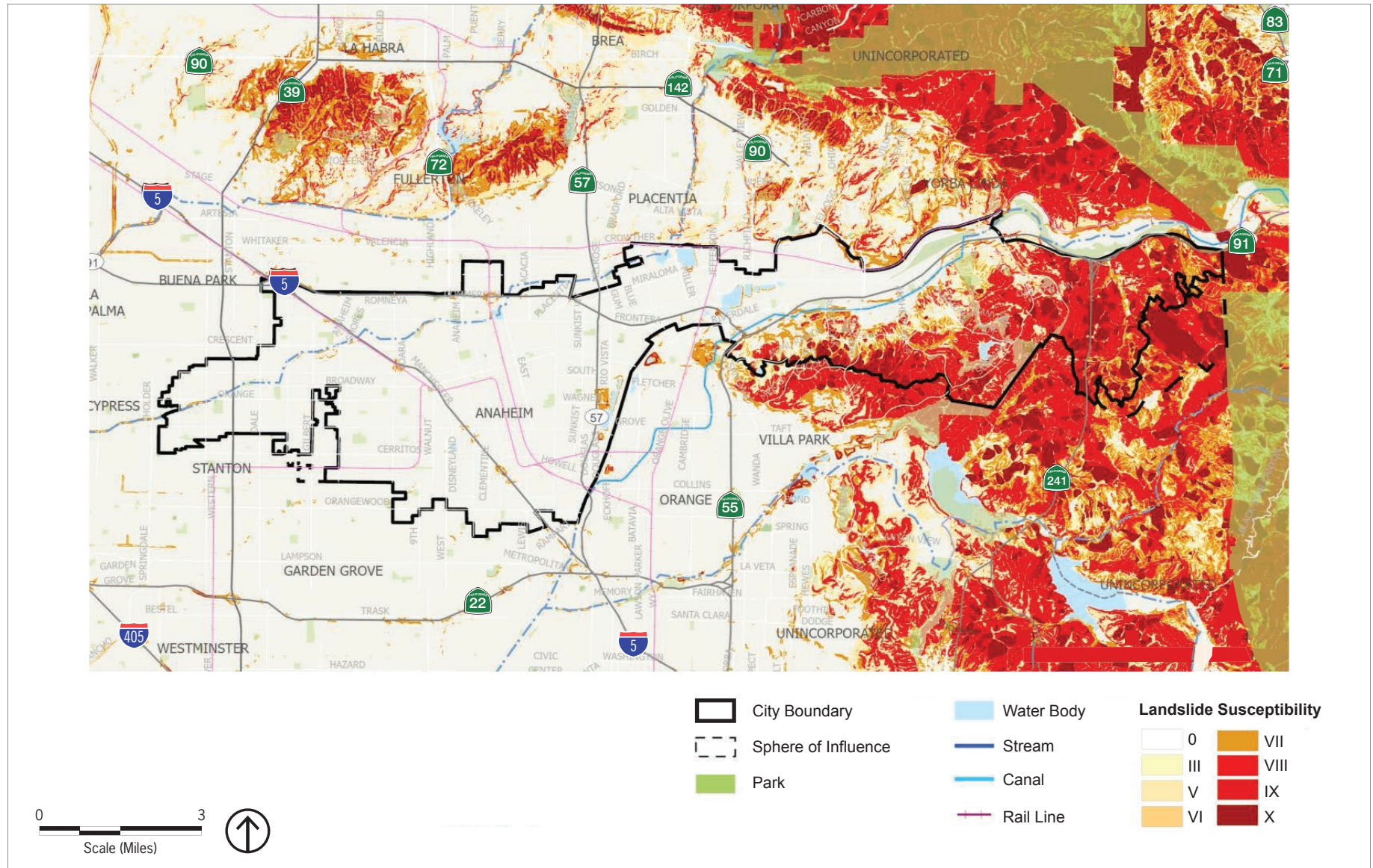
Corrosive soils contain chemical constituents that may cause damage to construction materials such as concrete and ferrous metals. One such constituent is water-soluble sulfate, which, if in high enough concentrations, can react with and damage concrete. Electrical resistivity, chloride content, and pH level are all indicators of a soil's tendency to corrode ferrous metals. High chloride concentrations from saline minerals can corrode metals (carbon steel, zinc, aluminum, and copper). Low pH and/or low resistivity soils could corrode buried or partially buried metal structures.

Soils throughout the majority of Anaheim have been found to be highly corrosive to metals and marginally to moderately corrosive to concrete. Typical mitigation for corrosive soil includes corrosion-resistant coatings. Corrosive soils for concrete and/or metals are often addressed through techniques that include cathodic protection, use of special concrete overlays, and other techniques. The City's Engineering Standards require that proposed projects include soil investigations and cathodic protection for metal piping when corrosive soils are encountered.

Land Subsidence

Land sinking or subsidence is generally related to substantial overdraft of groundwater reserves from underground reservoirs. Subsidence in Anaheim does not show a pattern of widespread, irreversible lowering of the ground surface. The probability of subsidence is generally low in the majority of Anaheim, with the most susceptible areas along the margins of the Santa Ana River. Groundwater storage by the Orange County Water District and statutory commitments to sustainable groundwater management practices reduce the potential for future land subsidence, and ongoing surveying of the ground surface by the Orange County Water District provides a way to verify that their efforts in preventing subsidence are effective (OCWD 2015).

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Source: City of Anaheim General Plan Safety Element, 2023.

Figure 5.6-3
Landslide Susceptibility

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Settlement and/or Collapse

Settlement and/or collapse are likely to exist in areas with alluvial soils. The western half of the City is underlain by Holocene-aged alluvial deposits, which become increasingly older with depth. Additionally, Pleistocene-age terrace deposits are present on elevated terraces along the upper edges of the alluvial plains and the lower benches of hillside areas. The Santa Ana River channel area and its tributaries are also underlain by Holocene alluvial deposits. Undifferentiated Holocene alluvium is composed primarily of unconsolidated gravel, sand, silt, and clay. The more recent alluvial deposits (less than 1,000 years old) are generally found along the active stream and river courses. The majority of the flat alluvial plain areas, outside the active stream channels, are underlain by alluvial deposits that are considered to have been deposited between 1,000 and 10,000 years ago (Anaheim 2004).

Unsafe Buildings

The principal threat in an earthquake is the damage that the earthquake causes to buildings that house people or an essential function. Continuing advances in engineering design and building code standards over the past decade have greatly reduced the potential for collapse in an earthquake of most new buildings. However, many buildings in the City were built before some of the earthquake design standards were incorporated into the building code. Several specific building types are a particular concern in this regard.

- **Unreinforced Masonry Buildings.** In the late 1800s and early 1900s, unreinforced masonry was the most common type of construction for larger downtown commercial structures and for multistory apartment and hotel buildings. These were recognized as a collapse hazard following the San Francisco earthquake of 1906, the Santa Barbara earthquake of 1925, and again in the aftermath of the Long Beach earthquake of 1933. These buildings are still the most hazardous buildings in an earthquake. Per Senate Bill 547, local jurisdictions are required to enact structural hazard reduction programs by (a) inventorying pre-1943 unreinforced masonry buildings, and (b) developing mitigation programs to correct the structural hazards.
- **Precast Concrete Tilt-up Buildings.** This building type was introduced following World War II and gained popularity in light industrial buildings during the late 1950s and 1960s. Extensive damage to concrete tilt-up buildings in the 1971 San Fernando earthquake revealed the need for better anchoring of walls to the roof, floor, and foundation elements of the building and for stronger roof diaphragms. In the typical damage to these buildings, the concrete wall panels would fall outward, and the roof would collapse.
- **Soft-Story Buildings.** Soft-story buildings are those in which at least one story, commonly the ground floor, has significantly less rigidity and/or strength than the rest of the structure. This can form a weak link in the structure unless special design features are incorporated to give the building adequate structural integrity. Typical examples of soft-story construction are buildings with glass curtain walls on the first floor only, or buildings placed on stilts or columns, leaving the first story open for landscaping, street-friendly building entry, parking, or other purposes. In the early 1950s to early 1970s, soft-story buildings were a popular construction style for low- and midrise concrete frame structures.

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- **Nonductile Concrete Frame Buildings.** The brittle behavior of nonductile concrete frame buildings can create major damage and even collapse under strong ground shaking. This type of construction, which generally lacks masonry shear walls, was common in the very early days on reinforced concrete buildings, and they continued to be built until the codes were changed to require ductility in the moment-resisting frame in 1973. There were large numbers of these buildings built for commercial and light industrial use in California's older, densely populated cities. Although many of these buildings are four to eight stories, there are many in the lower height range. This category also includes one-story parking garages with heavy concrete roof systems supported by nonductile concrete columns.

Paleontological Setting

Paleontological resources are fossils, which are organisms or fragments, impressions, or traces of organisms preserved in rock. 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. Maps for paleontology often show sensitive areas based on the underlying geologic formation. Because most of the City is built out, there are very few areas containing rock croppings. The City is underlain by the Williams Formation and Paleocene Silverado Formation, Santiago Formation, and Sespe Formation. Additionally, alluvial deposits from the Pleistocene are widespread in the City, especially in the lowland areas near the Santa Ana River (Anaheim 2004).

Pleistocene sediments have a rich fossil history in southern California. The most common Pleistocene terrestrial mammal fossils include the bones of mammoth, horse, bison, camel, and small mammals, but other taxa, including lion, cheetah, wolf, antelope, peccary, mastodon, capybara, and giant ground sloth, have been reported, as well as birds, amphibians, and reptiles such as frogs, salamanders, snakes, and turtles. In addition to illuminating the striking differences between southern California in the Pleistocene and today, this abundant fossil record has been vital in studies of extinction, ecology, and climate change.

The Hill and Canyon Area contains sedimentary rocks ranging in age from Late Cretaceous to Middle Miocene. The oldest sedimentary rocks belong to the upper Cretaceous Holz Shale and the Schulz Ranch Member of the Williams Formation. These strata are confined to the southeastern corner of the Hill and Canyon Area and no fossils have been reported (Anaheim 2004).

Parts of the northeastern, eastern, and southeastern portions of the Hill and Canyon Area include the Paleocene Silverado Formation. Although fossils do not appear to be abundant in the Silverado Formation, its Paleocene geologic age is an important time in the evolutionary history of terrestrial mammals, and any vertebrate fossils recovered would be of scientific importance. For this reason, the Silverado Formation is considered to have moderate paleontological sensitivity (Anaheim 2004).

Parts of the northeastern corner, east-central, and most of the south-central portion of the Hill and Canyon Area contain exposures of the Santiago Formation, which is predominantly of Eocene age. Regionally, the Santiago Formation has not produced many fossils. However, because the Santiago Formation has some potential for producing terrestrial vertebrate fossils and the Eocene period was a critical time in the evolutionary history of land mammals, it carries a moderate sensitivity rating (Anaheim 2004).

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Although mapped as Sespe-Vaqueros undifferentiated, the deposits immediately on both sides of Gypsum Canyon consist entirely of the lower and middle members of the Sespe Formation. Although no fossils have been reported from Sespe rocks in the study area and only sparse remains have been recovered from Sespe beds anywhere in Orange County, it should be noted that significant vertebrate fossils have been recovered from Sespe beds in other areas. For this reason, the Sespe Formation has a moderate sensitivity rating (Anaheim 2004).

The youngest bedrock unit exposed in the Hill and Canyon Area is the middle Miocene-age Topanga Formation, which occurs along the western boundary of the Hill and Canyon Area. Several occurrences of marine invertebrate fossils have been reported from Topanga strata within this area. Regionally, the Topanga Formation has produced diverse marine invertebrate fossils, predominantly mollusks, and locally very significant marine vertebrate faunas with occasional mixing of terrestrial elements, giving the Topanga Formation a high sensitivity rating (Anaheim 2004).

Based on a records search of the University of California Museum of Paleontology Specimen Search, there are over 6,900 fossil localities in Orange County; however, none were identified within the City limits (UCMP 2024).

5.6.2 Proposed General Plan Update Goals and Policies

The proposed project does not include any new or updated general plan goals and policies related to geology and soils.

5.6.3 Thresholds of Significance

The City of Anaheim considers a project would normally have a significant effect on the environment if the project would:

- GEO-1 Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:
- i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault. (Refer to Division of Mines and Geology Special Publication 42.)
 - ii) Strong seismic ground shaking.
 - iii) Seismic-related ground failure, including liquefaction.
 - iv) Landslides.
- GEO-2 Result in substantial soil erosion or the loss of topsoil.

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- GEO-3 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.
- GEO-4 Be located on expansive soil, as defined in Table 18-1B of the Uniform building Code (1994), creating substantial direct or indirect risks to life or property.
- GEO-5 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.
- GEO-6 Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?

5.6.4 Environmental Impacts

The following impact analysis addresses thresholds of significance that are identified in brackets after the impact statement.

Impact 5.6-1:	Implementation of the proposed project would not directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:
	i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault. (Refer to Division of Mines and Geology Special Publication 42.)
	ii) Strong seismic ground shaking.
	iii) Seismic-related ground failure, including liquefaction.
	iv) Landslides. [Threshold GEO-1])

The City's location and underlying geology make it likely for future development resulting from the proposed project to experience seismic hazards, including strong seismic ground shaking and secondary hazards like liquefaction and landslides.

Earthquake Faults

As stated in Section 5.6.1.2, no active surface faults are mapped and zoned under the AP Zoning Act in the City. Therefore, the proposed project would not experience surface rupture in the event of an earthquake.

Strong Seismic Ground Shaking

Ground shaking is responsible for most of the damage from earthquakes and can damage or destroy buildings, structures, pipelines, and infrastructure. The intensity of shaking depends on the type of fault, distance to the epicenter, magnitude of the earthquake, and subsurface geology. There are several faults located outside the City that have the potential to produce intense ground accelerations. The seismic design

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of buildings within the City is governed by the requirements of the most recent CBC. The CBC has been accepted as the basic design standard in the City. All structures that would be constructed as a result of the proposed project would be designed to meet or exceed the current design standards as found in the latest CBC. In addition, existing structures expected to remain under proposed project conditions may suffer damage requiring closure and replacement. The project design measures would reduce the exposure of people and structures from harm due to strong ground shaking hazards such that there would not be a significant impact. Moreover, future development projects would comply with City Standard Condition SC GEO-1, which requires that owner/developers prepare and submit final grading plans and other pertinent information in accordance with the AMC and CBC, and Standard Condition SC GEO-3, which requires owners/developers to submit interim soils reports.

Seismic-Related Ground Failure

Secondary effects of earthquakes are nontectonic processes such as ground deformation, including fissures, settlement, displacement, and loss of bearing strength, and are the leading causes of damage to structures during a moderate to large earthquake. Secondary effects could lead to ground deformation including liquefaction, lateral spreading, seismically induced landslides, and ground lurching.

As shown on Figure 5.6-2, multiple areas in the City are at risk for liquefaction, primarily along the Santa Ana River corridor in the eastern portion of the City and the western portions of the City with shallow groundwater. All structures construction in accordance with the proposed project would be designed in accordance with current seismic design standards as found in the CBC. Design measures would be implemented according to the most current CBC, which would reduce the impact of liquefaction and seismic settlement, including but not limited to ground improvement techniques such as in-situ densification, load transfer to underlying non-liquefiable bearing layers, and exposure of people and structures to the hazards from liquefaction and seismic settlement such that there would not be a significant impact.

Landslides

Marginally stable slopes (including existing landslides) may be subject to landslides caused by earthquakes. The landslide hazard depends on many factors, including existing slope stability, shaking potential, and presence of existing landslides. Landslides, debris flows, or any movement of earth or rock are most common in areas of high topographic relief, such as steep canyon walls or steep hillsides. As shown on Figure 5.6-3, the parts of the City at risk of deep-seated landslides are areas in the Anaheim Hills, various parts along the SR-91 corridor, and the easternmost portion of the City. Most of the proposed project's development and/or redevelopment would occur primarily in the central portion of the City and the remaining in the western portion of the City. The central and western portions of the City are relatively flat and urbanized. There would not be a significant impact from slope stability. Nevertheless, future development projects under the proposed project would be designed in accordance with applicable provisions of the current CBC, which contains stringent standards regulating the design and construction excavations, foundations, retaining walls, and other building elements to control the effects of seismic ground shaking and adverse soil conditions. Additionally, future implementing projects would be required to prepare a geotechnical investigation and comply with the recommendations identified in the geotechnical investigation. Therefore, impacts related to landslides would not be significant.

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Level of Significance Before Mitigation: Impact 5.6-1 would be less than significant.

Impact 5.6-2: Implementation of the proposed project would not result in substantial soil erosion or the loss of topsoil. [Thresholds GEO-2]

A comprehensive discussion of erosion and water quality from rain events can be found in Section 5.9, *Hydrology and Water Quality*.

Soils in the City are particularly prone to erosion during the grading phase of development, especially during heavy rains. Reduction of the erosion potential during construction activities can be accomplished through a Storm Water Pollution Prevention Plan (SWPPP) which specifies best management practices (BMP) for temporary erosion controls. Standard erosion control measures would be implemented as part of the SWPPP for any future implementing projects to minimize the risk of erosion or sedimentation during construction. The SWPPP must include an erosion control plan that prescribes measures such as phasing grading, limiting areas of disturbance, designating restricted entry zones, diverting runoff from disturbed areas, protective measures for sensitive areas, outlet protection, and provisions for revegetation or mulching. Additionally, future developments would be required to comply with City Standard Condition SC GEO-2, which requires applicants to submit a Preliminary Geotechnical Report to the City's Public Works Department; the report shall address proposed infiltration features of the Water Quality Management Plan. Moreover, future development under the proposed project would be required to comply with General Green Element policies 7.1-1, 7.1-4, and 7.1-5, which would ensure compliance with the requirement for the National Pollutant Discharge Elimination System (NPDES) permits (also required by AMC Chapter 10.09), require development to provide erosion and sediment control, and require coordination with appropriate resource agencies on development projects affecting waterways and drainages.

Mandatory compliance with existing regulations, including the preparation and submittal of SWPPP, soil engineering, and geotechnical investigation for development, would reduce impacts to a less than significant level.

Level of Significance Before Mitigation: Impact 5.6-2 would be less than significant.

Impact 5.6-3: Implementation of the proposed project would not 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. [Threshold GEO-3]

Secondary effects of earthquakes are nontectonic processes such as ground deformation, including fissures, settlement, displacement, and loss of bearing strength, and are the leading causes of damage to structures during a moderate to large earthquake. Secondary effects leading to ground deformation include liquefaction, lateral spreading, seismically induced landslides, subsidence, or collapse. A discussion of these secondary effects is provided below.

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Liquefaction and Lateral Spreading

As discussed above under Impact 5.6-1, impacts related to liquefaction would be less than significant with compliance with the design measures identified in the most current CBC. Lateral spreading is a type of liquefaction-induced ground failure that occurs on gentle slopes or near free-faces, such as river channels. Site-specific mass grading and compaction that would occur as part of future development in accordance with the proposed project would mitigate potential impacts for seismically induced lateral spreading. Impacts would be less than significant.

Landslide

As discussed above under Impact 5.6-1, impacts related to landslides would be less than significant with compliance with the design measures identified in the most current CBC. Additionally, future implementing project would be required to prepare a geotechnical investigation and comply with the recommendations identified in the geotechnical investigation.

Settlement, Subsidence, and/or Collapse

The potential hazard posed by seismic settlement and/or collapse in the City is considered moderate based on the compressibility of the underlying alluvial soils and the presence of shallow groundwater. Strong ground shaking can cause settlement of alluvial soils and artificial fills if they are not adequately compacted. Because unconsolidated soils and undocumented fill material are present in the City, seismically induced settlement and/or collapse are possible (USDA 2024). Site-specific mass grading and compaction, which would occur as part of future development, would mitigate any potential impacts from settlement and/or collapse in the City. Additionally, the CBC design code has been adopted by the City and requires that structures be designed to mitigate compressible soils. Impacts would be less than significant.

As previously discussed, subsidence is the sinking of the ground due to underground material movement, most often caused by the removal of water, oil, natural gas, or mineral resources out of the ground by pumping, fracking, or mining activities (NOAA 2024). The proposed project would not cause a large withdrawal of groundwater, oil, or natural gas; the proposed project itself would not exacerbate the risk of subsidence. Additionally, the Orange County Water District monitors groundwater levels and manages replenishment efforts to mitigate subsidence due to groundwater pumping. The proposed project would encourage infill development and redevelopment of properties within the western and central portions of the City, which could replace older buildings subject to seismic damage with newer structures built to current seismic standards. Future implementing projects would be required to comply with CBC design and construction standards. Impacts would be less than significant.

Level of Significance Before Mitigation: Impact 5.6-3 would be less than significant.

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Impact 5.6-4: Implementation of the proposed project would not be located on expansive soil, as defined in Table 18-1B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property. [Threshold GEO-4]

Expansive soils are those possessing clay particles that react to moisture changes by shrinking (when dry) or swelling (when wet). Expansive soils can also consist of silty to sandy clay. The extent of shrinking and swelling is influenced by the environment, such as alternating wet and dry cycles, by the amount of clay in the soil. The physical change in the soils can react unfavorably with building foundations, concrete walkways, swimming pools, roadways, and masonry walls, etc.

Soils observed in the Hill and Canyon Area are predominantly classified in the “Medium” to “High” range, with small areas associated with “Low” expansion potential. Soils observed and encountered throughout the remainder of the City range from “Low” to “High” in expansion potential (Anaheim 2004). Future projects in accordance with the proposed project would be designed for the appropriate expansion potential.

The City implements a number of existing codes and policies that serve to mitigate the impacts of the development within areas containing expansive soils. Current codes and regulations related to geology and soils are identified in the Anaheim Municipal Code, Title 17. These codes address grading, excavation, fill, and watercourses as well as applicable geotechnical report preparation and submittal. Application of the existing regulations identified in the Municipal Code and Uniform Building Code and grading regulations would minimize the risk associated with any development proposed within areas containing expansive soils.

Level of Significance Before Mitigation: Impact 5.6-4 would be less than significant.

Impact 5.6-5: Implementation of the proposed project would not 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. [Threshold GEO-5]

Future development within the City under the proposed project would utilize the local sewer system and would be required to comply with the General Plan Public Services and Facilities Element Policy 5.1-1, which requires that appropriate sewer system mitigation measures are identified and implemented based on the recommendations of prior and/or future sewer studies that may be required by the City Engineer. Therefore, impacts that would result from soil conditions in relation to septic tank or other on-site wastewater disposal systems would be less than significant.

Level of Significance Before Mitigation: Impact 5.6-5 would be less than significant.

Impact 5.6-6: Implementation of the proposed project could directly or indirectly destroy a unique paleontological resource or site or unique geologic feature. [Threshold GEO-6]

Paleontological resources are recognized as nonrenewable and therefore received protection under the California Public Resources Code and CEQA. Adoption of the proposed project in itself will not directly affect paleontological resources. Long-term implementation of the proposed project's land use plan would allow development (e.g., infill development, redevelopment, and revitalization), including grading of known

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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 disturb paleontological resources. Therefore, future development that would be accommodated by the proposed project could potentially unearth previously unrecorded resources. Review and protection of paleontological resources are also afforded by CEQA for individual development projects that would be accommodated by the proposed project, subject to discretionary actions that are implemented in accordance with the land use plan of the proposed project. Therefore, impacts to paleontological resources would be potentially significant.

Level of Significance Before Mitigation: Impact 5.6-6 would be potentially significant.

5.6.5 Cumulative Impacts

As defined in Section 15130 of the CEQA Guidelines, cumulative impacts are the incremental effects of an individual project when viewed in connection with the effects of past, current, and probably future projects within the cumulative impact area for geology and soils. The study area for the assessment of cumulative impacts related to geologic resources is defined as the City. Future development could increase the number of people exposed to seismic and geologic hazards, and erosion rates could be accelerated by earthwork for new construction. As discussed above, the Southern California region is prone to seismic activity with a range of geologic and soil conditions that vary widely due to differences in landforms and proximity to fault zones. Therefore, while geotechnical and soil impacts may be associated with cumulative development, the very nature of the impacts is generally site specific, and typically little, if any, cumulative relationship exists between the development of a project and development within a larger cumulative area. Future development projects would be required to comply with applicable State and regional building regulations, including the most recent CBC. Site-specific hazards would be addressed in each project's geotechnical investigation. Additionally, the City may also require even more rigorous standards depending on an individual's project site's conditions. Further, future developments in accordance with the proposed project would be required to comply with environmental analysis and review. Implementation of the mitigation measure MM GEO-1 described below would also reduce impacts on paleontological resources to less than significant levels.

Level of Significance Before Mitigation: Cumulative impacts would be potentially.

Mitigation Measures: Mitigation measure MM GEO-1 is required.

5.6.6 Level of Significance Before Mitigation

Upon implementation of regulatory requirements and standard conditions of approval, the following impacts would be less than significant: Impact 5.6-1 through 5.6-5.

Without mitigation, this impact would be **potentially significant**:

- **Impact 5.6-6** Paleontological resources could be impacted by development resulting from the implementation of the proposed project.

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5.6.7 Mitigation Measures

Impact 5.6-6

MM GEO-1 Prior to the submittal of a development application for projects that propose ground disturbing activities greater than current foundations present on a given site, and/or for projects in areas with documented or inferred resource presence, future applicants shall retain a Qualified Professional Paleontologist, as defined by the Society of Vertebrate Paleontology, to conduct an evaluation to determine whether ground-disturbing activities would occur in areas of the City underlain by high or undetermined sensitivity geologic units. If so, the City shall require the Qualified Professional Paleontologist to determine the project's potential to significantly impact paleontological resources according to Society of Vertebrate Paleontology standards. If necessary, the Qualified Professional Paleontologist shall recommend mitigation measures to reduce potential impacts to paleontological resources to a less-than-significant level. These measures may include, but are not limited to, implementation of a Worker Environmental Awareness Program, on-site paleontological monitoring (see Mitigation Measure CUL-7 for monitoring agreement requirements), and fossil salvage and treatment plans, if applicable. The City shall review and approve the Qualified Professional Paleontologist's findings and recommendation. All recommendations shall be incorporated into the project plans prior to issuance of a grading permit.

5.6.8 Level of Significance After Mitigation

Impact 5.6-6

Mitigation Measure MM GEO-1 prescribes requirements for monitoring based on the sensitivity of sites for paleontological resources. With adherence to mitigation measures MM GEO-1, Impact 5.6-6 would be less than significant.

5.6.9 References

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5.7 GREENHOUSE GAS EMISSIONS

This section of the Draft Program Environmental Impact Report (Draft PEIR) discusses the potential impacts to greenhouse gas (GHG) emissions in a local and regional context from implementation of the City of Anaheim's General Plan Focused Update (proposed project), and consistency with policies and programs related to GHG. Because no single project is large enough to result in a measurable increase in global concentrations of GHG, climate change impacts of a project are considered on a cumulative basis. GHG emissions modeling is based on the emissions inventory and forecast included in Appendix H, *Air Quality, Energy, and Greenhouse Gas Modeling*, of this Draft PEIR.

Comments were received during the scoping period for both the proposed project (see Appendix A) and the Center City Corridors Specific Plan (C3SP), which has been incorporated into the proposed project as the Center City Corridors Implementation Plan (C3 Plan), that are related to GHG emissions impacts (see Appendix B).

5.7.1 Environmental Setting

5.7.1.1 REGULATORY BACKGROUND

Federal

Energy Independence and Security Act of 2007

Adopted in December 2007, the Energy Independence and Security Act of 2007 (EISA), among other key measures, requires the following, which would aid in the reduction of national GHG emissions:

- Increase the supply of alternative fuel sources by setting a mandatory Renewable Fuel Standard (RFS) requiring fuel producers to use at least 36 billion gallons of biofuel in 2022.
- Set a target of 35 miles per gallon for the combined fleet of cars and light trucks by model year 2020 and direct the National Highway Traffic Safety Administration (NHTSA) to establish a fuel economy program for medium- and heavy-duty trucks and create a separate fuel economy standard for work trucks.
- Prescribe or revise standards affecting regional efficiency for heating and cooling products and procedures for new or amended standards, energy conservation, energy efficiency labeling for consumer electronic products, residential boiler efficiency, electric motor efficiency, and home appliances.

It should be noted that the Energy Independence and Security Act of 2022 has been proposed by the United States Senate. The plan would build upon the EISA of 2007 and would include additional requirements for the United States to achieve energy independence by 2024.

United States Environmental Protection Agency Endangerment Finding

The U.S. Environmental Protection Agency (U.S. EPA) authority to regulate GHG emissions stems from the U.S. Supreme Court decision in *Massachusetts v. EPA* (2007). The Supreme Court ruled that GHGs meet the

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definition of air pollutants under the existing federal Clean Air Act (FCAA) and must be regulated if these gases could be reasonably anticipated to endanger public health or welfare. Responding to the Court's ruling, the U.S. EPA finalized an endangerment finding in December 2009. Based on scientific evidence, it found that six GHGs (carbon dioxide [CO₂], methane [CH₄], nitrous oxide [N₂O], hydrofluorocarbons [HFCs], perfluorocarbons [PFCs], and sulfur hexafluoride [SF₆]) constitute a threat to public health and welfare. Thus, it is the Supreme Court's interpretation of the existing FCAA and the U.S. EPA's assessment of the scientific evidence that form the basis for the U.S. EPA's regulatory actions.

The U.S. EPA is responsible for implementing federal policies to address global climate change. The federal government's early efforts focused on public-private partnerships to reduce GHG emissions through energy efficiency, renewable energy, CH₄ and other non-CO₂ gases, agricultural practices, and implementation of technologies to achieve GHG reductions.

The U.S. EPA is required to regulate carbon dioxide and other GHGs as pollutants under Section 202(a)(1) of the FCAA. The first step in implementing its authority was the Mandatory Reporting Rule that required inventory data collection commencing on January 1, 2010, with first reports due March 2011. Effective January 2, 2011, the U.S. EPA requires new and existing sources of GHG emissions of 75,000 tons per year to obtain a permit under the New Source Review Prevention of Significant Deterioration and Title V Operating Permit Program.

Federal Vehicle Standards

In response to the U.S. Supreme Court ruling discussed above, Executive Order 13432 was issued in 2007 directing the U.S. EPA, the U.S. Department of Transportation, and the U.S. Department of Energy to establish regulations that reduce GHG emissions from motor vehicles, non-road vehicles, and non-road engines by 2008. In 2009, the National Highway Traffic Safety Administration (NHTSA) issued a final rule regulating fuel efficiency and GHG emissions from cars and light-duty trucks for model year 2011, and in 2010, the U.S. EPA and NHTSA issued a final rule regulating cars and light-duty trucks for model years 2012 through 2016.

In 2010, President Obama issued an Executive Memorandum directing the U.S. Department of Transportation, U.S. Department of Energy, U.S. EPA, and NHTSA to establish additional standards regarding fuel efficiency, GHG reduction, clean fuels, and advanced vehicle infrastructure. In response to this directive, the U.S. EPA and NHTSA proposed stringent, coordinated federal GHG and fuel economy standards for model years 2017–2025 light-duty vehicles. The proposed standards projected to achieve 163 grams per mile of CO₂ in model year 2025 on an average industry fleet-wide basis, which is equivalent to 54.5 miles per gallon if this level were achieved solely through fuel efficiency. The President adopted the final rule in 2012 for model years 2017 through 2021, and NHTSA intends to set standards for model years 2022 through 2025 in a future rulemaking. On January 12, 2017, the U.S. EPA finalized its decision to maintain the current GHG emissions standards for model years 2022 through 2025 cars and light trucks. It should be noted that the U.S. EPA is currently proposing to freeze the vehicle fuel efficiency standards at their planned 2020 level (37 mpg), canceling any future strengthening (currently 54.5 mpg by 2026).

In addition to the regulations applicable to cars and light-duty trucks described above, in 2011, the U.S. EPA and NHTSA announced fuel economy and GHG standards for medium- and heavy-duty trucks for model

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years 2014–2018. The standards for CO₂ emissions and fuel consumption are tailored to three main vehicle categories: combination tractors, heavy-duty pickup trucks and vans, and vocational vehicles. According to the U.S. EPA, this regulatory program would have reduced GHG emissions and fuel consumption for the affected vehicles by 6 to 23 percent over the 2010 baselines.

In August 2016, the U.S. EPA and NHTSA announced the adoption of the phase two program related to the fuel economy and GHG standards for medium- and heavy-duty trucks. The phase two program applies to vehicles with model years 2018 through 2027 for certain trailers, and model years 2021 through 2027 for semi-trucks, large pickup trucks, vans, and all types and sizes of buses and work trucks. The final standards are expected to lower CO₂ emissions by approximately 1.1 billion metric tons and reduce oil consumption by up to 2 billion barrels over the lifetime of the vehicles sold under the program.

On September 27, 2019, the U.S. EPA and the NHTSA published the Safer Affordable Fuel-Efficient (SAFE) Vehicles Rule Part One: One National Program. The Part One Rule revokes California's authority to set its own GHG emissions standards and set zero-emission vehicle mandates in California. On March 31, 2020, the U.S. EPA and NHTSA finalized rulemaking for SAFE Part Two, which sets CO₂ emissions standards and corporate average fuel economy (CAFE) standards for passenger vehicles and light duty trucks, covering model years 2021 through 2026.

Executive Orders 13990 and 14008

On January 20, 2021, President Biden issued Executive Order 13990, "Protecting Public Health and the Environment and Restoring Science to Tackle the Climate Crisis". Executive Order 13990 directs federal agencies to immediately review and take action to address the promulgation of federal regulations and other actions that conflict with these important national objectives and to immediately commence work to confront the climate crisis. Executive Order 13990 directs the Council on Environmental Quality (CEQ) to review CEQ's 2020 regulations implementing the procedural requirements of the National Environmental Policy Act (NEPA) and identify necessary changes or actions to meet the objectives of Executive Order 13990.

On January 27, 2021, President Biden signed Executive Order 14008, "Tackling the Climate Crisis at Home and Abroad," to declare the Administration's policy to move quickly to build resilience, both at home and abroad, against the impacts of climate change that are already manifested and will continue to intensify according to current trajectories.

In line with these Executive Order directives, CEQ is currently reviewing the 2020 NEPA regulations and plans to publish a notice of proposed rulemaking (NPRM) to identify necessary revisions in order to comply with the law; meet the environmental, climate change, and environmental justice objectives of Executive Orders 13990 and 14008; ensure full and fair public involvement in the NEPA process; provide regulatory certainty to stakeholders; and promote better decision making consistent with NEPA's statutory requirements.

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State

Assembly Bill 1493 – Pavley

In 2002, the California legislature adopted Assembly Bill 1493, which includes regulations (also called Pavley regulations) to reduce GHG emissions from new motor vehicles beginning with the 2009 model year. In September 2004, pursuant to AB 1493, the CARB approved these regulations. In September 2009, CARB adopted amendments to the Pavley regulations to reduce GHG emissions from new motor vehicles with model years 2009 through 2016. The CARB, U.S. EPA, and the U.S. Department of Transportation's National Highway Traffic and Safety Administration coordinated efforts to develop fuel economy and GHG standards for model 2017-2025 vehicles. CARB subsequently adopted these GHG standards as Low Emission Vehicle regulations in 2012.

California Executive Order S-3-05

Governor Arnold Schwarzenegger signed California Executive Order S-3-05 in June 2005, which establishes statewide emission reduction targets through the year 2050:

- By 2010, reduce GHG emissions to 2000 levels;
- By 2020, reduce GHG emissions to 1990 levels; and
- By 2050, reduce GHG emissions to 80 percent below 1990 levels.

Assembly Bill 1279

AB 1279 requires the state to achieve net zero GHG emissions as soon as possible but no later than 2045 and achieve and maintain net negative GHG emissions thereafter. AB 1279 also requires California to reduce statewide GHG emissions by 85 percent compared to 1990 levels and directs the CARB to work with relevant state agencies to achieve these goals.

California Global Warming Solutions Act of 2006 (AB 32)

In 2006, the California legislature passed the California Global Warming Solutions Act of 2006 (AB 32), which created a comprehensive, multi-year program to reduce GHG emissions in California. AB 32 requires the CARB to develop a Scoping Plan that describes the approach California will take to reduce GHG emissions to achieve the goal of reducing emissions to 1990 levels by 2020, and requires that the Scoping Plan must be updated at least every five years. The Scoping Plan was first approved by CARB in 2008 since has been updated three times: in 2013, 2017, and 2022. Each of the Scoping Plans have included a suite of policies to help the state achieve its GHG targets, in large part leveraging existing programs that primarily aim to reduce harmful air pollution.

The Scoping Plan anticipates that local government actions will result in reduced GHG emissions since local governments have the primary authority to plan, zone, approve, and permit development to accommodate population growth and the changing needs of their jurisdictions. The Scoping Plan also relies on the requirements of Senate Bill 375 (discussed below) to align local land use and transportation planning for achieving GHG reductions.

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The Scoping Plan must be updated every five years to evaluate AB 32 policies and ensure that California is on track to achieve the GHG reduction goals. On December 15, 2022, CARB adopted the 2022 Scoping Plan. The 2022 Scoping Plan builds on the previous Scoping Plans as well as the requirements set forth by AB 1279, which directs the state to become carbon neutral no later than 2045. To achieve this statutory objective, the 2022 Scoping Plan lays out how California can reduce GHG emissions by 85 percent below 1990 levels and achieve carbon neutrality by 2045. The Scoping Plan scenario to achieve this goal is to “deploy a broad portfolio of existing and emerging fossil fuel alternatives and clean technologies, and align with statutes, Executive Orders, Board direction, and direction from the governor.”

Senate Bill 375

In August 2008, the legislature passed, and on September 30, 2008, Governor Schwarzenegger signed, SB 375, which addresses GHG emissions associated with the transportation sector through regional transportation and sustainability plans. Regional GHG reduction targets for the automobile and light-truck sector for 2020 and 2035, as determined by CARB, are required to consider the emission reductions associated with vehicle emission standards (see AB 1493 above), the composition of fuels, and other CARB-approved measures to reduce GHG emissions.

Per SB 375, regional metropolitan planning organizations (MPOs) are responsible for preparing a Sustainable Communities Strategy (SCS) within their Regional Transportation Plan (RTP). The goal of the SCS is to establish a development plan for the region, which will achieve the regional GHG reduction targets, if feasible, after consideration of transportation measures and policies. If an SCS is unable to achieve the GHG reduction targets, an MPO must prepare an Alternative Planning Strategy demonstrating how the GHG reduction targets would be achieved through alternative development patterns, infrastructure, or additional transportation measures or policies. SB 375 provides incentives for streamlining CEQA requirements by substantially reducing the requirements for “transit priority projects,” as specified in SB 375, and eliminating the analysis of the impacts of certain residential projects on global warming and the growth-inducing impacts of those projects when the projects are consistent with the SCS or Alternative Planning Strategy. On September 23, 2010, CARB adopted the SB 375 targets for the regional MPOs.

California Executive Order B-30-15 – 2030 Statewide Emission Reduction Target

California Executive Order B-30-15 was signed by Governor Jerry Brown on April 29, 2015, establishing an interim statewide GHG reduction target of 40 percent below 1990 levels by 2030 to ensure California meets its target of reducing GHG emissions to 80 percent below 1990 levels by 2050, which is necessary to guide regulatory policy and investments in California in the midterm and put California on the most cost-effective path for long-term emission reductions. Under this California Executive Order, all state agencies with jurisdiction over sources of GHG emissions are required to continue to develop and implement emissions reduction programs to reach the state’s 2050 target and attain a level of emissions necessary to avoid dangerous consequences of climate change. According to the Governor’s Office, this California Executive Order is in line with the scientifically established levels needed in the United States to limit global warming below 2 degrees Celsius, the warming threshold at which scientists say there will likely be major climate disruptions such as super droughts and rising sea levels.

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Senate Bill 32

SB 32 was signed on September 8, 2016, by Governor Jerry Brown. SB 32 requires the state to reduce statewide GHG emissions to 40 percent below 1990 levels by 2030, a reduction target that was first introduced in California Executive Order B-30-15. The new legislation builds upon the AB 32 goal of 1990 levels by 2020 and provides an intermediate goal to achieving California Executive Order S-3-05, which sets a statewide GHG reduction target of 80 percent below 1990 levels by 2050. Similarly, AB 197, approved in 2016, created a legislative committee to oversee regulators to ensure that CARB is not only responsive to the Governor but also the California legislature.

Assembly Bill 398 – Extension of Cap-and-Trade Program to 2030

AB 398 was signed by Governor Brown on July 25, 2017, and became effective immediately as urgency legislation. AB 398, among other things, extended the cap-and-trade program through 2030.

Senate Bill 97

Adopted in 2007, SB 97 (Health and Safety Code Section 21083.5) required the Office of Planning and Research to prepare amendments to the CEQA Guidelines for the mitigation of GHG impacts. The amendments became effective on March 18, 2010. The CEQA amendments provide guidance to public agencies regarding the analysis and mitigation of the effects of GHG emissions in CEQA documents.

Among the CEQA Guidelines sections that were amended include 15126.4 and 15130, which address mitigation measures and cumulative impacts, respectively. However, GHG mitigation measures are referenced in general terms, and no specific measures are identified. Additionally, the revision to CEQA Guidelines Section 15130 simply directs agencies to analyze GHG emissions in an EIR when a project's incremental contribution of emissions may be cumulatively considerable. However, it does not answer the question of when emissions are cumulatively considerable.

A new section, CEQA Guidelines Section 15064.4, was added to assist agencies in determining the significance of GHG emissions. CEQA Guidelines Section 15064.4 gives discretion to the lead agency whether to: (1) use a model of methodology to quantify GHG emissions resulting from a project, and which model or methodology to use; or (2) rely on a qualitative analysis or performance-based standards. CEQA does not provide guidance to determine whether the project's estimated GHG emissions are significant or cumulatively considerable.

Another new section, CEQA Guidelines Section 15183.5, was added, which permits programmatic GHG analysis and later project-specific tiering, as well as the preparation of Greenhouse Gas Reduction Plans. Pursuant to Section 15183.5(b), compliance with such plans can support a determination that a project's cumulative effect is not cumulatively considerable.

CARB Advanced Clean Truck Regulation

CARB adopted the Advanced Clean Truck Regulation in June 2020, which requires truck manufacturers to transition from diesel trucks and vans to electric zero-emission trucks beginning in 2024. By 2045, every new

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truck sold in California is required to be zero-emission. This rule directly addresses disproportionate risks and health and pollution burdens by putting California on the path for an all zero-emission short-haul drayage fleet in ports and railyards by 2035 and zero-emission “last-mile” delivery trucks and vans by 2040. The Advanced Clean Truck Regulation accelerates the transition of zero-emission medium-and heavy-duty vehicles from Class 2b to Class 8. The regulation has includes a manufacturer sales requirement and a reporting requirement:

- **Zero-Emission Truck Sales:** Manufacturers who certify Class 2b through 8 chassis or complete vehicles with combustion engines are required to sell zero-emission trucks as an increasing percentage of their annual California sales from 2024 to 2035. By 2035, zero-emission truck/chassis sales need to be 55 percent of Class 2b – 3 truck sales, 75 percent of Class 4 – 8 straight truck sales, and 40 percent of truck tractor sales.
- **Company and Fleet Reporting:** Large employers including retailers, manufacturers, and brokers are required to report information regarding shipments and shuttle services; and fleet owners with 50 or more trucks are required to report their existing fleet operations. This information would help identify future strategies to ensure that fleet owners purchase available zero-emission trucks and place the trucks in service where suitable to meet their needs.

CARB Advanced Clean Fleets Regulation

CARB adopted the Advanced Clean Fleets Regulation in April 2023, which requires fleet owners operating vehicles for private services such as last-mile delivery and federal fleets, along with state and local government fleets, to begin their transition to zero-emission vehicles in 2024. In addition, drayage trucks are required to be zero-emissions by 2035, work trucks and day cab tractors must be zero-emissions by 2039, and sleeper cap tractors and specialty vehicles must be zero-emissions by 2042. The Advanced Clean Fleets rule also requires an end to combustion truck sales in 2036.

California Green Building Standards Code

CCR, Title 24, Part 11: California Green Building Standards Code (CALGreen) is a comprehensive and uniform regulatory code for all residential, commercial, and school buildings that went in effect on August 1, 2009, and is administered by the California Building Standards Commission.

CALGreen is updated on a regular basis, with the most recent approved update consisting of the 2022 California Green Building Code Standards that became effective on January 1, 2023. The CEC anticipates that the 2022 California Energy Code will provide 1.5 billion dollars in consumer benefits and reduce GHG emissions by 10 million metric tons. The 2022 CALGreen standards that reduce GHG emissions and are applicable to the proposed project include, but are not limited to, the following:

- **Short-term bicycle parking.** If the new project or an additional alteration is anticipated to generate visitor traffic, provide permanently anchored bicycle racks within 200 feet of the visitors’ entrance, readily visible to passers-by, for 5 percent of new visitor motorized vehicle parking spaces being added, with a minimum of one two-bike capacity rack (5.106.4.1.1).

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- **Long-term bicycle parking.** For new buildings with tenant spaces that have 10 or more tenant-occupants, provide secure bicycle parking for 5 percent of the tenant-occupant vehicular parking spaces with a minimum of one bicycle parking facility (5.106.4.1.2).
- **Designated parking for clean air vehicles.** In new projects or additions to alterations that add 10 or more vehicular parking spaces, provide designated parking for any combination of low-emitting, fuel-efficient and carpool/van pool vehicles as shown in Table 5.106.5.2 (5.106.5.2).
- **EV charging stations.** New construction shall facilitate the future installation of EV supply equipment. The compliance requires empty raceways for future conduit and documentation that the electrical system has adequate capacity for the future load. The number of spaces to be provided for is contained in Table 5.106.5.3.3 (5.106.5.3). Additionally, Table 5.106.5.4.1 specifies requirements for the installation of raceway conduit and panel power requirements for medium- and heavy-duty electric vehicle supply equipment for warehouses, grocery stores, and retail stores.
- **Outdoor light pollution reduction.** Outdoor lighting systems shall be designed to meet the backlight, uplight and glare ratings per Table 5.106.8 (5.106.8).
- **Construction waste management.** Recycle and/or salvage for reuse a minimum of 65 percent of the nonhazardous construction and demolition waste in accordance with Section 5.408.1.1, 5.405.1.2, or 5.408.1.3; or meet a local construction and demolition waste management ordinance, whichever is more stringent (5.408.1).
- **Excavated soil and land clearing debris.** 100 percent of trees, stumps, rocks and associated vegetation and soils resulting primarily from land clearing shall be reuse or recycled. For a phased project, such material may be stockpiled on site until the storage site is developed (5.408.3).
- **Recycling by occupants.** Provide readily accessible areas that serve the entire building and are identified for the depositing, storage, and collection of non-hazardous materials for recycling, including (at a minimum) paper, corrugated cardboard, glass, plastics, organic waste, and metals or meet a lawfully enacted local recycling ordinance, if more restrictive (5.410.1).
- **Water conserving plumbing fixtures and fittings.** Plumbing fixtures (water closets and urinals) and fittings (faucets and showerheads) shall comply with the following:
 - **Water Closets.** The effective flush volume of all water closets shall not exceed 1.28 gallons per flush (5.303.3.1)
 - **Urinals.** The effective flush volume of wall-mounted urinals shall not exceed 0.125 gallons per flush (5.303.3.2.1). The effective flush volume of floor-mounted or other urinals shall not exceed 0.5 gallons per flush (5.303.3.2.2).
 - **Showerheads.** Single showerheads shall have a minimum flow rate of not more than 1.8 gallons per minute and 80 psi (5.303.3.3.1). When a shower is served by more than one showerhead, the combine

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flow rate of all showerheads and/or other shower outlets controlled by a single valve shall not exceed 1.8 gallons per minute at 80 psi (5.303.3.3.2).

- **Faucets and fountains.** Nonresidential lavatory faucets shall have a maximum flow rate of not more than 0.5 gallons per minute at 60 psi (5.303.3.4.1). Kitchen faucets shall have a maximum flow rate of not more than 1.8 gallons per minute of 60 psi (5.303.3.4.2). Wash fountains shall have a maximum flow rate of not more than 1.8 gallons per minute (5.303.3.4.3). Metering faucets shall not deliver more than 0.20 gallons per cycle (5.303.3.4.4). Metering faucets for wash fountains shall have a maximum flow rate not more than 0.20 gallons per cycle (5.303.3.4.5).
- **Outdoor potable water uses in landscaped areas.** Nonresidential developments shall comply with a local water efficient landscape ordinance or the current California Department of Water Resources' Model Water Efficient Landscape Ordinance (MWELO), whichever is more stringent (5.304.1).
- **Water meters.** Separate submeters or metering devices shall be installed for new buildings or additions in excess of 50,000 SF or for excess consumption where any tenant within a new building or within an addition that is project to consume more than 1,000 gallons per day (GPD) (5.303.1.1 and 5.303.1.2).
- **Outdoor water uses in rehabilitated landscape projects equal or greater than 2,500 SF.** Rehabilitated landscape projects with an aggregate landscape area equal to or greater than 2,500 SF requiring a building or landscape permit (5.304.3).
- **Commissioning.** For new buildings 10,000 SF and over, building commissioning shall be included in the design and construction processes of the building project to verify that the building systems and components meet the owner's or owner representative's project requirements (5.410.2).

The 2025 CALGreen Code, if approved by the California Building Standards Commission, will be effective January 1, 2026.

California Air Resources Board

The California Air Resource Board (CARB) is responsible for the coordination and oversight of State and local air pollution control programs in California. Various statewide and local initiatives to reduce California's contribution to GHG emissions have raised awareness about climate change and its potential for severe long-term adverse environmental, social, and economic effects. California is a significant emitter of CO₂e in the world and produced 459 million gross metric tons of CO₂e in 2013. In the State, the transportation sector is the largest emitter of GHGs, followed by industrial operations such as manufacturing and oil and gas extraction.

The State of California legislature has enacted a series of bills that constitute the most aggressive program to reduce GHGs of any state in the nation. Some legislation, such as the landmark Assembly Bill (AB) 32, California Global Warming Solutions Act of 2006, was specifically enacted to address GHG emissions. Other legislation, such as Title 24 building efficiency standards and Title 20 appliance energy standards, were originally adopted for other purposes such as energy and water conservation, but also provide GHG reductions. This section describes the major provisions of the legislation.

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California Air Resource Board Scoping Plan

Adopted December 15, 2022, CARB's 2022 Scoping Plan for Achieving Carbon Neutrality (2022 Scoping Plan) sets a path to achieve targets for carbon neutrality and reduce anthropogenic GHG emissions by 85 percent below 1990 levels by 2045 in accordance with AB 1279. To achieve the targets of AB 1279, the 2022 Scoping Plan relies on existing and emerging fossil fuel alternatives and clean technologies, as well as carbon capture and storage. Specifically, the 2022 Scoping Plan focuses on zero-emission transportation; phasing out use of fossil gas use for heating homes and buildings; reducing chemical and refrigerants with high GWP; providing communities with sustainable options for walking, biking, and public transit; displacement of fossil-fuel fired electrical generation through use of renewable energy alternatives (e.g., solar arrays and wind turbines); and scaling up new options such as green hydrogen.

The key elements of the 2022 Scoping Plan focus on transportation. Specifically, the 2022 Scoping Plan aims to rapidly move towards zero-emission transportation (i.e., electrifying cars, buses, trains, and trucks), which constitutes California's single largest source of GHGs. The regulations that impact the transportation sector are adopted and enforced by CARB on vehicle manufacturers and are outside the jurisdiction and control of local governments. The 2022 Scoping Plan accelerates development of new regulations as well as amendments to strengthen regulations and programs already in place.

Included in the 2022 Scoping Plan is a set of Local Actions (2022 Scoping Plan Appendix D) aimed at providing local jurisdictions with recommendations to reduce GHGs and assist the state in meeting the ambitious targets set forth in the 2022 Scoping Plan. Appendix D to the 2022 Scoping Plan is not regulatory, is not exhaustive, and does not include everything local governments can implement to support the State's climate goals. It focuses primarily on climate action plans (CAPs) and local authority over new residential development. It includes a section on evaluating plan-level and project-level alignment with the State's Climate Goals in CEQA GHG analyses. In this section, CARB identifies several recommendations and strategies that should be considered for new development in order to determine consistency with the 2022 Scoping Plan. CARB specifically states that Section 3 of Appendix D, which discusses land use plans and development projects, does not address land uses other than residential and mixed-use residential such as industrial. However, CARB plans to explore new approaches for other land use types in the future.

Regional

South Coast Air Quality Management District Thresholds

The SCAQMD is the air pollution control agency for Orange County and the urban portions of Los Angeles, Riverside, and San Bernardino Counties. The agency's primary responsibility is ensuring that CAAQs and NAAQs are attained and maintained in the SoCAB. The SCAQMD is also responsible for adopting and enforcing rules and regulations concerning air pollutant sources, issuing permits for stationary sources of air pollutants, inspecting stationary sources of air pollutants, responding to citizen complaints, monitoring ambient air quality and meteorological conditions, awarding grants to reduce motor vehicle emissions, conducting public education campaigns, and many other activities. All projects are subject to applicable SCAQMD rules and regulations in effect at the time of construction and operation.

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Southern California Association of Governments

On April 4, 2024, SCAG's Regional Council adopted Connect SoCal 2024 (2024-2050 Regional Transportation Plan/Sustainable Communities Strategy [RTP/SCS]). On May 10, 2024, the Federal Highway Administration (FHWA) and Federal Transit Administration (FTA) approved Connect SoCal 2024, however, CARB's approval is still pending before it is fully certified. On September 3, 2020, SCAG's Regional Council adopted Connect SoCal 2020 (2020-2045 Regional Transportation Plan/Sustainable Communities Strategy [RTP/SCS]) which has been approved by the FHWA, FTA, and CARB. Connect SoCal charts a course for closely integrating land use and transportation so that the region can grow smartly and sustainably. The strategy was prepared through a collaborative, continuous, and comprehensive process with input from local governments, county transportation commissions, tribal governments, non-profit organizations, businesses, and local stakeholders within the counties of Imperial, Los Angeles, Orange, Riverside, San Bernardino, and Ventura. Connect SoCal is a long-range vision plan that balances future mobility and housing needs with economic and environmental goals. The SCAG region strives toward sustainability through integrated land use and transportation planning.

The SCAG region must achieve specific federal air quality standards and is required by state law to lower regional GHG emissions. Connect SoCal aims to deliver significant benefits to the region with respect to mobility, safety, health outcomes, travel-time reliability, air quality, economic productivity, environmental justice, and transportation asset condition. Connect SoCal 2024 establishes GHG emissions goals for automobiles and light-duty trucks and achieve the GHG emissions reduction target for the region set by CARB (Govt. Code Section 65080(b)(2)(B)) (i.e., for 2020 and 2035 as well as an overall GHG target for the Project region consistent with both the target date of AB 32 and the post 2020 GHG reduction goals of Executive Orders 5-03-05 and B-30-15 and the Connect SoCal 2045 target for the SCAG region is 19 percent below 2005 per capita emissions levels by 2035).

Since Connect SoCal was adopted in 2020, SCAG gained responsibility for the selection of transportation projects to be funded with federal revenue. Connect SoCal invests \$751.7 billion in our transportation system, primarily in operations and maintenance, to ensure the continued performance of our current network. Implementation of the Connect SoCal 2024 would add 181,200 new miles of transit revenue service, 4,000 new miles of bike lanes and 869 new miles to the Regional Express Lane Network. Connect SoCal contains over 4,000 transportation projects, ranging from highway improvements, railroad grade separations, bicycle lanes, new transit hubs and replacement bridges. These future investments were included in county plans developed by the six county transportation commissions and seek to reduce traffic bottlenecks, improve the efficiency of the region's network, and expand mobility choices for everyone. Connect SoCal is an important planning document for the region, allowing project sponsors to qualify for federal funding.

Connect SoCal 2024 and 2020 account for operations and maintenance costs to ensure reliability, longevity, and cost effectiveness. Connect SoCal is also supported by a combination of transportation and land use strategies that help the region achieve state GHG emissions reduction goals and Federal Clean Air Act (FCAA) requirements, preserve open space areas, improve public health and roadway safety, support our vital goods movement industry, and utilize resources more efficiently.

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Local

City of Anaheim General Plan

The General Plan contains the following existing goals and policies intended to reduce GHG emissions.

Circulation Element

Goal 2.3: Improve regional access for City residents and workers.

- **Policy 2.3-5.** Coordinate with neighboring jurisdictions and regional, state, and federal agencies to implement Smart Streets, Intelligent Transportation Systems, High Speed Rail, Bus Rapid Transit and ARTIC.

Goal 7.1: Protect and encourage bicycle travel.

- **Policy 7.1-1.** Provide safe, direct, and continuous bicycle routes for commuter and recreational cyclists.
- **Policy 7.1-4.** Support roadway design policies that promote attractive circulation corridors and safe and pleasant traveling experiences for bicyclists.
- **Policy 7.1-6.** Implement a bikeway system with linkages to routes in neighboring jurisdictions and regional bicycle routes.
- **Policy 7.1-10.** Where space and appropriate roadway conditions currently exist, continue to install bike routes with priority to segments serving US Census documented existing high bicycle ridership areas.
- **Policy 7.1-11.** Work with the Caltrans to provide appropriate accommodation for bicyclists and pedestrians along Caltrans facilities, as well as applying for funding for state, local and regional non-motorized modal projects.

Goal 8.1: Protect and encourage pedestrian travel.

- **Policy 8.1-1.** Encourage and improve pedestrian facilities that link development to the circulation network and that serve as a transition between other modes of travel.
- **Policy 8.1-2.** Improve pedestrian and bicycle connections from residential neighborhoods to retail activity centers, employment centers, schools, parks, open space areas and community centers.
- **Policy 8.1-9.** Enhance and encourage pedestrian amenities and recreation, retail and employment opportunities in mixed-use areas to enhance non-motorized transportation.
- **Policy 8.1-10.** Require commercial developments to provide specific pedestrian access points independent from auto entrances.
- **Policy 8.1-11.** Coordinate with appropriate agencies to ensure that transit stops are accessible to pedestrians.

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Goal 9.1: Provide carpooling and vanpooling opportunities for commuters.

- **Policy 9.1-1.** Continue to encourage carpooling by promoting park-and-ride facilities.
- **Policy 9.1-2.** Continue to encourage vanpooling for City residents and workers.
- **Policy 9.1-3.** Participate in OCTA's Rideshare program.
- **Policy 9.1-4.** Cooperate with public or private providers of vanpool services and publicize vanpool options to residents.

Green Element

Goal 5.1: Continue Anaheim's water conservation efforts to ensure that all City facilities are water efficient.

- **Policy 5.1-1.** Continue to inspect, maintain and enhance City facilities relative to their water use.

Goal 8.1: Reduce locally generated emissions through improved traffic flows and construction management practices.

- **Policy 8.1-1.** Reduce vehicle emissions through traffic flow improvements, such as traffic signal synchronization, Intelligent Transportation Systems, the Scoot Adaptive Traffic Control System, and related capital improvements.
- **Policy 8.1-2.** Regulate construction practices, including grading, dust suppression, chemical management, and encourage pre-determined construction routes that minimize dust and particulate matter pollution.

Goal 9.1: Reduce single-occupancy vehicle trips.

- **Policy 9.1-1.** Encourage alternative work schedules for public and private sector workers.
- **Policy 9.1-2.** Encourage development of new commercial and industrial projects that provide on-site amenities that help to lesson vehicle trips such as on-site day care facilities, cafeterias, automated teller machines and bicycle storage facilities.
- **Policy 9.1-3.** Encourage use of vanpools and carpools by providing priority parking through the project design process.
- **Policy 9.1-4.** Encourage bicycle and pedestrian travel by improving the City's trail and bikeway master plan and by providing convenient links between the trail system and desired destinations.

Goal 12.1: Continue to be a county leader in the use of electric and alternative fuel vehicles.

- **Policy 12.1-1.** Continue and expand the program to convert City vehicle fleets to alternative fuel and/or electric power.

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- **Policy 12.1-2.** Continue the City's program of providing a clean fuel Resort Transit Fleet.
- **Policy 12.1-3.** Continue to work with Anaheim businesses to assist with fleet conversion to alternative fuels.
- **Policy 12.1-4.** Work with the US Department of Energy to achieve a Clean City designation for the City of Anaheim.

Goal 15.1: Continue to lead the County in energy conservation programs, practices and community outreach.

- **Policy 15.1-1.** Continue to maintain and update energy conservation programs and information provided on the City's website.

Goal 15.2: Continue to encourage site design practices that reduce and conserve energy.

- **Policy 15.1-2.** Encourage increased use of passive and active solar design in existing and new development (e.g., orienting buildings to maximize exposure to cooling effects of prevailing winds and locating landscaping and landscape structures to shade buildings).

Growth Management Element

Goal 2.1: Reduce traffic congestion on the City's arterial highway system.

- **Policy 2.1-5.** Promote the use of public transportation and alternative modes of transportation by increasing access to public transit, including Bus Rapid Transit, through land use planning (e.g., locating higher density residential projects near transportation corridors). Ensuring direct and convenient pedestrian access to public transit stops, implementing bicycle routes, encouraging pedestrian-friendly developments, and supporting High Occupancy Vehicles (HOV) lanes.

Anaheim Public Utilities Greenhouse Gas Reduction Plan

Anaheim Public Utilities' (APU) Greenhouse Gas Reduction Plan (GHG Plan) outlines the utility's vision for developing sustainable and environmentally friendly electric and water resources while maintaining affordability and reliability for customers. Created in 2015 and updated in 2020, the plan establishes baseline metrics, tracks progress, and sets new targets for 2030 and 2045, aligning with California's goal of 100 percent clean energy by 2045. The plan focuses on reducing greenhouse gas emissions through various initiatives including renewable power transition, energy efficiency, water conservation, and electric transportation, while incorporating community feedback and designing programs specifically for Anaheim's needs.

The GHG Plan identifies renewable energy and energy conservation targets for APU for the years 2020, 2030, and 2045. APU met its 2020 renewable energy procurement goal of 33 percent and plans to procure 60 percent by year 2030 and 100 percent by 2045.

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Standard Conditions of Approval

As a matter of practice, the City applies standard conditions for development projects that are intended to reduce environmental impacts. Currently, there are no standard conditions that are related to GHG emissions.

5.7.1.2 EXISTING CONDITIONS

The study area for climate change and the analysis of GHG emissions is broad because climate change is influenced by worldwide emissions and their global effects. However, the study area is also limited by the State CEQA Guidelines Section 15064(d), which directs lead agencies to consider an "indirect physical change" only if that change is a reasonably foreseeable impact that may be caused by the proposed project or future development under implementation of the proposed project. This analysis limits discussion to those physical changes to the environment that are not speculative and are reasonably foreseeable.

Climate change is the observed increase in the average temperature of the Earth's atmosphere and oceans along with other substantial changes in climate—such as wind patterns, precipitation, and storms—over an extended period. Gases that absorb and re-emit infrared radiation in the atmosphere are called GHGs. GHGs are present in the atmosphere naturally, are released by natural sources, or are formed from secondary reactions taking place in the atmosphere. The gases that are widely seen as the principal contributors to human-induced climate change include CO₂, CH₄, N₂O, fluorinated gases such as HFCs and PFCs, and SF₆ (CEQA Guidelines Section 15364.5). Water vapor is excluded from the list of GHGs because it is short-lived in the atmosphere, and its atmospheric concentrations are largely determined by natural processes, such as oceanic evaporation. Table 5.7-1, *Description of Greenhouse Gases*, describes the primary GHGs attributed to global climate change and their physical properties.

Table 5.7-1 Description of Greenhouse Gases

Greenhouse Gas	Description
Carbon Dioxide (CO ₂)	CO ₂ is a colorless, odorless gas that is emitted naturally and anthropogenically. Natural sources include decomposition of dead organic matter; respiration of bacteria, plants, animals, and fungi; evaporation from oceans; and volcanic outgassing. Anthropogenic sources are from burning coal, oil, natural gas, and wood. The largest source of CO ₂ emissions globally is the combustion of fossil fuels such as coal, oil, and gas in power plants, automobiles, and industrial facilities. The atmospheric lifetime of CO ₂ is variable because it is readily exchanged in the atmosphere. CO ₂ is the most widely emitted GHG and is the reference gas (Global Warming Potential of 1) for determining Global Warming Potentials for other GHGs.
Nitrous Oxide (N ₂ O)	N ₂ O is largely attributable to agricultural practices and soil management. Primary human-related sources of N ₂ O include agricultural soil management, sewage treatment, combustion of fossil fuels, and adipic and nitric acid production. N ₂ O is produced from biological sources in soil and water, particularly microbial action in wet tropical forests. The atmospheric lifetime of N ₂ O is approximately 120 years. The Global Warming Potential of N ₂ O is 298.
Methane (CH ₄)	Methane, a highly potent GHG, primarily results from off-gassing (the release of chemicals from nonmetallic substances under ambient or greater pressure conditions) and is largely associated with agricultural practices and landfills. Methane is the major component of natural gas, comprising about 87 percent by volume. Human-related sources include fossil fuel production, animal husbandry, rice cultivation, biomass burning, and waste management. Natural sources of CH ₄ include wetlands, gas hydrates, termites, oceans, freshwater bodies, non-wetland soils, and wildfires. The atmospheric lifetime of CH ₄ is about 12 years and the Global Warming Potential is 25.

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Table 5.7-1 Description of Greenhouse Gases

Greenhouse Gas	Description
Hydrofluorocarbons (HFCs)	HFCs are typically used as refrigerants for both stationary refrigeration and mobile air conditioning. The use of HFCs for cooling and foam blowing is increasing, as the continued phase-out of Chlorofluorocarbons (CFCs) and HCFCs gains momentum. The 100-year Global Warming Potentials of HFCs range from 124 for HFC-152 to 14,800 for HFC-23.
Perfluorocarbons (PFCs)	PFCs have stable molecular structures and only break down by ultraviolet rays about 60 kilometers above Earth's surface. Because of this, they have long lifetimes, between 10,000 and 50,000 years. Two main sources of PFCs are primary aluminum production and semiconductor manufacturing. Global Warming Potentials range from 6,500 to 9,200.
Chlorofluorocarbons (CFCs)	CFCs are gases formed synthetically by replacing all hydrogen atoms in methane or ethane with chlorine and/or fluorine atoms. They are non-toxic, non-flammable, insoluble, and chemically unreactive in the troposphere (the level of air at the earth's surface). CFCs were synthesized in 1928 for use as refrigerants, aerosol propellants, and cleaning solvents. The Montreal Protocol on Substances that Deplete the Ozone Layer (Montreal Protocol) prohibited their production in 1987. Global Warming Potentials for CFCs range from 3,800 to 14,400.
Sulfur Hexafluoride (SF ₆)	SF ₆ is an inorganic, odorless, colorless, and non-toxic, non-flammable gas. It has a lifetime of 3,200 years. This gas is manmade and used for insulation in electric power transmission equipment, in the magnesium industry, in semiconductor manufacturing, and as a tracer gas. The Global Warming Potential of SF ₆ is 23,900.
Hydrochlorofluorocarbons (HCFCs)	HCFCs are solvents, similar in use and chemical composition to CFCs. The main uses of HCFCs are for refrigerant products and air conditioning systems. As part of the Montreal Protocol, HCFCs are subject to a consumption cap and gradual phase-out. The United States is scheduled to achieve a 100 percent reduction to the cap by 2030. The 100-year Global Warming Potentials of HCFCs range from 90 for HCFC-123 to 1,800 for HCFC-142b.
Nitrogen trifluoride (NF ₃)	NF ₃ was added to Health and Safety Code section 38505(g)(7) as a GHG of concern. This gas is used in electronics manufacturing for semiconductors and liquid crystal displays. It has a high Global Warming Potential of 17,200.

Sources: U.S. EPA 2010, U.S. EPA 2018, U.S. EPA 2024, IPCC 2007, National Research Council 2010

GHGs are emitted by both natural processes and human activities. Of these gases, CO₂ and CH₄ are emitted in the greatest quantities from human activities. Emissions of CO₂ are largely byproducts of fossil fuel combustion, whereas CH₄ results from off-gassing associated with agricultural practices and landfills. GHGs have the potential to adversely affect the environment because such emissions contribute, on a cumulative basis, to climate change. Climate change is, by definition, a cumulative impact because it occurs worldwide. Although emissions of one single project do not cause climate change, GHG emissions from multiple projects (past, present, and future) throughout the world could result in a cumulative impact with respect to climate change.

Human-made GHGs, many of which have greater heat-absorption potential than CO₂, include fluorinated gases and SF₆ (U.S. EPA 2024). Different types of GHGs have varying global warming potentials (GWPs). The GWP of a GHG is the potential of a gas or aerosol to trap heat in the atmosphere over a specified timescale (generally, 100 years). Because GHGs absorb different amounts of heat, a common reference gas (CO₂) is used to relate the amount of heat absorbed to the amount of the gas emissions, referred to as "carbon dioxide equivalent" (CO₂e), and is the amount of a GHG emitted multiplied by its GWP. Carbon dioxide has a 100-year GWP of one. By contrast, CH₄ has a GWP of 28, meaning its global warming effect is 28 times greater than carbon dioxide on a molecule per molecule basis (IPCC 2014).

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The accumulation of GHGs in the atmosphere regulates the Earth's temperature. Without the natural heat-trapping effect of GHGs, Earth's surface would be about 34 degrees Celsius (° C) cooler (IPCC 2022). However, it is believed that emissions from human activities, particularly the consumption of fossil fuels for electricity production and transportation, have elevated the concentration of these gases in the atmosphere beyond the level of naturally occurring concentration levels.

Existing Communitywide GHG Emissions

The western portion of the City is largely urbanized and consists of residential neighborhoods and commercial areas and the eastern portion of the City has large areas of open space. The North Euclid area serves as a major gateway into the City and consists of multiple-family and single-family neighborhoods. The eastern portion of the City also consists of single- and multi-family neighborhoods. The North Central Industrial Area consists of established industrial uses and is adjacent to a residential neighborhood located north of La Palma Avenue, west of Olive Street. Anaheim Colony contains of the City's historic resources, including the original Mother Colony House, a number of State and nationally designated historic structures, and is home to the City's Downtown and Civic Center. South Anaheim Boulevard area consists of a variety of residential, commercial, and industrial uses as well as some office uses that complement the adjacent Western Medical Center Hospital. The Platinum Triangle is home to Angel Stadium of Anaheim and the Arrowhead Pond of Anaheim. The Anaheim Resort is a major tourist destination with attractions such as Disneyland, Disney's California Adventure, Downtown Disney, and the Anaheim Convention Center. The Canyon is a 2,450-acre business park and is considered a major regional employment center (Anaheim 2004).

Operation of the various land uses within the City generates GHG emissions from a variety of sources, including natural gas used for energy, heating, and cooking; electricity usage; vehicle trips for employees and residents; area sources such as landscaping equipment and consumer cleaning products; water demand; waste generation; and solid waste generation. Solid waste generation numbers are based on data provided in Chapter 5.17, *Utilities and Service Systems*, of this Draft PEIR. Table 5.7-2, *Existing GHG Emissions for the City of Anaheim*, shows the emissions associated with existing land uses in the City.

Table 5.7-2 Existing GHG Emissions for the City of Anaheim

Sector	Communitywide GHG Emissions (MTCO ₂ e/year)	Percent of Total
On-Road Transportation	2,302,706	57%
Area	30,940	1%
Building Energy	1,288,637	32%
Water	81,862	2%
Solid Waste	312,872	8%
Refrigerants	11,545	<1%
Total	4,030,359	100%

Source: CalEEMod version 2022.1.1.28. See Appendix H for model outputs.

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5.7.2 Proposed General Plan Goals and Policies and Standard Conditions

The proposed project includes new or updated Circulation Element goals and policies related to transportation, which also have an effect at reducing GHG emissions. These additional goals and policies are identified below.

Goal 2: Support bicycling, walking, and other active transportation modes.

- Implement bikeways recommended in the City's Bicycle Master Plan.
- Support roadway design principles that support a safe, pleasant, and comfortable experience for bicyclists and pedestrians.
- Coordinate with adjacent jurisdictions and regional agencies to encourage the development of a connected bikeway network across jurisdictional boundaries.
- Consider pedestrian, bicycle, and transit connectivity to the city's key destinations and trip generators.
- Work with Caltrans to provide appropriate improvements for bicyclists and pedestrians at locations along and/or intersecting Caltrans' facilities.
- Apply for funding for state, local, and regional non-motorized projects, as appropriate.
- Support installation of pedestrian and bicycle amenities in appropriate locations, in order to enhance non-motorized transportation.
- Encourage developers to provide improved pedestrian and bicycle connectivity between developments and the circulation network, as well as between complementary uses, as appropriate.
- Implement pedestrian improvements that support pedestrian comfort and safety and a pleasant walking experience along streets and corridors.
- Maximize the use of easements and public rights-of-way along flood channels, utility corridors, rail lines and streets for the establishment of new bicycle and pedestrian paths.
- Monitor and consider the implementation of new technologies and innovative treatments in bicycle- and pedestrian-friendly design.
- Develop strategies to address and manage emerging shared mobility technologies and programs.
- Pursue the completion of the Equestrian, Riding, and Hiking Trails Plan in a manner that complements bicycle and pedestrian facilities.
- Consider grade-separated pedestrian crossings around recreational and tourism destinations to increase pedestrian safety and minimize conflicts with vehicles.
- Continue to require consistency with CALGreen bike parking standards for new developments.

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Goal 3: Support and promote public transit and ridesharing.

- Support the efforts of OCTA, the Anaheim Transportation Network (ATN), and other regional, state, and federal agencies to provide improved transit service within and throughout the city.
- Enhance the ARTIC role as a regional transit and mobility hub.
- Evaluate transit connections between ARTIC, the Anaheim Resort, and Specific Plan areas.
- Continue to support OCTA ACCESS, similar paratransit, and senior transit programs.
- Work to improve first/last mile access to transit stops and stations, as appropriate.
- Support transit user comfort by providing bus stops with seating, shelters, lighting, and other passenger amenities.
- Work with agencies such as Metrolink, OCTA, and ATN to support integration and service between various transit operations and stations/stops in the city.
- Support and participate in California High-Speed Rail (CA HSR), Metrolink and other regional, state, and federal agencies' efforts to improve rail transit service within and throughout the city.
- Support the development of multi-modal access to public transit in areas where increased development and travel demand are expected.
- Explore opportunities to provide, where feasible, bus turnouts and other transit priority treatments along heavily traveled arterials and high-quality transit corridors in order to minimize traffic conflicts and encourage transit ridership.
- Encourage and support ridesharing programs to serve resident, employee, and visitor needs through means other than single occupant vehicles.
- Explore implementation of microtransit and demand-responsive services in order to complement, enhance, and expand existing transit services—including first and last mile services.
- Plan for Transportation Network Company (TNC) and taxi passenger loading needs as part of roadway planning efforts.

Goal 5: Provide a network of Complete Streets that are accessible for all modes and users.

- Apply Complete Streets principals and improvements to serve all modes and user abilities.
- Minimize disruptions to traffic and pedestrian/bicycle flow.
- Pursue arterial grade separations at railroad crossings.

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- Consider improvements to other modes of travel in conjunction with roadway expansions or additions.
- Continue implementing traffic calming measures to discourage speeding and cut-through traffic on residential streets, where appropriate.
- Encourage developers to provide access and circulation for all modes within development projects, as appropriate.
- Ensure that the City's mobility network is consistent with the Americans with Disability Act (ADA) and encourages barrier-free accessibility.
- Consider all affected and planned transportation modes when improving a corridor or specific locations along the transportation network.
- Consider local land use and context when designing transportation facilities.
- Continue to monitor and evaluate the development of new mobility technologies and the potential effects of implementing a transportation network that accommodates all modes and users.
- Work with schools and school districts within the city to encourage parents and children to walk or bike to school through programs such as Safe Routes to School.
- Consistent with the City's Green Element, complete the comprehensive program of corridor landscaping and improve streetscapes in a manner that improves the experience of affected roadway users

Goal 8: Adhere the State's greenhouse gas emission reduction goals and reduce vehicle miles traveled (VMT).

- Cooperate with OCTA, the South Coast Air Quality Management District, and other service providers to publicize and encourage ridesharing for City residents and workers.
- Participate in and encourage private employer participation in OCTA's rideshare and vanpool programs to reduce vehicle trips generated in the city.
- Support and encourage the development of public and/or private infrastructure facilitating the use of electric and other alternative fuel vehicles.
- Work with OCTA, employers, and developers to utilize transportation demand management (TDM) strategies in order to reduce congestion and achieve environmental goals.
- Require development proposals to analyze transportation impacts using the City's VMT thresholds and, if possible, mitigate potential impacts through transportation demand management (TDM) strategies and other appropriate improvements.

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5.7.3 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:

- GHG-1 Generate greenhouse gas 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 greenhouse gases.

According to the California Air Pollution Control Officers Association (CAPCOA), “GHG impacts are exclusively cumulative impacts; there are no non-cumulative GHG emission impacts from a climate change perspective” (CAPCOA 2008). Due to the complex physical, chemical, and atmospheric mechanisms involved in global climate change, there is no basis for concluding that a single project’s increase in annual GHG emissions would cause a measurable change in global GHG emissions necessary to influence global climate change. State CEQA Guidelines Section 15064.4(b) states that “in determining the significance of a project’s greenhouse gas emissions, the lead agency should focus its analysis on the reasonably foreseeable incremental contribution of the project’s emissions to the effects of climate change. A project’s incremental contribution may be cumulatively considerable even if it appears relatively small compared to statewide, national or global emissions.” Due to the global context of climate change, GHG analysis is based on the cumulative impact of emissions.

Generally, the evaluation of an impact under CEQA involves comparing the project’s effects against a threshold of significance. The CEQA Guidelines clarify that “when adopting thresholds of significance, a lead agency may consider thresholds of significance previously adopted or recommended by other public agencies or recommended by experts, provided the decision of the lead agency to adopt such thresholds is supported by substantial evidence.” For GHG emissions and global warming, there is not, at this time, one established, universally agreed-upon quantified threshold of significance for GHG impacts. The State CEQA Guidelines do not establish a quantified threshold of significance for GHG impacts. Instead, lead agencies have the discretion to establish significance thresholds for their respective jurisdictions. A lead agency may look to thresholds developed by other public agencies or other expert entities, so long as the threshold chosen is supported by substantial evidence.

State CEQA Guidelines Section 15064.4(b) recommends considering certain factors when determining the significance of a project’s GHG emissions, including: (1) the extent to which the project may increase or reduce GHG emissions as compared to the existing conditions; (2) whether the project’s GHG emissions exceeds a significance threshold that the lead agency determines applies to the project; and (3) extent to which the project complies with regulations or requirements adopted to implement a statewide, regional, or local plan for the reduction or mitigation of GHGs.

Even in the absence of clearly defined thresholds for GHG emissions, the law requires that an agency makes a good faith effort to disclose the GHG emissions from a project and mitigate to the extent feasible whenever the lead agency determines that the project contributes to a significant, cumulative climate change impact.

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Regardless of which threshold(s) are used, the agency must support its analysis and significance determination with substantial evidence (CEQA Guidelines §15064.7).

State CEQA Guidelines Section 15183.5 allows lead agencies to choose to analyze GHG emissions of a project at a programmatic level, tiering from a plan for the reduction for GHG emissions or similar document, such as a Climate Action Plan. Plans used for tiering must include all of the plan elements identified in CEQA Guidelines Section 15183.5(b)(1).

In addition to evaluation of a project's impacts against a quantifiable significant threshold, per CEQA Guidelines Section 15064(h)(3), a project's contribution to a cumulatively considerable impact would not be substantial if the project would comply with an approved plan or mitigation program that provides specific requirements to avoid or substantially reduce the cumulative impact within the geographic area of the project. To qualify, such a plan or program must be specified in law or adopted by the public agency with jurisdiction over the affected resources through a public review process to implement, interpret, or make specific the law enforced or administered by the public agency. Examples of such programs include "[a] water quality control plan, air quality attainment or maintenance plan, integrated waste management plan, habitat conservation plan, natural community conservation plan, [and] plans or regulations for the reduction of greenhouse gas emissions." Therefore, State CEQA Guidelines Section 15064(h)(3) allows a lead agency to make a finding of less than significant for GHG emissions if a project complies with programs and/or other regulatory schemes to reduce GHG emissions.

5.7.4 Environmental Impacts

5.7.4.1 METHODOLOGY

GHG Emissions

As noted, State CEQA Guidelines Section 15064.4 gives lead agencies the discretion to determine whether to assess the significance of GHG emissions quantitatively or qualitatively. Under either approach, the lead agency's analysis must demonstrate a good faith effort to disclose the amount and significance of GHG emissions resulting from a project, based to the extent possible on scientific and factual data (CEQA Guidelines §15064.4[a]). The threshold for evaluating the significance of GHG emissions is based on consistency with applicable regulatory plans and policies to reduce GHG emissions; however, in a good faith effort to fully disclose potential project GHG emissions, the City has also chosen to quantify the project's GHG emissions, as described in further detail below.

As previously described, in the interest of full disclosure, this PEIR section also quantifies and discloses potential GHG emissions generated from land use changes anticipated to occur under the proposed project. Given that the details of construction, design/size, and timing of each residential and mixed-used development under the proposed project are unknown, this projection is meant to serve merely as an illustration of the possible GHG emissions that could occur. Emissions, including those from City-wide vehicle trips, may be generated by future housing units associated with the proposed project.

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Total project GHG emissions (i.e., construction and operation) were quantified to provide information to decision makers and the public regarding the level of annual GHG emissions. GHG emissions are typically separated into three categories that reflect different aspects of geographic based and jurisdictional control over emissions:

- Direct, on-site combustion of fossil fuels (e.g., natural gas, propane, gasoline, and diesel).
- Indirect, off-site emissions associated with purchased electricity .
- Indirect emissions associated with other emissions sources, such as energy required to transport solid waste, water, and wastewater.

Implementation of the proposed project would result in GHG operational emissions directly from on-road mobile vehicles, electricity, and natural gas, and indirectly from water conveyance, wastewater generation, and solid waste handling. In addition, construction activities such as demolition, hauling, and construction worker trips would generate GHG emissions. Since potential impacts resulting from GHG emissions are long-term rather than acute, GHG emissions have been estimated on an annual basis.

Consistency With Statewide GHG Reduction Targets

The Focused General Plan Update forecasts growth in the City through year 2045; therefore, this EIR analyzes the potential for the Focused General Plan Update to conflict with statewide GHG reduction goals identified in the CARB Scoping Plan that are applicable to local governments. This includes AB 1279, which requires an 85 percent reduction in GHG emissions as compared to a baseline year of 1990 by 2045 to stabilize CO₂e emissions and avoid the most catastrophic impacts of climate change as well as substantial progress toward carbon neutrality.

Based on the City's existing inventory in Table 5.7-3, *City of Anaheim GHG Emissions Forecast*, a trajectory consistent with the State's GHG emissions targets would be:

- 555,852 MTCO₂e by Year 2045.¹

Consistency with Statewide and Regional GHG Reduction Plans

SCAG RTP/SCS

To evaluate impacts related to consistency with the Southern California Association of Governments' (SCAG) 2024-2050 Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS), also known as Connect SoCal, the analysis involves an assessment of the proposed project's alignment with the goals, policies, and objectives outlined in Connect SoCal. This analysis is intended to identify whether the proposed project supports or is inconsistent with SCAG's vision for sustainable development and helps mitigate long-term environmental impacts in line with the 2024-2050 RTP/SCS goals.

¹ 1990 emissions are back casted at 3,705,679 MTCO₂e and AB 1279 requires an 85 percent reduction from 1990 levels. Anaheim's GHG reduction target for year 2025 is $3,705,679 \times 0.15 = 555,852$ MTCO₂e.

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2022 CARB Scoping Plan

The proposed project will also be evaluated for consistency with the 2022 CARB Scoping Plan. The Focused General Plan Update will be analyzed in accordance with the reduction strategies and actions in Appendix D: Local Actions of the 2022 Scoping Plan. Appendix D emphasizes the crucial role of local government actions in achieving California's climate goals. It highlights the importance of local efforts to reduce greenhouse gas (GHG) emissions, which can also provide co-benefits such as improved air quality, economic benefits, and healthier communities.

5.7.4.2 IMPACT ANALYSIS

The following impact analysis addresses thresholds of significance that are identified in brackets after the impact statement.

Impact 5.7-1: Implementation of the Focused General Plan Update would result in a decrease in emissions as compared to existing (2021) and baseline (1990) conditions but would be inconsistent with the trajectory to achieve the goals established under Executive Order S-03-05 and progress toward the state's carbon neutrality goal. [Threshold GHG-1]

Development associated with the proposed project would generate increases in GHG emissions. Future development is expected to result in increased GHG emissions, largely due to increased vehicle miles traveled (VMT), as well as from stationary area sources (i.e., natural gas consumption for space and water heating devices, landscape maintenance equipment operations, and use of consumer products), energy consumption, water supply, and solid waste generation.

Horizon Year 2045 Emissions Forecast

The total daily operational emissions that could potentially be generated from buildout of the proposed project were estimated using the CalEEMod Version 2022.1.1. Specific data for the types and amounts of future development were entered into CalEEMod to determine the pollutant emissions anticipated with buildout of the Focused General Plan Update.

This data includes dwelling units, average daily trips, vehicle miles traveled, and average trip lengths. Where project-specific data was not available, CalEEMod defaults were used. The results of the CalEEMod calculations for the annual long-term operational emissions associated with implementation of the proposed project are presented in Table 5.7-3, *City of Anaheim GHG Emissions Forecast*.

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Table 5.7-3 City of Anaheim GHG Emissions Forecast

Sector	Communitywide GHG Emissions MTCO ₂ e per year				
	1990 Baseline Backcasting ¹	Existing (2021)	Proposed Project (2045)	Net Change (1990 and Proposed Project)	Net Change (Existing and Proposed Project)
On-Road Transportation	2,089,684	2,302,706	2,020,001	-69,683	-282,705
Area	31,150	30,940	29,192	-1,958	-1,748
Building Energy (Electricity)	1,031,117	910,405	0	-1,031,117	-910,405
Building Energy (Natural Gas)	196,575	378,232	466,390	269,815	88,158
Water	104,889	81,862	29,397	-75,492	-52,465
Solid Waste	240,720	314,680	397,265	156,545	82,585
Refrigerants	11,545	11,534	21,669	10,124	10,135
Total Community Emissions	3,705,679	4,030,359	2,963,914	-741,765 (-20%)	-1,066,445 (-27%)
85 Percent Goal Reduction for Year 2045 per AB 1279			537,067 MTCO₂e	—	—
Achieves AB 1279 Goal?			No	—	—

Source: CalEEMod version 2022.1.1.28. See Appendix H for model outputs.

1. 1990 Backcasting was estimated assuming VMT in 1990 is proportional to current VMT based on population data. Land uses are conservatively consistent with the Existing run. However, the current version of CalEEMod 2022 does not contain GHG intensity and usage data prior to 2010. Modeling run includes CEC electricity data for 1990.

2. Excludes built square footage of Disneyland, California Adventure, Angel Stadium, and the Honda Center.

As shown in Table 5.7-3, buildout of the land uses from the Focused General Plan Update would result in a net decrease in GHG emissions compared to the existing baseline (2021). The main reason for the decrease in communitywide GHG emissions is due to regulations adopted to reduce GHG emissions and fleet turnover to zero emissions vehicles (ZEVs) for California's on-road mobile transportation as well as the State's goal of carbon free electricity by 2045.

It should be noted that the majority of annual GHG emissions (68 percent) from future development projects under implementation of the proposed project are from on-road mobile transportation emissions, which are controlled by state and federal laws and regulations. Emissions from energy sources, which include those from the use of electricity and natural gas for power generation, are the second largest contributor to GHG emissions during operations associated with implementation of the proposed project. However, state measures have been adopted to specifically target and reduce emissions from both mobile and energy sources, such as:

- The Renewable Portfolio Standard (RPS) requires an increase in renewable electricity from utility providers.
- The Advanced Clean Cars Regulations increases the demand for ZEVs and decreases GHG emissions.
- The latest Title 24 Building Energy Efficiency Standards require new buildings to increase energy efficiency.
- The CARB Scoping Plan aims to reduce GHG emissions from transportation fuels through incentivizing the production and use of cleaner alternatives like biofuels and ZEVs.

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- SB 100 establishes RPS mandates for publicly owned utilities that consist of 44 percent renewable energy by 2024, 52 percent by 2027, and 60 percent by 2030.
- SB 1020, also known as the Clean Energy, Jobs, and Affordability Act of 2022, mandates that California achieve 90 percent clean electricity by 2035, 95 percent by 2040, and 100 percent by 2045, while also cutting carbon emissions by 85 percent by 2045.
- SB 1383 aims to reduce GHG emissions by diverting organic waste from landfills, with a goal of reducing organic waste disposal by 75 percent from 2014 levels by 2025.
- SB 350 increases California's renewable electricity procurement goal to 50 percent by 2030 and requires the State to double statewide energy efficiency savings in electricity and natural gas end uses by 2030.

Consistency with the State's 2045 GHG Reduction Targets and Carbon Neutrality Goals

To determine whether the Focused General Plan Update would result in a GHG emissions impact, the proposed project must demonstrate consistency with the State's GHG reduction targets. The Focused General Plan Update would result in an increase in mixed-use development and higher density residential uses, and less single-family residential development compared to the current General Plan. The proposed project would focus growth in areas of the City where services already exist or can be expanded/extended to serve new, more intensive development. Policies included in the Circulation Element as provided above in Section 5.7.2 would further serve to guide development and transportation options, reducing VMT and related GHG emissions. As indicated in Table 5.7-3, the Focused General Plan Update would result in a substantial decrease in GHG emissions (20 percent) but would not meet the 85 percent reduction goal by 2045 as established in AB 1279 (555,852 MTCO₂e). Therefore, until such time, GHG emissions impacts for the proposed Focused General Plan Update are considered potentially significant regarding meeting the long-term year 2045 reduction goal.

Summary

As discussed above, communitywide GHG emissions would decrease under the Focused General Plan Update despite forecast growth in population, as it is anticipated that the transportation and energy sectors would reduce their carbon footprint via proposed Circulation Element policies, State laws, rules, regulations, and programs. However, as described and shown in Table 5.7-3, implementation of the proposed project would result in a 20 percent reduction in GHG emissions compared to the existing General Plan and would not meet the AB 1279 long-term reduction goal of 85 percent. Therefore, GHG emissions associated with implementation of the proposed project are considered potentially significant.

Level of Significance Before Mitigation: Impact 5.7-1 would be potentially significant.

Mitigation Measures: Refer to proposed Circulation Element goals and policies.

Level of Significance After Mitigation: Impact 5.7-1 would be significant and unavoidable.

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Impact 5.7-2: Implementation of the Focused General Plan Update would not conflict with an applicable plan, policy, or regulation of an agency adopted for the purpose of reducing GHG emissions. [Threshold GHG-2])

Applicable plans adopted for the purpose of reducing GHG emissions include the 2022 CARB Scoping Plan and SCAG's Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS). A consistency analysis for these plans is provided below.

CARB Scoping Plan

As previously noted, the 2022 Scoping Plan sets a path to achieve targets for carbon neutrality and reduce anthropogenic GHG emissions to 85 percent below 1990 levels by 2045 in accordance with AB 1279. The transportation, electricity, and industrial sectors are the State's largest GHG contributors. The 2022 Scoping Plan intends to achieve the AB 1279 targets primarily through zero-emission transportation (e.g., electrifying cars, buses, trains, and trucks). Additional GHG reductions are achieved through decarbonizing the electricity and industrial sectors.

Statewide strategies to reduce GHG emissions in the latest 2022 Scoping Plan include implementing SB 100, which would achieve 100 percent clean electricity by 2045; achieving 100 percent zero-emission vehicle sales in 2035 through Advanced Clean Cars II; and implementing the Advanced Clean Fleets regulation to deploy zero-emission electric vehicle buses and trucks. Additional transportation policies include the Off-Road Zero-Emission Targeted Manufacturer rule, Clean Off-Road Fleet Recognition Program, In-use Off-Road Diesel-Fueled Fleets Regulation, Off-Road Zero-Emission Targeted Manufacturer rule, Clean Off-Road Fleet Recognition Program, and Amendments to the In-use Off-Road Diesel-Fueled Fleets Regulation. The 2022 Scoping Plan would continue to implement SB 375. GHGs would be further reduced through the Cap-and-Trade Program carbon pricing and SB 905. SB 905 requires CARB to create the Carbon Capture, Removal, Utilization, and Storage Program to evaluate, demonstrate, and regulate carbon dioxide removal projects and technology.

As indicated in Table 5.7-3, approximately 73 percent of GHG emissions associated with implementation of the proposed project are from energy and mobile sources, which would be further reduced by the 2022 Scoping Plan measures described above. It is noted that the City has no control over vehicle emissions. However, these emissions would decline in the future due to Statewide measures discussed above, as well as cleaner technology and fleet turnover. Several of the state's plans and policies, as described above in Section 5.7.1.1, *Regulatory Background*, would contribute to a reduction in mobile source emissions associated with implementation of the proposed project.

Building decarbonization and transitioning to non-combustion energy sources (i.e., natural gas) for new residential and non-residential buildings are also a primary focus in the 2022 Scoping Plan. Per GHG SC-1, future development under implementation of the proposed project would be required to demonstrate consistency with the local actions of the current CARB Scoping Plan. Appendix D (Local Actions) of the current 2022 Scoping Plan includes building decarbonization strategies for local governments to align with the State's climate goals. Thus, compliance with GHG SC-1 would ensure future development projects support the

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CARB Scoping Plan and the State's efforts to reduce GHG emissions. A less than significant impact would occur in this regard.

SCAG's Connect SoCal

Development-related mobile sources are the most potent source of GHG emissions; therefore, comparison of the proposed project to Connect SoCal 2024 and 2020 is an appropriate indicator of whether the proposed project would inhibit the state's post-2020 GHG reduction goals.²

Compliance with applicable state standards would ensure consistency with State and regional GHG reduction planning efforts. The Connect SoCal 2024 and 2020 goals were used to determine consistency with the previously stated planning efforts. The proposed project's consistency with Connect SoCal 2024 and 2020 goals is analyzed in Table 5.7-4, *Connect SoCal 2024 and 2020 Consistency*. As indicated in Table 5.7-4, the proposed project would not conflict with the Connect SoCal 2024 and 2020 goals adopted for the purpose of reducing GHG emissions. Therefore, implementation of the proposed project would not result in any significant impacts or interfere with SCAG's ability to achieve the region's GHG emissions reduction target of 19 percent by 2035.

Table 5.7-4 Connect SoCal 2024 and 2020 Consistency

SCAG Goals	Compliance
Connect SoCal 2024¹	
<i>Mobility: Build and maintain an integrated multimodal transportation network.</i>	
Support investments that are well-maintained and operated, coordinated, resilient and result in improved safety, improved air quality and minimized greenhouse gas emissions	Consistent. The proposed project includes updates to the General Plan Circulation Element, which includes updates to circulation-related policies. The Circulation Element supports the use of alternative modes of transportation, including walking, bicycling, and transit, to increase access opportunities and community connectivity. The updated Circulation Element includes Policies 2-8, 5-6, and 8-5, which would support alternative modes of transportation and help the City adhere to the State's greenhouse gas emission reduction goals. Implementation of the proposed project would not impede the City's ability to support investments that are well-maintained and operated, coordinated, resilient and result in improved safety, improved air quality, and minimized greenhouse gas emissions.
Ensure that reliable, accessible, affordable, and appealing travel options are readily available, while striving to enhance equity in the offerings in high-need communities	Consistent. The proposed project would place a majority of growth in the central portion of the City, and the remaining in the western portion of the City. Both the central and western portions of the City are urbanized with planned or existing transit stations, commercial retail service areas, and active transportation corridors. Additionally, the proposed project includes Goal 1, which requires that the City provide a vehicular transportation network that balances local and regional mobility needs within and through the City. The proposed project would provide a variety of readily available travel options.
Support planning for people of all ages, abilities, and backgrounds	Consistent. The proposed project would target community-serving growth near planned or existing transit stations, commercial retail service areas, high-quality transit areas, and active transportation corridors.

² Connect SoCal 2024 was approved by the Federal Highway Administration (FHWA) and Federal Transit Administration (FTA) on May 10, 2024; however, it is still pending approval from CARB. Therefore, this analysis evaluates consistency of the proposed project with Connect SoCal 2024 and Connect SoCal 2020.

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Table 5.7-4 Connect SoCal 2024 and 2020 Consistency

SCAG Goals	Compliance
<i>Communities: Develop, connect, and sustain communities that are livable and thriving</i>	
Create human-centered communities in urban, suburban, and rural settings to increase mobility options and reduce travel distances	Consistent. Implementation of the proposed project would increase residential and mixed-use densities within major commercial corridors and centers and along high-quality transit corridors.
Produce and preserve diverse housing types in an effort to improve affordability, accessibility, and opportunities for all households	Consistent. The proposed project supports a variety of housing types, including low-density, low-medium density, mid density, and medium density development. Therefore, implementation of the proposed project would be consistent with this policy.
<i>Environment: Create a healthy region for the people of today and tomorrow</i>	
Develop communities that are resilient and can mitigate, adapt to, and respond to chronic and acute stresses and disruptions, such as climate change	Consistent. The proposed project includes a new Environmental Justice Chapter that identifies goals and policies, which focus on improving resiliency and minimizing contributions to climate change.
Integrate the region's development pattern and transportation network to improve air quality, reduce greenhouse gas emissions and enable more sustainable use of energy and water	Consistent. The proposed project objectives include focusing new housing and commercial development in existing commercial corridors and centers and in proximity to transit; prioritizing local serving businesses; fostering land use development patterns and densities and improving streetscapes that promote a more active pedestrian environment; and improving the variety of travel choices for residents such as walking, biking, and public transit. Implementation of the proposed project would contribute to building denser communities and improving active and public transit infrastructure and contribute to reducing passenger vehicle trips, thereby also potentially reducing VMT and overall transportation fuel demands and mobile-source criteria air pollutant and GHG emissions.
Conserve the region's resources	Not Applicable. The proposed project includes updates to the General Plan Land Use Element and Circulation Element, and zone code and land use changes to ensure consistency with the 2021-2029 Housing Element. The proposed project also includes a new Environmental Justice Element. Implementation of the proposed project would not modify the City's adopted policies related to conserving resources within the City. Implementation of the proposed project would not conflict with this policy.
<i>Economy: Support a sustainable, efficient, and productive regional economic environment that provides opportunities for all people in the region</i>	
Improve access to jobs and educational resources	Consistent. The proposed project would target community-serving growth near planned or existing transit stations, commercial retail service areas, high-quality transit areas, and active transportation corridors. Additionally, the proposed project would increase mixed-use densities. This proposed land use development pattern and approach would contribute to increasing local employment opportunities.
Advance a resilient and efficient goods movement system that supports the economic vitality of the region, attainment of clean air and quality of life for our communities	Consistent. The updated Circulation Element of the General Plan focuses on further development of a multimodal transportation network that would accommodate efficient automobile, public transit, and active transit movement. It emphasizes improving access to public transit and improving the active transit network in addition to improving overall street system safety. m, improvement to street safety system. The updated Circulation Element includes a "goods movement" section and goal (Goal 4- Facilitate safe goods movement throughout and within the city.) that would help to advance a resilient and efficient goods movement system.

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Table 5.7-4 Connect SoCal 2024 and 2020 Consistency

SCAG Goals		Compliance
Connect SoCal 2020 ²		
Goal 1:	Encourage regional economic prosperity and global competitiveness.	Consistent. Future development under implementation of the proposed project would contribute to regional economic prosperity.
Goal 2:	Improve mobility, accessibility, reliability, and travel safety for people and goods.	Consistent. See Connect SoCal 2024 responses above.
Goal 3:	Enhance the preservation, security, and resilience of the regional transportation system.	Consistent. See Connect SoCal 2024 responses above.
Goal 4:	Increase person and goods movement and travel choices within the transportation system.	Consistent. See Connect SoCal 2024 responses above.
Goal 5:	Reduce greenhouse gas emissions and improve air quality.	Consistent. See Connect SoCal 2024 responses above.
Goal 6:	Support healthy and equitable communities	Consistent. See Connect SoCal 2024 responses above.
Goal 7:	Adapt to a changing climate and support an integrated regional development pattern and transportation network.	Consistent. See Connect SoCal 2024 responses above.
Goal 8:	Leverage new transportation technologies and data-driven solutions that result in more efficient travel.	Consistent. The Circulation Element provides policies, programs, actions, and priority transportation networks that support the safe and efficient movement of people driving, walking, biking, and taking transit in Anaheim. The Circulation Element has been updated to reflect changes in new technologies such as the Anaheim Traffic Analysis Model (ATAM) that will facilitate efficient transportation planning and movement throughout the City.
Goal 9:	Encourage development of diverse housing types in areas that are supported by multiple transportation options.	Consistent. See Connect SoCal 2024 responses above.
Goal 10:	Promote conservation of natural and agricultural lands and restoration of habitats.	Consistent. The proposed project would allow for the development of a mix of uses within the western and central portions of the City that do not impede existing agricultural or farmland uses. In addition, implementation of the proposed project would be required to comply with Mitigation Measures BIO-1 through BIO-6 to minimize or reduce impacts to natural habitats (see Section 5.3, <i>Biological Resources</i> , of this Draft PEIR).
Sources: SCAG 2020, SCAG 2024		

Level of Significance Before Mitigation: Impact 5.7-2 would be less than significant.

Mitigation Measures: No mitigation measures are required.

5.7.5 Cumulative Impacts

Given the global context of climate change, the analysis of GHG emissions must consider cumulative impacts, as these are driven by global emissions. The proposed project is inherently cumulative, representing City growth over the next 20 years. It encompasses multiple, yet-to-be-defined future projects. Any new development under implementation of the proposed project would contribute to GHG impacts both regionally and globally. Implementation of the proposed project is expected to have significant impacts related to GHG emissions. It is important to note that the proposed project aligns with plans and regulations aimed at reducing GHG emissions and their cumulative environmental impacts. However, due to the overall magnitude of emissions at

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the program level, implementation of the proposed project could still significantly contribute to cumulative GHG impacts.

Level of Significance Before Mitigation: Cumulative impacts would be potentially significant.

Mitigation Measures: Refer to GHG SC-1.

Level of Significance After Mitigation: Cumulative impacts would be significant and unavoidable.

5.7.6 Level of Significance Before Mitigation

Upon implementation of regulatory requirements, Impact 5.7-2 would be less than significant.

Without mitigation, these impacts would be potentially significant:

- **Impact 5.7-1:** Buildout under the Focused General Plan Update would result in a decrease of communitywide GHG emissions when compared to existing (2021) and baseline (1990) conditions, but are inconsistent with the GHG reduction goals of AB 1279.

5.7.7 Mitigation Measures

At a programmatic level of analysis, there are no feasible mitigation measures beyond the proposed Circulation Element goals and policies that would reduce GHG impacts.

5.7.8 Level of Significance After Mitigation

Impact 5.7-1

There are no feasible mitigation measures beyond the proposed Circulation Element goals and policies that would reduce GHG impacts. Mitigating GHG emissions within the framework of a General Plan is challenging due to the unknown of specific future development. Current and future regulatory environment drives many of the design and project changes. Key policies such as mandatory installation of EV charging infrastructure, electrification of new residential buildings, and the continuous evolution of building and green codes, shape the path forward primarily driven from the state and federal mandates. These regulations are important for long-term sustainability and will continue to steer the City toward compliance with state and federal standards. Thus, while progress is being made, comprehensive emission reductions require further innovation and adjustments in both regulation and technology.

Two of the large specific plans in the City have aggressive goals and mitigation measures to reduce energy, greenhouse gas, and transportation impacts. For instance, Platinum Triangle Expansion Project mitigation measure MM 2-6 requires a demonstration of exceeding the applicable Building and Energy Efficiency Standards by a minimum of 10 percent at the time of the building permit. This could be through a variety of methods such as energy-efficient roofing systems, cool pavement materials, energy efficient appliances, EV charging, and tree shading. Similarly, Disneyland Forward MM ENE-1 states the property owner/developer must demonstrate compliance with energy efficiency standards of each building exceeding Title 24, Part 6, Building

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Energy Efficiency Standards by at least 10 percent. Therefore, individual projects and specific plans, such as the two named, encourage exceeding state and federal regulations and mandates, where feasible.

5.7.9 References

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5.8 HAZARDS AND HAZARDOUS MATERIALS

This section of the Draft Program Environmental Impact Report (Draft PEIR) discusses the potential impacts related to human health and the environment due to exposure to hazardous materials or conditions in the City of Anaheim associated with the implementation of the City of Anaheim's General Plan Focused Update (proposed project).

One comment related to hazards and hazardous materials was received during the scoping period for the proposed project (see Appendix A) from the Airport Land Use Commission for Orange County regarding hazards related to airports; no comments were received during the scoping period for the Center City Corridors Specific Plan (C3SP), which has been incorporated into the proposed project as the Center City Corridors Implementation Plan (C3 Plan) (see Appendix B).

5.8.1 Environmental 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 (household cleaners, industrial solvents, paints, pesticides, etc.) and manufacturing (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:

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. (§§ 2411, 25501)

Federal and State hazardous waste definitions are similar, but different enough that separate classifications are in place for federal Resource Conservation and Recovery Act (RCRA) hazardous wastes and State non-RCRA hazardous wastes.

5.8.1.1 AGENCIES THAT REGULATE HAZARDOUS MATERIALS

The following agencies govern hazardous materials in the City of Anaheim.

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HAZARDS AND HAZARDOUS MATERIALS

Federal Agencies

- **U.S. Environmental Protection Agency (EPA).** The EPA is the primary federal agency that regulates hazardous materials and waste. In general, the EPA develops and enforces 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).** 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.
- **U.S. Department of Transportation (USDOT).** 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.
- **Federal Aviation Agency (FAA).** The FAA issues and enforces regulations covering manufacturing, operating, and maintaining aircrafts. The FAA also certifies airmen and airports (including helicopters) that serve air carriers and conducts research on and develops systems and procedures needed for a safe and efficient system of air navigation and air traffic control.

State Agencies

Responsible State agencies that regulate hazardous materials and waste in accordance with the federal and State laws include:

- **California Environmental Protection Agency (CalEPA).** CalEPA was created in 1991 by the Governor's Executive Order. Six boards, departments, and offices were placed under the CalEPA umbrella to create a cabinet-level voice for the protection of human health and the environment and to ensure the coordinated deployment of state resources. CalEPA oversees hazardous materials and hazardous waste compliance throughout California. Among those responsible for hazardous materials and waste management are the Department of Toxic Substances Control (DTSC), the Department of Pesticide Regulation, and the Office of Environmental Health Hazard Assessment. CalEPA also oversees

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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 (DTSC).** DTSC is the department of CalEPA that carries out the RCRA and the Comprehensive Environmental Response, Compensation, and Liability Act programs in California to protect people from exposure to hazardous substances and 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 RCRA and in accordance with the California Hazardous Waste Control Law (Health and Safety Code Division 20, Chapter 6.5) and the Hazardous Waste Control Regulations (California Code of Regulations, Title 22, 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 Department of Forestry and Fire Protection (CAL FIRE).** CAL FIRE is dedicated to the fire protection and stewardship of over 13 million acres of California's wildlands. The Office of the State Fire Marshal (OSFM) supports CAL FIRE's mission to protect life and property from wildfires through fire prevention engineering programs, law and code enforcements, and education. OSFM provides for fire prevention by enforcing fire-related laws in state -owned or -operated buildings; investigating arson fires; licensing those who inspect and service fire protection systems; approving fireworks for use in California; regulating the use of chemical flame retardants; evaluating building materials against fire safety standards; regulating hazardous liquid pipelines; and tracking incident statistics for local and state government emergency response agencies. The California Fire Plan is the state's road map for reducing the risk of wildfires through planning and preservation to reduce firefighting costs and property losses, increase firefighter safety, and contribute to ecosystem health. The California Fire Plan is a cooperative effort between the State Board of Forestry and Fire Protection and CAL FIRE.
- **California Division of Occupational Safety and Health (Cal/OSHA).** Like OSHA at the federal level, the California Division of Occupational Safety and Health (Cal/OSHA) is the responsible State agency for ensuring workplace safety. Cal/OSHA assumes primary responsibility for the adoption and enforcement of standards regarding workplace safety and safety practices. If a work site is contaminated, a site safety plan must be crafted and implemented to protect the safety of workers. Site safety plans

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establish policies, practices, and procedures to prevent the expose of workers and members of the public to hazardous materials originating from the contaminated site or building.

- **California Office of Emergency Services (Cal OES).** Cal OES was established as part of the Governor's Office on January 1, 2009. It was created pursuant to Assembly Bill 38, which merged the duties, powers, purposes, and responsibilities of the former Governor's Emergency Management Agency with those of the Governor's Office of Homeland Security. Cal OES is responsible for the coordination of overall State agency response to major disasters in support of local government. The agency is responsible for ensuring the State's readiness to respond to and recover from all hazards—natural, man-made, emergencies, and disasters—and for assisting local governments in their emergency preparedness, response, recovery, and hazard mitigation efforts.
- **California Department of Transportation (Caltrans) and California Highway Patrol (CHP).** Caltrans and the CHP are the two State agencies that have primary responsibility for enforcing federal and State regulations and responding to hazardous materials transportation emergencies. Caltrans manages more than 50,000 miles of California's highways and freeways, provides intercity rail services, permits more than 400 public-use airports and special-use hospital heliports, and works with local agencies. Caltrans is also the first responder for hazardous material spills and releases that occur on highways, freeways, and intercity rail lines. The CHP enforces hazardous materials and hazardous waste labeling and packing regulations designed to prevent leakage and spills of materials in transit and to provide detailed information to cleanup crews in the event of an accident. Vehicle and equipment inspection, shipment preparation, container identification, and shipping documentation are all part of the responsibility of the CHP, which conducts regular inspections of licensed transporters to ensure regulatory compliance.

The State of California regulates the transportation of hazardous waste originating or passing through the state. Common carriers are licensed by the CHP, pursuant to Section 32000 of the California Vehicle Code. This section requires licensing every motor (common) carrier that transports, for a fee, in excess of 500 pounds of hazardous materials at one time, and every carrier, if not for hire, that carries more than 1,000 pounds of hazardous material of the type requiring placards. Common carriers conduct a large portion of the business in the delivery of hazardous materials.

- **State Water Resources Control Board (SWRCB).** In California, the SWRCB has broad authority over water quality control issues for the State. The SWRCB is responsible for developing statewide water quality policy and exercises the powers delegated to the State by the federal government under the Clean Water Act. SWRCB's Underground Storage Tank (UST) program protects the public health and safety, and the environment from releases of petroleum and other hazardous substances from USTs. The program elements include:
 - **Leak Prevention.** This program element includes requirements for tank installation, construction, testing, leak detection, spill containment, and overfill protection.

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- **Cleanup.** Cleanup of leaking tanks often involves a soil and groundwater investigation and remediation, under the direction of a regulatory agency.
- **Enforcement.** The SWRCB aid local agencies enforcing UST requirements.
- **Tank Tester Licensing.** Tank integrity testing is required by law, must meet the requirements of the SWRCB, and must be conducted by State licensed tank testers.

Regional Agencies

Responsible regional agencies that regulate hazardous materials and waste in accordance with the federal and State laws include:

Anaheim Hazardous Materials Section

Anaheim Fire and Rescue's Hazardous Materials Section (HMS) administers and implements a comprehensive Hazardous Materials Management Program within the City of Anaheim as a Certified Unified Program Agency (CUPA) authorized by CalEPA since July 1, 2001.

The HMS also administers the countywide Hazardous Materials Response Team joint powers agreement under the Orange County-City Hazardous Materials Emergency Response Authority and implements the Small Hydrocarbon Acquisition and Recovery Program.

Orange County-City Hazardous Materials Emergency Response Authority

The Authority, formed under the Joint Exercise of Powers Act, is considered a public entity separate and apart from the participating agencies. It is governed by a Board of Directors, supported by an Advisory Committee, and administered by HMS staff.

5.8.1.2 REGULATORY BACKGROUND

Federal

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

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site cleanup decisions, and increased the size of 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.

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 enacted by Congress that regulates the generation, management, and transportation of 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 of issuing permits and for monitoring and enforcing compliance. EPA programs promote handling hazardous wastes safely, cleaning up contaminated land, and reducing trash. Hazardous waste management includes the treatment, storage, or disposal of hazardous waste. The RCRA gave the EPA the authority to control hazardous waste from “cradle to grave,” that is, from generation to transportation, treatment, storage, and disposal. The RCRA also set forth a framework for the management of nonhazardous wastes. The 1986 amendments to RCRA enabled the EPA to address environmental problems that could result from underground tanks storing petroleum and other hazardous substances. It should be noted that RCRA focuses only on active future facilities and does not address abandoned or historical sites.

Emergency Planning and Community Right-to-Know Act

In 1986, Congress passed the Superfund Amendments and Reauthorization Act. Title III of this regulation was the “Emergency Planning and community Right-to-Know Act of 1986” (EPCRA). EPCRA 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 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 313 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 and was expanded by the Pollution Prevention Act of 1990.

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Under the EPCRA requirements, local emergency planning committees are responsible for developing a plan for preparing for and responding to a chemical emergency, including:

- An identification of local facilities and transportation routes where hazardous materials are present.
- The procedures for immediate response in case of an accident (this must include a community-wide evacuation plan).
- A plan for notifying the community that an incident has occurred.
- The names of response coordinators at local facilities.
- A plan for conducting drills to test the plan.

The emergency plan is reviewed by the State Emergency Response Commission and publicized throughout the community. The local emergency planning committee is required to review, test, and update the plan each year. On July 1, 2001, the City of Anaheim was designated by the State of California as a CUPA and Anaheim Fire & Rescue HMS became the administrator of the CUPA programs for Anaheim businesses. The City of Anaheim and the HMS are responsible for coordinating hazardous material and disaster preparedness planning and appropriate response efforts with city departments and local and state agencies. The goal is to improve public- and private-sector readiness and to mitigate local impacts resulting from natural or man-made emergencies.

Disaster Mitigation Act of 2000

The Disaster Mitigation Act of 2000 requires state and local governments to prepare mitigation plans that identify hazards, potential losses, mitigation needs, goals, and strategies. It is intended to facilitate cooperation between State and local governments.

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 by 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 that industry develops each year with either unknown or dangerous characteristics. 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 the Toxics Release Inventory under EPCRA.

Hazardous Materials Transportation Act

The USDOT regulates hazardous materials transportation under the Code of Federal Regulations (CFR) Title 49. State agencies that have primary responsibility for enforcing federal and state regulations and responding to hazardous materials transportation emergencies are the CHP and Caltrans. These agencies also

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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 resources to augment efforts of state and local government 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.

Business Plan Act

Both the federal government and the State of California require all businesses that handle more than a specified amount of hazardous waste materials or extremely hazardous materials—termed a reporting quantity—to submit a hazardous materials business plan to the local CUPA.

Such a plan must be submitted by businesses that handle hazardous materials or a mixture containing a hazardous material in quantities equal to or greater than:

- 500 pounds of a solid
- 55 gallons of a liquid
- 200 cubic feet of a compressed gas standard temperature and pressure
- The federal Threshold Planning Quantity for Extremely Hazardous Substances
- Radioactive materials in quantities for which an emergency plan is required per Parts 30, 40, or 70 of the CFR, Title 10, Chapter 1

The business plan must include the type and quantity of hazardous materials, a site map, risks of using these materials, spill prevention, emergency response, employee training, and emergency contacts.

Federal Aviation Agency Advisory Circular 150/5390-2C

FAA Advisory Circular 150/5390-2C provides recommendations for heliport design, including heliports serving helicopters with single and tandem (front and rear) rotors.

Asbestos-Containing Materials Regulations

State agencies, in conjunction with the EPA and OSHA, regulate removal, abatement, and transport procedures for asbestos-containing materials. Releases of asbestos from industrial, demolition, or

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construction activities are prohibited by these regulations; medical evaluation and monitoring are required for employees performing activities that could expose them to asbestos. The regulations include warnings and practices that must be followed to reduce the risk for 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. Requirements for limiting asbestos emissions from building demolition and renovation activities are specified in the South Coast Air Quality Management District's Rule 1403 (Asbestos Emissions from Demolition/Renovation Activities). California Government Code Sections 1529 and 1532.1 provide for exposure limits, exposure monitoring, respiratory protection and good working practice by workers exposed to lead and asbestos-containing materials.

State

California Health and Safety Code and Code of Regulations

The Hazardous Substances Account Act (California Health and Safety Code Sections 25300 et seq.) authorizes the State to clean up hazardous materials release sites—including abandoned sites—not qualifying for cleanup under CERCLA; provides funds to pay for the state's share of costs of CERCLA cleanups; and provides compensation to persons injured by hazardous materials releases.

California Health and Safety Code Chapter 6.95 and California Code of Regulations (CCR), Title 19, 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 onsite. A business that uses hazardous materials, or mixtures containing them, in certain quantities must establish and implement a business plan.

CCR Title 8 Section 5191, Occupational Exposure to Hazardous Chemicals in Laboratories, requires that all laboratories have a written chemical hygiene plan as a fundamental chemical safety plan for the laboratory. The chemical hygiene plans are written programs of procedures, equipment, personal protective equipment, and work practices that are capable of protecting employees from the health hazards presented by hazardous chemicals used in laboratories.

Tanner Act (Assembly Bill 2948)

Although numerous state policies deal 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 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.

California Building Code

The State of California provided a minimum standard for building design through the California Building Code (CBC), which is in 24 CCR Part 2. The CBC is based on the International Building Code, modified for

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California conditions. It is generally adopted on a jurisdiction-by-jurisdiction basis, subject to further modification based on local conditions. Buildings are plan checked by city and county building officials for compliance with the CBC.

State Hazardous Waste Management Programs

Underground Storage Tank Program

Releases of petroleum and other products from USTs are the leading source of groundwater contamination in the United States. The RCRA Subtitle I establishes regulations governing the storage of petroleum products and hazardous substances in USTs and the prevention and cleanup of leaks. In EPA Region 9 (California, Arizona, Hawaii, Nevada, Pacific Islands, and over 140 tribal nations) the UST program operates primarily through state agency programs with EPA oversight. In California, the SWRCB, under the umbrella of CalEPA, provides assistance to local agencies enforcing UST requirements. The purpose of the UST program is to protect public health and safety and the environment from releases of petroleum and other hazardous substances. The program consists of four elements: leak prevention, cleanup, enforcement, and tank tester licensing. In September 2004, the SWRCB adopted regulations that require electronic submittal of information for groundwater cleanup programs, including groundwater analytical data, the surveyed locations of monitoring wells, and other data. The SWRCB's GeoTracker system currently has information submitted by responsible parties for over 10,000 leaking UST (LUST) sites statewide and has been extended to include all SWRCB groundwater cleanup programs, including the LUST, non-LUST (Spill, Leaks, Investigation, and Cleanup), Department of Defense, and landfill programs.

California Code of Regulations, Title 22, Division 4.5

CCR Title 22, Division 4.5, sets forth the requirements for hazardous-waste generators; transporters; and owners or operators of treatment, storage, or disposal facilities. These regulations include the requirements for packaging, storage, labeling, reporting, and general management of hazardous waste prior to shipment. In addition, the regulations identify standards applicable to transporters of hazardous waste. These regulations specify the requirements for transporting shipments of hazardous waste, including manifesting, vehicle registration, and emergency accidental discharges during transportation.

Hazardous Materials Disclosure Programs

Both the federal and State governments require all businesses that handle more than a specified amount of hazardous materials or extremely hazardous materials, termed a reporting quantity, to submit a hazardous materials emergency/contingency plan (also known as a hazardous materials business plan) to their local CUPA (CFR, EPA, SARA, and Title III) (Health and Safety Code, Division 20, Chapter 6.95, §§ 2500–25520; 19 CCR, Chapter 2, Subchapter 3, Article 4, §§ 2729–2734). The HMS administers and implements a comprehensive Hazardous Materials Management Program in Anaheim as a CUPA authorized by CalEPA since July 1, 2001 (Anaheim 2024a).

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Hazardous Materials Business Plans

The hazardous materials business plan includes the business owner/operator identification page, hazardous materials inventory chemical description page, and an emergency response plan and training plan. Business plans must include an inventory of the hazardous materials at the facility. The entire hazardous materials business plan needs to be reviewed and recertified every three years. Business plans are required to include emergency response plans and procedures to be used in the event of a significant or threatened significant release of a hazardous material. These plans need to identify the procedures to follow for immediate notification to all appropriate agencies and personnel of a release, identification of local emergency medical assistance appropriate for potential accident scenarios, contact information for all emergency coordinators of the business, a listing and location of emergency equipment at the business, an evacuation plan, and a training program for business personnel. All facilities must keep a copy of their plan onsite.

Hazardous materials business plans are designed to be used for responding agencies, such as the Anaheim HMS during a release or spill to allow for a quick and accurate evaluation of each situation for appropriate response. Businesses that handle hazardous materials are required by law to provide an immediate verbal report of any release or threatened release of hazardous materials if there is a reasonable belief that the release or threatened release of hazardous materials poses a significant present or potential hazard to human health and safety, property, or the environment. If a release involves a hazardous substance listed in Title 40 of the CFR in an amount equal to or exceeding the reportable quantity for that material, a notice must be filed with Cal OES within 15 days of the incident. Both the federal government (Code of Federal Regulations) and the State of California (California Health and Safety Code) require all businesses that handle more than a specified amount—or “reporting quantity”—of hazardous or extremely hazardous materials to submit a hazardous materials business plan to the Anaheim HMS. According to City guidelines, all hazardous waste operations in the City are subject to Title 6, Chapter 6.11 of the Municipal Code.

Business plans must include an inventory of the hazardous materials at the facility. Businesses must update their business plan and the chemical portion annually. Also, business plans must include emergency response plans and procedures to be used in the event of a significant or threatened significant release of a hazardous material. These plans need to identify the procedures for immediate notification of all appropriate agencies and personnel, identification of local emergency medical assistance appropriate for potential accident scenarios, contact information for all company emergency coordinators, a listing and location of emergency equipment at the business, an evacuation plan, and a training program for business personnel.

Hazardous Materials Incident Response

Under Title III of SARA, the Local Emergency Planning Committee (LEPC) is responsible for developing an emergency plan for preparing for and responding to chemical emergencies in that community. The State Emergency Response Commission (SERC) established six emergency planning districts. The SERC appointed a LEPC for each planning district and supervises and coordinates their activities.

The emergency plan developed by the LEPCs must include:

- An identification of local facilities and transportation routes where hazardous materials are present.

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- The procedures for immediate response in case of an accident (this must include a community-wide evacuation plan).
- A plan for notifying the community that an incident has occurred.
- The names of response coordinators at local facilities.
- A plan for conducting exercises to test the plan.

The plan is reviewed by the SERC and publicized throughout the community. The LEPC is required to review, test, and update the plan each year.

Hazardous Materials Spill/Release Notification Guidance

All significant spills, releases, or threatened releases of hazardous materials must be immediately reported. Federal and state emergency notifications are required for all significant releases of hazardous materials. Requirements for immediate notification of all significant spills or threatened releases cover owners, operators, persons in charge, and employers. Notification is required regarding significant releases from facilities, vehicles, vessels, pipelines, and railroads. The following state statutes require emergency notification of a hazardous chemical release:

- Health and Safety Codes, Sections 25270.7, 25270.8, and 25507
- Vehicle Code, Section 23112.5
- Public Utilities Code, Section 7673 (PUC General Orders #22-b, 161)
- Government Code, Sections 51018, 8670.25.5(a)
- Water Code, Sections 13271, 13272
- California Labor Code, Section 6409.1(b)10

In addition, all releases that result in injuries or workers harmfully exposed must be immediately reported to Cal/OSHA (California Labor Code, Section 6409.1[b]). Additional reporting requirements are in the Safe Drinking Water and Toxic Enforcement Act of 1986, better known as Proposition 65, and Section 9030 of California Labor Code.

Requirements for immediate notification of all significant spills or threatened releases cover owners, operators, persons in charge, and employers. Notification is required regarding significant releases from facilities, vehicles vessels, pipelines, and railroads. In addition, all releases that result in injuries or harmful exposure to workers must be immediately reported to the California Occupational Safety and Health Administration pursuant to the California Labor Code Section 6409.1(b).

California Accidental Release Prevention Program

The CalARP became effective on January 1, 1997, in response to Senate Bill 1889. CalARP replaced the California Risk Management and Prevention Program. Under CalARP, Cal OES must adopt implementing regulations and seek delegation of the program from the EPA. CalARP aims to be proactive and therefore requires businesses to prepare risk management plans, which are detailed engineering analyses of the potential

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accident factors present at a business and the migration measures that can be implemented to reduce this accident potential. In most cases, local governments will have the lead role for working directly with businesses in this program. The City of Anaheim HMS is the designated CUPA and the administrator of the CUPA programs for Anaheim businesses.

California Fire Code

The California Fire Code (24 CCR Part 9) sets forth requirements including those for building materials and methods pertaining to fire safety and life safety, fire protection systems in buildings, emergency access to buildings, and handling and storage of hazardous materials. The City adopts the update to the fire code every three years.

California Building Code

The CBC requires the installation and maintenance of smoke alarms in residential dwelling units:

- **CCR Title 24, Part 2, Section 907.2.11.2.** Smoke alarms shall be installed and maintained on the ceiling or wall outside of each separate sleeping area in the immediate vicinity of bedrooms. In each room used for sleeping purposes, and in each story within a dwelling unit. The smoke alarms shall be interconnected.

Government Code Section 65302

Government Code Section 65302 requires the Safety Element of a General Plan to address evacuation routes. The CAL FIRE Safety Element checklist also requires cities to address evacuation routes. In addition, Senate Bill 99 (2018) requires a Safety Element, upon the next revision of the housing element on or after January 1, 2020, to include information identifying residential developments in hazard areas that do not have at least two emergency evacuation routes.

Public Resources Code Section 4291

Public Resources Code Section 4291, Mountainous, Forest-, Brush- and Grass-Covered Lands, is intended for any person who owns, lease, controls, operates, or maintains a building or structure in a mountainous area, forest-covered lands, shrub-covered lands, grass-covered lands, or land that is covered with flammable material, regardless of whether the property is in an SRA or VHFHSZ. This section requires defensible space to be maintained within 100 feet from each side of a structure. An ember-resistant zone is also required within 5 feet of a structure and more intense fuel reduction between 5 and 30 feet of a structure.

State Responsibility Area and Very High Fire Hazard Severity Zone Fire Safe Regulations

California Code of Regulations Title 14, Division 1.5, Chapter 7, Subchapter 2, SRA/VHFHSZ Fire Safe Regulations, establishes minimum wildfire protection standards for construction and development in the State Responsibility Area (SRA) and Very High Fire Hazard Severity Zone (VHFHSZ) and requires CAL FIRE to review development proposals and enact recommendations that serve as conditions of approval in these zones. These standards include basic emergency access and perimeter wildfire protection measures; signing

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and building numbering; private water supply resources for emergency fire use; and vegetation modification. These regulations apply to all residential, commercial, and industrial buildings in the SRA and VHFHSZ, the siting of new mobile homes, all tentative and parcel maps, and applications for building permits approved before 1991 where these standards were not proposed. Fire Safe Regulations also include a minimum setback of 30 feet for all buildings from property lines and/or the center of a road. Section 1273.08, Dead-End Roads, of these standards provides regulations for the maximum lengths of single access roadways requiring the following:

- Parcels zoned for less than one acre: 800 feet
- Parcels zoned for 1 acre to 4.99 acres: 1,320 feet
- Parcels zoned for 5 acres to 19.99 acres: 2,640 feet
- Parcels zoned for 20 acres or larger: 5,280 feet

Fire Safe Regulations, Section 1299.03, Fire Hazard Reduction Around Buildings and Structure Requirements, provides defensible space requirements for areas within 30 feet of a structure (Zone 1) and between 30 and 100 feet from a structure (Zone 2). In Zone 1, all dead and dying plants must be removed, as must any flammable vegetation that could catch fire. In Zone 2, horizontal and vertical spacing among shrubs and trees must be created and maintained.

2018 Strategic Fire Plan for California

CAL FIRE produced the 2018 Strategic Fire Plan for California, with goals, objectives, and policies to prepare for and mitigate the effects of fire on California's natural and built environments (BFFP 2018). The 2018 Strategic Plan focuses on fire prevention and suppression activities to protect lives, property, and ecosystems in addition to providing natural resource management to maintain state forests as a resilient carbon sink to meet California's climate change goals. A key component of the 2018 Strategic Plan is the collaboration between communities to ensure fire suppression and natural resource management is successful (BFFP 2018).

2021 California's Wildfire and Forest Resilience Action Plan

The Governor's Forest Management Task Force developed California's Wildfire and Forest Resilience Action Plan, which is a framework for establishing healthy and resilient forests that can withstand and adapt to wildfire, drought, and climate change. This plan accelerates efforts to restore the health and resilience of California's forests, grasslands, and natural places; improves the fire safety of communities; and sustains the economic vitality of rural forested areas. CAL FIRE, in partnership with the US Forest Service, intends to scale up forest thinning and prescribed fire; integrate climate adaptation into the Statewide network of regional forest and community fire resilience plans; improve the electricity grid resilience, and promote sustainable land use.

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Regional Regulations

South Coast Air Quality Management District (South Coast AQMD)

South Coast AQMD Rule 1403 governs the demolition of buildings containing asbestos materials. Rule 1403 specifies work practices with the goal of minimizing asbestos emissions during building demolition and renovation activities, including the removal and associated disturbance of asbestos-containing material (ACM). The requirements for demolition and renovation activities include asbestos surveying, notification, ACM removal procedures and time schedules, ACM handling and cleanup procedures, and storage and disposal requirements for asbestos-containing waste materials.

Local Regulations

Anaheim General Plan

The General Plan identifies potential hazards and hazardous materials impacts and methods to minimize the impacts from hazards and hazardous materials. The following General Plan policies are applicable to hazards and hazardous materials:

Economic Development Element

Goal 4.1: Continue to provide high quality and reliable public safety and community services and facilities.

- **Policy 4.1-1.** Continue to proactively plan, publicize and implement a high-quality and responsive program of public safety and community services.
- **Policy 4.1-2.** Evaluate resident needs and satisfaction with public safety and community services on a periodic basis.

Noise Element

Goal 2.1: Encourage the reduction of noise from transportation-related noise sources such as motor vehicles, aircraft operations, and railroad movements.

- **Policy 2.1-9.** Require private heliports/helistops to comply with the City noise ordinances and Federal Aviation Administration standards.
- **Policy 2.1-10.** Participate in the planning activities of County, regional and State agencies relative to the location of new airports and the assessment of their impact on the environment of the City.
- **Policy 2.1-13.** Continue efforts to minimize the impacts from police helicopter training and emergency response activities through the potential relocation of helicopter facilities and careful consideration of flight paths.

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Public Services Element

Goal 1.1: Provide sufficient staffing, equipment and facilities to ensure effective fire protection, emergency medical and rescue services, permitting and fire inspection, and hazardous material response services that keep pace with growth.

- **Policy 1.1-1.** Maintain adequate resources to enable the Fire Department to meet response time standards, keep pace with growth, and provide high levels of service.
- **Policy 1.1-2.** Maintain adequate fire training facilities, equipment, and programs for firefighting and inspection personnel and educational programs for the general public, including fire safety and prevention and emergency medical-related information.
- **Policy 1.1-3.** Maintain and/or upgrade water facilities to ensure adequate response to fire hazards.

Goal 7.1: Minimize, recycle and dispose of solid and hazardous waste in an efficient and environmentally sound manner.

- **Policy 7.1-1.** Ensure that solid waste generated within the City is collected and transported in a cost-effective manner that protects the public health and safety.
- **Policy 7.1-2.** Reduce the volume of material sent to solid waste sites in accordance with State law by continuing source reduction and recycling programs and by ensuring the participation of all residents and businesses.

Goal 11.1: Coordinate with public and private educational entities to provide a variety of high-quality education and training opportunities to meet the needs of a diverse community and economy.

- **Policy 11.1-1.** Continue to assist school districts in their long-range planning for school facilities.
- **Policy 11.1-2.** Encourage the provision of additional workforce training and development resources.

Green Element

Goal 6.1: Develop a Groundwater Protection Management Program to ensure the quality of groundwater drinking supplies.

- **Policy 6.1-1.** Develop and disseminate educational materials that describe the importance of protecting groundwater and management techniques for the proper storage and disposal of materials and waste.
- **Policy 6.1-2.** Include groundwater protection educational outreach efforts with Anaheim Fire Department hazardous materials and waste inspections.
- **Policy 6.1-3.** Continue to coordinate groundwater protection efforts with the Orange County Water District, neighboring cities and other relevant agencies.

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Goal 7.1: Reduce urban run-off from new and existing development.

- **Policy 7.1-2.** Continue to implement an urban runoff reduction program consistent with regional and federal requirements, which includes requiring and encouraging the following:
 - Increase permeable areas and install filtration controls (including grass lined swales and gravel beds) and divert flow to these permeable areas to allow more percolation of runoff into the ground;
 - Use natural drainage, detention ponds or infiltration pits to collect runoff; and,
 - Prevent rainfall from entering material and waste storage areas and pollution-laden surfaces.
- **Policy 7.1-6.** Provide public education information and outreach materials regarding proper materials handling practices to assist residents and businesses in complying with surface water quality regulations and to increase awareness of potential impacts to the environment resulting from improper containment or disposal practices.

Goal 16.1: Continue to monitor and improve the Anaheim Recycle program.

- **Policy 16.1-1.** Continue educational outreach programs for Anaheim's households, businesses, and schools on the need for recycling solid waste.
- **Policy 16.1-2.** Provide adequate solid waste collection and recycling for commercial areas and construction activities.

Land Use Element

Goal 11.1 Preserve and enhance the character of East Anaheim neighborhoods and revitalize aging multiple-family residential neighborhoods and commercial areas.

- **Policy 11.1-6.** Convert oil well sites along Jackson Avenue into infill housing sites.

Safety Element

Goal 2.1: A community protected and prepared for urban and wildland fire.

- **Policy 2.1-1.** Protect the lives and properties of residents, businesses owners, and visitors from urban and wildland fire hazards.
- **Policy 2.1-2.** Effectively enforce City and State regulations within the VHFHSZ and incorporate new techniques and best practices as they become available to reduce future risks to existing and new developments.
- **Policy 2.1-3.** Develop a post-wildfire recovery framework that assists City staff, residents, and business owners in planning and recovery efforts.
- **Policy 2.1-4.** Minimize urban and wildland fire exposure for residents, business owners, and visitors by incorporating Fire Safe Design into existing and new developments.

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- **Policy 2.1-5.** Continually assess the need for additional greenbelts, fuel breaks, fuel reduction and buffer zones around existing communities and roadways. This assessment should include long term maintenance of existing efforts and funding sources to sustain these projects.
- **Policy 2.1-7.** Expand vegetation management activities in areas adjacent to wildland fire prone areas.
- **Policy 2.1-8.** Refine procedures and processes to minimize the risk of fire hazards in the Special Protection Area including requiring new development to:
 - Utilize fire-resistant building materials;
 - Incorporate fire sprinklers as appropriate;
 - Incorporate defensible space requirements;
 - Comply with Anaheim Fire Department Fuel Modification Guidelines;
 - Provide Fire Protection Plans; and,
 - Implement a Vegetation Management Plan, which results in proper vegetation modification on an ongoing basis within the Special Protection Area.
 - Develop fuel modification in naturalized canyons and hills to protect life and property from wildland fires, yet leave as much of the surrounding natural vegetation as appropriate.
 - Require development to use plant materials that are compatible in color and character with surrounding natural vegetation.
 - Provide wet or irrigated zones when required.
- **Policy 2.1-10.** Site new essential public facilities outside of the VHFHSZ, where feasible.
- **Policy 2.1-11.** Evaluate feasibility of relocating essential public facilities located within the VHFHSZ to areas outside of this hazard zone. If relocation isn't possible, prioritize retrofitting and hardening of structures.
- **Policy 2.1-13.** All development projects within the VHFHSZ must prepare a Fire Protection Plan (FPP) to reduce or eliminate fire threats.

Goal 4.1: A community better protected from the release and exposure to hazard materials and wastes.

- **Policy 4.1-1.** Follow Anaheim Hazardous Materials Area Plan procedures in the event of a hazardous materials emergency.
- **Policy 4.1-2.** Promote the proper handling, treatment and disposal of hazardous materials and hazardous waste.
- **Policy 4.1-3.** Encourage businesses to utilize practices and technologies that will reduce the generation of hazardous wastes at the source.

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- **Policy 4.1-4.** Implement Federal, State, and local regulations for the disposal, handling, and storage of hazardous materials.
- **Policy 4.1-5.** Promote the recovery and recycling of hazardous materials.
- **Policy 4.1-6.** Employ effective emergency preparedness and emergency response strategies to minimize impacts from hazardous materials exposures and releases.
- **Policy 4.1-7.** Partner with Orange County to provide needed hazardous waste programs to provide disposal of household hazardous waste at no cost to residents and participating agencies.

Goal 5.1: Ensure that Anaheim is ready to address the impacts associated with climate change.

- **Policy 5.1-3.** Require new development within a designated floodplain or fire hazard severity zone to submit fire and/or flood safety plan for approval by the Fire Department and Floodplain Administrator.
- **Policy 5.1-4.** Continue to ensure emergency alert/ notification capabilities meet the City's future needs by providing alerts about potential, developing, and ongoing emergency situations.

Goal 6.1: A city that prioritizes emergency preparedness and public awareness of community risks.

- **Policy 6.1-1.** Ensure the availability of both the Safety Element and Emergency Operations Plan to employers and residents of Anaheim.
- **Policy 6.1-2.** Coordinate disaster preparedness and recovery with neighboring jurisdictions and other governmental agencies, such as Orange County, Water Districts, and Utility Providers.
- **Policy 6.1-3.** Assess emergency and evacuation capabilities for potential disruptions from existing and future hazards affecting the community.
- **Policy 6.1-4.** Ensure mapping of the City's emergency facilities, evacuation routes and hazardous areas are periodically updated to reflect additions or modifications.
- **Policy 6.1-5.** Ensure access routes to and from hazard areas relative to the degree of development or use (e.g., road width, road type, length of dead-end roads, etc.) are adequately designed and sized to accommodate anticipated needs.
- **Policy 6.1-6.** Ensure disruption of evacuation routes from landslide movement, fault ruptures, and failures caused by earthquakes are minimized to the greatest extent feasible.
- **Policy 6.1-7.** Appropriately locate and coordinate emergency services including fire, police, and ambulance services to provide responsive services across the entire community.
- **Policy 6.1-8.** Conduct hazards-oriented public outreach to prepare the community for the following hazards:

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- Seismic and Geologic Hazards
 - Wildfire Hazards
 - Flooding and Dam Inundation
 - Hazardous Materials Release
 - Climate Change
 - Evacuation
- **Policy 6.1-9.** Conduct training and exercises with City staff to better prepare them for future hazards and incidents.
 - **Policy 6.1-10.** Train multi-lingual personnel to assist in emergency preparedness and response activities to meet the community's need.
 - **Policy 6.1-11.** Incorporate the latest information and best practices from the Department of Homeland Security to prepare the City to respond to terrorist attacks.
 - **Policy 6.1-12.** Periodically update the Emergency Operations Plan to ensure consistency with the Safety Element and Local Hazard Mitigation Plan.
 - **Policy 6.1-13.** Periodically conduct and evaluate Emergency Operations Center (EOC) exercises.

Goal 7.1: A city that can effectively respond to and evacuate during hazard events.

- **Policy 7.1-1.** Coordinate with neighboring jurisdictions and Caltrans regarding transportation network constraints and improvements.
- **Policy 7.1-2.** Coordinate with neighboring jurisdictions and County agencies to prioritize roadway and storm drain infrastructure retrofitting and enhancement projects along primary evacuation routes.
- **Policy 7.1-3.** Ensure all new development and redevelopment projects provide adequate ingress/egress for emergency access and evacuation.
- **Policy 7.1-4.** Identify and construct additional evacuation routes in areas of high hazard concern or limited circulation, where feasible.
- **Policy 7.1-5.** Ensure the City's transportation network allows for effective emergency response and evacuation activities.
- **Policy 7.1-6.** Develop evacuation standards and metrics for constrained neighborhoods and alternative evacuation plans, where necessary.
- **Policy 7.1-7.** Monitor changes to hazard conditions and vulnerabilities to ensure the accessibility or viability of evacuation routes in the future.

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- **Policy 7.1-8.** Expand the “Know Your Way” program to identify and enhance evacuation resources that includes areas of the City with limited ingress/egress, limited circulation capacity, and/or critical infrastructure that could impact evacuation efforts.
- **Policy 7.1-9.** Enhance the City’s existing education and outreach program, “Know Your Way,” with potential evacuation scenarios and the activities that residents and businesses can do to protect their properties and prepare for potential events.

Anaheim Fire & Rescue Strategic Plan

Anaheim Fire & Rescue (AF&R) conducts strategic planning on a regular basis to ensure fire response capabilities and personnel can adequately address current service needs throughout the City and identifies potential issues to be addressed by the department. The most recent update of the strategic plan was completed in 2015 for the years 2015 to 2020 (AF&R 2022b).

AF&R’s 2015–2020 Strategic Plan includes strategic initiatives, goals, and objectives along with the recommendations’ associated cost, which would subsequently be incorporated into the annual budget request and department work plan.

Anaheim Emergency Operations Plan

The Anaheim Emergency Operations Plan, adopted in 2017, provides planned response actions for emergency events throughout the City. The plan establishes the emergency management organization required to respond to significant emergencies and disasters, identifies the roles and responsibilities required to protect Anaheim community members, and establishes the operational concepts for different emergencies, the Emergency Operations Center, and recovery processes. The plan also provides direction for specific emergency processes such as responding to wildfire, evacuation, pandemics, and aviation accidents.

Anaheim Local Hazard Mitigation Plan

The purpose of hazard mitigation planning is to reduce the loss of life and property by minimizing the impact of disasters. The Anaheim Local Hazard Mitigation Plan (LHMP), adopted in 2022 in accordance with the Federal Disaster Mitigation Act of 2000 (DMA 2000), provides an assessment of natural hazards in the City and a set of short-term mitigation actions to reduce or eliminate the long-term risk to people and property from these hazards. Of the 8 hazards evaluated, human-caused hazards (hazmat releases, terrorism, civil unrest, cyber security) were rated as the lowest risk with a scoring of 2.45. The LHMP has goals and mitigation programs to address each of the eight hazards. Mitigation actions related to hazards, hazardous materials releases, and evacuation include the following (Anaheim 2022):

General

- **MH-1:** Integrate the goals and action items from the City of Anaheim Hazard Mitigation Plan into existing regulatory documents and programs, where appropriate.
- **MH-2:** Identify and pursue funding opportunities to develop and implement mitigation activities.

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- **MH-5:** Continue the City of Anaheim Hazard Mitigation Task Force in maintaining a sustainable process for implementing, monitoring, and evaluating citywide mitigation issues.
- **MH-7:** Prioritize enhancements to bridges and flood control facilities, especially along evacuation routes within the city limits.

Industrial Accidents/ Hazardous Materials Release

- **IND-1:** Establish and maintain railroad buffer zones that limit new residential uses along these corridors.
- **IND-2:** Above Ground Fuel Storage Tanks Removal of existing underground fuel storage tanks and installing new aboveground tanks due to EPA requirements in place of constant repair and monitoring.

The LHMP must be reviewed and approved by FEMA every five years to maintain eligibility for disaster relief funding. As part of this process, Cal OES reviews all local hazard mitigation plans in accordance with DMA 2000 regulations and coordinates with local jurisdictions to ensure compliance with FEMA's Local Mitigation Plan Review Guide. The Safety Element of the General Plan also adopts the LHMP in its entirety by reference.

Standard Conditions of Approval

The City will be adopting Master Conditions of Approval that are applied to all development projects through the plan-check review process. As a matter of practice, the City has been implementing the following conditions that relate to hazards and hazardous materials, compliance with which would reduce negative impacts due to hazards. Compliance with standard conditions would be required for all new development and redevelopment in the City.

- **SC HAZ-1:** Prior to the final building and zoning inspections for any residential project within 1,000 feet of a use that has the potential to release substantial amounts of airborne hazardous materials (determined to be "Category 1, 2, or 3" hazardous materials), the project property owner/developer shall submit a shelter-in place program to the Planning and Building Director for review and approval. The shelter-in-place program shall require the property owner/developer to purchase a subscription to a service that provides "automated emergency notification" to individual residents (subject to meeting minimum standards set by the City) of the project. The shelter-in-place program shall include the following:
 - The property owner/developer shall be required to purchase a minimum 10-year subscription to such a service that would include periodic testing (at least annually).
 - The CC&Rs for each individual project shall require that each property owner and/or project Homeowners Association (HOA):
 - Maintain a subscription following expiration of the initial purchased subscription.
 - Maintain in a timely manner the database of resident phone numbers in conjunction with the service.

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- Provide appropriate agencies (police, fire, other emergency response as identified by the City) with information on how to activate the notification via the service provider.
- The CC&Rs for each individual project shall require that each resident provide the property owner/HOA with a current phone number for the residence and/or individual residents prior to the final building and zoning inspections; this would include timely notification following the sale of a unit and would require notification if the unit were rented or leased or subject to any other change in occupancy.
- **SC HAZ-2:** Prior to issuance of a building permit, new development project property owners/developers shall use the most current available Airport Environs Land Use Plan (AELUP) as a planning resource for evaluating heliport and airport operations as well as land use compatibility and land use intensity in the proximity of Los Alamitos Joint Training Base and Fullerton Municipal Airport.
- **SC HAZ-3:** Applicants seeking approval for the construction of new development, or the operation of a heliport or helistop shall comply with the State permit procedure provided for by law as well as conditions of approval imposed or recommended by the Federal Aviation Administration (FAA), by the Airport Land Use Commission, and by Caltrans Division of Aeronautics.
- **SC HAZ-4:** The owner/developer shall ensure all new development projects comply with the State of California Department of Transportation, Division of Aeronautics, California Airport Land Use Planning Handbook and shall demonstrate compliance to the City prior to issuance of building permits.

5.8.1.3 EXISTING CONDITIONS

Hazardous Materials

Hazardous materials include, but are not limited to, hazardous substances, hazardous wastes, and any material that a business or implementing agency has a reasonable basis for believing would be injurious to public health and safety or harmful to the environment if released into the workplace or the environment. Hazardous wastes are hazardous substances that no longer have practical use, such as materials that have been discarded, discharged, spilled, or contaminated or are being stored until they can be disposed of properly (22 CCR Chapter 11, Article 2, Section 66261.10). Soil that is excavated from a site containing hazardous materials is a hazardous waste if it exceeds specific CCR Title 22 criteria.

Past industrial or commercial activities on a site could have resulted in spills or leaks of hazardous materials to the ground, resulting in soil and/or groundwater contamination. Hazardous materials may also be present in building materials of older structures and released during building demolition activities. If improperly handled, hazardous materials and wastes can cause public health hazards when released to the soil, groundwater, or air. The four basic exposure pathways through which an individual can be exposed to a chemical agent include inhalation, ingestion, bodily contact, and injection. Exposure can come as a result of an accidental release during transportation, storage, or handling of hazardous materials. Disturbance of subsurface soil during construction can also lead to exposure of workers or the public from stockpiling, handling, or transportation of soils contaminated by hazardous materials or waste from previous spills or leaks.

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Hazardous Waste Generators

The EPA regulates generators of hazardous waste based on the amount of waste generated. Large-quantity generators produce 1,000 kilograms or more per month, or more than one kilogram per month of acutely hazardous waste. Small-quantity generators produce between 100 and 1,000 kilograms of hazardous waste per month.

Hazardous Materials Sites

California Government Code Section 65962.5 directs CalEPA to compile, maintain, and update specified lists of hazardous material release sites. CEQA (California Public Resources Code Section 21092.6) requires the lead agency to consult the lists compiled pursuant to Government Code Section 65962.5 to determine whether the project and any alternatives are identified on any of the following lists:

- **EPA NPL.** The EPA's NPL includes all sites under the EPA's Superfund program, which was established to fund cleanup of contaminated sites that pose risks to human health and the environment.
- **EPA Comprehensive Environmental Response, Compensation, and Liability Information System (CERCLIS) and Archived Sites.** The EPA's CERCLIS includes a list of 15,000 sites nationally identified as hazardous sites. This would also involve a review for archived sites that have been removed from CERCLIS due to No Further Remedial Action Planned status.
- **EPA RCRIS (RCRA Info).** The Resource Conservation and Recovery Act Information System (RCRIS or RCRA Info) is a national inventory system about 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 Hazardous Waste and Substances Sites (Cortese) list as a planning document for use by the State and local agencies to comply with CEQA requirements by providing information about the location of hazardous materials release sites. This list includes the Site Mitigation and Brownfields Reuse Program Database.
- **DTSC HazNet.** DTSC uses this database to track hazardous waste shipments.
- **SWRCB LUSTIS.** Through the Leaking Underground Storage Tank Information System (LUSTIS), SWRCB maintains an inventory of USTs and LUSTs, which tracks unauthorized releases.

The required lists of hazardous material release sites summarized above are commonly and collectively referred to as the "Cortese List," named 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 required in the Cortese List does not exist. Those requesting a copy of the Cortese Lists 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

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databases include hazardous material release sites, along with other categories of sites or facilities specific to each agency's jurisdiction.

A search of the online EnviroStor and GeoTracker databases on October 24, 2024, identified 53 known hazardous materials sites within the City of Anaheim, as shown in Appendix K, *Hazardous Sites in the City of Anaheim* (SWRCB 2023; DTSC 2023). Of the 53 properties identified, there are 11 sites that would undergo land use and zoning changes as part of the proposed project that are also identified as containing potential hazards: five are on GeoTracker, five are on EnviroStor, and one is on the Cortese list. These properties can be referenced and identified in Appendix K.

Potential Hazardous Building Materials

Some buildings in the City were built before the 1970s; based on the ages of these buildings, there is a potential for building materials to contain asbestos or lead-based paint (LBP). A potential release of hazardous materials could occur when ACM or LBP are disturbed during renovation or demolition activities. This disturbance could be harmful to human health. Typical hazardous materials of concern for existing older structures in the City include the following:

- **Asbestos** is a mineral fiber that is carcinogenic and harmful to respiratory health. Because of its fiber strength and heat resistance, it was widely used in a variety of building construction materials for insulation and as a fire-retardant, as well as in friction and heat-resistant products. Use of asbestos in the manufacturing of these products was common throughout California, until 1977, when it was banned. Older buildings constructed prior to 1978 could contain ACM. Asbestos can be released when ACMs are disturbed by cutting, sanding, drilling, or other remodeling activities. Improper attempts to remove these materials can release asbestos fibers into the air, increasing asbestos levels and affecting indoor air quality.
- **Lead** is a recognized harmful environmental pollutant that can pose a hazard when exposed through air, drinking water, food, contaminated soil, deteriorating paint, and dust. Lead was widely used in paint, gasoline, water pipes, and many other products prior to documentation of its health hazards. The use of LBP was banned in California in 1978, and therefore, buildings constructed prior to 1978 could contain LBP. If LBP is improperly removed from surfaces by dry scraping or sanding, LBP can be inhaled or otherwise absorbed into the body and could pose a potential public health risk.
- **Mold** can impair indoor air quality. The presence of visible water damage, damp materials, visible mold, or mold odor in buildings increases the potential risks of respiratory disease of occupants. According to the California Department of Public Health, known health risks include the development of asthma, allergies, and respiratory infections, the triggering of asthma attacks, and increased wheezing, coughing, difficulty breathing, and other symptoms.
- **Polychlorinated Biphenyls (PCBs)** are synthetic chemicals that were manufactured for use in various industrial and commercial applications—including oil in electrical and hydraulic equipment, and plasticizers in paints, plastics, and rubber products—because of their non-flammability, chemical stability, high boiling point, and electrical insulation properties. When released into the environment, PCBs persist for many years and bioaccumulate in organisms. The EPA has classified PCBs as probable human

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carcinogens. In 1979, the EPA banned the use of PCBs in most new electrical equipment and began a program to phase out certain existing PCB-containing equipment.

- **Radon** is a naturally occurring, odorless, tasteless, and invisible gas produced from the decay of uranium in soil and water. Structures placed on native soils with elevated levels of radon can be impacted by the intrusion of radon gas into breathing spaces of the overlying structures, which can cause lung cancer. Orange County is listed as a Zone 2 county, which predicts an average indoor radon screening level within the recommended levels assigned by the EPA (EPA 2014).

Schools

As discussed in Chapter 5.13, *Public Services*, Anaheim is served by 11 school districts entirely within, partially within, or near the City. See Table 15.13-1, *School District Enrollment of Districts Serving Anaheim*, and Figure 5.15-1, *School Facilities*.

Pipelines

Pipelines of concern carry hazardous liquids and/or gases that can be harmful to life and property. The City of Anaheim does contain multiple hazardous pipelines that run through the City. The Anaheim LHMP states that natural gas transmission pipelines in the City could pose a danger to people and property if they breach and release their contents. However, the LHMP did not identify this as a hazard of concern to the City (Anaheim 2022).

Airports

Airport operations and their accompanying safety hazards require careful land use planning on adjacent and nearby lands to protect the residential and business communities from the potential hazards that could be created by airport operations. The City is located approximately 5 miles north of the Fullerton Municipal Airport and 13 miles north of John Wayne Airport. Given the distance and lack of history associated with this hazard in the City, as well as the policies in place that ensure impacts are avoided, it was determined that this hazard should not be included in the Anaheim LHMP.

Wildfire

The eastern portion of the City is within a VHFHSZ (See Figure 5.20-1, *Fire Hazard Severity Zones*). As stated in Section 5.18.1.2, *Existing Conditions*, in Section 5.18, *Wildfire*, VHFHSZs are located primarily in the Anaheim Hills community of eastern Anaheim and the City's unincorporated sphere of influence east of State Route 241 (SR-241).

5.8.2 Proposed General Plan Goals and Policies

The proposed project does not include any new or updated general plan goals and policies related to hazards and hazardous materials.

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5.8.3 Thresholds of Significance

The City of Anaheim considers a project to have a significant effect on the environment if the project would:

- HAZ-1 Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials.
- HAZ-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.
- HAZ-3 Emit hazardous emissions or handle hazardous or acutely hazardous materials, substance, or waste within one-quarter mile of an existing or proposed school.
- HAZ-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.
- HAZ-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 or excessive noise for people residing or working in the project area.
- HAZ-6 Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan.
- HAZ-7 Expose people or structures, either directly or indirectly, to a significant risk of loss, injury, or death involving wildland fires.

5.8.4 Environmental Impacts

The following impact analysis addresses thresholds of significance that are identified in brackets after the impact statement.

Impact 5.8-1: The proposed project would not create a significant impact due to the transport, use, and/or disposal of hazardous materials or due to reasonably foreseeable upset and accident conditions. [HAZ-1, HAZ-2]

Existing Hazardous Materials Sites

As mentioned in Section 5.8.1.2, *Existing Conditions*, above, 53 hazardous materials sites are open or active hazardous waste sites in the City of Anaheim, and 11 of these are on properties proposed for land use and zoning changes as part of the proposed project (see Appendix K.).

Any future development, redevelopment, or reuse on or next to any of these hazardous materials sites would require environmental site assessment by a qualified environmental professional to comply with both DTSC and CERCLA standards (see Section 5.8.1.1, *Regulatory Background*). This would ensure that the relevant

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projects would not disturb hazardous materials on any of the hazardous materials sites or plumes of hazardous materials diffusing from one of the hazardous materials sites. Additionally, this would ensure that any proposed development, redevelopment, or reuse would not create a substantial hazard to the public or the environment.

Existing Asbestos-Containing Materials and Lead-Based Paint

Many buildings in the plan area predate 1978 and thus may contain ACM and LBP. The history of development in Anaheim is briefly described in Section 5.4, *Cultural Resources*. Demolition and removal of existing buildings could pose hazards to people and the environment through disturbance and/or release of ACM and LBP (see further discussion under “Demolition” and “Accidental Release”).

Routine Use, Storage, Transport, and Disposal of Hazardous Materials

Construction

Construction of future development in accordance with the proposed project would involve demolition, grading, and construction of new buildings. Potentially hazardous materials used during construction include substances such as paints, sealants, solvents, adhesives, cleaners, and diesel fuel. There is potential for these materials to spill or to create hazardous conditions. However, the materials used will not be in such quantities or stored in such a manner as to pose a significant safety hazard, and would comply with regulatory standards in place as described above. These activities would also be short term or one time in nature. Future implementing project construction workers would be trained in safe handling and hazardous materials use, pursuant to Cal/OSHA compliance standards, as described below.

To prevent hazardous conditions, existing local, State, and federal laws—such as those listed under Section 5.8.1.1, *Regulatory Background*—would be enforced at the construction sites. For example, compliance with existing regulations would ensure that construction workers and the general public are not exposed to any risks related to hazardous materials during demolition and construction. Cal/OSHA has regulations concerning the use of hazardous materials, including requirements for safety training, exposure warnings, availability of safety equipment, and preparation of emergency action/prevention plans, pursuant to 29 CFR 1910.120 and 29 CFR 1926.65. Additionally, all spills or leakage of petroleum products during construction activities must be immediately contained, the hazardous material identified, and the material remediated in compliance with State and local regulations for that contaminant. All contaminated waste must be collected and disposed of at an appropriately licensed disposal or treatment facility, as regulated by the agencies listed in Section 5.8.1.1, *Agencies That Regulate Hazardous Materials*, and Section 5.8.1.2, *Regulatory Background*.

Furthermore, strict adherence to all applicable emergency response plan requirements set by the Orange County Fire Authority, Anaheim Fire and Rescue, Hazardous Materials Section, and the City’s general plan policies for emergency response under goals 6.1 and 7.1 of the Safety Element would be required throughout the duration of project construction.

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Operation

Operation of future projects developed pursuant to the proposed project would involve hazardous materials used in industrial and commercial land uses as well as hazardous materials used for cleaning and maintenance purposes in almost all developed land uses: cleaners, solvents, paints, pesticides, and fertilizers. The amounts of hazardous materials used would vary by land use type: amounts would be small for residential, school, institutional, and many office uses. Amounts would be larger for industrial uses; businesses selling hazardous materials, such as gasoline stations; and service businesses using hazardous materials in their operations, such as construction contractors, painters, cleaners, and printers.

Demolition

Future development projects under the proposed project may involve demolition of existing buildings and structures associated with a specific development site. Some building materials used in the mid- and late-1900s are considered hazardous to the environment and harmful to people. For example, while asbestos was generally not used in building materials by 1980, it was still occasionally used until the late 1980s. Lead-based paint was banned for residential use in 1978 and phased out for commercial structures in 1993. Typical hazardous materials of concern for existing older structures in the City include asbestos, lead, mold, PCBs, and radon.

For buildings constructed before the 1950s, it is likely that some may contain ACMs and LBP as well as other building materials containing lead (e.g., ceramic tile and insulation). Demolition of these buildings could cause encapsulated ACM (if present) to become friable (i.e., easily crumbled or pulverized); once airborne, they are considered a carcinogen. Demolition could also cause the release of lead into the air. The EPA has classified lead and inorganic lead compounds as “probable human carcinogens,” and such releases could pose significant risks to persons living and working in and around a proposed development site (EPA 2004).

The presence of visible water damage, damp materials, visible mold, or mold odor in buildings increases the potential risks of respiratory disease in occupants. According to the California Department of Public Health, known health risks include the development of asthma, allergies, and respiratory infections; the triggering of asthma attacks; and increased wheezing, coughing, difficulty breathing, and other symptoms.

PCBs are synthetic chemicals that were manufactured for use in various industrial and commercial applications—including oil in electrical and hydraulic equipment and plasticizers in paints, plastics, and rubber products—because of their non-flammability, chemical stability, high boiling point, and electrical insulation properties. When released into the environment, PCBs persist for many years and bioaccumulate in organisms. The EPA has classified PCBs as probable human carcinogens. In 1979, the EPA banned the use of PCBs in most new electrical equipment and began a program to phase out certain existing PCB-containing equipment.

State agencies, in conjunction with the federal EPA and OSHA, regulate removal, abatement, and transport procedures for asbestos-containing materials. Releases of asbestos from industrial, demolition, or construction activities are prohibited by these regulations; medical evaluation and monitoring are required for employees performing activities that could expose them to asbestos. The regulations include warnings and

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practices that must be followed to reduce the risk 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. Requirements for limiting asbestos emissions from building demolition and renovation activities are specified in South Coast AQMD Rule 1403 (Asbestos Emissions from Demolition/Renovation Activities). California Government Code Sections 1529 and 1532.1 provide for exposure limits, exposure monitoring, respiratory protection, and good working practice by workers exposed to lead and ACM. Therefore, impacts would be less than significant.

Implementation of the Proposed Project

The proposed project would include the implementation of the Housing Element and the C3SP which has been incorporated into the proposed project as the Center City Corridors Implementation Plan (C3 Plan). The updated Housing Element would adopt new land use regulations that would ensure residential development is permitted by right. Implementation of the housing element and rezoning of existing parcels may lead to the exposure of hazardous materials if demolition is proposed for any of the listed sites.

The C3 Plan area is centrally located within the City and includes a wide variety of residential, commercial, office, industrial, institutional, mixed-uses, and public land uses as well as the Civic Center. Recommended C3 Plan land use modifications include changes to residential (Low-Density, Low- Medium Density, Mid Density, and Medium Density), commercial (General Commercial), Office (Low), Industrial (Industrial), and Open Space (Open Space, Parks). Commercial, office, and industrial properties may contain hazardous waste generators that could potentially result in exposure to sensitive receptors in the community.

Land use and zoning changes associated with the proposed project would comply with policies and City codes. Policies under Goal 4.1 of the Safety Element, including policies 4.1-1 through 4.1-7, aim to protect citizens of Anaheim by enforcing and implementing regulations and practices and minimizing impacts associated with hazardous materials exposure, handling, transporting, and disposal. Additionally, hazardous wastes would be stored, transported, and disposed of in conformance with existing regulations of the EPA, US Department of Transportation, CalRecycle, and other agencies. Therefore, no significant hazard would occur from the implementation of the proposed project.

Accidental Release of Hazardous Materials

Construction and operation of future development under the proposed project could involve some risk of accidental release of hazardous materials used by the projects, as well as accidental disturbance of existing hazardous materials in the environment, such as petroleum products released from leaking USTs, or ACM, or LBP in existing buildings that would be renovated or demolished. Use, storage, transport, and disposal of hazardous materials in conformance with regulations would reduce both the likelihood of an accidental release and the potential consequences in the event of an accidental release. Additionally, the City has numerous programs and policies in place such as the “Know Your Way” program to alert citizens of potential hazards in the City. Policies in the Safety Element, such as policies 4.1-1 and 4.1-6, Policy 5.1-4, policies under Goal 6.1, and policies under Goal 7.1, all aim to prepare citizens and county agencies for potential hazards events and to work with surrounding agencies to inform the communities in the city about evacuation routes and protocols. Additionally, Standard Condition SC HAZ-1, as listed at the end of Section

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5.8.1.2, *Regulatory Background*, aims to coordinate development properties with neighboring uses to determine that the development project has a safety plan set and that future project sites address their potential hazardous materials scoring. Therefore, impacts related to emergency preparedness and evacuation impacts would be less than significant.

Level of Significance Before Mitigation: Impact 5.8-1 would be less than significant.

Impact 5.8-2: The proposed project would not emit hazardous emissions or handle hazardous or acutely hazardous materials, substance, or waste within one-quarter mile of an existing or proposed school. [Threshold HAZ-3]

The proposed project would primarily redesignate residential and commercial parcels to higher density mixed uses. As discussed in Chapter 5.13, *Public Services*, of this Draft PEIR, there are 11 school districts within the boundaries of the City. Figure 5.13-1, *School Facilities*, identifies the locations of school within the boundaries of the City that serve the City. While there is a possibility for existing schools to be located within one quarter mile (0.25) of future development sites, project construction would be required to comply with applicable regulatory requirements such as SCAQMD Rule 1403. Additionally, Standard Condition SC HAZ-1 applies to hazardous airborne materials that may affect properties.

As described in Chapter 5.2, *Air Quality*, of this Draft PEIR, some land uses are considered more sensitive to airborne hazardous materials than others due to the types of population groups or activities involved. Because sensitive population groups include children, Section 15186, School Facilities, of the California Environmental Quality Act (CEQA) requires an evaluation of hazardous emissions or handling hazardous materials, substances, or waste within 0.25 miles of an existing or proposed school, private or public. Therefore, hazards would be less than significant.

Level of Significance Before Mitigation: Impact 5.8-3 would be less than significant.

Impact 5.8-3: The proposed project would not 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. [Threshold HAZ-4]

As discussed in Section 5.8.1.2, *Existing Conditions*, and above in Impact 5.8-1, there are 53 known hazardous materials waste sites designated as open or active hazardous waste sites in the City. As described in Section 5.8.1.3, *Existing Conditions*, there are 11 sites that would undergo land use and zoning changes as part of the proposed project that are also identified as containing potential hazards: five are on GeoTracker, five are on EnviroStor, and one is on the Cortese list.

In addition to these known hazardous waste sites, development on other sites in the City may result in hazardous materials impacts. However, properties contaminated by hazardous substances are regulated at the local, State, and federal level and are subject to compliance with stringent laws and regulations for investigations and remediation. For example, compliance with the CERCLA, RCRA, CCR Title 22, and related requirements would remedy all potential impacts caused by hazardous substance contamination.

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Additionally, several policies in the General Plan Safety Element would ensure impacts as a result of hazardous materials would be reduced. For example, policies under Goal 4.1 of the Safety Element, including policies 4.1-1 through 4.1-7, aim to protect citizens of Anaheim by enforcing and implementing regulations, practices, and minimizing impacts associated with hazardous materials exposure, handling, transporting, and disposal. Additionally, hazardous wastes would be stored, transported, and disposed of in conformance with existing regulations of the EPA, US Department of Transportation, CalRecycle, and other agencies. Thus, no significant hazard would occur from the implementation of the General Plan Update.

Level of Significance Before Mitigation: Impact 5.8-4 would be less than significant.

Impact 5.8-4: The proposed project is not in the vicinity of an airport or within the jurisdiction of an airport land use plan that would result in a safety hazard or excessive noise for people residing or working in the project area. [Threshold HAZ-5]

The City of Anaheim does not contain any airports within its boundaries. The closest airport to the City is Fullerton Municipal Airport in Fullerton, California, approximately 5 miles north. John Wayne Airport is approximately 13 miles south. Neither Fullerton Municipal Airport nor John Wayne Airport are expected to create any hazards. The Anaheim Noise Element states that the City is not within the 65 dBA CNEL contours for any commercial or private airports (Anaheim 2004).

The City is in an area with frequent air traffic, but fixed-wing aircraft are typically too high to add measurably to local noise (Anaheim 2004). Aircraft activities and uses for hospitals are evident in the City, but the use of helicopters for hospitals is considered an emergency activity and thus is exempt under the City Municipal Code (Anaheim 2004).

The only low-flying aircraft activity in the City is from the use of fire and police services, which have been a source of noise complaints. Because of this, the City aims to carefully review any potential noise impacts due to future heliport proposals in the City. The City's Standard Conditions of Approval SC HAZ-2, SC HAZ-3, and SC HAZ-4 pertain to potential construction and new development, aiming to mitigate any impacts that could occur from new development. Additionally, policies in the Noise Element of the City of Anaheim General Plan, such as policy 2.1-9, policy 2.1-10, and policy 2.1-13, all aim to reduce noise impacts by complying with City noise ordinances; participation of county, regional, and state agencies for location of airports and their impacts; and through efforts of minimizing impacts from police helicopter training and emergency response activities. Therefore, no impact would occur, and no mitigation is necessary.

Level of Significance Before Mitigation: Impact 5.8-5 would be less than significant.

Mitigation Measures: No mitigation measures are required.

Level of Significance After Mitigation: Impact 5.8-5 would be less than significant.

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Impact 5.8-5: The proposed project would not impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan. [Threshold HAZ-6]

Adopted emergency response plans and emergency evacuation plans include those discussed under Section 5.8.1.2, such as the City of Anaheim Emergency Operations Plan and the Local Hazards Mitigation Plan. The proposed project could have a significant impact if it could substantially impair the implementation of these plans.

Emergency Preparedness and Evacuation Routes

Evacuation routes are designated roadways that allow many people to quickly leave an area due to a potential or imminent disaster. These routes should have sufficient capacity to accommodate the needs of the community, be safely and easily accessible, and allow people to travel far enough away to be safe from emergency conditions. According to the City's 2022 LHMP, the primary route of evacuation is the westbound SR-91 freeway, which leads away from the foothills and canyons (the most probable location for a hazard event). The major roads accessing SR-91 include Weir Canyon Road, Serrano Ave, Nohl Ranch Road, and Santa Ana Canyon Road, which can also be accessed from secondary roads Fairmount Boulevard and Canyon Rim Road. These routes may be changed during an evacuation, depending on the specific nature of the emergency.

The City has an established "Know Your Way" program and policies in place to alert citizens, in a timely manner, of potential hazards within the City. Policies in the Safety Element, such as policies 4.1-1 and 4.1-6, policy 5.1-4, policies under Goal 6.1, and policies under Goal 7.1, all aim to prepare citizens and County agencies for potential hazards events and to work with surrounding agencies to inform the communities within the City about evacuation routes and protocols. Therefore, impacts related to emergency preparedness and evacuation impacts would be less than significant.

Any future development under the proposed project would be required to integrate the Emergency Operations Plan as necessary into development to continue its facilitation in evacuation for the people in the event of a hazardous material release within the City. Buildout under the proposed project would not result in substantial changes to the circulation patterns or emergency access routes in the City that would conflict with or require changes to the Emergency Operations Plan. Additionally, the buildout of the proposed project would not result in substantial changes to the circulation patterns or emergency access routes, and would not block or otherwise interfere with use of evacuation routes. Buildout would not interfere with operation of the AF&R Hazardous Materials Section, operating as the CUPA, and would not interfere with operations of emergency response agencies or with coordination and cooperation between such agencies; thus, impacts to emergency response planning would be less than significant.

Level of Significance Before Mitigation: Impact 5.8-6 would be less than significant.

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Impact 5.8-6: The proposed project would not expose people or structures, either directly or indirectly, to a significant risk of loss, injury, or death involving wildland fires. [Threshold HAZ-7]

Wildland fires are uncontrolled fires typically in areas of little to no development, but these fires can spread quickly to the urban/wildland interface where development meets expanses of vegetative fuels. As described in Section 5.18-1, *Wildfire*, the eastern portions of the City are in VHFHSZs. Additionally, there is some risk of landslides and flooding after a wildfire due to the steep topography in that area of the City.

Based on the City's Safety Element, the hazards that occur due to wildfires are considered the highest ranking hazard for in the City (Anaheim 2022). The City, therefore, has implemented multiple policies to mitigate the potential effects of wildfire. Safety Element policies such as policy 2.1-1 through policy 2.1-13 all pertain to mitigating the effects of wildfires in areas that are consistent with being in a VHFHSZ.

Furthermore, strict adherence to emergency response plans set by the Orange County Fire Authority and Anaheim Fire and Rescue would be required throughout the duration of project construction.

Level of Significance Before Mitigation: Impact 5.8-7 would be less than significant.

5.8.5 Cumulative Impacts

The geographic scope of analysis for cumulative hazards and hazardous materials impacts encompasses the entirety of the City. While some impacts relative to hazardous materials are generally site-specific and depend on the nature and extent of the hazardous materials release, other impacts, including the transport of hazardous materials across regional transportation systems and wildfire impacts, have the potential to impact areas outside of the City.

Hazardous Materials

Construction activities for all projects in the City would be subject to the same regulatory requirements discussed for the project for compliance with existing hazardous materials regulations, including the management of hazardous materials and spill response within the respective jurisdictions. Cumulative projects that transport, use, store, or dispose of hazardous materials would be required to comply with the same regulations as the proposed project. Entities that use hazardous materials would be required to prepare and implement Hazardous Materials Business Plans, in accordance to the California Health and Safety Code (Division 20, Chapter 6.95, Article 1, Sections 25500 to 25519) and California Code of Regulations (Title 19, Division 5, Chapter 1, Sections 5010.1 to 5040.2), that would describe procedures for the safe and legal transportation, storage, use, and disposal of hazardous materials. Based upon these considerations, the cumulative effect of the proposed project's implementation would be less than significant.

Emergency Response and Evacuation

As with the proposed project, other projects in the City would implement the measures and strategies in applicable emergency operation plans and the LHMP, which would ensure that development would not restrict or interfere with the flow of emergency vehicles or evacuation and would therefore not create a cumulatively considerable effect. Though additional traffic volumes are expected under the planning horizon

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of the proposed project, the emergency operation plan, LHMP and the Safety Element policies would ensure adequate emergency response and evacuation. Based upon these considerations, the cumulative effect of the proposed project's implementation would be less than significant.

Fire Hazards

Cumulative impacts with respect to wildfire are addressed in Section 5.18, *Wildfire*.

Level of Significance Before Mitigation: Cumulative impacts would be less than significant.

5.8.6 Level of Significance Before Mitigation

Upon implementation of regulatory requirements and General Plan policies, Impacts 5.8-1 through 5.8-6 would have less than significant impacts.

5.8.7 Mitigation Measures

No significant impacts were identified and no mitigation measures are necessary.

5.8.8 Level of Significance After Mitigation

Impacts 5.8-1 through 5.8-6 would be less than significant with compliance with all applicable regulatory requirements, standard conditions of approval, and General Plan policies.

5.8.9 References

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5.9 HYDROLOGY AND WATER QUALITY

This section of the Draft Program Environmental Impact Report (Draft PEIR) discusses the potential impacts to hydrology and water quality in the City of Anaheim from implementation of the City of Anaheim's Focused General Plan Update (proposed project), including distribution and circulation of water, both on land and underground, quality of surface- and groundwater, and consistency with policies and programs related to hydrology and water quality.

The analysis in this section is based in part on the following technical report.

- *City of Anaheim General Plan Update Water Supply Assessment*, Psomas, July 2024 (Appendix L)

Comments related to hydrology and water quality were received from the Metropolitan Water District of Southern California during the scoping period for the proposed project (see Appendix A) and the Center City Corridors Specific Plan (C3SP) (see Appendix B), which has been incorporated into the proposed project as the Center City Corridors Implementation Plan (C3 Plan) (see Appendix B).

5.9.1 Environmental Setting

5.9.1.1 REGULATORY BACKGROUND

Federal

Clean Water Act

The United States Environmental Protection Agency (EPA) is the lead federal agency responsible for water quality management. The Clean Water Act (CWA) of 1972 is the primary federal law that governs and authorizes water quality control activities by the EPA and the states (33 US Code Sections 1251 to 1376). Various elements of the CWA, which address water quality, are discussed below.

Permits to dredge or fill waters of the United States are administered by the US Army Corps of Engineers (USACE) under Section 404 of the CWA. "Waters of the United States" are defined as territorial seas and traditional navigable waters, perennial and intermittent tributaries to those waters, lakes and ponds and impoundments of jurisdictional waters, and wetlands adjacent to jurisdictional waters. The regulatory branch of the USACE is responsible for implementing and enforcing Section 404 of the CWA and issuing permits. Any activity that discharges fill material and/or requires excavation in waters of the United States must obtain a Section 404 permit. Before issuing the permit, the USACE requires that an analysis be conducted to demonstrate that the proposed project is the least environmentally damaging practicable alternative. Also, the USACE is required to comply with the National Environmental Policy Act before it can issue an individual Section 404 permit.

Under Section 401 of the CWA, every applicant for a Section 404 permit that may result in a discharge to a water body must first obtain State water quality certification that the proposed activity will comply with State water quality standards. Certifications are issued in conjunction with USACE Section 404 permits for dredge and fill discharges. In addition, an application for individual water quality certification and/or waste discharge

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requirements must be submitted for any activity that would result in the placement of dredged or fill material in waters of the State that are not jurisdictional to the USACE, such as isolated wetlands, to ensure that the proposed activity complies with State water quality standards. In California, the authority to either grant water quality certification or waive the requirement is delegated by the State Water Resources Control Board (SWRCB) to the nine Regional Water Quality Control Boards (RWQCB).

Under federal law, the EPA has published water quality regulations under Volume 40 of the Code of Federal Regulations. Section 303 of the CWA requires states to adopt water quality standards for all surface waters of the United States. As defined by the CWA, water quality standards consist of two elements: (1) designated beneficial uses of the water body in question and (2) criteria that protect the designated uses. Section 304(a) requires the EPA to publish advisory water quality criteria that accurately reflect the latest scientific knowledge on the kind and extent of all effects on health and welfare that may be expected from the presence of pollutants in water. Where multiple uses exist, water quality standards must protect the most sensitive use.

When water quality does not meet CWA standards and compromises designated beneficial uses of a receiving water body, Section 303(d) of the CWA requires that the water body be identified and listed as “impaired.” Once a water body has been designated as impaired, a total maximum daily load (TMDL) must be developed for the impairing pollutant(s). A TMDL is an estimate of the total load of pollutants from point, nonpoint, and natural sources that a water body may receive without exceeding applicable water quality standards, with a factor of safety included. Once established, the TMDL allocates the loads among current and future pollutant sources to the water body.

Fish and Wildlife Coordination Act

The Fish and Wildlife Coordination Act provides the basic authority for the US Fish and Wildlife Service to evaluate impacts to fish and wildlife from proposed water resource development projects. This act requires that all federal agencies consult with the US Fish and Wildlife Service, the National Marine Fisheries Service, and State wildlife agencies (i.e., the California Department of Fish and Wildlife) for activities that affect, control, or modify waters of any stream or bodies of water. Under this act, the US Fish and Wildlife Service has responsibility for reviewing and commenting on all water resources projects. For example, it would provide consultation to the USACE prior to issuance of a Section 404 permit.

National Pollutant Discharge Elimination System

The National Pollutant Discharge Elimination System (NPDES) permit program was established by the CWA to regulate municipal and industrial discharges to surface waters of the United States, including discharges from municipal separate storm sewer systems (MS4). Federal NPDES permit regulations have been established for broad categories of discharges, including point-source municipal waste discharges and nonpoint-source stormwater runoff. NPDES permits generally identify effluent and receiving water limits on allowable concentrations and/or mass emissions of pollutants in the discharge; prohibitions on discharges not specifically allowed under the permit; and provisions that describe required actions by the discharger, including industrial pretreatment, pollution prevention, self-monitoring, and other activities.

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Under the NPDES program, all facilities that discharge pollutants into waters of the United States are required to obtain an NPDES permit. Requirements for stormwater discharges are also regulated under this program. In California, the NPDES permit program is administered by the SWRCB through the nine RWQCBs. The City lies within the jurisdiction of the Santa Ana RWQCB (Region 8).

National Dam Safety Act of the Federal Emergency Management Agency

The National Dam Safety Act of 2006 authorized a program to reduce the risks to life and property from dam failure by establishing a safety and maintenance program. The Federal Emergency Management Agency (FEMA) is the lead federal agency for the National Dam Safety Program and is responsible for coordinating efforts to secure the safety of dams across the country. This national program targets the improvement of dams and the safety of those who live in surrounding communities. Since it was first authorized by Congress in 1996, there have been marked improvements in the safety of many of the nation's dams. The program makes federal funds available to the states, which are primarily responsible for protecting the public from failures of nonfederal dams and pursuing initiatives that enhance the safety of dams posing the greatest risk to people and property.

National Flood Insurance Program

FEMA also administers the National Flood Insurance Program, which provides subsidized flood insurance to communities that comply with FEMA regulations limiting development in flood plains. FEMA issues flood insurance rate maps that provide flood information and identify flood hazard zones in the community. The design standard for flood protection established by FEMA is the 100-year flood event, also described as a flood that has a 1-in-100 chance of occurring in any given year. FEMA mapping of flood hazards that includes the project area was updated in 2008.

United States Army Corps of Engineers

The USACE is responsible for the management and operation of Prado Dam. Built in 1941, Prado Dam is part of a broader flood risk management system designed to protect communities in Riverside, San Bernardino, and Orange counties from flooding. The USACE oversees the dam's maintenance, operational decisions, and safety protocols including water level (USACE 2024).

State

Porter-Cologne Water Quality Act

The Porter-Cologne Water Quality Act is the basic water quality control law for California (Water Code sections 13000 et seq.). Under this act, the SWRCB has ultimate control over state water rights and water quality policy. In California, the EPA has delegated authority to issue NPDES permits to the SWRCB. The SWRCB, through its nine RWQCBs, carries out the regulation, protection, and administration of water quality in each region. Each regional board is required to adopt a water quality control plan or basin plan that designates beneficial uses and water quality objectives for the region's surface water and groundwater basins.

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Construction General Permit

Construction activities that disturb one or more acres of land must comply with the requirements of the SWRCB Construction General Permit (CGP)—2009-0009-DWQ, as amended by 2010-0014-DWQ, 2012-0006-DWQ, and 2022-0057-DWQ (adopted September 8, 2022). Under the terms of the permit, applicants must file Permit Registration Documents (PRD) with the SWRCB prior to the start of construction. The PRDs include a notice of intent, risk assessment, site map, Stormwater Pollution Prevention Plan (SWPPP), annual fee, and a signed certification statement. The PRDs are submitted electronically to the SWRCB via the Stormwater Multiple Application and Report Tracking System website.

Applicants must demonstrate conformance with applicable best management practices (BMP) and prepare a SWPPP containing a site map that shows the construction site perimeter, existing and proposed buildings, lots, roadways, stormwater collection and discharge points, general topography before and after construction, and drainage patterns across the project area. The SWPPP must list BMPs that would be implemented to prevent soil erosion and discharge of construction-related pollutants that could contaminate nearby water resources. Additionally, the SWPPP must contain a visual monitoring program for all risk levels and a stormwater sampling and analysis program for Risk Levels 2 and 3.

General Industrial Permit

The General Industrial Permit is an NPDES General Permit (Order No. 2014-0057-DWQ and amended by 2015-0122-DWQ) issued in compliance with section 402 of the Clean Water Act. The permit took effect on July 1, 2015. The General Industrial Permit regulates operators of facilities that are subject to stormwater permitting and discharge stormwater associated with industrial activity.

Trash Amendments

On April 7, 2015, the SWRCB adopted an amendment to the “Water Quality Control Plan for Ocean Waters of California” to control trash and Part 1, Trash Provisions, of the “Water Quality Control Plan for Inland Surface Waters, Enclosed Bays, and Estuaries of California.” They are collectively referred to as “the Trash Amendments.” The Trash Amendments apply to all surface waters of California and include a land-use-based compliance approach to focus trash controls on areas with high trash-generation rates. Areas such as high-density residential, industrial, commercial, mixed urban, and public transportation stations are considered priority land uses. There are two compliance tracks:

- **Track 1:** Permittees install, operate, and maintain a network of certified full-capture systems in storm drains that capture runoff from priority land uses.
- **Track 2:** Permittees must implement a plan with a combination of full-capture systems, multibenefit projects, institutional controls, and/or other treatment methods that have the same effectiveness as Track 1 methods.

The Trash Amendments provide a framework for permittees to implement its provisions—full compliance within 10 years of the permit and interim milestones, such as average load reductions of 10 percent per year.

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General Waste Discharge Requirements for Discharges to Land with a Low Threat to Water Quality

SWRCB Order No. 2003-0003-DWQ establishes minimum standards for discharges to land with a low threat to water quality (such as small/temporary dewatering projects). The discharger must also comply with any more-stringent standards in the applicable basin plan. Dischargers are also required to file a report of waste discharge.

Senate Bill 92

On June 27, 2017, Governor Brown signed Senate Bill (SB) 92, which set new requirements for dam safety. As part of this legislation, dam owners must now submit inundation maps to the Department of Water Resources. After the maps are approved, the dam owner must submit an emergency action plan to the California Office of Emergency Services (Cal OES). The dam owner must submit updated plans and inundation maps every 10 years, or sooner under certain conditions. Cal OES will review and approve the emergency action plans. This legislation added provisions for the emergency action plans, including compliance requirements, exercises of the plan, and coordination with local public safety agencies.

Emergency Services Act

The Emergency Services Act, California Government Code Section 8589.5(b), calls for public safety agencies whose jurisdiction contains populated areas below dams to adopt emergency procedures for the evacuation and control of these areas in the event of a partial or total failure of the dam. Cal OES is responsible for the coordination of overall State agency response to major disasters and assisting local governments in their emergency preparedness, response, recovery, and hazard mitigation efforts. In addition, the Cal OES Dam Safety Program provides assistance and guidance to local jurisdictions on emergency planning for dam failure events and is also the designated repository of dam failure inundation maps.

California Water Code Section 13751

In 1949, the California Legislature concluded that collecting information on newly constructed, modified, or destroyed wells would be valuable in the event of underground pollution and would also provide geologic information to better manage California's groundwater resources. Section 13751 of the Water Code requires well completion report forms to be filed with the Department of Water Resources within 60 days of the date that construction, alteration, abandonment, or destruction of a well is complete. Completed forms are sent to the department's regional office in the well's area.

Sustainable Groundwater Management Act

The Sustainable Groundwater Management Act (SGMA) of 2014 was a comprehensive, three-bill package that provides a framework for the sustainable management of groundwater supplies by local authorities. SGMA requires the formation of local groundwater sustainability agencies (GSA) to assess local water basin conditions and adopt locally based groundwater sustainability plans (GSP). SGMA gives GSAs 20 years to implement plans, achieve long-term groundwater sustainability, and protect existing surface water and groundwater rights. SGMA also provides local GSAs with the authority to require registration of groundwater wells, measure and manage extractions, require reports and assess fees, and request revisions of basin boundaries, including

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establishing new subbasins. Furthermore, under SGMA, GSAs responsible for high- and medium-priority basins must adopt GSPs within five to seven years, depending on whether the basin is in critical overdraft. The City of Anaheim lies within the Orange County Groundwater Basin. Under SGMA, the Orange County Groundwater Basin is considered a medium-priority basin (DWR 2022).

In January 2017 Orange County Water District (OCWD), the city of La Habra, and Irvine Ranch Water District submitted the Basin 8-1 Alternative Plan, which incorporates the requirements of GSPs and is considered to be “functionally equivalent” to a GSP. The Alternative Plan analyzes existing basin conditions and demonstrates that the Basin has been operated within its sustainable yield for more than 10 years without degrading water quality, reducing storage, or lowering groundwater levels. The Alternative Plan will be updated and resubmitted every 5 years as part of SGMA requirements.

Under the Alternative Plan, four management areas have been created for the Orange County Groundwater Basin. Each of these management areas has slightly different management goals and strategies based on the government bodies that manage them. The management areas are:

- **La Habra-Brea Management Area.** Includes the northern portion of the Basin outside of the OCWD service area.
- **OCWD Management Area.** Includes OCWD’s service area, covering approximately 89 percent of the Basin.
- **South East Management Area.** Includes the southern and southeastern portions of the Basin that are outside of OCWD’s service area.
- **Santa Ana Canyon Management Area.** Includes the eastern portion of the Basin outside of OCWD’s service area.

Regional

Santa Ana River Basin Water Quality Control Plan

The “Basin Plan” establishes water quality standards for the ground and surface waters of the region and includes an implementation plan describing the actions by the RWQCB and others that are necessary to achieve and maintain the water quality standards. The RWQCB regulates waste discharges to minimize and control their effects on the quality of the region’s ground and surface water. Permits are issued under various programs and authorities. The terms and conditions of these discharge permits are enforced through a variety of technical, administrative, and legal means. Water quality problems in the region are listed in the Basin Plan, along with the causes of those problems, if known. For water bodies with quality below the levels necessary to allow for all the beneficial uses of the water, plans for improving water quality are included. The latest update for the 1995 Water Quality Control Plan for the Santa Ana River Basin was issued in June 2019.

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Orange County Regional Municipal Separate Stormwater Sewer System (MS4) Permit

The Santa Ana RWQCB MS4 Storm Water Permit, NPDES Permit No. CAS618030 (Order R8-2009-0030 as amended by Order No. R8-2010-0062), specifies waste discharge requirements for the County of Orange, the incorporated cities of 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 update and implement a drainage area management plan for their jurisdictions as well as local implementation plans that describe the co-permittees’ urban runoff management programs for their local jurisdictions.

Under the City’s capital improvement plan, land development policies pertaining to hydromodification and low impact development (LID) are regulated for new developments and significant redevelopment projects. The term “hydromodification” refers to the changes in runoff characteristics from a watershed caused by changes in land use condition. More specifically, hydromodification refers to 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 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, evapotranspiration, and runoff detention. LID BMPs try to offset these losses by introducing structural and nonstructural design components that restore these water quality functions into the project’s land plan. These land development requirements are detailed in the County-Wide Model Water Quality Management Plan and Technical Guidance Document, approved in May 2011, which cities have incorporated into their discretionary approval processes for new development and redevelopment projects.

New developments and redevelopments must implement BMPs under the LID hierarchy, as described in the Technical Guidance Document. The LID hierarchy requires new projects to first infiltrate, then harvest and reuse, then biofilter stormwater runoff, depending on site constraints. New projects and redevelopments in the plan area will follow the set hierarchy of BMP selection.

Local

City of Anaheim General Plan

Green Element

Goal 7.1: Reduce urban run-off from new and existing development.

- **Policy 7.1-1.** Ensure compliance with the Federal Clean Water Act requirements for National Pollutant Discharge Elimination System (NPDES) permits, including developing and requiring the development of Water Quality Management Plans for all new development and significant redevelopment in the City.
- **Policy 7.1-4.** Require new development and significant redevelopment to utilize site preparation, grading and best management practices that provide erosion and sediment control to prevent construction-related contaminants from leaving the site and polluting waterways.

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Safety Element

Goal 3.1: A community resilient to the effects of flooding and dam inundation hazards.

- **Policy 3.1-1.** Evaluate all development proposals located in areas that are subject to flooding to minimize the exposure of life and property to potential flood risks.
- **Policy 3.1-4.** Encourage properties prone to flooding or creating new flooding conditions to incorporate flood safe design elements and appropriate setbacks to reduce flood damage potential.
- **Policy 3.1-5.** Encourage new development to maintain and enhance existing natural streams, as feasible.
- **Policy 3.1-7.** Coordinate with local, state, and federal agencies on flood control and stormwater management improvements in and around the city.
- **Policy 3.1-9.** Utilize flood control methods that are consistent with Regional Water Quality Control Board Policies and Best Management Practices (BMPs).

City of Anaheim Municipal Code

- **Chapter 10.09, National Pollution Discharge Elimination System (NPDES).** This chapter states that new development and significant redevelopment within the city may have to comply with a water quality management plan as determined by the Director. If such a determination is made, the applicant must obtain a State General Permit, State Project Specific Permit, or Local Discharge Permit and undertake inspections to determine compliance with the permit.
- **Chapter 10.14, Storm Drain Impact and Improvement Fee.** This chapter enforces a storm drain impact fee to finance storm drain improvements and to pay for new developments and expansions and additions to existing developments. The City Council has found the fee to be consistent with its General Plan, and pursuant to Government Code 65913.2, has considered the effects of the fee with respect to the city's storm drain needs in the South Central City Area as established in the Master Plan of Drainage for the South Central City Area and within "The Anaheim Resort Specific Plan No. 92-2."
- **Chapter 10.20, Construction and Destruction of Wells.** This chapter provides for the control and reconstruction of wells to the end that the city's groundwater is not impaired in quality and that water obtained from such wells does not jeopardize the health, safety, or welfare of city residents; that the obligation of the city to produce and distribute water for the present and future use, benefit, and protection of the citizens and residents of the city will not be impaired; and to provide for the destruction of abandoned wells or wells found to be public nuisances to the end that such wells will not impair the quality of the ground water or otherwise jeopardize the health, safety, or welfare of the people of the city.
- **Chapter 17.04, Grading, Excavations, Fills, Watercourses.** The purpose of this chapter is to require that excavations and fills which may affect drainage and watercourses be performed in accordance with good engineering practice. The regulations and standards established in this chapter are the minimum regulations necessary for the protection of public and private and property and that, where circumstances

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warrant, the City Engineer shall recommend to the City Council such additional standards, procedures and other regulations as may improve the quality of such protection.

- **Chapter 17.06, Grading, Excavations and Fills in Hillside Areas.** This chapter provides requirements for development in the hillside areas of the city. Requirements include excavations and fills being performed in accordance with good engineering practice, including transitional areas being between existing developed areas and areas that require grading, and encouraging contour grading.
- **Chapter 17.28, Flood Hazard Reduction.** This chapter provides methods for reducing flood losses through restricting or prohibiting uses that could endanger the health, safety, and property in the city; requires that uses vulnerable to flooding be protected against flood damage; provides for the control of the alteration of natural flood plains, stream channels, and natural protective barriers; provides for flood control infrastructure and prevent grading or dredging that may increase flood damage; and regulates the construction of flood barriers that divert floodwaters or increase flood hazards.
- **Chapter 18.28, Floodplain (FP) Overlay Zone.** The Floodplain (FP) Overlay Zone is combined with existing zones in those areas within the city which, under present conditions, are subject to periodic flooding and accompanying hazards. The objectives of the FP Overlay Zone are to prevent the loss of life and property, and minimize economic loss caused by flood flows; establish criteria for land management and land use in flood-prone areas that are consistent with Federal Insurance Administration criteria; prohibit encroachments, new construction, or other improvements or development that would obstruct or divert the flow of floodwaters within a regulatory floodway; regulate and control the use of land below the elevation of the design flood flow within the remainder of the floodplain; and comply with the Cobey-Alquist Floodplain Management Act requirements for floodplain management regulations.

Storm Drainage Master Plans

In 1973, a Master Plan of Drainage was developed for the entire City. In this Master Plan, the City was divided into 44 distinct watershed areas, designated as Districts. Storm drain deficiencies and the needed drainage facilities were also identified. The Master Plan of Drainage have since been updated. The City's Department of Public Works oversees a storm drainage master planning program for eight primary storm drainage tributary areas in the City. Each storm drainage master plan identifies existing deficient drainage areas for the corresponding tributary area, recommends drainage improvements to reduce or eliminate deficiencies, and presents the probable cost for construction of such improvements. All master plans are based on the criteria outlined in the City's 2005 Drainage Manual for Public and Private Drainage Facilities. The City has storm drainage master plans for the following storm drainage tributary areas:

- East Garden Grove Wintersburg Channel: Adopted March 2006
- Stanton Channel: Adopted February 2008
- Anaheim-Barber City Channel: Adopted October 2009
- Carbon Creek Channel: Adopted October 2010
- Fullerton Channel: Adopted October 2010
- Moody Channel: Adopted October 2010

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- North and West Santa Ana River: Adopted July 2014
- South and East Santa Ana River: Adopted February 2018

City of Anaheim Best Management Design Guidelines

The City has established best management guidelines to be used by applicants during the BMP design process for all proposed project within the City. All standards in the guidelines were developed to improve BMP functionality, stormwater treatment, and lifespan for all new projects within the City (Anaheim 2024a).

Compliance with the standards should be reflected within the grading plans and Water Quality Management Plan (WQMP) submitted to the City through design narrative and construction details.

Standard Conditions of Approval

The City will be adopting Master Conditions of Approval that are applied to all development projects through the plan-check review process. As a matter of practice, the City has been implementing the following conditions that relate to hydrology and water quality, compliance with which would reduce negative hydrology and water quality impacts. Compliance with standard conditions would be required for all new development and redevelopment in the City.

- **SC HYD-1:** Prior to issuance of a grading permit, the owner/developer shall prepare and submit a final drainage/hydrology study, including supporting hydraulic and hydrological data to the City of Anaheim for review and approval. The study shall confirm or recommend changes to the City's adopted Master Drainage Plan by identifying off-site and on-site storm water runoff impacts resulting from build-out of permitted General Plan land uses. In addition, the study shall identify the project's contribution and shall provide locations and sizes of catchments and system connection points and all downstream drainage-mitigating measures including but not limited to offsite storm drains and interim detention facilities.
- **SC HYD-2:** The owner/developer shall execute a Save Harmless Agreement with the City of Anaheim for any storm drain connections to a City storm drain system. The agreement shall be recorded by the applicant on the property prior to the issuance of any permits.
- **SC HYD-3:** The owner/developer shall obtain the required coverage under California's General Permit for Stormwater Discharges associated with Construction Activity by providing a copy of the Notice of Intent (NOI) submitted to the State Resources Control Board and a copy of the subsequent notification of the issuance of a Waste Discharge Identification (WDID) number.
- **SC HYD-4:** The owner/developer shall submit Water Quality Management Plan (WQMP) to the City for review and approval. The WQMP shall be consistent with the requirements of Section 7 and Exhibit 7.II of the Orange County Drainage Area Management Plan (DAMP) for New Development/Significant Redevelopment projects; identify potential sources of pollutants during the long-term on-going maintenance and use of the proposed project that could affect the quality of the storm water runoff from the project site; define Source Control, Site Design, and Treatment Control (if applicable) best management practices (BMPs) to control or eliminate the discharge of pollutants into the surface water runoff; and

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provide a monitoring program to address the long-term implementation of and compliance with the defined BMPs.

- **SC HYD-5:** The owner shall prepare a Stormwater Pollution Prevention Plan (SWPPP). The SWPPP shall be kept at the project site and be available for Public Works Development Services Division review upon request.

5.9.1.2 EXISTING CONDITIONS

Watersheds

The City of Anaheim spans four separate watersheds, each of these serving the City as well as surrounding areas. The four watersheds are Coyote Creek, Carbon Creek, Westminster, and Santa Ana River. A small portion of the flow in Carbon Creek comes to the City from the cities of Fullerton, Placentia, and Yorba Linda (see Figure 5.9-1, *City of Anaheim Watersheds*).

- **Coyote Creek.** This watershed covers 41.3 square miles in the northwest corner of Orange County. Coyote Creek, its main tributary, flows from Riverside County to the San Gabriel River. Coyote Creek Watershed is highly urbanized with residential, commercial, and industrial development. There are currently no impaired water bodies within this watershed but Coyote Creek ultimately empties into Reach 1 of the San Gabriel River, which is impaired for abnormal fish histology, algae, and high coliform count on the Los Angeles RWQCB's (Region 4) 2002 303(d) list.
- **Carbon Creek.** This watershed covers 21.4 square miles in west Orange County. Carbon Creek, its main tributary, begins in the foothills and empties into the San Gabriel River. Like Coyote Creek Watershed, the watershed area is highly urbanized with residential, commercial, and industrial development. There are currently no impaired water bodies within this watershed but Carbon Creek ultimately empties into Reach 1 of the San Gabriel River, which is impaired for abnormal fish histology, algae, and high coliform count on Region 4's 2002 303(d) list.
- **Westminster.** This watershed covers 74.1 square miles in the southwestern corner of Orange County. Surface water from the southwestern portion of Anaheim drains through the storm drain system to the Anaheim Barber City Channel, which connects to the Bolsa Chica Channel and drains to Huntington Harbor, with its ocean outlet through Anaheim Bay. The Westminster watershed is mostly urbanized and lies on a level coastal plain. Land use is primarily comprised of residential and commercial development, but also includes military, light industrial, schools, parks, and transportation facilities. Tidal influence extends about two miles inland in the lower portion of Bolsa Chica Channel. Impaired water bodies in this watershed include Seal Beach, impaired for enterococci; Huntington Harbor, impaired for pathogens, metals (copper, nickel), pesticides (dieldrin), and priority organics (PCBs); Anaheim Bay, impaired for metals (copper, nickel), pesticides (dieldrin), and priority organics (PCBs); and Bolsa Chica wetlands, impaired for metals (copper, nickel).
- **Santa Ana River.** This watershed covers 153.2 square miles in Orange County, including most of the eastern portion of Anaheim. Santa Ana River begins 75 miles away in the San Bernardino Mountains,

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crossing through eastern Anaheim before emptying into the Pacific Ocean. Impaired water bodies in this watershed include Reach 4 of Santiago Creek, impaired for salinity, TDS, and chlorides, and Silverado Creek, impaired for pathogens, salinity, TDS, and chlorides. Both Santiago Creek Reach 4 and Silverado Creek are upstream of the City of Anaheim (Anaheim PW 2006).

Surface Water

The Santa Ana River is the main surface watercourse within the City. The Santa Ana River is the largest river in the Santa Ana River Regional Water Quality Control Board (Region 8), at approximately 75 miles in length, and provides roughly 70 percent of the total groundwater recharge for the Santa Ana River basin. Carbon Creek and Carbon Canyon Creek also run through the City. Water flow in the river is regulated by the Prado Dam, Seven Oaks Dam, and other flood-control facilities, such as channel and levee systems, in the river and tributary area (Anaheim 2004, 2023). Chapter 3 of the Basin Plan, Beneficial Uses, identifies the beneficial uses of the watercourses in the Basin Plan area, including the Santa Ana River.

The Santa Ana River is Orange County's main river system. The portion of the system in the City of Anaheim includes the area just west of Imperial Highway to Ball Road. The river's unlined channel bottom along this stretch consists of permeable sandy material and is directly connected to previous alluvial materials that allow for the transfer of water into the underlying aquifers (Anaheim 2004).

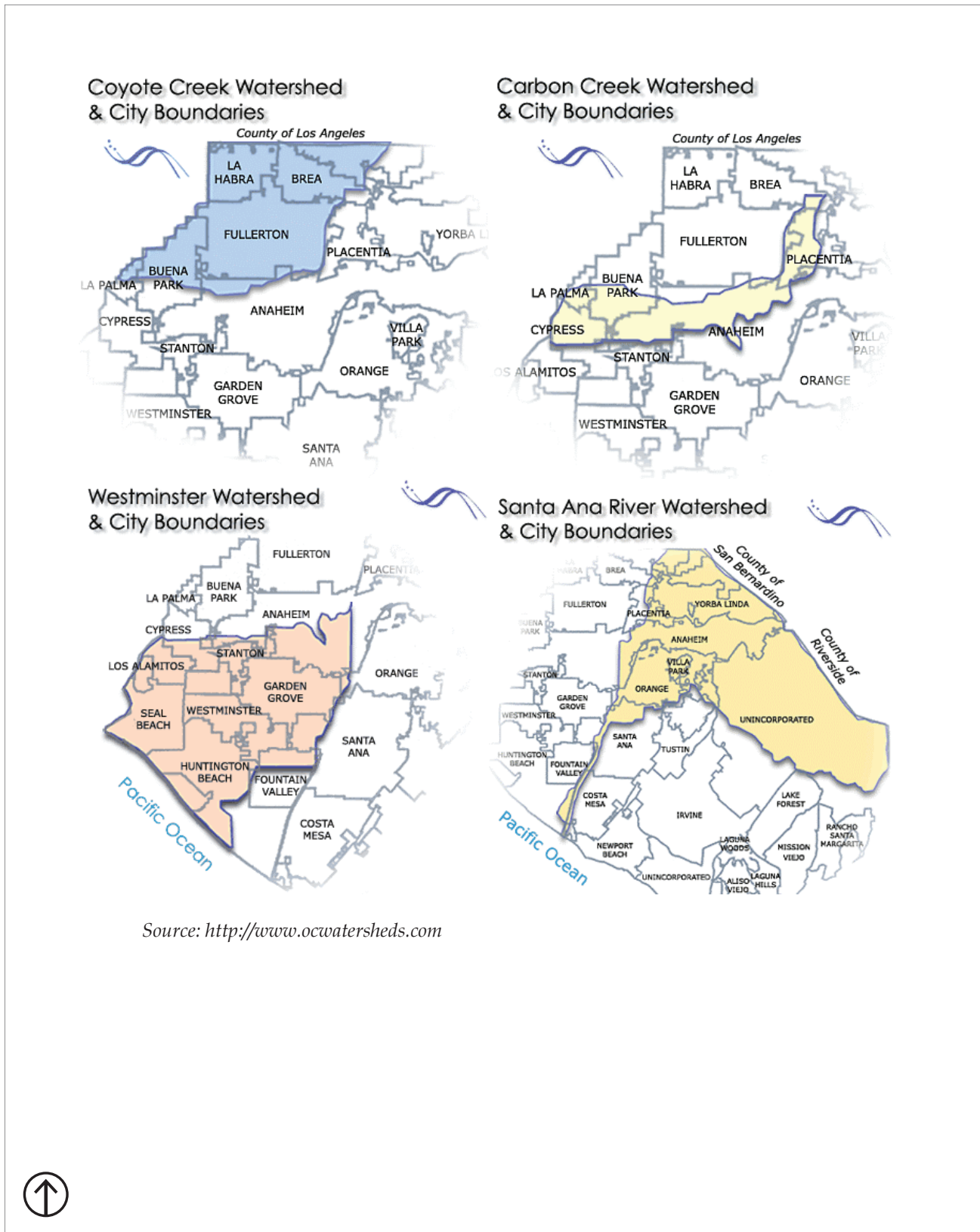
Surface Water Quality

Under Section 303(d) of the Clean Water Act, states are required to identify water bodies that do not meet their water quality standards. Once a water body has been listed as impaired on the 303(d) list, a total maximum daily load for the constituent of concern (pollutant) must be developed for that water body. A TMDL is an estimate of the daily load of pollutants that a water body can receive from point sources, nonpoint sources, and natural background conditions (including an appropriate margin of safety) without exceeding its water quality standard. Facilities and activities that discharge into the water body, collectively, must not exceed the TMDL. In general terms, MS4 and other dischargers in each watershed are collectively responsible for meeting the required reductions and other TMDL requirements by the assigned deadline. Table 5.9-1, *List of 303(d) Impairments and TMDLs*, shows the 303(d) listed impairments established for 2020 to 2022 (SWRCB 2022a).

Table 5.9-1 List of 303(d) Impairments and TMDLs

Water Body/Channel	List of 303(d) Impairments	TMDL Status
Anaheim Bay	Nickel PCBs Toxicity	Expected TMDL Completion Date 2019 Expected TMDL Completion Date 2019 Expected TMDL Completion Date 2019
Bolsa Chica Channel	Ammonia (Unionized) Indicator Bacteria pH	Expected TMDL Completion Date 2021 Expected TMDL Completion Date 2021 Expected TMDL Completion Date 2021
Bolsa Chica Ecological Reserve	Toxicity	Expected TMDL Completion Date 2027
Bolsa Chica State Beach	Copper Nickel	Expected TMDL Completion Date 2019 Expected TMDL Completion Date 2019
East Garden Grove Wintersburg Channel	Ammonia (Unionized)	Expected TMDL Completion Date 2021
Source: SWRCB 2022b.		

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Source: City of Anaheim Public Works Department January, 2006.

Figure 5.9-1
City of Anaheim Watersheds

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Groundwater Supply

The Orange County (OC) Basin underlies the northerly half of Orange County beneath broad lowlands (see Figure 5.9-2, *Groundwater Basins*). The OC Basin managed by OCWD covers an area of approximately 350 square miles, bordered by the Coyote and Chino Hills to the north, the Santa Ana Mountains to the northeast, and the Pacific Ocean to the southwest. The OC Basin boundary extends to the Orange County–Los Angeles County line to the northwest, where groundwater flows across the county line into the Central Groundwater Basin of Los Angeles County. The total thickness of sedimentary rocks in the OC Basin is over 20,000 feet, with only the upper 2,000 to 4,000 feet containing fresh water. The Pleistocene or younger aquifers composing this OC Basin are over 2,000 feet deep and form a complex series of interconnected sand and gravel deposits. The OC Basin’s full volume is approximately 66 million acre-feet.

The OCWD was formed in 1933 by a special legislative act of the California State Legislature to protect and manage the county’s vast, natural groundwater supply using the best available technology and defend its water rights to the OC Basin. Groundwater levels are managed within a safe basin operating range to protect the long-term sustainability of the OC Basin and to protect against land subsidence. OCWD regulates groundwater levels in the OC Basin by regulating the annual amount of pumping. The Basin has been operated within its sustainable yield for more than 10 years without degrading water quality, reducing storage, or lowering groundwater levels.

In 1928, Anaheim, Fullerton, and Santa Ana joined 10 other Southern California cities in the formation of the Metropolitan Water District of Southern California (MWD). The aim was to import water from the Colorado River. The supplemental water supplies of MWD encouraged other Orange County water providers to collaborate, creating the Coastal Municipal Water District in 1941 and Orange County Municipal Water District in 1951. The district would later change its name to Municipal Water District of Orange County (MWDOC).

The OC Basin is not adjudicated, and therefore pumping from the OC Basin is managed through a process that uses financial incentives to encourage groundwater producers to pump a sustainable amount of water. The framework for the financial incentives is based on establishing the basin production percentage (BPP), the percentage of each producer’s total water supply that comes from groundwater pumped from the OC Basin. Groundwater production at or below the BPP is assessed a replenishment assessment. There is no legal limit as to how much an agency pumps from the OC Basin, but agencies that pump above the BPP are charged the replenishment assessment plus the basin equity assessment, which is calculated so that the cost of groundwater production is greater than MWDOC’s full-service rate. The basin equity assessment can be increased to discourage production above the BPP. The BPP is set uniformly for all producers by OCWD on an annual basis.

Groundwater production accounts for roughly 70 percent of the water supply in the plan area. The City’s water system has a total of 18 groundwater wells (Psomas 2021).

Groundwater Recharge Facilities

Recharging water into the OC Basin through natural and artificial means is essential to support pumping from the basin. Active recharge of groundwater began in 1949, in response to increasing drawdown of the OC Basin

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and the consequent threat of seawater intrusion. The OC Basin's primary source of recharge is flow from the Santa Ana River, which is diverted into recharge basins, and its main Orange County tributary, Santiago Creek. Other sources of recharge water include natural infiltration, recycled water, and imported water. Natural recharge consists of subsurface inflow from local hills and mountains, infiltration of precipitation and irrigation water, recharge in small flood control channels, and groundwater underflow to and from Los Angeles County and the ocean.

Untreated imported water is used to recharge the OC Basin through the surface water recharge system in multiple locations, such as Anaheim Lake, Santa Ana River, Irvine Lake, and San Antonio Creek (see Figure 5.9-2). Treated imported water can be used for in-lieu recharge.

OCWD, MWD, and MWD have developed a successful and efficient groundwater replenishment program to increase storage in the OC Basin. The groundwater replenishment program allows MWD to sell groundwater replenishment water to OCWD and make direct deliveries to agency distribution systems in lieu of producing water from the groundwater basin when surplus surface water is available. This program indirectly replenishes the OC Basin by avoiding pumping. In the in-lieu program, OCWD requests an agency to halt pumping from specified wells. The agency then takes replacement water through its import connections, which is purchased by OCWD from MWD. OCWD purchases the water at a reduced rate, then bills the agency for the amount it would have had to pay for energy and the replenishment assessment if it had produced the water from its wells. The deferred local production results in water being left in local storage for future use (Psomas 2021).

Groundwater Quality

OCWD is responsible for managing the OC Basin. To maintain groundwater quality, OCWD conducts an extensive monitoring program to manage the OC Basin's groundwater production, control groundwater contamination, and comply with all laws and regulations. A network of nearly 700 wells provides OCWD with samples that are tested for a variety of purposes. OCWD collects 600 to 1,700 samples each month to monitor basin water quality. These samples are collected and tested according to approved federal and state procedures as well as industry-recognized quality assurance and control protocols.

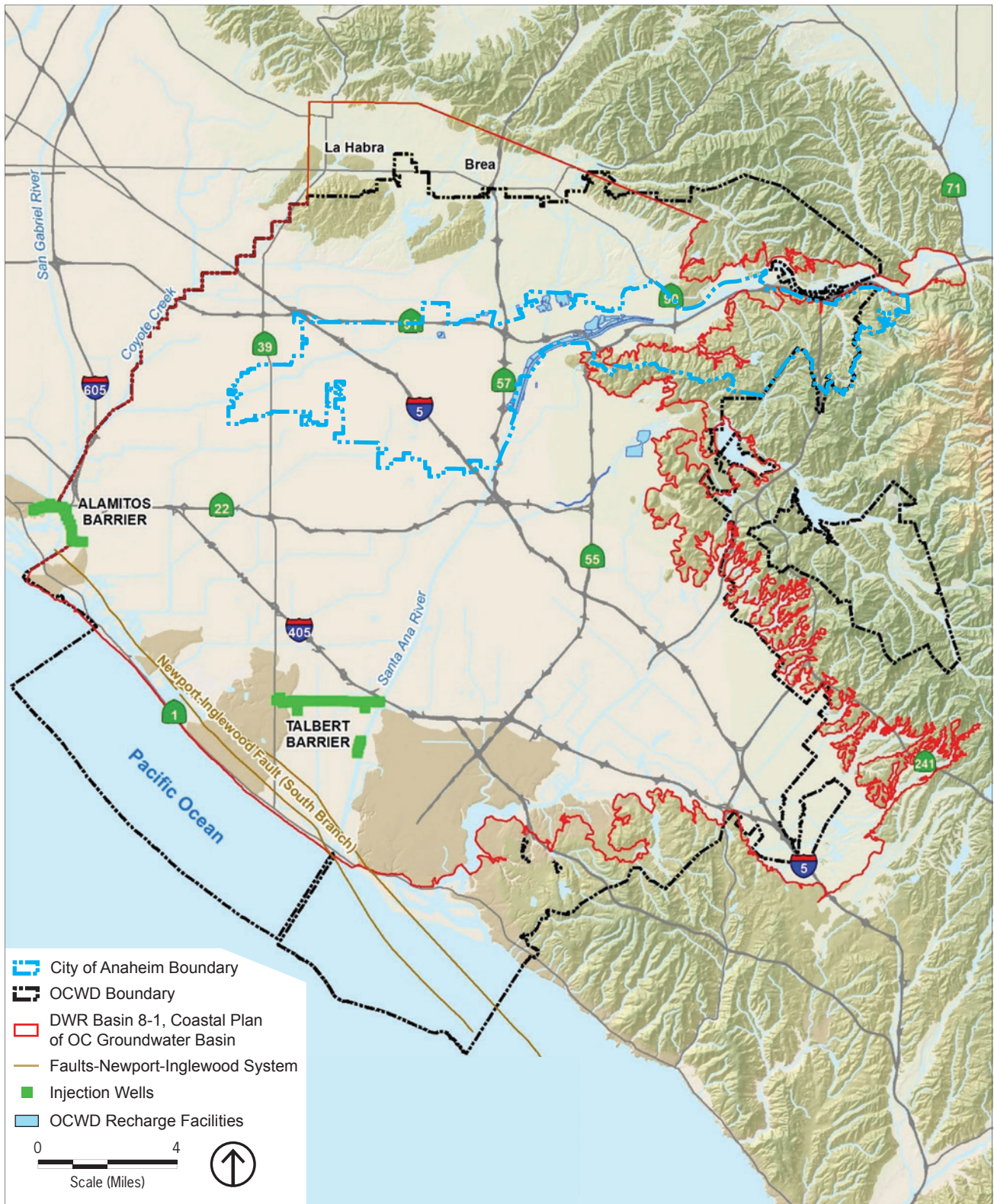
The OC Basin also has prescribed beneficial uses and water quality objectives. According to the Santa Ana RWQCB Basin Plan, beneficial uses for the Orange Groundwater Management Zone include:

- MUN – Municipal and Domestic Supply
- AGR – Agricultural Supply
- IND – Industrial Service Supply
- PROC – Industrial Process Supply

Numeric water quality objectives in the Basin Plan have been established for the OC Basin:

- Total Dissolved Solids: 580 milligrams per liter (mg/L)
- Nitrate as Nitrogen: 3.4 mg/L

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Source: Anaheim Public Utilities, June 2021.

Figure 5.9-2
Groundwater Basins

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Salinity is a significant water quality problem in many parts of southern California, including Orange County. Salinity is a measure of the dissolved minerals in water, including both total dissolved solids (TDS) and nitrates. The portions of the OC Basin with the highest levels are generally in the cities of Irvine, Tustin, Yorba Linda, Anaheim, Placentia, and Fullerton. OCWD continually monitors the levels of TDS in wells throughout the OC Basin. The TDS concentration in the OC Basin is expected to decrease over time because the TDS concentration of the water used to recharge the OC Basin is approximately 50 mg/L.

Nitrates are one of the most common and widespread contaminants in groundwater supplies, originating from fertilizer use, animal feedlots, wastewater disposal systems, and other sources. The maximum contaminant level for nitrate in drinking water is 10 mg/L. OCWD regularly monitors nitrate levels in groundwater and works with producers to treat wells that have exceeded safe levels of nitrate concentrations. OCWD manages the nitrate concentration of water recharged by its facilities to reduce nitrate concentrations in groundwater. Other contaminants that OCWD monitors in the OC Basin include:

- Methyl tertiary butyl ether¹
- Volatile organic compounds
- NDMA²
- 1-4-dioxane³
- Perchlorate⁴
- Selenium
- Constituents of emerging concern⁵

Storm Drain System

Storm drain lines throughout the plan area include both City and OCFCD drainage facilities to convey stormwater runoff. In 1973, the City completed a Master Plan of Drainage. The report divided the City into 42 drainage districts based generally on local storm drainage facilities and the City limits at that time. In 1983, two additional drainage districts were added for a total of 44 drainage districts. Since that time, City limits have changed to include more tributary areas, and the City changed its drainage classification system to watersheds that are tributary to the County of Orange's regional drainage facilities. The City of Anaheim is divided into eight major watershed tributary areas, as shown on Figure 5.9-3, *Drainage Watersheds*. Each of these watersheds include several of the districts from the 1973 Master Plan.

¹ MTBE is almost exclusively used as a fuel additive in gasoline.

² NDMA can be unintentionally produced in and released from industrial sources. Potential industrial sources include byproducts from tanneries, pesticide manufacturing plants, rubber and tire manufacturers, alkylamine manufacture and use sites, fish processing facilities, foundries and dye manufacturers.

³ 1,4-Dioxane is a trace contaminant of some chemicals used in cosmetics, detergents, and shampoos.

⁴ Perchlorate is used in munitions, fireworks, explosives, airbag initiators for vehicles, matches, signal flares, fertilizers, chlorine cleaners, and pool chlorination chemicals.

⁵ Contaminants that are hardest to treat, not regulated and/or routinely monitored, and have not been adequately tested for human or ecological toxicity.

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The City storm drain infrastructure feeds to a series of OCFCD regional drainage channels. These channels and their respective drainage areas divide the plan area into eight major tributary areas, named after the drainage channel. A description of the tributary areas is provided below and is shown on Figure 5.9-3:

- **East Garden Grove-Wintersburg Channel.** The East Garden Grove-Wintersburg Channel tributary area is in the southernmost portion of the city between Anaheim-Barber City Channel and North and West Santa Ana River. East Garden Grove Wintersburg Channel is a trapezoidal channel that is tributary to Ocean View Channel, which is tributary to the ocean. This tributary area consists of facilities that are tributary to OCFCD regional facilities, the East Garden Grove Wintersburg Channel, and the Haster Basin. The Platinum Triangle is in this tributary area.
- **Stanton Channel.** The Stanton Channel tributary area consists of three separate areas in the southwest portion of the City. All three areas are tributary to Stanton Channel, which is tributary to the ocean. This tributary area consists of three storm drain facilities, all of which are owned and maintained by the County of Orange and all of which are tributaries of the Bolsa Chica Flood Control Channel.
- **Anaheim-Barber City Channel.** The Anaheim-Barber City Channel tributary area is located in the southern portion of the city and drains into the Anaheim-Barber City Channel watershed approximately 2,000 feet downstream within the city of Stanton. The Anaheim-Barber City Channel is tributary to Stanton Channel, which is tributary to the ocean.
- **Carbon Creek Channel.** The Carbon Creek Channel tributary area is located in the western portion of the city and drains into the Carbon Creek Channel watershed. Carbon Creek Channel is a trapezoidal earthen rip rap channel that is tributary to the Coyote Creek Channel.
- **Fullerton Creek Channel.** The Fullerton Creek Channel tributary area is in the northern portion of the city. The Fullerton Channel is a trapezoidal concrete-lined channel that is tributary to Coyote Creek Channel.
- **Moody Creek Channel.** The Moody Channel tributary area comprises two separate areas in the western portion of the city. Both areas are tributary to the Crescent Avenue Storm Drain, which is tributary to Moody Creek Channel, which is tributary to Coyote Creek Channel.
- **North and West Santa Ana River.** The North and West Santa Ana River tributary area consists of the area north and west of the Santa Ana River. The Santa Ana River is tributary to the ocean.
- **South and East Santa Ana River.** The South and East Santa Ana River tributary area consists of the areas south and east of the Santa Ana River in eastern Anaheim.

The City maintains a master plan of drainage for each tributary area to ensure that storm drain facilities are functioning effectively and are protective of property and people. The tributary areas are further divided into 44 drainage districts that were established by the 1973 Master Plan of Drainage. For an exhibit of the existing storm drain network, see Figure 5.9-4, *Existing Storm Drain Facilities*.



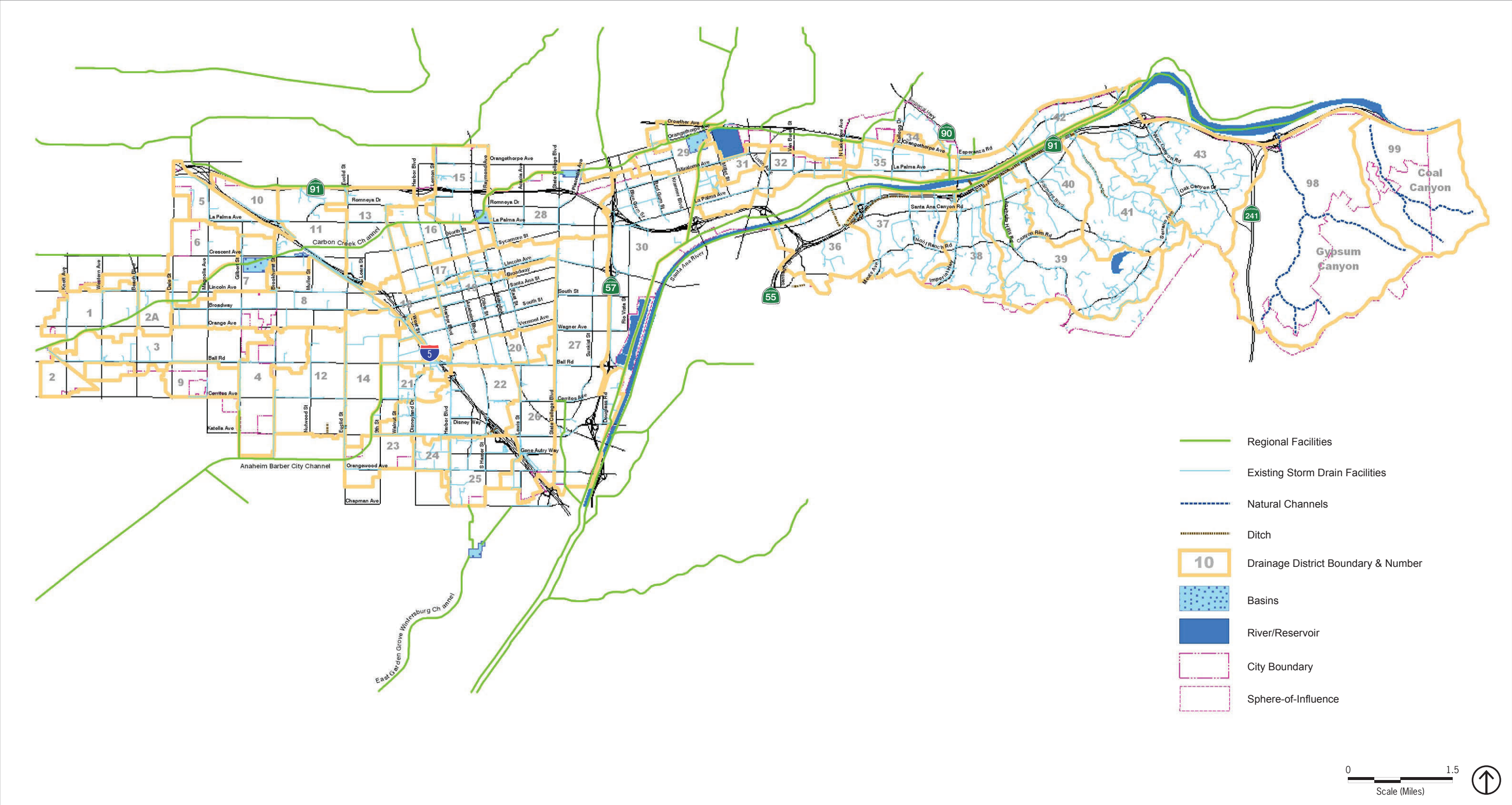
Figure 5.9-3
Drainage Watersheds

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Source: City of Anaheim, 2015.

Figure 5.9-4
Existing Storm Drain Facilities

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The eight master plans of drainage analyzed the capacity of the storm drain facilities in the City and identified any deficiencies or capital improvements needed, using the 10-year design storm to quantify peak runoff. Regional flood control facilities, such as detention basins, are sized for the 100-year storm event. This sizing criteria, along with flood capacities in the street, provide 100-year protection of structures throughout the City. This is in line with the FEMA Flood Insurance program, where all new developments and redevelopments must achieve 100-year storm protection. Hydrology and hydraulics analyses were performed in accordance with the city of Anaheim Department of Public Works 2005 Storm Drainage Manual. Drainage patterns were revised after a review of project plans to reflect new development and a subsequent field review. Land use data was obtained from the city of Anaheim's 2004 General Plan, and soils information was obtained from the 1986 Orange County Hydrology Manual.

The City manages storm drain projects on an annual basis through the adopted operating and stormwater program local implementation plan budget. After determining several projects with the highest priority, the selected projects are incorporated into the current fiscal year budget. The projects on the 2024-2025 capital improvement plan (CIP) budget for the City and County's CIP (for projects that affect the City) budget are listed in Table 5.9-2, *Current City CIP List*. Improvements to storm drain infrastructure are included in the Watershed Protection Plan.

Table 5.9-2 Current City CIP List

Project Name	Description	Jurisdiction
Water Field Capital	Capital projects include replacing aging hydrants, meters, motors, pipes, pumps, and valves for water system reliability. Equipment in need of immediate replacement are performed by Anaheim Public Utilities (APU) field crews.	City
Pumping/Regulating Stations	Projects in this program focus on replacing and rehabilitating pump stations and pressure regulating (PR) stations that support the transfer of water to maintain adequate system pressure flows. APU's water system includes over 60 PR stations across 19 pressure zones.	City
Water Storage	The Water Utility's Water Storage Program enhances the strength and reliability of Anaheim's water storage tanks, ensuring sufficient water pressure and adequate water supplies, especially during peak hours or emergencies such as fires, main breaks, or earthquakes. This capital program also recoats existing water tanks throughout Anaheim for storage durability and protection from corrosion.	City
Water Mains	The citywide program for replacing aged or underperforming water mains, water valves, and water vaults enhances service reliability, reduces system leaks, and prevents unplanned pipeline failures. When feasible, new pipeline installations and replacement projects are coordinated with other city improvement projects, such as street, storm, and sewer improvements. This approach minimizes pavement replacement costs and disruptions to residents and businesses. APU prioritizes projects based on several criteria including age and condition of pipes and utilizes an asset management system that accounts for historical performance. Projects currently in various stages of design and construction include Cerritos Avenue from Brookhurst Street to Nutwood Street, La Palma Avenue/Tustin Avenue, La Palma Parkway from Harbor Boulevard to Anaheim Boulevard, Knott Avenue/Orange Avenue, Felicidad Street/Lemon Street/Freedom Avenue, and Holbrook Street.	City
Water Development Services	Projects in this category provide water development services for facility improvements and new development in Anaheim. These projects range from single-family homes and commercial tenant improvements to large multi-use developments. Customers and commercial developers typically install water infrastructure according to APU standards.	City

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Table 5.9-2 Current City CIP List

Project Name	Description	Jurisdiction
Water System Reliability	This program includes ongoing citywide replacement, upgrades, and new installations of water facilities or components as related to water treatment, security, and system control. The groundwater treatment program is included which enables the use of lower cost groundwater. The majority of capital costs are reimbursable through OCWD.	City
Storm Drain Construction	These projects will address the stormwater improvements. The State College Boulevard project design is planned to divert and capture the stormwater to recharge the groundwater as well as mitigate the local flooding.	City
Carbon Creek Channel (B01)	This project consists of reconstructing the existing trapezoidal earthen rip rap channel per assessment report, allowing the channel reach to convey a 100-year storm. Reconstruction would occur from Gilbert Street to Euclid Street, and from Western Avenue to Dale Avenue.	County
East Garden Grove-Wintersburg Channel (C05)	This project consists of reconstructing the existing trapezoidal earthen rip rap channel to a concrete rectangular channel, allowing the channel reach to convey a 100-year storm. Reconstruction would occur from Quartz Street to Bushard Boulevard, Bushard Street to McFadden Avenue/Brookhurst Street, McFadden Avenue/Brookhurst Street to Ward Street, and Tide Gates to Graham Street.	County
Fullerton Creek Channel	This project consists of reconstructing the existing trapezoidal concrete lined channel and constructing concrete U-channel to convey a 100-year storm. Reconstruction would occur from Interstate 5 to Dale Avenue.	County

Sources: Anaheim PW 2024; OCPW 2024.

Flood Hazards

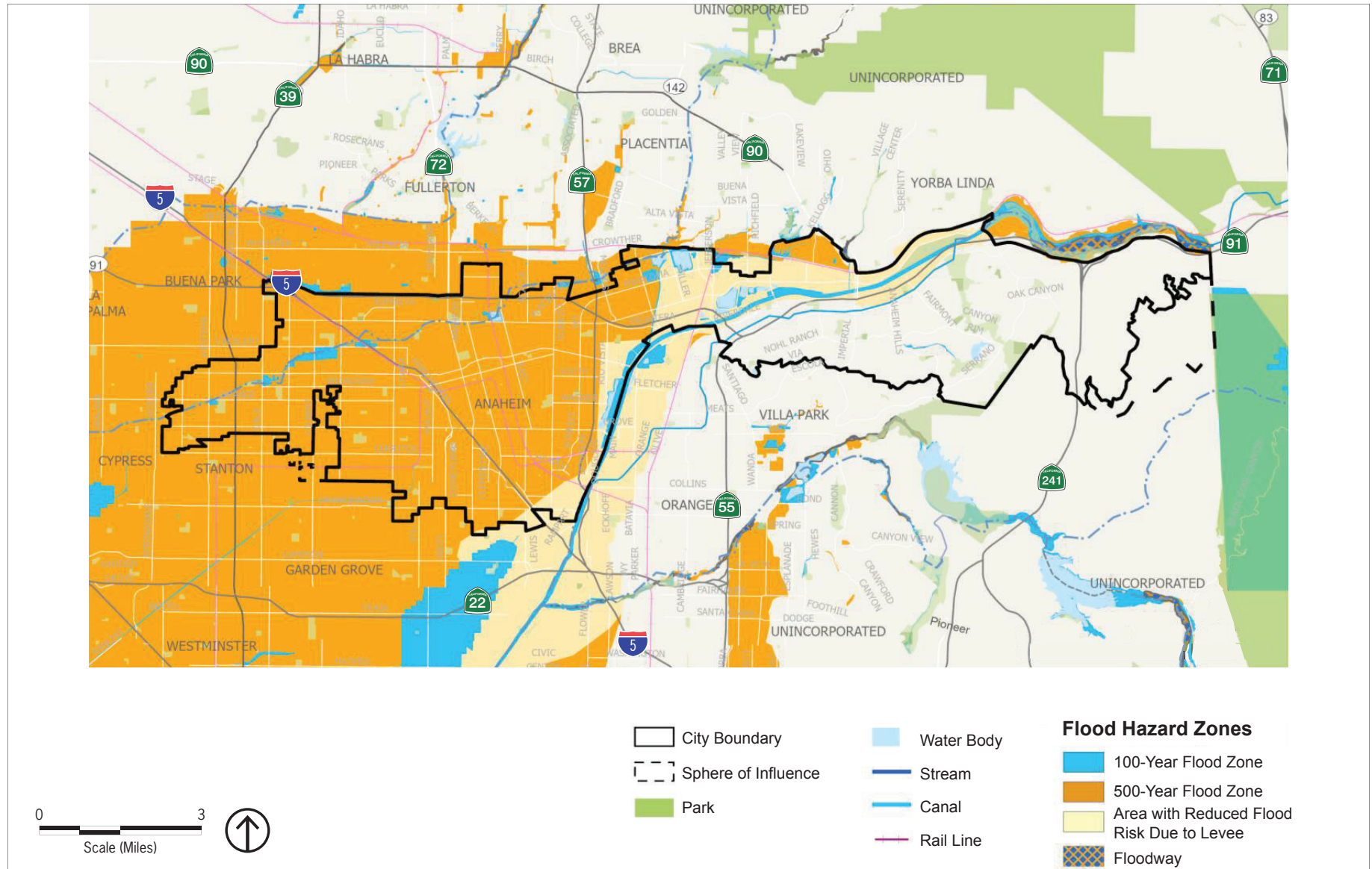
Flood Zones

According to the Safety Element of the General Plan and as shown on Figure 5.9-5, *Flood Zones*, a majority of the regions in the western and central portions of the City are within a 500-year flood hazard area (Anaheim 2023). There are scattered portions throughout the northern part of the City that are within a 100-year flood hazard area, that is, with a 1 percent annual chance of flooding each year and a 26 percent chance of flooding over the life of a 30-year mortgage. Specifically, areas along the Santa Ana River and Carbon Creek are within the floodway and the 100-year flood hazard area. The eastern portion of the City is identified as being in an area with reduced flood risk due to a levee. According to FEMA, areas that are between the limits of the 100-year and 500-year flood hazard and areas within the 500-year Flood Hazard are considered moderate to low risk flood hazard areas (FEMA 2024); areas within a 100-year flood hazard area are considered high risk flood hazard areas (FEMA 2024).

Seismically Induced Dam Inundation

Dam inundation poses a flooding risk to the City due to the City's proximity to several dams. The biggest inundation threat comes from the Prado Dam, approximately 2.5 miles east of the City limits. The dam inundation areas for the City are illustrated on Figure 5.9-6, *Dam Inundation Areas*. The inundation area contains public and residential uses. Other potential sources of inundation are the Diamond Valley East Lake, Carbon Canyon Reservoir and Walnut Canyon Reservoir.

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Source: City of Anaheim General Plan Safety Element, 2023.

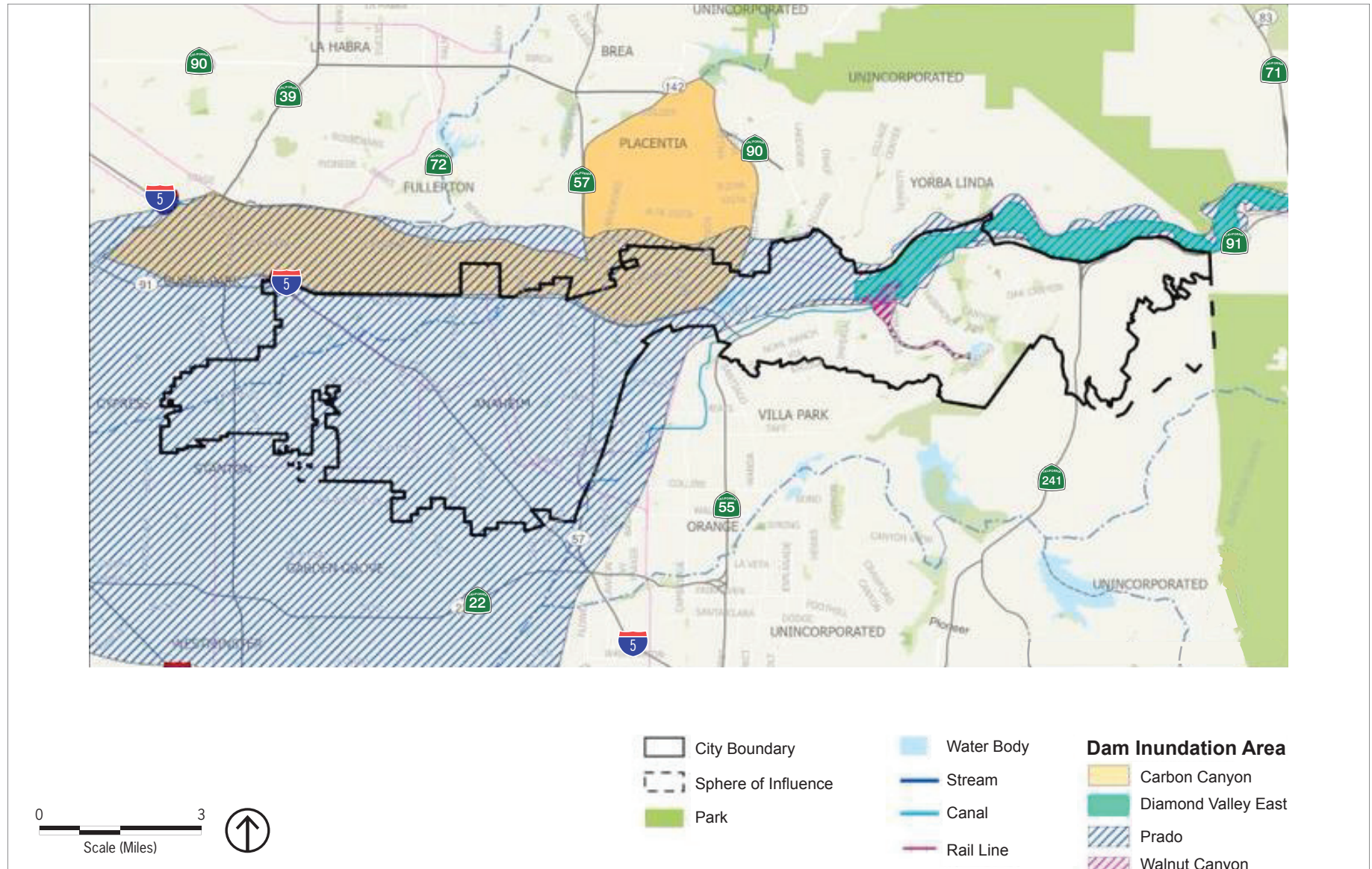
Figure 5.9-5
Flood Zones

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Source: City of Anaheim General Plan Safety Element, 2023.

Figure 5.9-6
Dam Inundation Zones

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The Prado Dam was built in 1941 and is owned and operated by the USACE, Los Angeles District. The Prado Dam and Reservoir comprises more than 11,500 acres, 4,100 acres of which are riparian habitat; 4,823 acres are recreation areas; and 2,400 acres are owned by the Orange County Water District. USACE owns 9,100 acres. The Prado Reservoir has a gross storage capacity of 217,000 acre-feet, of which 205,000 acre-feet are utilized for temporary storage of flood runoff and the remaining 12,00 acre-feet for sediment accumulation over a 50-year period. The dam's primary purpose is flood risk management (USACE 2024).

Seiches

A seiche is a surface wave created when an inland water body is shaken, usually by an earthquake or due to a change in atmospheric pressure. Inland water bodies in the City that could generate seiches are retention basins and reservoirs and include the Miraloma Basin and the Santa Ana River lakes.

Tsunami

A tsunami is a series of ocean waves caused by a sudden displacement of the ocean floor, most often due to earthquakes. The City is approximately 7.0 miles inland from the Pacific Ocean; therefore, the chances of a tsunami impacting the City are negligible.

5.9.2 Proposed General Plan Goals and Policies and Standard Conditions

The proposed project does not include any new or updated general plan goals and policies related to hydrology and water quality. The proposed project does not include any additional standard conditions.

5.9.3 Thresholds of Significance

The City of Anaheim considers a project to have a significant effect on the environment if the project would:

- HYD-1 Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality.
- HYD-2 Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin.
- HYD-3 Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:
 - i) Result in a substantial erosion or siltation on- or off-site.
 - ii) Substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or offsite.
 - iii) Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff.

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- iv) Impede or redirect flood flows.
- HYD-4 In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation.
- HYD-5 Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan.

5.9.4 Environmental Impacts

The following impact analysis addresses thresholds of significance that are identified in brackets after the impact statement.

Impact 5.9-1: Implementation of the proposed project would not violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality. [Threshold HYD-1]

Discharges from Construction Sites to Stormwater System

Buildout under the proposed project would involve soil disturbance, construction, and operation of developed land uses that could generate pollutants affecting stormwater. Buildout would involve construction of approximately 42,713 new housing units and an increase in non-residential development by 39,919,683 square feet compared to the existing conditions.

Clearing, grading, excavation, and construction activities associated with the proposed project have the potential to impact water quality through soil erosion and increase the amount of silt and debris carried in runoff. Additionally, the use of construction materials, such as fuels, solvents, and paints, may present a risk to surface water quality. Finally, the refueling and parking of construction vehicles and other equipment on-site during construction may result in oil, grease, or related pollutant leaks and spills that may discharge into the storm drain system.

The SWRCB mandates that projects that disturb one or more acres of land obtain coverage under the Statewide Construction General Permit to minimize potential impacts to water quality during the construction phase. The CGP Water Quality Order 2022-0057-DWQ requires the preparation and implementation of a SWPPP (General Plan Green Element Policy 1). A SWPPP requires the incorporation of BMPs to control sediment, erosion, and hazardous materials contamination of runoff during construction and prevent contaminants from reaching receiving water bodies (General Plan Green Element Policy 4). The CGP also requires that prior to the start of construction activities, the project applicant must file PRDs with the SWRCB, which include a Notice of Intent, risk assessment, site map, annual fee, signed certification statement, SWPPP, and post-construction water balance calculations. The construction contractor is always required to maintain a copy of the SWPPP at the site and implement all construction BMPs in the SWPPP. Prior to the issuance of a grading permit, the project applicant is required to provide proof of filing of the PRDs with the SWRCB. Categories of potential BMPs that would be implemented for this project are described in Table 5.9-3, *Construction BMPs*.

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Table 5.9-3 Construction BMPs

Category	Purpose	Examples
Erosion Controls	Protects the soil surface and prevents soil particles from being detached by rainfall, flowing water, or wind.	Scheduling, preserving existing conditions, mulch, soil binders, geotextiles, mats, hydroseeding, earth dikes, swales, velocity dissipating devices, slope drains, streambank stabilization, compost blankets, soil preparation/roughening, and non-vegetative stabilization.
Sediment Controls	Traps soil particles after they have been detached and moved by rain, flowing water, or wind.	Barriers such as silt fences, straw bales, sandbags, fiber rolls, and gravel bag berms; sediment basins; sediment traps; check dams; storm drain inlet protection; compost socks and berms; biofilter bags; manufactured linear sediment controls; and cleaning measures such as street sweeping and vacuuming
Wind Erosion Controls	Minimizes dust nuisances.	Applying water or other dust palliatives to prevent or minimize dust nuisance, reducing soil-moving activities during high winds, and installing erosion control BMPs for temporary wind control.
Tracking Controls	Prevents or reduces the tracking of soil offsite by vehicles	Stabilized construction roadways and construction entrances/exits and entrance/outlet tire wash.
Non-Storm Water Management Controls	Prevents pollution by limiting or reducing potential pollutants at their source or eliminating off-site discharge. Prohibits illicit connections or discharges.	Water conservation practices, BMPs specifying methods for: dewatering operations; temporary stream crossings; clear water diversions; pile driving operations; temporary batch plants; demolition adjacent to water; materials over water; potable water and irrigation; paving and grinding operations; cleaning, fueling, and maintenance of vehicles and equipment; concrete curing; concrete finishing.
Waste Management and Controls (i.e., good housekeeping practices)	Management of materials and wastes to avoid contamination of stormwater.	Proper material delivery and storage and material use, spill prevention and control, stockpile management, contaminated soil management, and management of solid, concrete, sanitary/septic, liquid, and hazardous wastes.

Source: CASQA 2023.

Submittal of the PRDs and implementation of the SWPPP throughout the construction phase of projects pursuant to the proposed project would address anticipated and expected pollutants of concern as a result of construction activities.

Additionally, any proposed development with dewatering activities would abide by the requirements of the SWRCB's General Waste Discharge Requirements for Discharges to Land with a Low Threat to Water Quality. Any future construction activities that could impact jurisdictional waters or wetlands would require a permit and/or a water quality certification pursuant to sections 401 and 404 of the Clean Water Act. Any activities that construct, modify, or destroy wells would comply with the requirements of Section 13751 of the California Water Code. Additionally, all construction activities would comply with the requirements of Chapters 10.09, 10.14, 10.20, 17.04, and 17.06 of the City's municipal code. As a result, water quality impacts associated with construction activities would be less than significant.

Discharges from Developed Land Uses (Postconstruction) to Stormwater

With the proposed land use changes, development resulting from the proposed project may have long-term impacts on the quality of stormwater and urban runoff, subsequently impacting downstream water quality. Development projects could create new sources for runoff contamination through changing land uses.

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Consequently, proposed developments may have the potential to increase the postconstruction pollutant loadings of certain constituent pollutants associated with the proposed land uses and their associated features, such as landscaping and plaza areas.

To help prevent long-term impacts associated with land use changes and in accordance with the requirements of the County of Orange and OCFCD local implementation plan and consistent with OC Drainage Area Management Plan and Fourth-Term MS4 permit, designated new development and significant redevelopment projects must incorporate LID/site design and source control BMPs to address post-construction stormwater runoff management. In addition, future projects are required to implement site design/LID and source control BMPs applicable to their specific priority project category as well as implement treatment control BMPs where necessary. Selection of LID and additional treatment control BMPs is based on the pollutants of concern for the specific project site and the BMP's ability to effectively treat those pollutants, in consideration of site conditions and constraints. Further, priority projects must develop a project-specific postconstruction stormwater management plan that describes the menu of BMPs chosen for the project and includes operation and maintenance requirements for all structural and any treatment control BMPs.

Since the proposed project does not include specific or detailed development plans, project-specific stormwater management plans would not be required at this time. Future project-specific stormwater management plans, preliminary and/or final, would be prepared consistent with the prevailing terms and conditions of the Orange County MS4 and Chapter 10.09 of the Anaheim Municipal Code at the time of project application. Moreover, LID and water quality treatment solutions prescribed in a project-specific stormwater management plan shall be designed to support or enhance the regional BMPs and efforts implemented by the city to improve water quality. Furthermore, Chapter 10.09 prohibits illicit connections to the storm drainage system and forbids prohibited discharges. All development that discharges stormwater associated with industrial activity must also comply with the requirements of the General Industrial Permit (Order No. Order No. 2014-0057-DWQ and amended by 2015-0122-DWQ). Additionally, the City is mandated to comply with the requirements of the statewide mandate to reduce trash in receiving waters. Those requirements include the installation and maintenance of trash-screening devices at all public curb inlets, grate inlets, and catch basin inlets. The trash-screening devices must be approved by the local agency and be consistent with the minimum standards of the trash TMDL.

Furthermore, drainage patterns would largely be maintained and would utilize the existing drainage facilities within the public right-of-way. Current runoff is captured and conveyed by existing storm drain infrastructure throughout the City before discharging to county drainage channels and to the Pacific Ocean. The City is largely urbanized apart from the foothills and open space areas in the eastern portion of the City, where there are limited land uses changes under the proposed project. For areas that are tributary to streams that may be susceptible to scour, hydromodification requirements as part of the regional MS4 permit would ensure that impacts are minimized. Therefore, overall impacts are less than significant.

Level of Significance Before Mitigation: Impact 5.9-1 would be less than significant.

Mitigation Measures: No mitigation measures are required.

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Impact 5.9-2: Implementation of the proposed project would increase the demand on groundwater use but would not impede sustainable groundwater management of the basin. [Threshold HYD-2]

The City relies on local groundwater resources for approximately 70 percent of its water supply in addition to imported water from MWD and recycled water. For the purposes of the project-specific Water Supply Assessment (WSA), buildout of the proposed project was estimated to be 2045. The proposed project would result in net water demand increase of 3,631 acre-feet per year. The WSA noted that the City is projected to have sufficient imported and groundwater supplies to meet normal, single-dry year, and multiple-dry year conditions with the addition of the new proposed net project demands since MWD has projected supply surpluses for each of these conditions and the City can increase groundwater production consistent with its available well capacity, if needed (Psomas 2024).

The proposed project would focus on infill development opportunities within the City; a majority of the properties proposed for land use changes are located within the central area of the City with the remaining properties within the western area of the City. These areas of the City are urbanized and developed and not available for groundwater recharge. The City participates in the Groundwater Replenishment System, which was constructed as a joint project of OCWD and the Orange County Sanitation District to recycle wastewater. Treated water from the Groundwater Replenish System is returned to the basin via recharge basins (Kraemer and Miller) in the City and direct injection near the coast (OCWD 2024). Both the Kraemer and Miller recharge basins are in the northern portion of the City. Additionally, OCWD purchases imported water for groundwater recharge to sustain groundwater pumping levels and refill the basin. Imported water is purchased from the Metropolitan Water District. The proposed project would not change the land use designations for the Kraemer or Miller recharge basins, and the proposed project would not interfere with OCWD's ability to purchase imported water for groundwater recharge. Thus, the proposed project would not interfere with groundwater recharge in such a manner that would impede sustainable groundwater management of the basin. The OC Basin is covered by Basin 8-1 Alternative Plan (Alternative Plan), and the groundwater management strategies laid out in the Alternative Plan have been approved by the State Department of Water Resources. The Alternative Plan is updated and resubmitted every five years as part of SGMA requirements.

Based on the forgoing analysis, impacts to the sustainable management of groundwater would be less than significant.

Level of Significance Before Mitigation: Impact 5.9-2 would be less than significant.

Mitigation Measures: No mitigation measures are required.

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Impact 5.9-3: Implementation of the proposed project would increase the amount of impervious surfaces in the plan area, would not substantially increase the rate or amount of surface runoff in a manner which would result in erosion or siltation, flooding off-site or on-site, or contribute runoff water that would exceed the capacity of existing or planned stormwater drainage systems. [Thresholds HYD-3 (i), (ii) and (iii)]

As previously described, the City is largely developed and there are no major areas of undeveloped land, apart from properties in the eastern portion of the City. Implementation of the proposed project would occur throughout the City, but would focus development and redevelopment in the western and central portions of the City, which are characterized by urban and developed environments. Development under the proposed project is largely expected to maintain existing drainage patterns and utilize the existing.

Erosion, Siltation, and Surface Runoff

Future development under the proposed project would have the potential to result in increased erosion or siltation both on- and off-site during construction and operation of future development. The alteration of drainage patterns and increase in runoff associated with the addition of impervious surfaces and structures may increase the frequency and amount of flooding, which has the potential to result in an accelerated rate of erosion and siltation.

The CGP, as discussed in Impact 5.9-1, requires preparation and implementation of a SWPPP for projects that would disturb one or more acres and include construction or demolition activity, including but not limited to, clearing, grading, grubbing, or excavation, or any other activity that results in a land disturbance of equal to or greater than one acre. The SWPPP would provide construction BMPs to reduce erosion, siltation, and other runoff-related impacts resulting from construction from future development projects. Additionally, future development projects would comply with General Plan Green Element Policies 1 and 4 to reduce erosion, siltation, and other run-off impacts.

Operation of future development under the proposed project would have the potential to increase surface runoff and change flow velocities or quantities. Although future site-specific development would be located primarily within the central and western portions of the City, which are urbanized, the potential exists to affect downstream properties if the drainage patterns are changed.

For smaller infill development project under the proposed project that would not substantially increase impervious surface area, compliance with City stormwater requirements would reduce operational impacts. Larger site-specific projects resulting in substantial changes in drainage patterns, impervious surfaces, and resulting surface runoff, would require preparation of a hydrology or drainage study to determine the pre- and post-construction peak runoff flow rates and velocities existing at the project site as well as the potential for siltation and erosion for site discharging to naturally lined water bodies. Post-construction erosion and siltation resulting from increased runoff would generally be avoided or reduced through site design and hydromodification control BMPs as required by the MS4 permit. Future development projects would also be required to comply with City Standard Conditions SC HYD-1, SC HYD-3 through SC HYD-5. Moreover, future site-specific development projects would be required to prepare a WQMP and identify

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hydromodification control BMPs to address any hydrologic conditions of concerns identified that impact downstream channels and aquatic habitats.

Therefore, compliance with existing regulations addressing stormwater runoff-related impacts would reduce potential project-related construction and operational impacts to existing drainage patterns in the area to less than significant levels.

Storm Drainage Capacity

A majority of the City is largely built out, and implementation of the proposed project would occur throughout the City, but would focus development and redevelopment in the western and central portions of the City. There are no major areas of undeveloped land that would be developed under the proposed project. Operation of future development associated with the proposed project could result in increased impervious surfaces resulting in increased volumes of stormwater runoff affecting the existing storm water drainage system. Most rainfall becomes runoff due to minimal opportunities for infiltration in developed areas, resulting in high peak flow rates for short durations. Although future development under the proposed project would largely occur within the central and western portions of the City, future development may result in an increase in impervious surfaces with the potential to change runoff characteristics, including volume of runoff, rate of runoff, and drainage patterns.

With new development under the proposed project, drainage patterns would largely be maintained; new development would use the existing drainage facilities within the public rights-of-way. Current runoff is captured and conveyed by existing storm drain infrastructure in the City before discharging to County drainage channels and to the Pacific Ocean. To minimize potential post-construction stormwater capacity impacts, future development projects would be required to prepare WQMPs and incorporate LID principles. As part of the development process, detailed hydrology studies would be required (Municipal Code Section 17.28.100), and execute a Save Harmless Agreement with the City for any storm drain connects to a City storm drain system (City Standard Condition SC HYD-2). Peak flows would also be decreased overall due to the implementation of landscaping and City BMP requirements as well as LID features associated with water quality regulations. These features would increase pervious areas, which would decrease stormwater flows. On-site storm drain systems would likely change with the individual project components but would still use the existing City facilities within the public rights-of-way. Implementation of proposed land uses in future development and redevelopment areas would not result in substantial increases in surface water peak flows or volumes over the existing conditions and would likely result in reduced discharges due to onsite water quality and LID features and BMPs.

It should be noted that improvement projects for the City's storm drain system have been identified in the City's eight storm drain master plans, the City's adopted operating and capital improvement projects budget for fiscal year 2023-2024, and the County's 2024/25-2030/31 CIP plan. Projects are prioritized based on various factors including infrastructure age, condition, material type, maintenance/repair history, community impact, and connection or proximity to other City projects. Furthermore, the City would continue to work with OCFCD to ensure that flood control facilities are well-maintained and capable of accommodating, at a minimum, future 25-year storm flows for City-owned and -maintained facilities, and 100-year storm flows for

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County facilities. Where local drainage improvements have the potential to increase discharges to County facilities, potential impacts to County facilities must be analyzed by the City.

Based on the foregoing analysis, impacts due to development pursuant to the proposed project would be less than significant.

Level of Significance Before Mitigation: Impact 5.9-3 would be less than significant.

Mitigation Measures: No mitigation measures are required.

Impact 5.9-4: In flood hazard, tsunami, or seiche zones, development pursuant to proposed project would not risk release of pollutants due to project inundation or impede or redirect flood flows. [Thresholds HYD-3 (iv) and HYD-4]

As shown in Figure 5.9-5, a majority of the City is designated in a minimal flood zone area, and scattered portions of the City are in a 100-year flood zone area. As applicable, developments would show FEMA flood zones on the site plan, and building sites may be subject to a City floodplain development permit or flood zone clearance. All development projects would comply with the requirements of Chapter 17.28 of the Municipal Code, which includes floodproofing requirements that apply to all areas of special flood hazards identified by FEMA. No structures would be constructed, located, extended, converted, or altered without full compliance with the terms of Chapter 17.28, including the need for a development permit before any construction begins. Furthermore, development projects in the Floodplain (FP) Overlay Zone would comply with the requirements of Chapter 18.28 of the Municipal Code, which establishes permitted uses, required procedures, and development standards for all special flood hazard areas identified by FEMA. Additionally, future development would be required to comply with General Plan Safety Element policies 3.1-1, 3.1-4, 3.1-5, 3.1-7, and 3.1-9 to ensure that communities are resilient to the effects of flooding and dam inundation hazards.

As shown on Figure 5.9-6, the dam inundation area of the Prado Dam extends into the City. Dam owners are required to maintain emergency action plans that include procedures for damage assessment and emergency warnings in accordance with Title 18, Part 12(c) of the Code of Federal Regulations. An emergency action plan identifies potential emergency conditions at a dam and specifies preplanned actions to help minimize property damage and loss of life. It also contains procedures and information that instruct dam owners to issue early warning and notification messages to downstream emergency management authorities. The Prado Dam has been assessed by USACE to have no existing or potential dam safety deficiencies (USACE 2024). Therefore, impacts due to inundation are less than significant.

There are several water bodies in the City that could generate seiches as the result of an earthquake or other disturbance; however, hazardous conditions related to a seiche within these waterbodies are unlikely given the small sizes of the waterbodies. Additionally, the City is approximately 7.0 miles inland from the Pacific Ocean; therefore, the chances of a tsunami impacting the City are negligible.

Therefore, impacts from floods, dam inundation, seiches, or tsunamis would be less than significant.

Level of Significance Before Mitigation: Impact 5.9-4 would be less than significant.

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Mitigation Measures: No mitigation measures are required.

Impact 5.9-5: Projects pursuant to the proposed project would not conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan. [Threshold HYD-5]

New development and redevelopment pursuant to the proposed project would implement the requirements of the CGP, the Orange County MS4 Permit, and compliance with Section 10.09 of the Municipal Code. Furthermore, any industrial development and redevelopment would abide by the General Industrial Permit, and well installation or decommissioning would be conducted in accordance with Section 13751 of the Water Code. Additionally, as discussed under Threshold 5.9-1, any future construction activities that could impact jurisdictional waters or wetlands would require a permit and/or a water quality certification pursuant to sections 401 and 404 of the CWA. Adherence to these regulatory requirements would ensure that surface and groundwater quality are not adversely impacted during construction and operation of development pursuant to the proposed project. As a result, site development will not obstruct or conflict with the implementation of the Santa Ana River Basin Water Quality Control Plan.

As previously discussed, the City overlies the OC Basin, which is actively managed by numerous water agencies, including the Orange County Water District, City of La Habra, and Irvine Ranch Water District. The OC Basin is classified as a medium priority basin due to heavy reliance on the basin's groundwater as a source of water supply. The OCWD, City of La Habra, and Irvine Ranch Water District submitted the Basin 8-1 Alternative Plan for the Department of Water Resources to manage the basin. Proposed development would be connected to the City's public water supply, and on-site wells for use of groundwater would not be used in a way that would impair the obligation of the City to produce and distribute groundwater for present and future use, as codified in Section 10.20 of the Municipal Code. The City manages potable and non-potable supplies to ensure that withdrawals from the OC Basin do not exceed the safe yield for the basin. As discussed in Impact 5.9-2, increased demand due to development pursuant to the proposed would not adversely impact the sustainable management of the basin. Therefore, the proposed project would not obstruct or conflict with the Basin 8-1 Alternative Plan, and impacts would be less than significant.

Level of Significance Before Mitigation: Impact 5.9-5 would be less than significant.

Mitigation Measures: No mitigation measures are required.

5.9.5 Cumulative Impacts

The geographic area for the assessment of cumulative impacts related to hydrology and water quality is the City and the Santa Ana River Watershed area.

Cumulative projects have the potential to generate pollutants during project construction and operation. All construction projects that disturb one acre or more of land would be required to prepare and implement SWPPPs to obtain coverage under the Statewide CGP. All priority projects within the watershed would also be required to implement LID BMPs that would be applied during project design and project operation to minimize water pollution from project operation. Future projects implemented under the proposed project

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would be required to be consistent with applicable General Plan policies pertaining to hydrology and water quality. Thus, no significant cumulative water quality impacts would be expected to occur, and project water quality impacts would not be cumulatively considerable. Therefore, cumulative impacts would be less than significant.

The proposed project does not include any site-specific development but would enable future residential and nonresidential development. The proposed project is anticipated to result in increased population growth in the City, resulting in a corresponding increased water demand. The OC Basin is covered by the Alternative Plan, and the groundwater management strategies laid out in the Alternative Plan have been approved by the Department of Water Resources. The Alternative Plan ensures ongoing management of the OC Basin, assuring that the basin will be capable of supplying sufficient water to meet local needs, including future growth and development. The majority of the City is developed, apart from areas within the eastern portion of the City. Although future development and cumulative development have the potential to increase impervious surfaces, these areas are limited and do not provide for substantial groundwater recharge in the City and surrounding areas. Therefore, the proposed project's incremental effects involving a substantial decrease in groundwater supplies or substantial interference with groundwater recharge and is not cumulatively considerable.

Cumulative projects in the watershed management area could increase impervious areas and thus increase local runoff rates at those project sites. However, other projects in the region would be required to manage runoff on-site as applicable in accordance with the Orange County MS4 permit. While future development under the proposed project could increase the total amount of pollutants entering the downstream rivers and water bodies and could increase rates and volumes of stormwater runoff due to new impermeable surfaces, development pursuant to the proposed project would be subject to the regulatory requirements of the City's Municipal Permit, Municipal Code, and Standards Conditions.

Level of Significance Before Mitigation: Cumulative impacts would be less than significant.

Mitigation Measures: No mitigation measures are required.

5.9.6 Level of Significance Before Mitigation

Upon implementation of regulatory requirements and General Plan policies, Impacts 5.9-1 through 5.9-5 would have less than significant impacts.

5.9.7 Mitigation Measures

No significant impacts were identified and no mitigation measures are necessary.

5.9.8 Level of Significance After Mitigation

Impacts 5.9-1 through 5.9-5 would be less than significant with compliance with applicable regulatory requirements and General Plan policies.

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5.9.9 References

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5.10 LAND USE AND PLANNING

This section of the Draft Program Environmental Impact Report (Draft PEIR) discusses the potential impacts to land use in the City of Anaheim from implementation of the City of Anaheim's General Plan Focused Update (proposed project), and consistency with policies and programs related to land use.

Land use impacts can either be direct or indirect. Direct impacts are those that result in land use incompatibilities or division of neighborhood or communities. 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 vehicle miles traveled (VMT) on roadways. Indirect impacts are addressed in other sections of this Draft PEIR.

Comments related to land use and planning (consistency with Connect SoCal) were received from the Southern California Association of Governments (SCAG) during the scoping period for both the proposed project (see Appendix A) and the Center City Corridors Specific Plan (C3SP), which has been incorporated into the proposed project as the Center City Corridors Implementation Plan (C3 Plan) (see Appendix B).

5.10.1 Environmental Setting

5.10.1.1 REGULATORY BACKGROUND

State

Senate Bill 375

Signed on September 30, 2008, Senate Bill 375 (SB 375) provides for a new planning process to coordinate land use planning and regional transportation plans and funding priorities to help California meet the greenhouse gas reduction goals established in Assembly Bill 32 (AB 32). SB 375 requires Metropolitan Planning Organizations (MPO), including Southern California Association of Governments (SCAG), to incorporate a Sustainable Communities Strategy (SCS) in their regional transportation plans that will achieve greenhouse gas emission reduction targets set by California Air Resources Board. There are two important facets to SB 375: reducing vehicle miles traveled and encouraging more compact, complete, and efficient communities for the future. SB 375 also include provisions for exemptions from or streamlined CEQA review for projects classified as transit priority projects—projects that are consistent with SCS/Alternative Planning Strategy, at least 50 percent residential, minimum 20 dwelling units per acre, and within 0.5 mile of major transit stop or high-quality transit corridor (CA Legislative Information 2024).

State Planning and Zoning Law and California Complete Street Act

State Planning and Zoning Law (California Government Code Section 65300) requires every city in California to adopt a comprehensive, long-term general plan for the physical development of the city. 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 eight required elements (land use, circulation, housing, conservation, open space, noise, safety, and environmental justice), but

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allows some discretion on the arrangement and content. Additionally, each of the specific and applicable requirements in state planning and zoning 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, 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.

Regional

Southern California Association of Governments

SCAG is a council of governments covering 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 the South Coast Air Quality Management District, the California Department of Transportation, and other agencies in preparing regional planning documents. SCAG has developed regional plans to achieve specific regional objectives. The plan most applicable to the proposed project is "Connect SoCal."

Regional Transportation Plan/Sustainable Communities Strategy

On April 4, 2024, SCAG adopted the 2024-2050 Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS or Connect SoCal), which encompasses four principles—mobility, economy, healthy/complete communities, and environment—that are important to the region's future. This is an update to SCAG's 2020 RTP/SCS. Connect SoCal explicitly lays out goals related to housing, transportation technologies, equity, and resilience to adequately reflect the increasing importance of these topics in the region.

Master Plan of Arterial Highway

The Master Plan of Arterial Highways (MPAH) was initially established in 1956 to ensure that a regional arterial highway network would be planned, developed, and preserved to supplement the County's developing freeway system. Orange County Transportation Authority is responsible for administering the MPAH, including the review and approval of amendments requested by local agencies. The MPAH map illustrates both constructed and unconstructed (planned) arterial highways, including principal, major, primary, secondary, divided collector, and collector roadways, as well as freeways/toll roads, smart streets, interchanges, and right-of-way reserve (OCTA 2024).

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Orange County Congestion Management Program

California Law (Proposition 111) requires each county to adopt a congestion management program that outlines how vehicular congestion issues will be addressed over a seven-year period. The program was adopted in July 1991 by the Orange County Transportation Authority and is reviewed every two years.

Natural Community Conservation Act

The Natural Community Conservation Act and Sections 2800 to 2840 of the Fish and Game Code authorize the preparation of Natural Community Conservation Plans (NCCP) to protect natural communities and species while allowing a reasonable amount of economic development. Portions of the Hill and Canyon Area are within the NCCP for the County of Orange Central and Coastal Subregion. This NCCP was approved by the California Department of Fish and Game (now Fish and Wildlife) and the U.S. Fish and Wildlife Service in 1996 to address protection and management of coastal sage scrub (CSS) habitat and CSS-obligate species on a programmatic, subregional level rather than on a project-by-project, single species basis.

The NCCP provides for the protection of a number of plant and animal species, referred to as Target Species and Identified Species. There are also identified NCCP species that have conditional regulatory coverage under the NCCP. The conservation and management of these species is provided for under the NCCP/Habitat Conservation Plan (HCP). Development activity authorized under the NCCP necessarily includes protection of these species and means that no further action under the federal and California Endangered Species Acts, the National Environmental Protection Act, CEQA, or the Migratory Bird Treaty Act is required for the approved activity if any of the target or identified species be subsequently listed as endangered or threatened under any of these acts. As a consequence, target and identified species are considered sensitive.

Local

Anaheim General Plan Land Use Element and Land Use/Zoning Designations

The current City of Anaheim General Plan Land Use Element was adopted May 2004 and provides the basis for land use designations in the City. The principal method for the implementation of the General Plan is the zoning ordinance, or Title 18 of the Municipal Code. The zoning ordinance consists of two main elements: 1) a map that delineates the boundaries of districts, or “land use zones,” in which similar and compatible uses developed at similar and compatible standards are to be permitted and 2) text that explains the purpose of the zoning district, lists the permitted uses (as a “right” or under special conditions), and defines the standards for development (minimum lot size, density, height, property setbacks, lot coverage or floor area ratio, parking requirements, sign design, etc.).

Anaheim Zoning Ordinance

The City of Anaheim Zoning Ordinance is the primary tool for implementing the City’s General Plan (City of Anaheim 2024). It provides development standards (e.g., setbacks, building height, site coverage, parking, and sign requirements), identifies allowable land uses, and specifies other regulations. In addition to guiding the uses, design and improvements of development projects, the Zoning Ordinance provides detailed guidance for development based on and consistent with the land use policies established in the General Plan.

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Bicycle Master Plan

The City's Bicycle Master Plan was adopted by the City in 2017 and amended in 2020 to guide implementation of citywide bicycle facilities, and is intended to improve bicycling safety, comfort, and accessibility (Anaheim 2020). The Bicycle Master Plan identifies a network of existing and proposed bicycle facilities that will improve multi-modal connectivity and increase bicycle mode share, especially for short trips.

Standard Conditions of Approval

As a matter of practice, the City applies standard conditions for development projects that are intended to reduce environmental impacts. Currently, there are no standard conditions that are related to land use and planning.

5.10.1.2 EXISTING CONDITIONS

The planning area of the City of Anaheim encompasses approximately 50 square miles; it is the second largest city in Orange County and the tenth largest city in California. The City is surrounded by the cities of Buena Park, Fullerton, Placentia, and Yorba Lina to the north; unincorporated Orange County and Riverside County to the east; the cities of Orange, Garden Grove, Stanton, and unincorporated Orange County to the south; and the cities of Cypress and Buena Park to the west.

Existing Land Use

The City encompasses over 34,000 acres of land stretching nearly 20 miles along State Route 91 (SR-91); additionally, the City's sphere-of-influence encompasses 2,431. Regional access to and from Anaheim is provided by Interstate 5 (I-5), SR-57, SR-55, SR-241, Amtrak, and Metrolink.

Various types of land uses exist throughout the City and are categorized into 25 uses that can be grouped into 7 broad categories:

- Residential
- Commercial/Office
- Industrial/Manufacturing
- Parks/Open Space and Agriculture/Vacant
- Water Uses/Waterways
- Quasi-Public/Governmental
- Other

Acreages for each land use type are in Chapter 3, Table 3-2, *Current Anaheim General Plan (No Project) Land Use Statistical Summary*. The following paragraphs describe each category.

Residential

Residential land uses account for nearly half of the total land area in the City, and the majority of these are devoted to single-family residential uses. Residential uses are found in nearly all areas of the City. A wide variety

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of housing types and affordability throughout the City makes it possible to provide for a population that is diverse in both age and income. Housing types range from large single-family hillside estates in the Hill and Canyon Area, to historic single-family homes in the Anaheim Colony, to duplexes and four-plexes, to multiple-family apartments and mixed-use development in the City's urban areas.

Commercial/Office

Retail and service commercial uses in Anaheim follow the same basic pattern as most cities in north Orange County—that is, they are primarily along arterial corridors. Two regional shopping areas are in the City—the Anaheim Plaza in West-Central Anaheim and the Festival Shopping Center in the Hill and Canyon Area. Office uses are generally dispersed throughout the City along arterial corridors and adjacent to its freeways, with small concentrations of larger-scale office buildings in the Platinum Triangle and Downtown areas. Commercial/office space accounts for approximately 3.7 percent of the total area.

Industrial/Manufacturing

Much of Anaheim's manufacturing and lighter industrial uses are concentrated in the Canyon and in areas north of Angel Stadium of Anaheim. Some of the City's older and heavier industrial uses are concentrated in the North Central Industrial Area, generally located on both sides of SR-91 between Lemon Street and Raymond Avenue/East Street, and in the southeastern portion of Downtown along the Metrolink railway. Additional industrial uses are found in other areas of the City, particularly along freeways and railroads.

Parks/Open Space and Agriculture/Vacant Lands

Anaheim's parks/open space and agriculture/vacant lands include sports fields; playgrounds; nature preserves, including the Coal Canyon Preserve, which is an important wildlife corridor that connects the Chino Hills State Park and Cleveland National Forest; golf courses; and other passive and active recreational uses. A more thorough discussion of Anaheim's existing and planned park and open space resources can be found in the General Plan Green Element and Section 5.14, *Recreation*, of this Draft PEIR.

Very little agricultural and/or vacant land remains that is not already entitled for future development. The primary exceptions include utility easements that are envisioned to serve as tail connections, passive open space, or low-intensity commercial uses. The largest piece of vacant land is in the Mountain Park Specific Plan area on the eastern edge of the City.

Water Uses/Waterways

The Santa Ana River is the most prominent water feature in Anaheim and runs through the Hill and Canyon Area and the Canyon alongside SR-91 and along the eastern edge of the Platinum Triangle. The Santa Ana River provides a scenic and recreational resource for the entire region. It also serves as the City's primary drainage and flood control facility. A smaller yet important drainage and flood control facility in western Anaheim is the Carbon Creek Channel. Another major water-related facility is the 920-million-gallon Walnut Canyon Reservoir located in the Hill and Canyon Area.

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Flood control facilities and related goals and policies are discussed in the General Plan's Safety Element. Water and drainage systems and related goals and policies are discussed in the Public Services and Facilities Element, and water conservation and quality are addressed in the Green Element.

Public/Quasi-Public Facilities

Quasi-public and governmental uses include a wide range of uses including governmental office buildings, fire and police stations, hospitals, utility buildings and substations, institutional uses such as community centers, religious institutions, libraries, and schools, among others (railroad, right-of-way, etc.). Because many of these community services serve the residents of Anaheim, they are found throughout the City. Quasi-public and governmental uses account for approximately 3.6 percent of the City's total land area.

Other

The Other land use includes a wide range of uses, including arts/entertainment and specific plans. Anaheim is known worldwide for its tourist attractions and sports/entertainment venues. These uses are concentrated in two adjacent areas separated by the I-5 freeway. The Anaheim Resort comprises the Anaheim Convention Center, Disneyland Theme Park, Disney's California Adventure Theme Park, Downtown Disney, and numerous hotels. The Platinum Triangle includes the Honda Center, the Angel Stadium of Anaheim, a variety of restaurants, hotels, and the Grove of Anaheim.

2021-2029 Housing Element Proposed Project Sites

The 2021-2029 Housing Element identified proposed project sites. There are proposed project sites in the western portion of the City, and the majority of the proposed project sites are primarily in the central area of the City. These portions of the City are urbanized and developed. The complete list of the proposed project sites is in Appendix E, *Anaheim Proposed Project Sites*, to this Draft PEIR.

Center City Corridors Implementation Plan (C3 Plan)

The C3 Plan area (formerly C3SP) is centrally located within the City and encompasses both the Anaheim Colony and Center City. The C3Plan area is approximately 2,600 acres and is generally defined by SR-91 and the City of Fullerton to the north; Interstate 5, the Anaheim Resort, and Platinum Triangle to the south; the Metrolink Railroad and East Street to the east; and Interstate 5 and West Street to the west. The C3SP area includes a wide variety of residential, commercial, office, industrial, institutional, mixed-uses, and public land uses as well as the Civic Center. The major land use in the C3SP area is residential, including both single-family and multi-family uses.

Approved General Plan Buildout

Buildout projections represent likely development based on the Approved General Plan. Table 3-2, *Approved Anaheim General Plan (No Project) Land Use Summary*, in Chapter 3, *Project Description*, of this Draft PEIR, reflects the amount of development anticipated by the current land use plan. As shown in Table 5.10-1, *Summary of Current Land Uses*, development in accordance with the current land use plan is estimated to result in an increase of 22,051 housing units (20 percent), 40,522 persons (12 percent), and 57,664 jobs (28 percent) above existing

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conditions. These estimates represent the maximum amount of development if all properties in the City were developed for the uses and at the densities prescribed by the current Land Use Plan. These are theoretical maximums because many parcels are developed at densities below those permitted and are occupied by physically stable and economically viable uses that are unlikely to be recycled.

Table 5.10-1 Summary of Current Land Uses

Scenario	Acres	Housing Units	Population	Employment (Number of Jobs)
Existing Conditions	34,703	105,689	345,999	213,193
Adopted General Plan	34,703	134,139	396,110	266,313
Change	--	28,450	50,111	53,120

5.10.2 Proposed General Plan Goals and Policies and Standard Conditions

The General Plan Focused Update identifies potential land use and planning impacts and methods to minimize the impacts related to land use and planning. The following proposed project policies are related to land use and planning adopted for avoiding or mitigating environmental effects.

Circulation

Goal 1: Provide a vehicular transportation network that balances local and regional mobility needs within and through the city.

- **Policy 1-3.** Require that new development projects prepare transportation studies per the City's traffic impact analysis guidelines and pay the appropriate fees towards required improvements.

Goal 2: Support bicycling, walking, and other active transportation modes.

- **Policy 2-8.** Encourage developers to provide improved pedestrian and bicycle connectivity between developments and the circulation network, as well as between complementary uses, as appropriate.
- **Policy 2-15.** Continue to require consistency with CALGreen bike parking standards for new developments.

Goal 4: Facilitate safe goods movement throughout and within the city.

- **Policy 4-1.** Continue to restrict truck traffic to designated truck routes.
- **Policy 4-2.** Support a system of freight movement that minimizes conflicts with other modes of travel.

Goal 5: Provide a network of complete streets that are accessible for all modes and users.

- **Policy 5-6.** Encourage developers to provide access and circulation for all modes within development projects, as appropriate.

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Goal 8: Adhere to the State's greenhouse gas emission reduction goals and reduce vehicle miles traveled (VMT).

- **Policy 8-5.** Require development proposal to analyze transportation impacts using the City's VMT thresholds, and mitigate potential impacts through transportation demand management (TDM) strategies and other appropriate improvements.

Environmental Justice

Goal 1.1: A healthy community where exposure to pollution is minimized.

- **Policy 1.1-3.** Support policies and programs to meet or exceed the State's greenhouse gas emission reduction targets.
- **Policy 1.1-12.** Minimize, recycle, and dispose of solid and hazardous waste in an efficient and environmentally sound manner (Public Services Goal 7.1).
- **Policy 1.1-13.** Ensure that solid waste generated within the City is collected and transported in a cost-effective manner that protects the public health and safety (Public Services Policy 7.1.1).
- **Policy 1.1-14.** Decrease the risk of exposure for life, property, and the environment to hazardous materials and hazardous waste (Safety Goal 4.1).

Goal 6.1: Reduce the causes of compounded health risks.

- **Policy 6.1-1.** Support policies and programs to reduce vehicle trips and increase use of transportation demand management strategies.
- **Policy 6.1-3.** Support policies and programs to comply with State requirements to reduce vehicle miles traveled (VMT) within the City.
- **Policy 6.1-4.** Ensure that developers consider and address project impacts upon surrounding neighborhoods during the design and development process (Land Use Polic 4.1.3).
- **Policy 6.1-5.** Require new or expanded uses to provide mitigation or buffers between existing uses where potential adverse impacts could occur (Land Use Policy 4.1.4).
- **Policy 6.1-6.** Preserve natural, scenic and recreational resources; continue to ensure residential neighborhoods are safe, well-maintained, places to live; and continue to provide necessary community services and facilities (Land Use Goal 8.1).
- **Policy 6.1-7.** Protect sensitive land uses from excessive noise through diligent planning and regulation (Noise Goal 1.1).

The proposed project does not include any additional standard conditions.

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5.10.3 Thresholds of Significance

The City of Anaheim considers that a project would normally have a significant effect on the environment if the project would:

- LU-1 Physically divide an established community.
- LU-2 Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect.

5.10.4 Environmental Impacts

The following impact analysis addresses thresholds of significance that are identified in brackets after the impact statement.

Impact 5.10-1: Implementation of the proposed project would not physically divide an established community. [Threshold LU-1]

Division of an established community only occurs because of development and construction of physical features that constitute a barrier to easy and frequent travel between two or more constituent parts of a community.

As discussed in Chapter 3, *Project Description*, of this Draft PEIR, the proposed project is a focused update of the City's adopted General Plan that reflects zoning and land use updates resulting from the 2021-2029 Housing Element, including the address the City's Regional Housing Needs Assessment (RHNA) and complete the actions identified by the Center City Corridor Implementation Plan (C3 Plan). The proposed project would facilitate "by right" housing development for properties identified as "housing opportunities sites" in the 2021-2029 Housing Element; preserve single-family neighborhoods; and establish clear design standards in future development of multifamily and mixed-use projects citywide through the proposed Objective Design Standards. The proposed amendments to the Zoning Ordinance would ensure consistency between the General Plan and Zoning Code, including residential (Low-Density, Low-Medium Density, Mid Density, and Medium Density), commercial (General Commercial), office (Low), industrial (Industrial), and open space (Open Space, Parks). The Institutional zoning designation would be separated into new Institutional-Low and Institutional-High designations.

The proposed project also includes recommended C3 Plan land use modifications, including changes to residential (Low Density, Low-Medium Density, Mid-Density, and Medium Density), commercial (General Commercial), office (Low), industrial (Industrial), and open space (Open Space, Parks). These land use changes are necessary to ensure consistency between General Plan land use and Zoning Code designations, consistent with State law requirements, and represent the existing development on applicable properties.

Based on the proposed land use designations, density, and intensity, the proposed land use plan would provide for increased development over existing conditions by 49,112 housing units, 85,341 residents, and 61,020 jobs (refer to Table 5.12-8, *Buildout Comparison of Existing Anaheim General Plan Conditions to the Proposed Project*).

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The proposed land use and zoning changes would facilitate future redevelopment within already highly developed parts of the City. No aspect of the proposed project would physically divide an established community. The proposed project includes provisions that would directly address land use connectivity, compatibility, and encroachment of new development on existing neighborhoods and land uses. Therefore, the proposed project would not result in an impact regarding the division of an established community.

Level of Significance Before Mitigation: Impact 5.10-1 would be less than significant.

Mitigation Measures: No mitigation measures are required.

Impact 5.10-2: Implementation of the proposed project would not cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect. [Threshold LU-2]

Conflicts between a project and applicable policies do not constitute significant physical environmental impacts in and of themselves. A policy inconsistency is considered a significant adverse environmental impact only when it is related to a policy adopted for the purpose of avoiding or mitigating an environmental effect and it is anticipated that the inconsistency would result in a significant adverse physical impact based on the established significance criteria. As discussed below, adoption and development under the proposed project generally would not conflict with applicable land use policies adopted for the purpose of avoiding or mitigating an environmental effect.

SCAG Connect SoCal Consistency

The 2050 population projection for the City in the RTP/SCS is 381,400 by 2050. As identified in Table 5.12-9, *Buildout Comparison of the Proposed Project to SCAG Projections*, the proposed project would result in an increase of 24,601 housing units, 49,940 person, and 18,013 jobs in the City. Although the proposed project would exceed SCAG's growth projections, the proposed project is aligned with the regional projections identified in the 6th Regional Housing Needs Assessment (RHNA) Cycle. The proposed project would also be consistent with RTP/SCS and State goals through emphasis on design and reduction in vehicle miles traveled. A discussion of the proposed project's consistency with the goals of the RTP/SCS is provided in Table 5.10-2, *Consistency with Applicable 2024-2050 SCAG RTP/SCS Goals*.

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Table 5.10-2 Consistency with Applicable 2024–2050 SCAG RTP/SCS Goals

Connect SoCal 2024–2050 RTP/SCS Goals	Connect SoCal 2024–2050 RTP/SCS Subgoals	Consistency
Mobility: Build and maintain an integrated multimodal transportation network.	Support investments that are well-maintained and operated, coordinated, resilient and result in improved safety, improved air quality and minimized greenhouse gas emissions.	Consistent: The proposed project includes updates to the General Plan Circulation Element, which includes updates to circulation-related policies. The Circulation Element supports the use of alternative modes of transportation, including walking, bicycling, and transit, to increase access opportunities and community connectivity. The updated Circulation Element includes Policies 2-8, 5-6, and 8-5, which would support alternative modes of transportation and help the City adhere to the State's greenhouse gas emission reduction goals. The proposed project would not impede the City's ability to support investments that are well maintained and operated, coordinated, resilient, and result in improved safety, improved air quality, and minimized greenhouse gas emissions.
	Ensure that reliable, accessible, affordable and appealing travel options are readily available, while striving to enhance equity in the offerings in high-need communities.	Consistent: The proposed project would place a majority of growth in the central portion of the City, and the remaining in the western portion of the City. Both the central and western portions of the City are urbanized with planned or existing transit stations, commercial retail service areas, and active transportation corridors. Additionally, the proposed project includes Goal 1, which requires that the City provide a vehicular transportation network that balances local and regional mobility needs within and through the City. The proposed project would provide a variety of readily available travel options.
	Support planning for people of all ages, abilities and backgrounds.	Consistent: The proposed project would target community-serving growth near planned or existing transit stations, commercial retail service areas, high-quality transit areas, and active transportation corridors.
Communities: Develop, connect, and sustain livable and thriving communities.	Create human-centered communities in urban, suburban and rural settings to increase mobility options and reduce travel distances.	Consistent. The proposed project would increase residential and mixed-use densities within major commercial corridors and centers and along high-quality transit corridors.
	Produce and preserve diverse housing types in an effort to improve affordability, accessibility and opportunities for all households.	Consistent. The proposed project supports a variety of housing types, including low density, low-medium density, mid-density, and medium density development. Therefore, the proposed project would be consistent with this policy.
Environment: Support a sustainable, efficient and productive regional economic environment that provides opportunities for all people in the region.	Develop communities that are resilient and can mitigate, adapt to and respond to chronic and acute stresses and disruptions, such as climate change.	Consistent: The proposed project includes a new Environmental Justice Chapter with goals and policies that focus on improving resiliency and minimizing contributions to climate change.
	Integrate the region's development pattern and transportation network to improve air quality, reduce greenhouse gas emissions and enable more sustainable use of energy and water.	Consistent: The proposed project objectives include focusing new housing and commercial development in existing commercial corridors and centers and in proximity to transit; prioritizing local serving businesses; fostering land use development patterns and densities and streetscapes that promote a more active pedestrian environment; and improving the variety of travel choices for residents such as walking, biking, and public transit. The proposed project would contribute to denser communities, improving active and public transit infrastructure, and reducing passenger vehicle trips, thereby also potentially reducing VMT and overall transportation fuel demands and mobile-source criteria air pollutant and greenhouse gas emissions.

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Table 5.10-2 Consistency with Applicable 2024–2050 SCAG RTP/SCS Goals

Connect SoCal 2024–2050 RTP/SCS Goals	Connect SoCal 2024–2050 RTP/SCS Subgoals	Consistency
	Conserve the region's resources.	Not Applicable. The proposed project includes updates to the Land Use Element and Circulation Element, and zone code and land use changes to ensure consistency with the 2021-2029 Housing Element. The proposed project also includes a new Environmental Justice Element. The proposed project would not modify the City's adopted policies related to conserving resources within the City. The proposed project would not conflict with this policy.
Economy: Support a sustainable, efficient and productive regional economic environment that provides opportunities for all people in the region.	Improve access to jobs and educational resources.	Consistent: The proposed project would target community-serving growth near planned or existing transit stations, commercial retail service areas, high-quality transit areas, and active transportation corridors. Additionally, the proposed project would increase mixed-use densities. This proposed land use development pattern and approach would contribute to increasing local employment opportunities.
	Advance a resilient and efficient goods movement system that supports the economic vitality of the region, attainment of clean air and quality of life for our communities.	Consistent: The updated Circulation Element of the General Plan focuses on further development of a multimodal transportation network that would accommodate efficient automobile, public transit, and active transit movement. It emphasizes improving access to public transit and improving the active transit network in addition to improving overall street system safety. The updated Circulation Element includes a "goods movement" section and goal (Goal 4: Facilitate safe goods movement throughout and within the city.) that would help to advance a resilient and efficient goods movement system.

Source: SCAG 2024.

City of Anaheim General Plan Consistency

As set forth by State law, the General Plan serves as the primary planning document for the City, and subordinate documents and plans would be updated to be consistent with the General Plan. Similar to the current 2004 General Plan, the proposed project focuses on the creating a community where new development blends with existing neighborhoods. The proposed project carries forward and enhances policies and measures from the current General Plan that were intended for environmental protection and would not remove or conflict with City plans, policies, or regulations adopted for environmental protection. The proposed project proposes modifications to two chapters of the General Plan (Land Use Element and Circulation Element), proposes a new General Plan element (Environmental Justice), and proposes modifications to the Zoning Ordinance to reflect zoning and land use updates resulting from the 2021-2029 Housing Element. It should be noted that the proposed update to the Land Use Element does not include any updates to the chapter's goals or policies but updates to the Land Use Statistical Summary and Land Use Map. The policies listed above under Section 5.10.3 would help to mitigate or avoid environmental effects due to implementation of the proposed project.

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The proposed project also includes land use modifications to the C3 Plan. These land use changes are necessary to ensure consistency between a property's General Plan land use and Zoning Code designation, consistent with State law requirements, and are representative of the existing development on applicable properties.

These modifications would not remove or adversely alter portions of the Municipal Code that were adopted to mitigate an environmental effect. Subsequent development and infrastructure projects would be required to be consistent with all applicable policies, standards, and regulations, including land use plans, policies, and regulations adopted to mitigate environmental effects by the City, as well as those adopted by agencies with jurisdiction over components of future development project.

Level of Significance Before Mitigation: Impact 5.10-2 would be less than significant.

Mitigation Measures: No mitigation measures are required.

5.10.5 Cumulative Impacts

The cumulative study area for land use and planning considered the SCAG region and the City. Development of cumulative projects in the City would be required to mitigate land use impacts on a project-by-project basis. Each project would be evaluated for consistency with the project site's General Plan land use designation and zoning; adopted General Plan goals, policies, and actions; and other applicable regional land use plans, such as SCAG's RTP/SCS. As analyzed above, the proposed General Plan Focused Update would result in less than significant impacts related to land use and relevant planning. Therefore, the incremental impact of the proposed project, when considered in combination with development within the City and SCAG region, would not result in cumulatively considerable land use impacts.

The land uses allowed under the proposed project provide opportunities for cohesive new growth at infill locations primarily along the City's major arterials but would not create physical division in the community. The proposed project does not include any new roadways, infrastructure, or other features that would divide existing communities. Each individual development project would be reviewed to determine its consistency and compatibility with the surrounding area and its potential to physically divide an established community. Because the proposed project would not physically divide an established community, the proposed project's incremental effects would not be cumulative considerable.

The proposed project was prepared in conformance with State laws and regulations associated with the preparation of general plans, including requirements for environmental protection. The proposed project would not cause a significant environmental impact due to a conflict with a land use plan, policy, or regulation adopted for the purposes of avoiding or mitigating an environmental effect. The proposed project carries forward and enhances policies and measures from the City's current General Plan that were intended for environmental protection and would not remove or conflict with City plans, policies, or regulations adopted for environmental protection. The proposed project does not include modifications that would remove or adversely alter portions of the Municipal Code adopted to mitigate an environmental effect.

Similar to future development associated with the proposed project, cumulative development projects would be evaluated for consistency with each project site's applicable land use designation and zoning and other

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applicable plans for the purpose of avoiding or mitigating an environmental effect. As analyzed above, the proposed project would not result in a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect. Thus, the proposed project's incremental effects would not be cumulatively considerable.

Level of Significance Before Mitigation: Cumulative impacts would be less than significant.

Mitigation Measures: No mitigation measures are required.

Level of Significance After Mitigation: Cumulative impacts would be less than significant.

5.10.6 Level of Significance Before Mitigation

Upon implementation of regulatory requirements and General Plan policies, Impacts 5.10-1 and 5.10-2 would have less than significant impacts.

5.10.7 Mitigation Measures

No significant impacts were identified and no mitigation measures are necessary.

5.10.8 Level of Significance After Mitigation

Impacts 5.10-1 and 5.10-2 would be less than significant with compliance with all applicable regulatory requirements and GP policies.

5.10.9 References

Anaheim, City of. 2004, May. City of Anaheim General Plan. <http://www.anaheim.net/712/General-Plan>.

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5.11 NOISE AND VIBRATION

This section of the Draft Programmatic Draft EIR (PEIR) discusses the potential impacts to noise and vibration from implementation of the City of Anaheim's Focused General Plan Update (proposed project). The noise output sheets are included in Appendix M, *Noise Modeling*, of this Draft PEIR.

Comments were received during the scoping period for the proposed project (see Appendix A) that are related to noise and vibration impacts. It should be noted that no comment were received for the Center City Corridors Specific Plan (C3SP), which has been incorporated into the proposed project as the Center City Corridors Implementation Plan (C3 Plan), that are related to noise and vibration impacts (see Appendix B).

5.11.1 Environmental Setting

5.11.1.1 NOISE FUNDAMENTALS

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).

Sound levels are described in units called the decibel (dB). Decibels are measured on a logarithmic scale that quantifies sound intensity in a manner like the Richter scale used for earthquake magnitudes. Thus, a doubling of the energy of a noise source, such as doubling of traffic volume, would increase the noise level by 3 dB; a halving of the energy would result in a 3 dB decrease. Additionally, in technical terms, sound levels are described as either a "sound power level" or a "sound pressure level," which while often confused, are two distinct characteristics of sound. Both share the same unit of measure, the dB. However, sound power, expressed as L_{pw} , is the energy converted into sound by the source. The L_{pw} is used to estimate how far a noise will travel and to predict the sound levels at various distances from the source. As sound energy travels through the air, it creates a sound wave that exerts pressure on receivers such as an ear drum or microphone and is the sound pressure level. Noise measurement instruments only measure sound pressure, and noise level limits used in standards are generally sound pressure levels.

Noise is typically defined as unwanted sound. There are three components to noise: a noise source, a receptor, and the propagation path between the two. The loudness of the noise source, obstructions, or atmospheric factors affecting the propagation path, determine the perceived sound level and noise characteristics at the receptor. Noise sources can be classified in two forms: point sources, such as individual pieces of stationary or mobile equipment (pumps, heavy construction equipment), and line sources, such as a roadway with many pass-by sources (motor vehicles).

Measurement of Sound

The pitch of the sound is related to the frequency of the pressure vibration. Since the human ear is not equally sensitive to a given sound level at all frequencies, a special frequency-dependent rating scale has been devised

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to relate noise to human sensitivity. The A-weighted decibel scale (dBA) provides this compensation by weighting frequencies in a manner approximating the sensitivity of the human ear. Unlike linear units such as inches or pounds, decibels are measured on a logarithmic scale to better account for the large variations in pressure amplitude (the above range of human hearing, 0 to 140 dBA, represents a ratio in pressures of one hundred trillion to one). On a logarithmic scale, an increase of 10 decibels is 10 times more intense than 1 decibel, while 20 decibels are 100 times more intense. All noise levels in this study are relative to the industry-standard pressure reference value of 20 micro-pascals, defined as 0 dB. Because of the physical characteristics of noise transmission and perception, the relative loudness of sound does not closely match the actual amounts of sound energy.

The normal range of human hearing extends from approximately 0 dBA (the threshold of detection) to 140 dBA (the threshold of pain). Regarding increases in dBA, the following relationships should be noted.

- Except in carefully controlled laboratory experiments, a 1.0-dBA change cannot be perceived by humans.
- Outside the laboratory, a 3.0-dBA change is considered a just-perceivable difference.
- A minimum 5.0-dBA change is required before any noticeable change in community response would be expected. A 5.0-dBA increase is typically considered substantial.
- A 10-dBA change is subjectively heard as an approximate doubling in loudness and would almost certainly cause an adverse change in community response.

Sound levels are generated from a source and their decibel level decreases as the distance from that source increases. 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 dBA for each doubling of distance from the source. This drop-off rate is appropriate for noise generated by on-site 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 dBA 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 dBA for each doubling of distance. This latter value is used in the calculation of railroad noise.

The propagation of noise is also affected by the intervening ground, known as ground absorption. A hard site (such as parking lots or smooth bodies of water) receives no additional ground attenuation, and the changes in noise levels with distance (drop-off rate) are simply the geometric spreading of the source. A soft site (such as soft dirt, grass, or scattered bushes and trees) receives an additional ground attenuation value of 1.5 dBA per doubling of distance. Thus, a point source over a soft site would attenuate at 7.5 dBA per 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. For example, the L_{50} noise level represents the noise level that is exceeded 50 percent of the time or that is exceeded 30 minutes in an hour. “ L_n ” values are typically used to demonstrate compliance for stationary noise sources with a city’s noise ordinance, as discussed

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below. 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 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 does not represent the actual sound level heard at any time, but rather represents the total sound exposure. The CNEL descriptor requires that an artificial increment of 5 dBA be added to the actual noise level for the hours from 7:00 p.m. to 10:00 p.m. and 10 dBA for the hours from 10:00 p.m. to 7:00 a.m. The L_{dn} descriptor uses the same methodology except that there is no artificial increment added to the hours between 7:00 p.m. and 10:00 p.m. Both descriptors give roughly the same 24-hour level with the CNEL being only slightly more restrictive (i.e., higher). The project identifies the use of the CNEL for environmental assessment. This descriptor is actually more appropriate to those uses (e.g., schools, churches) that are not typically occupied at night when noise levels are weighted to compensate for relaxation and sleep.

Psychological and Physiological Effects of Noise

The human response to environmental noise is subjective and varies considerably from individual to individual. Noise in the community has often been cited as a health problem in terms of inhibiting general well-being, including sleep, speech, recreation, and tasks that demand concentration or coordination, and contributing to undue stress and annoyance.

Physical damage to human hearing begins at prolonged exposure to noise levels higher than 85 dBA. Prolonged noise exposure in excess of 75 dBA increases body tensions, while prolonged exposure to noise above 90 dBA could result in permanent hearing damage. When the noise level reaches 120 dBA, the threshold of feeling, a tickling sensation occurs in the human ear. As the noise level reaches 140 dBA, the threshold of pain, the tickling sensation is replaced by the feeling of pain in the ear. A sound level of 190 dBA will rupture the eardrum and permanently damage the inner ear. Table 5.11-1, *Typical Noise Levels*, shows typical noise levels from familiar noise sources.

Table 5.11-1 Typical Noise Levels

Common Outdoor Activities	Noise Level (dBA)	Common Indoor Activities
Onset of physical discomfort	120+	
	110	Rock Band (near amplification system)
Jet Flyover at 1,000 feet	100	
Gas Lawn Mower at three feet	90	
Diesel Truck at 50 feet, at 50 mph	80	Food Blender at 3 feet Garbage Disposal at 3 feet

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Table 5.11-1 Typical Noise Levels

Common Outdoor Activities	Noise Level (dBA)	Common Indoor Activities
Noisy Urban Area, Daytime		
	70	Vacuum Cleaner at 10 feet
Commercial Area		Normal speech at 3 feet
Heavy Traffic at 300 feet	60	
		Large Business Office
Quiet Urban Daytime	50	Dishwasher Next Room
Quiet Urban Nighttime	40	Theater, Large Conference Room (background)
Quiet Suburban Nighttime		
	30	Library
Quiet Rural Nighttime		Bedroom at Night, Concert Hall (background)
	20	
		Broadcast/Recording Studio
	10	
Lowest Threshold of Human Hearing	0	Lowest Threshold of Human Hearing

Source: Caltrans 2013.

5.11.1.2 VIBRATION FUNDAMENTALS

Vibration is an oscillatory motion through a solid medium, such as the ground or a building. Unlike noise, vibration is typically of a frequency that is felt rather than heard. Vibration is normally associated with activities stemming from operations of railroads or vibration-intensive stationary sources but can also be associated with construction equipment such as jackhammers, pile drivers, and hydraulic hammers.

Vibration can be described by both its amplitude and frequency. Vibration amplitudes are usually described in terms of either the peak particle velocity (PPV) or the root mean square (RMS) velocity and are used to evaluate human response to vibration. The PPV is defined as the maximum instantaneous positive or negative peak of the vibration wave and is expressed in terms of inches-per-second (in/sec). The RMS velocity is defined as the average of the squared amplitude of the signal and is expressed in terms of velocity decibels (VdB). PPV is more appropriate for evaluating potential building damage and RMS for potential annoyance. Typically, ground borne vibration generated by human activities attenuates rapidly with distance from the source of the vibration. Vibration frequency affects perception. Typical construction vibrations fall in the 10 to 30 Hz range and usually occur around 15 Hz. Traffic vibrations exhibit a similar range of frequencies.

The way in which vibration is transmitted through the earth is called propagation. As vibration waves propagate from a source, the energy is spread over an ever-increasing area such that the energy level striking a given point is reduced with the distance from the energy source. This geometric spreading loss is inversely proportional to

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the square of the distance. Wave energy is also reduced with distance as a result of material damping in the form of internal friction, soil layering, and void spaces. The amount of attenuation provided by material damping varies with soil type and condition as well as the frequency of the wave.

5.11.1.3 REGULATORY BACKGROUND

Federal

U.S. Environmental Protection Agency

The Noise Control Act of 1972 recognized the role of the federal government in dealing with major commercial noise sources that require uniform treatment. Since Congress has the authority to regulate interstate and foreign commerce, regulation of noise generated by such commerce also falls under congressional authority. The United States Environmental Protection Agency (U.S. EPA) has identified acceptable noise levels for various land uses to protect the public and establish noise emissions standards for interstate commerce. The U.S. EPA outlines that an exterior noise level of 55 dBA L_{eq} and interior levels at or below 45 dBA L_{eq} would not cause interference or annoyance. The U.S. EPA set 55 dBA L_{dn} as the baseline for exterior residential noise intrusion. Other federal agencies set the exterior residential noise intrusion standard at 65 dBA in consideration of their own program requirements and goals.

Occupational Health and Safety Administration

The federal government regulates occupational noise exposure through the Occupational Health and Safety Administration (OSHA) under the U.S. EPA. Such limitations would be applicable to the operation of construction equipment and proposed industrial land uses. This type of noise exposure is dependent on work conditions and is addressed through a facility's Health and Safety Plan, as required under OSHA. Occupational noise is therefore not addressed further in this analysis.

U.S. Department of Housing and Urban Development

The U.S. Department of Housing and Urban Development (HUD) sets the maximum exterior standard for residential units developed with HUD funding at 65 dBA L_{dn} . While HUD does not specify acceptable interior noise levels, standard construction of residential dwellings constructed under Title 24 standards typically provide in excess of 20 dBA of attenuation with the windows closed. Based on this premise, the interior L_{dn} should not exceed 45 dBA.

Federal Highway Administration

The Interstate 5 (I-5), Beach Boulevard /State Route 39 (SR-39), State Route 55 (SR-55), State Route 57 (SR-57), Imperial Highway/State Route 90 (SR-90), State Route 91 (SR-91), and State Route 241 (SR-241) traverse the City and are subject to the Federal Highway Administration (FHWA), which has developed noise standards for federally funded roadway projects or projects that require either federal or California Department of Transportation (Caltrans) review. The FHWA values are the maximum desirable values by land use type and area based on a "trade-off" of what is desirable and what is reasonably feasible. The FHWA noise standards by land use type is shown in Table 5.11-2, *FHWA Design Noise Levels*.

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Table 5.11-2 FWHA Design Noise Levels

Activity Category	Design Noise Levels ¹		Description of Activity Category
	L _{eq} (dBA)	L ₁₀ (dBA)	
A	57 (exterior)	60 (exterior)	Lands on which serenity and quiet are of extraordinary significance and serve an important public need and where the preservation of those qualities is essential if the area is to continue to serve its intended purpose.
B	67 (exterior)	70 (exterior)	Picnic areas, recreation areas, playgrounds, active sports areas, parks, residences, motels, hotels, schools, churches, libraries, and hospitals.
C	72 (exterior)	75 (exterior)	Developed lands, properties, or activities not included in Categories A or B, above.
D	---	---	Undeveloped lands.
E	52 (interior)	55 (interior)	Residences, motels, hotels, public meeting rooms, schools, churches, libraries, hospitals, and auditoriums.

Source: Federal Highway Administration, Noise Standard (23 CFR 772).
Notes:
¹ Either L_{eq} or L₁₀ (but not both) design noise levels may be used on a project.

Railroad Noise Standards

Freight and commuter rail traverse the City including Union Pacific, Burlington Northern Santa Fe (BNSF), and Metrolink operations. The Union Pacific line is located primarily along the I-5 Freeway and diverges into the southern portions of the City. The BNSF line is located along Orangethorpe/Esperanza Road. The Metrolink Orange County line runs through the City and is located between Anaheim Boulevard and East Street south of La Palma Avenue and Lemon Street and Raymond Avenue north of La Palma. The Metrolink Inland Empire-Orange County Line runs along Tustin Avenue, north of SR-91 Freeway and shares the BNSF line along Orangethorpe Avenue/Esperanza Road. Railroad operations are regulated by the federal government through the Noise Control Act of 1972, which recognized the role of the federal government in dealing with major commercial noise sources that require uniform treatment.

The U.S. EPA regulated railroad noise until 1982 through the Code of Federal Regulations (CFR), Title 40, Chapter 1, Part 201. The Federal Rail Administration (FRA) adopted the U.S. EPA railroad noise standards as its noise regulation standards for the purpose of enforcement through CFR 49, Chapter 11, Part 210. The standards shown in Table 5.11-3, *Federal Railroad Noise Standards*, provide specific noise limits for stationary and moving locomotives, moving railroad cars, and associated railroad at specified distances. Federal regulations do not specify acceptable noise levels for rail noise or land uses along rail lines. State and local governments cannot set more stringent limits for railroad equipment than required by these Federal regulations.

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Table 5.11-3 EPA Railroad Noise Standards

Noise Sources	Operating Conditions	Noise Metric	Measured Distance (Feet)	Standard (dBA)
Non-Switcher Locomotives built on or before 12/31/79	Stationary	L_{max} (Slow) ¹	100	73
	Idle Stationary	L_{max} (Slow)	100	93
	Non-Idle Moving	L_{max} (Fast) ²	100	95
Switcher Locomotives plus Non-Switcher Locomotives built after 12/31/79	Stationary	L_{max} (Slow)	100	70
	Idle Stationary	L_{max} (Slow)	100	87
	Non-Idle Moving	L_{max} (Fast)	100	90
Rail Cars	Speed < 45 mph	L_{max} (Fast)	100	88
	Speed > 45 mph	L_{max} (Fast)	100	93
	Coupling	Adj. Avg. Max.	50	92

Source: U.S. Environmental Protection Agency, Railroad Noise Emission Standard (40 CFR, Part 201).

Notes:

1. A slow exponential-time-weighting is used.

2. A fast exponential-time-weighting is used.

Aircraft Noise Standards

The Federal Aviation Administration (FAA) regulates aircraft noise and provides reference noise levels as Sound Exposure Level (SEL) values for helicopter takeoff, landing, and flyovers. The FAA Advisory Circular Number 150-5020-2 recommends the use of a cumulative noise measure, the 24-hour equivalent sound level ($L_{eq}(24)$), to compare the relative contributions of the heliport and other sound sources within an area. The $L_{eq}(24)$ is similar to the L_{dn} used in assessing the impacts of fixed wing aircraft. The helicopter $L_{eq}(24)$ values are obtained by logarithmically adding the single-event SEL values over a 24-hour period.

Public Law 96-193 directs the FAA to identify land uses which are “normally compatible” with various levels of noise from aircraft operations. CFR, Title 14, Part 150 identifies noise levels for land uses near airports. CFR, Title 14, Part 150 does not apply to heliports/helistops not located on airport property, since the operational noise impacts of heliports and helistops are primarily restricted to the surrounding area. The FAA outlines recommended exterior noise criteria for individual heliports based on the surrounding land uses. These recommended noise levels are included in Table 5.11-4, *Normally Compatible Community Sound Levels*. The maximum recommended cumulative sound level ($L_{eq}(24)$) from helicopter operations at any new site should not exceed the existing ambient noise at the proposed site. In other words, the $L_{eq}(24)$ should not exceed the values recommended in Table 5.11-4 or the locally measured ambient noise level.

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Table 5.11-4 Normally Compatible Community Sound Levels

Type of Area	L _{eq} (24) (dBA)
Residential	
Suburban	57
Urban	67
City	72
Commercial	72
Industrial	77

Source: Federal Aviation Administration, Advisory Circulatory Number 150-5020-2, 1983

State

State Aircraft Noise Standards

The Public Utilities Code (PUC) 21676(b) requires that prior to the amendment of a general plan or the adoption of a zoning ordinance or building regulation within the Airport Influence Areas (AIA) established by the Airport Land Use Commission (ALUC), the local agency shall refer the proposed action to the ALUC for approval. The ALUC ensures that city and county general plans and zoning ordinances are consistent with the local Airport Environs Land Use Plans (AELUP's), which contain noise contours and restrictions for types of construction and building heights in navigable air space. If the ALUC determines that the proposed action is inconsistent with the local AELUP, the referring agency shall be notified. The local agency may, after a public hearing, overrule the ALUC by a two-thirds vote of its governing body if it makes specific findings that the proposed action is consistent with the purposes stated in PUC Section 21670.

California Code of Regulations

California Code of Regulations (CCR) Section 65302(f) requires local planning jurisdictions to prepare a general plan with a noise element. It may include general community noise guidelines developed by the California Department of Health Services and specific planning guidelines for noise/land use compatibility developed by the local jurisdiction. The state guidelines also recommend that the local jurisdiction consider adopting a local noise control ordinance. The California Department of Health Services developed guidelines for community noise acceptability for use by local agencies. Selected relevant levels are as follows (L_{dn} may be considered nearly equal to CNEL):

- CNEL below 60 dBA – normally acceptable for low-density residential use
- CNEL of 55 dBA to 70 dBA – conditionally acceptable for low-density residential use
- CNEL below 65 dBA – normally acceptable for high-density residential use
- CNEL of 60 to 70 dBA – conditionally acceptable for high-density residential use, transient lodging, churches, and educational and medical facilities
- CNEL below 70 dBA – normally acceptable for playgrounds and neighborhood parks

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“Normally acceptable” is defined as satisfactory for the specified land use, assuming that normal conventional construction is used in buildings. “Conditionally acceptable” may require some additional noise attenuation or special study. Under most of these land use categories, overlapping ranges of acceptability and conditionally acceptable are presented, leaving some ambiguity in areas where noise levels fall within the overlapping range.

California Building Code

California Building Code (CBC), Title 24, Part 2, Volume 1, Chapter 12, Interior Environment, Section 1207.11.2, Allowable Interior Noise Levels, requires that the interior noise level associated with exterior noise sources shall not exceed 45 dB in any habitable room. The noise metric is evaluated as L_{dn} or CNEL, consistent with the noise element of the local general plan.

The state’s noise insulation standards are codified in the CCR, Title 24: Part 1, Building Standards Administrative Code, and Part 2, California Building Code. These noise standards are applied to new construction in California for 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 multi-family residential buildings, the acceptable interior noise limit for new construction is 45 dBA CNEL.

Regional

County of Orange Noise Standards

Two unincorporated areas are located adjacent to or within City boundaries and fall within Anaheim’s Sphere-of-Influence: land south of Broadway between Gilbert Street and Brookhurst Street and land south and east of the Mountain Park Specific Plan area. The County of Orange General Plan Noise Element (County Noise Element) regulates noise within these areas.

The County specifies outdoor and indoor noise limits for residential uses, places of worship, educational facilities, hospitals, hotels/motels, commercial, and other land uses. The noise standard for exterior living areas is 65 dBA CNEL. The County prohibits new residential development within the 65 dBA CNEL contour of any airport or air station. Non-residential noise-sensitive land uses, including hospitals, rest homes, convalescent hospitals, places of worship and schools, are not permitted within the 65 dBA CNEL area from any source unless appropriate mitigation measures are included to meet applicable regulatory standards.

The County Noise Element is implemented through the Orange County Ordinance, Noise Control (County Noise Ordinance). The County Noise Ordinance specifies allowable levels for daytime (7:00 a.m. to 10:00 p.m.) and nighttime (10:00 p.m. to 7:00 a.m.) noise at residential properties in Table 5.11-5, *Maximum Ambient Noise Level*. Residential properties are defined as property used for residential purposes other than motels and hotels. The County Noise Ordinance states that if the ambient noise level exceeds any of the noise limit categories above, the allowable level should be increased to the value of the ambient level in the appropriate category. The

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County Noise Ordinance states that construction activities are restricted to the hours of 7:00 a.m. and 8:00 p.m. from Monday through Saturday. Construction noise during the allowed construction time periods is exempt from provisions within the County Noise Ordinance.

Table 5.11-5 Maximum Ambient Noise Level

Time	L ₅₀ (dBA)	L ₂₅ (dBA)	L ₀₈ (dBA)	L ₀₂ (dBA)	L _{max} (dBA)
7:00 a.m. – 10:00 p.m.	55	60	65	70	75
10:00 p.m. – 7:00 a.m.	50	55	60	65	70

Source: Orange County Codified Ordinance, Division 6 – Noise Ordinance.

The Conditions of Approval of the County of Orange (County Conditions of Approval) require that all residential and non-residential noise-sensitive structures be sound attenuated against the combined impact of all present and projected noise from exterior noise sources (including aircraft and highway noise) to meet the interior noise criteria (45 dBA CNEL). With respect to construction noise, the County Conditions of Approval require that all construction vehicles or equipment, fixed or mobile, operated within 1,000 feet of a dwelling be equipped with properly operating and maintained mufflers, comply with the County Noise Ordinance, and place stockpiling and/or vehicle staging areas as far as practicable from dwellings.

Local

City of Anaheim General Plan

The existing 2004 Anaheim General Plan includes the City Noise Element to identify noise sources and limit community exposure to excessive noise levels. The following existing City Noise Element goals and policies are applicable to future development projects associated with the proposed project:

Goal 1.1: Protect sensitive land uses from excessive noise through diligent planning and regulation.

- **Policy 1.1-1.** Update City regulations to adopt Land Use Compatibility for Community Noise Exposure and California Interior and Exterior Noise Standards as appropriate.
- **Policy 1.1-2.** Continue to enforce acceptable noise standards consistent with health and quality of life goals and employ techniques of noise abatement through such means as a noise ordinance, building codes, and subdivision and zoning regulations.
- **Policy 1.1-3.** Consider the compatibility of proposed land uses with the noise environment when preparing, revising or reviewing development proposals.
- **Policy 1.1-4.** Require mitigation where sensitive uses are to be placed along transportation routes to ensure that noise levels are minimized through appropriate means of mitigation thereby maintaining quality of life standards.
- **Policy 1.1-5.** Encourage proper site planning and architecture to reduce noise impacts.

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- **Policy 1.1-6.** Discourage the siting of sensitive uses in areas in excess of 65 dBA CNEL without appropriate mitigation.
- **Policy 1.1-7.** Require that site-specific noise studies be conducted by a qualified acoustic consultant utilizing acceptable methodologies while reviewing the development of sensitive land uses or development that has the potential to impact sensitive land uses.

Goal 2.1: Encourage the reduction of noise from transportation-related noise sources such as motor vehicles, aircraft operations, and railroad movements.

- **Policy 2.1-1.** Continue to enforce noise standards of the State Motor Vehicle Code and other State and Federal legislation pertaining to motor vehicle noise.
- **Policy 2.1-2.** Employ noise mitigation practices, as necessary, when designing future streets and highways, and when improvements occur along existing road segments. Mitigation measures should emphasize the establishment of natural buffers or setbacks between the arterial roadways and adjoining noise-sensitive areas.
- **Policy 2.1-3.** Require that development generating increased traffic and subsequent increases in the ambient noise level adjacent to noise-sensitive land uses provide appropriate mitigation measures.
- **Policy 2.1-4.** Maintain roadways so that the paving is in good condition to reduce noise-generating cracks, bumps, and potholes.
- **Policy 2.1-5.** Require sound walls, berms and landscaping along existing and future freeways and railroad rights-of-way to beautify the landscape and reduce noise, where appropriate.
- **Policy 2.1-6.** Encourage the construction of noise barriers by the Public Utilities Commission, Southern California Regional Rail Authority, Union Pacific, Burlington Northern & Santa Fe and Amtrak where residences exist next to the track.
- **Policy 2.1-7.** Encourage the Public Utilities Commission, Southern California Regional Rail Authority, Union Pacific, Burlington Northern & Santa Fe and Amtrak to minimize the level of noise produced by train movements and whistle noise within the City by reducing the number of nighttime operations, improving vehicle system technology and developing improved sound barriers where residences exist next to the track.
- **Policy 2.1-8.** Encourage the use sound-deadening matting (as opposed to wood) leading to, from and between the rails where public roads cross tracks in residential areas.
- **Policy 2.1-9.** Require private heliports/helistops to comply with the City noise ordinances and Federal Aviation Administration standards.
- **Policy 2.1-10.** Participate in the planning activities of County, regional and State agencies relative to the location of new airports and the assessment of their impact on the environment of the City.

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- **Policy 2.1-11.** Encourage the development of alternative transportation modes that minimize noise within residential areas.
- **Policy 2.1-12.** Monitor proposals for future transit systems and require noise control to be considered in the selection of transportation systems that may affect the City.
- **Policy 2.1-13.** Continue efforts to minimize the impacts from police helicopter training and emergency response activities through the potential relocation of helicopter facilities and careful consideration of flight paths.

Goal 3.1: Protect residents from the effects of “spill over” or nuisance noise emanating from the City’s activity centers.

- **Policy 3.1-1.** Discourage new projects located in commercial or entertainment areas from exceeding stationary-source noise standards at the property line of proximate residential or commercial uses, as appropriate.
- **Policy 3.1-2.** Prohibit new industrial uses from exceeding commercial or residential stationary-source noise standards at the most proximate land uses, as appropriate. (Industrial noise may spill over to proximate industrial uses so long as the combined noise does not exceed the appropriate industrial standards.)
- **Policy 3.1-3.** Enforce standards to regulate noise from construction activities. Particular emphasis shall be placed on the restriction of the hours in which work other than emergency work may occur. Discourage construction on weekends or holidays except in the case of construction proximate to schools where these operations could disturb the classroom environment.
- **Policy 3.1-4.** Require that construction equipment operate with mufflers and intake silencers no less effective than originally equipped.
- **Policy 3.1-5.** Encourage the use of portable noise barriers for heavy equipment operations performed within 100 feet of existing residences or make applicant provide evidence as to why the use of such barriers is infeasible.

The City Noise Element is designed to ensure that proposed land uses are compatible with the predicted future noise environment. The City Noise Element standards are based on the State Noise Compatibility Guidelines and are presented in Table 5.11-6, *Land Use Community Noise Compatibility*. Furthermore, the City Noise Element outlines that exterior noise level at residential land uses should not exceed 65 dBA CNEL, and interior noise levels in a habitable room should not exceed 45 dBA CNEL.

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Table 5.11-6 Land Use Community Noise Compatibility

Land Use Category	Community Noise Equivalent Level (L _{dn} or CNEL, dBA)			
	Normally Acceptable ¹	Conditionally Acceptable ²	Normally Unacceptable ³	Clearly Unacceptable ⁴
Residential- Low Density Single Family, Duplex, Mobile Homes	50 - 60	55 - 70	70 - 75	75 - 85
Residential- Multiple Family	50 - 65	60 - 70	70 - 75	75 - 85
Transient Lodging- Motels, Hotels	50 - 65	60 - 70	70 - 80	80 - 85
Schools, Libraries, Churches, Hospitals, Nursing Homes	50 - 70	60 - 70	70 - 80	80 - 85
Auditoriums, Concert Halls, Amphitheaters	-	50 - 70	65 - 85	-
Sports Arena, Outdoor Spectator Sports	-	50 - 75	70 - 85	-
Playgrounds, Neighborhood Parks	50 - 70	-	67 - 75	73 - 85
Golf Courses, Riding Stables, Water Recreation, Cemeteries	50 - 70	-	70 - 80	80 - 85
Office Buildings, Businesses, Commercial, and Professional	50 - 70	67 - 77	-	75 - 85
Industrial, Manufacturing, Utilities, Agriculture	50 - 75	70 - 80	-	75 - 85

Source: OPR 2017.

Notes:

1. Specified land use is satisfactory based upon the assumption that any buildings involved are of normal conventional construction, without any special noise insulation requirements.
2. New construction or development should be undertaken only after a detailed analysis of the noise reduction requirements is made and the needed noise insulation features included in the design. Conventional construction, but with closed windows and fresh air supply systems or air conditioning will normally suffice.
3. New construction or development should generally be discouraged. If new construction does proceed, a detailed analysis of the noise reduction requirements must be made and needed noise insulation features included in the design. Outdoor areas must be shielded.
4. New construction or development generally should not be undertaken. Construction costs to make the indoor environment acceptable would be prohibitive and the outdoor environment would not be usable.

City of Anaheim Municipal Code

The Anaheim Municipal Code (AMC), Chapter 6.70 (Sound Pressure Levels) establishes noise standards. Municipal Code Section 6.70.010 (Established) states, “No person shall within the City create any sound radiated for extended periods from any premises which produces a sound pressure level at any point on the property line in excess of sixty decibels (Re 0.0002 Microbar) read on the A-scale of a sound level meter.” The section also addresses noise exemptions, stating, “Traffic sound created by emergency activities and sound created by governmental units or their contractors shall be exempt from the applications of this chapter. Sound created by construction or building repair of any premises within the City shall be exempt from the applications of this chapter during the hours of 7:00 a.m. and 7:00 p.m.”

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Standard Conditions of Approval

As a matter of practice, the City applies standard conditions for development projects that are intended to reduce environmental impacts. Currently, there are no standard conditions that are related to noise and vibration.

5.11.1.4 EXISTING CONDITIONS

The City is a highly urbanized area that is subject to noise from a myriad of sources. The major sources of noise are from mobile sources, including aircraft, freight and commuter rail traffic; and stationary sources. Mobile noise sources, specifically from traffic traveling on the various roadways and freeways in Anaheim, are the most common and significant sources of noise in the City. The City is located outside the 65 dBA CNEL contours for any commercial or private airports; however, local helicopter air traffic is commonplace throughout the City (John Wayne Airport Orange County 2023). Freight and commuter rail-traffic pass through the City and noise from trains and their associated horns and whistles are significant sources of noise along these railroad corridors. Stationary noise sources are commonly associated with industrial land uses, the fireworks display put on at Disneyland, and special events at Angel Stadium of Anaheim.

Field Survey

To quantify existing ambient noise levels in the City, Kimley-Horn conducted 18 short-term (10-minute) measurements on July 16, 2024, and July 17, 2024; see Appendix M. The noise measurement sites were representative of typical existing noise exposure within the City. The 15-minute daytime measurements were taken between 9:00 a.m. and 4:00 p.m. The average noise levels and sources of noise measured at each location are listed in Table 5.11-7, *Existing Noise Measurements*, and shown on Figure 5.11-1, *Noise Measurement Locations*.

Table 5.11-7 Existing Noise Measurements

Monitoring Location	Measurement Period	L _{eq}	L _{max}	L _{min}	L _{peak}
ST 1	July 16, 2024, 9:30 a.m. – 9:45 a.m.	76.6	99.4	56.0	110.4
ST 2	July 16, 2024, 10:17 a.m. – 10:32 a.m.	71.9	83.7	60.9	102.5
ST 3	July 16, 2024, 10:44 a.m. – 10:59 a.m.	71.9	90.8	40.3	104.9
ST 4	July 16, 2024, 11:23 a.m. – 11:38 a.m.	68.1	82.3	53.8	100.9
ST 5	July 16, 2024, 11:54 a.m. – 12:09 p.m.	65.1	80.7	56.4	93.7
ST 6	July 16, 2024, 12:19 p.m. – 12:34 p.m.	67.0	86.0	57.6	102.0
ST 7	July 16, 2024, 1:12 p.m. – 1:27 p.m.	68.5	8..6	57.3	110.4
ST 8	July 16, 2024, 1:35 p.m. – 1:50 p.m.	61.3	77.6	51.1	96.2
ST 9	July 16, 2024, 2:07 p.m. – 2:22 p.m.	66.1	77.1	43.3	96.9

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Table 5.11-7 Existing Noise Measurements

Monitoring Location	Measurement Period	L _{eq}	L _{max}	L _{min}	L _{peak}
ST 10	July 16, 2024, 2:39 p.m. – 2:54 p.m.	65.5	86.7	53.3	103.2
ST 11	July 16, 2024, 3:16 p.m. – 3:31 p.m.	64.0	81.7	54.8	98.1
ST 12	July 16, 2024, 3:41 p.m. – 3:56 p.m.	71.4	84.1	56.5	102.3
ST 13	July 17, 2024, 9:13 a.m. – 9:28 a.m.	66.8	79.7	53.4	97.1
ST 14	July 17, 2024, 9:44 a.m. – 9:59 a.m.	64.5	75.4	53	91.3
ST 15	July 17, 2024, 10:15 a.m. – 10:30 a.m.	55.3	67.3	51.4	85.3
ST 16	July 17, 2024, 10:41 a.m. – 10:56 a.m.	64.6	79.8	45.5	96.5
ST 17	July 17, 2024, 11:14 a.m. – 11:29 a.m.	67.1	78.6	51.1	91.8
ST 18	July 17, 2024, 11:52 a.m. – 12:07 p.m.	62.5	70.8	47.1	88.1

On-Road Vehicles

Roadways are one of the biggest sources of noise in the City. Sound emanates from the vehicles' engines, exhaust system, and tires rolling over the pavement. The City could reduce vehicle noise through speed reduction. A change of 5 miles per hour could reduce the resultant noise by approximately one to two dBA. A change of 10 miles per hour could be roughly equivalent to reducing the traffic volume by half.

The City could additionally control traffic-generated noise through weight limitations and the designation of truck routes. Medium trucks, (i.e., those with a gross vehicle weight between 5 and 13.25 tons) produce as much acoustical energy as approximately 5 to 16 automobiles depending on the speed, with slower speeds demonstrating greater differential. Similarly, heavy trucks (i.e., those with a gross vehicle weight in excess of 13.25 tons) produce as much acoustical energy as 10 to 60 automobiles. Figure 5.11-2, *Existing Traffic Noise Contours – Section A* and Figure 5.11-3, *Existing Traffic Noise Contours – Section B*, show existing noise contours along City roadways.

Mobile noise within the City is primarily attributed to the vehicles traveling along the I-5, SR-39, SR-55, SR-57, SR-90, SR-91, SR-241, and major roadways.

Railroad Noise

Daily railroad use produces noise that may disrupt receptors in proximity to railroad tracks. Railroad noise is dependent on several factors: the number of operations per day, the times these operations occur, the numbers of engines and railcars, the average speed, the type of rail (i.e., continuous or bolted), and the presence of “at-grade” crossings that require the engineer to sound a warning horn.

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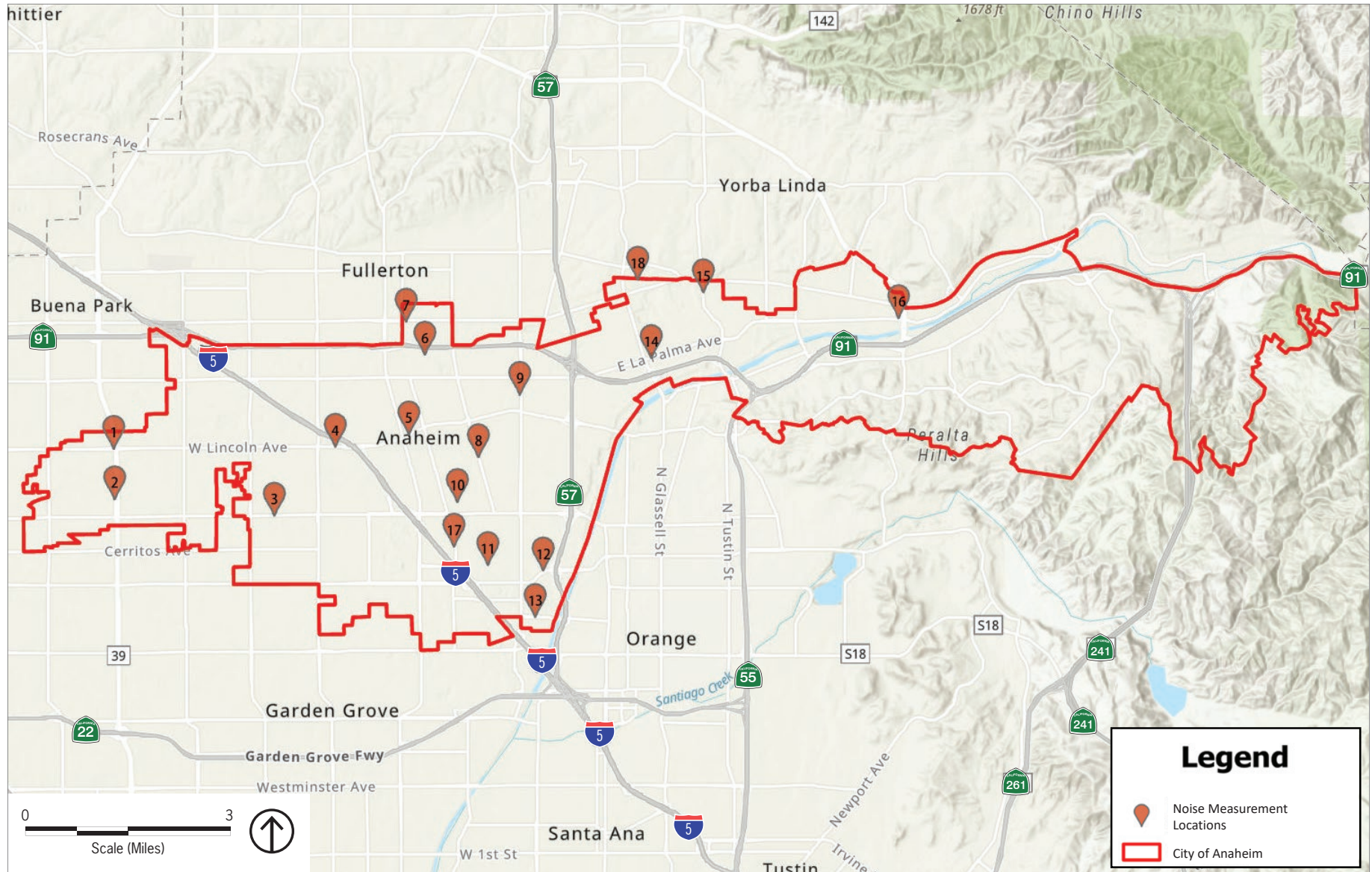
An at-grade crossing is where a highway and railroad cross and raises the noise produced by the engines by approximately 10 dBA. Ten times as many operations could occur if a horn were not sounded to achieve the same 10 dBA increase. Trains are required by the Federal Railroad Administration (FRA) to sound a warning horn at one-quarter mile from all at-grade crossings except in areas that have established a Quiet Zone, which is a segment of rail line at least one-half mile in length where locomotive horns are not routinely sounded. A train horn may be sounded within a Quiet Zone if the sound would prevent imminent injury, death, or property damage. There are 10 at-grade crossings in the City, all of which are in a Quiet Zone (California High-Speed Rail Authority 2024, OCTA 2024).

The railroad noise levels presented herein from the Federal Transit Administration (FTA) Noise Impact Assessment are a conservative estimation that does not account for intervening topography and structures. Furthermore, noise associated with railroad operations is regulated at the federal level, and the City has limited authority to dictate railroad policy in this matter.

The City includes two passenger lines: Metrolink and Amtrak. The Metrolink and Amtrak line is primarily located between Anaheim Boulevard and East Street, diverges to the east in the southern portion of the City, and passes through the Anaheim station located southwest of the intersection of Tustin Avenue and La Palma Avenue. The Metrolink Orange County Line and the Amtrak Pacific Surfliner have a combined 38 daytime operations (i.e. 7 a.m. to 10 p.m.) and 8 nighttime operations (i.e. 10 p.m. to 7 a.m.) that pass through the Anaheim station, the Inland Empire-Orange County Line has 15 daytime and 3 nighttime operations that pass through the Anaheim Canyon Station, and the 91/Perris Valley Line has 12 daytime and 2 nighttime operations that travel through the Anaheim Canyon/Corona West station (Metrolink 2024). The FTA Noise Impact Assessment spreadsheet incorporates the procedures for a General Noise Assessment contained in Section 4.4 of the FTA's guidance manual and allows the user to estimate noise levels from transit sources (FTA 2018). Utilizing the FTA Noise Impact Assessment spreadsheet model, the Metrolink Orange County Line and the Amtrak Pacific Surfliner would generate approximately 66 dBA at 50 feet, the Inland Empire-Orange County Line would generate approximately 62 dBA at 50 feet, and the 91/Perris Valley Line would generate approximately 61 dBA at 50 feet.

The City includes two railroad freight lines: Union Pacific and BNSF. The Union Pacific line is primarily located along the I-5 and diverges to the east and west in the southern portion of the City. The Union Pacific rail line operates as a branch line with switching activities to service the local industries. These trains are generally short and operate at slow speeds. The BNSF line follows the Metrolink and Amtrak line and operates as a mainline rail through the northeastern portion of the City. Freight operation data is confidential and not available to the public. According to personal correspondence with BNSF during preparation of the 2004 General Plan, the line averaged approximately 44 operations a day. Assuming that an equal number of operations would occur during the daytime and nighttime, the noise level from total operations on the BNSF line would be approximately 85 dBA at 50 feet.

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Source: Kimley-Horn, 2024.

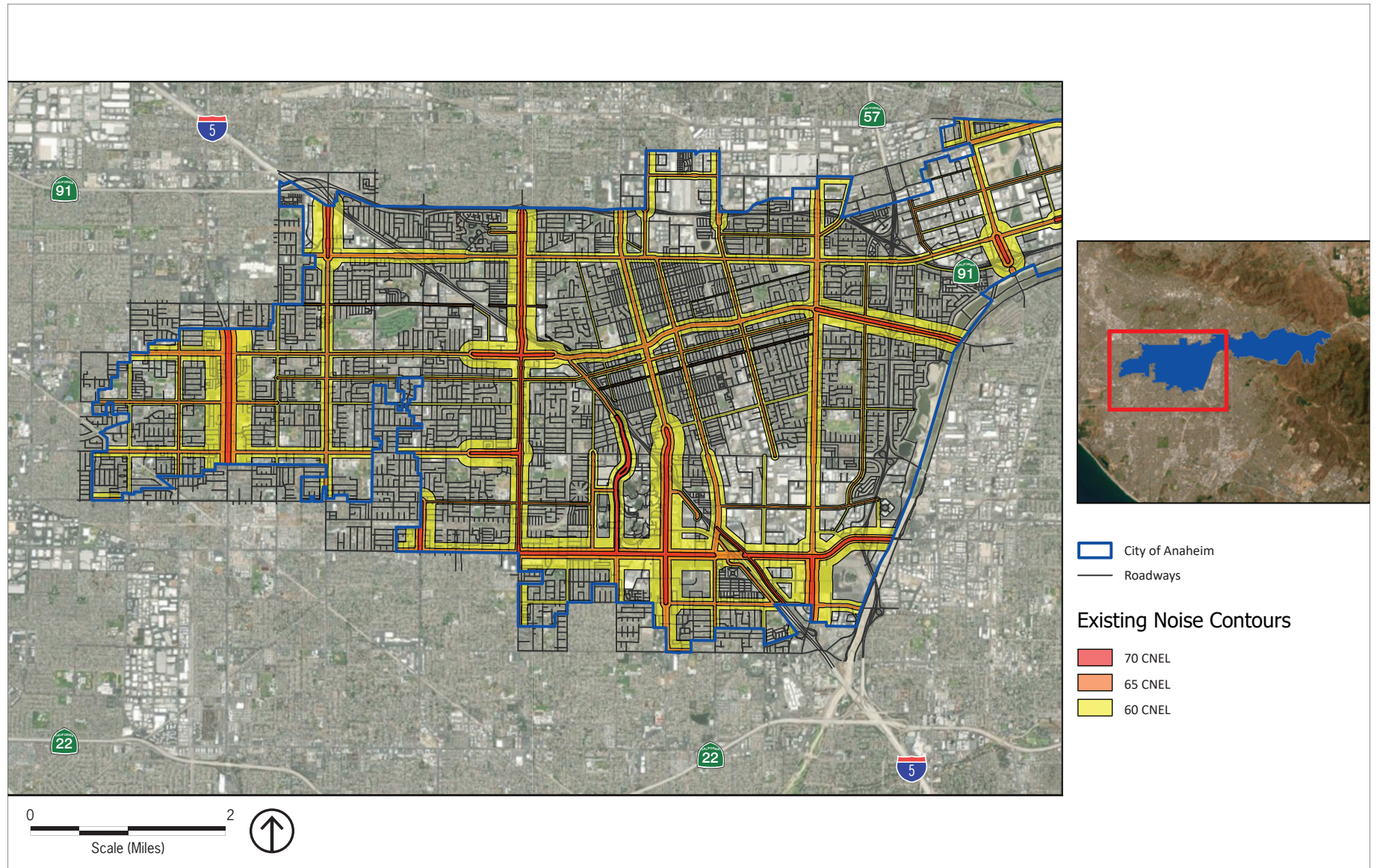
Figure 5.11-1
Noise Measurement Locations

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Source: Kimley-Horn, 2024.

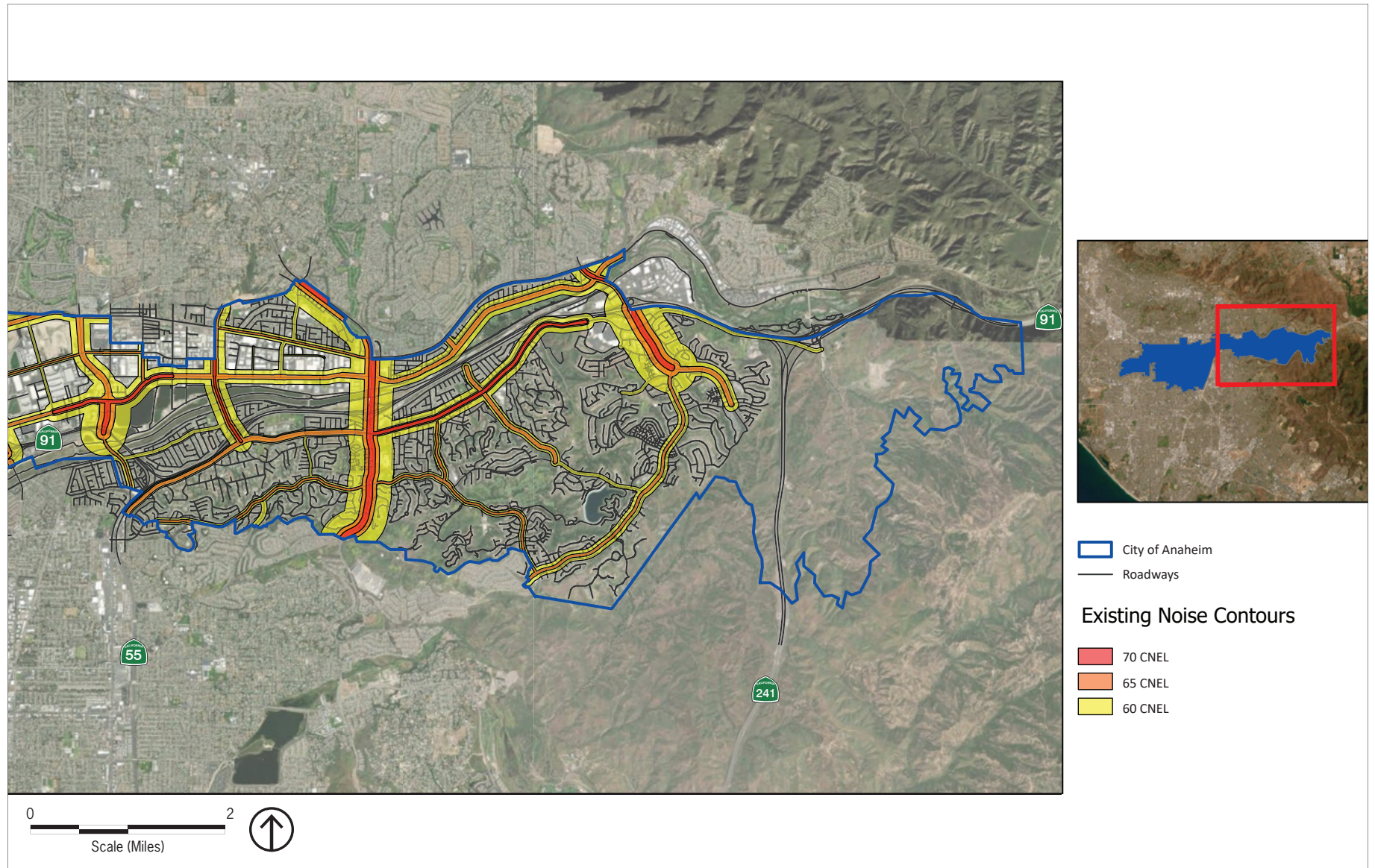
Figure 5.11-2
Existing Traffic Noise Contours – Section A

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Source: Kimley-Horn, 2024.

Figure 5.11-3
Existing Traffic Noise Contours – Section B

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Aircraft Noise

The City is not located within the 65 dBA CNEL contours for any commercial or private airports, and fixed-wing aircraft are typically too high to add measurably to local noise (John Wayne Airport Orange County 2023). Non-emergency helicopter air traffic (e.g. news and recreational) is commonplace throughout the City and has been a source of complaints, particularly in the Anaheim Colony. Emergency helicopter use (e.g. fire, medical, and police) are considered as an emergency activity and as such, is exempt under the AMC.

Stationary Noise

Stationary noise sources are mainly associated with industrial land uses, located along the I-5 and SR-91 and between I-5 and SR-57, and are restricted within the immediate areas. However, in some areas (e.g. along Orangethorpe Avenue and in central portions of the City) where residential land uses abut industrial land uses, the sound of industrial processes is readily audible at exterior residential locations. Other primary stationary noise sources are associated with the regular fireworks displays at Disneyland and special events at the Angel Stadium. While these latter stationary noise sources are readily audible at proximate residential locations, they represent the existing setting and are short in duration.

Vibration

The primary existing vibration sources in the City are truck traffic and rail operations. Perceptible vibration levels can be caused by heavy trucks hitting discontinuities in the pavement from gaps and potholes. However, under normal conditions with well-maintained asphalt, vibration levels are usually not perceptible beyond the road right-of-way. The screening distance for vibration from freight train operations is 600 feet from the centerline. Rail operations along the Union Pacific Line and BNSF Line pass through the City. A 25-car train at 20 miles per hour would last less than one minute; therefore, train pass-bys would have the potential to generate perceptible vibration levels at receptors within 600 feet of the railroad track for a few seconds.

Sensitive Receptors

Noise-Sensitive Receptors

Noise-sensitive receptors are associated with land uses wherein quiet environments are necessary for enjoyment, public health, and safety. Noise-sensitive receptors include residential (single and multiple dwelling unit development and similar uses); transient lodging (which are sensitive at night including hotels, motels, and similar uses); facilities for long-term medical care; daycare facilities; private or public educational facilities; libraries; churches; and other places of public gathering. Exterior use areas may additionally be considered a noise-sensitive receptor where frequent human use for prolonged periods (at least an hour) may reasonably occur. Common examples of exterior use areas include residential backyards, multiple dwelling unit communal areas, patios, picnic areas, recreation areas, playgrounds, active sports areas, and parks.

Vibration-Sensitive Receptors

As with airborne sound, annoyance with vibrational energy is a subjective measure, depending on the level of activity and the sensitivity of the individual. Ground vibration can be a concern in instances where buildings

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shake, and substantial rumblings occur. However, it is unusual for vibration from typical urban sources such as buses and heavy trucks to be perceptible. The City Noise Element defines vibration-sensitive receptors as concert halls, hospitals, libraries, vibration-sensitive research or manufacturing operations, residential areas, schools, and offices. The federal government has established standards for the human response and the effects on buildings resulting from continuous vibration in terms of PPV, as shown in Table 5.11-8, *Human Reaction to and Damage to Buildings from Typical Vibration Levels*.

Table 5.11-8 Human Reaction to and Damage to Buildings from Typical Vibration Levels

Maximum PPV (in/sec)	Vibration Annoyance Potential Criteria	Vibration Damage Potential Threshold Criteria	FTA Vibration Damage Criteria
0.008	--	Extremely fragile historic buildings, ruins, ancient monuments	--
0.01	Barely Perceptible	--	--
0.04	Distinctly Perceptible	--	--
0.1	Strongly Perceptible	Fragile buildings	--
0.12	--	--	Buildings extremely susceptible to vibration damage
0.2	--	--	Non-engineered timber and masonry buildings
0.25	--	Historic and some old buildings	--
0.3	--	Older residential structures	Engineered concrete and masonry (no plaster)
0.4	Severe	--	--
0.5	--	New residential structures, Modern industrial/commercial buildings	Reinforced-concrete, steel or timber (no plaster)

Source: Caltrans 2020, FTA 2018.

Notes: PPV = peak particle velocity; in/sec = inches per second; FTA = Federal Transit Administration

5.11.2 Proposed General Plan Goals and Policies and Standard Conditions

The proposed project does not include any new or updated general plan goals and policies related to noise and vibration. However, it does include certain standard conditions of approval that would be applicable to future development projects, as identified below.

SC NOI-1 Prior to the issuance of any grading permits, the project proponent shall produce evidence acceptable to the City that:

- All construction vehicles or equipment, fixed or mobile, operated within 500 feet of a noise-sensitive use, shall be equipped with properly operating and maintained mufflers,
- All operations shall comply with City of Anaheim Municipal Code Chapter 6.70.
- Stockpiling and/or vehicle staging areas shall be located as far as practicable from dwellings.

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5.11.3 Thresholds of Significance

The City of Anaheim considers a project to have a significant effect on the environment if it would:

- NOI-1 Result in the generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies.
- NOI-2 Result in the generation of excessive groundborne vibration or groundborne noise levels.
- NOI-3 For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, expose people residing or working in the Planning Area to excessive noise levels.

5.11.4 Analysis of Environmental Impacts

The following impact analysis addresses thresholds of significance that are identified in brackets after the impact statement.

Impact 5.11-1: Implementation of the proposed project could result in the generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the proposed project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies. [Threshold NOI-1]

Noise is regulated by numerous codes and ordinances across federal, state, and local agencies. Specifically, the City regulates noise-generating activities through the AMC. Noise generated during construction activities and aircraft operation have the potential to violate the City's noise standards and policies contained in the General Plan.

Construction Noise Impacts

Impacts to noise occur largely due to the physical modification of land and structures within the City. The proposed project does not include physical alterations to the City. Instead, the proposed project proposes a focused update of the City of Anaheim's adopted General Plan that reflects zoning and land use updates resulting from the 2021-2029 Housing Element, including to address the City's Regional Housing Needs Assessment (RHNA) growth allocation of 17,453 housing units, and complete the actions identified by the C3 Plan.

Implementation of the proposed project could result in various development projects being constructed simultaneously and over the duration of the General Plan Focused Update buildout. Due to the developed nature of the City, there is a high likelihood that construction activities would take place adjacent to existing structures and that sensitive receptors would be close to construction activities. Future development would involve construction activities that would generate on-site noise from heavy construction equipment and off-site noise from heavy haul trucks and construction worker commutes. Construction activities associated with future housing development facilitated by the proposed project is anticipated to occur in incremental phases

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over time based on market demand and economic and planning considerations. As a result, construction-related noise would not be concentrated in any one area of the City.

Future development facilitated by the proposed project would typically involve the following construction sequences: (1) site preparation and/or demolition; (2) grading and utilities construction; (3) building construction; (4) paving; and (5) architectural coatings. Typical construction equipment would include backhoes, excavators, graders, loaders, compactors, cranes, trucks, pavers, pneumatic tools, generator sets, and air compressors. Typical noise levels generated by construction equipment at 25, 50, and 100 feet are shown in Table 5.11-9, *Typical Construction Equipment Noise Levels*. Operating cycles for these types of construction equipment may involve one or two minutes of full power operation followed by three to four minutes at lower power settings. Other primary sources of acoustical disturbance would be due to random incidents, which would last less than one minute (such as dropping large pieces of equipment or the hydraulic movement of machinery lifts).

As identified in Table 5.11-9, noise levels associated with individual construction equipment used for typical construction projects can reach levels of up to approximately 91 dBA (i.e., the highest noise level from grading activities) at 25 feet from the source.

Table 5.11-9 Typical Construction Equipment Noise Levels

Equipment	Typical Noise Level (dBA) at 25 feet from Source	Typical Noise Level (dBA) at 50 feet from Source	Typical Noise Level (dBA) at 100 feet from Source
Air Compressor	86	80	74
Backhoe	86	80	74
Compactor	88	82	76
Concrete Mixer	91	85	79
Concrete Pump	88	82	76
Concrete Vibrator	82	76	70
Crane, Mobile	89	83	77
Dozer	91	85	79
Generator	88	82	76
Grader	91	85	79
Impact Wrench	91	85	79
Jack Hammer	94	88	82
Loader	86	80	74
Paver	91	85	79
Pneumatic Tool	91	85	79
Pump	83	77	71
Roller	91	85	79
Saw	82	76	70
Scraper	91	85	79
Shovel	88	82	76
Truck	90	84	78

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Table 5.11-9 Typical Construction Equipment Noise Levels

Equipment	Typical Noise Level (dBA) at 25 feet from Source	Typical Noise Level (dBA) at 50 feet from Source	Typical Noise Level (dBA) at 100 feet from Source
Source: FTA 2018.			

Because specific project-level information is inherently currently not available, it is not possible nor appropriate to quantify the construction noise impacts at specific sensitive receptors. Construction of future developments would potentially and temporarily increase the ambient noise environment in the vicinity of existing and future nearby sensitive uses. The nearest sensitive uses (e.g., residential uses) could be located within approximately 25 feet of future construction activities. As previously noted, intermittent construction equipment could reach or exceed 91 dBA. Nearby sensitive receptors may be exposed to elevated noise levels for the duration of construction. Because of the high degree of variability in construction noise, exposure to such sound level incursions could be brief, and the maximum noise levels at adjacent uses would lessen as the noisiest piece of construction equipment moves further away, reduces the necessary power setting, and/or changes the interaction with the work piece.

Construction noise impacts would be restricted through enforcement of Section 6.70.010 of the AMC, which states that the sound created by construction or building repair of any premises within the City shall be exempt from City regulations between the hours of 7:00 a.m. and 7:00 p.m. The City acknowledges that construction activity is a normalized function of typical urban and suburban activities during daytime hours. Mitigation Measures MM NOI-1 through MM NOI-5 and Noise Element goals and policies would reduce construction noise impacts at sensitive receptors to the extent feasible. Noise Element policies include placing an emphasis on the restriction of the hours in which work other than emergency work may occur, requiring that construction equipment operate with mufflers and intake silencers, and encouraging the use of portable noise barriers for heavy equipment operations performed within 100 feet of existing residences. However, because construction activities may occur near noise-sensitive uses and because noise disturbances could occur for prolonged periods of time or during noise-sensitive hours of the day, construction noise impacts associated with future development under implementation of the proposed project would be significant and would require mitigation.

Operational Noises Impacts

On-Road Mobile-Source Noise Impacts on Existing Land Uses

Potential impacts on existing land uses stem mainly from the addition of project-generated vehicles along City roads. This analysis uses the FHWA Highway Noise Prediction Model and assumes that proposed project buildout would occur simultaneously, meaning the entirety of its traffic would be added to the existing traffic volumes. Where existing traffic noise is 65 dBA CNEL or below at a residential location, an increase of 5 dBA CNEL would denote a significant impact if traffic noise remains below 65 dBA CNEL. Where plus project traffic noise levels would exceed 65 dBA CNEL at a residential location, an increase of 3 dBA CNEL would denote a significant impact.

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Table 5.11-10, *Buildout Traffic Volumes and Resultant Noise Levels Along Major Roadways Subject to Potentially Significant Change*, presents roadway segments with the potential for significant increase in noise due to implementation of the proposed project (increases of 3 dBA or 5 dBA). The noise level changes along all routes are included in the Appendix M. As indicated in Table 5.11-10, existing traffic noise levels along roadway segments with the potential for significant increase in noise range between 65.2 dBA CNEL and 68.6 dBA CNEL calculated at 50 feet from the roadway center, with the highest noise levels occurring along Orangewood Avenue between Manchester Avenue and State College Boulevard. The actual level of impact would depend on the presence and placement of any existing land uses. While an increase of 3 dBA or 5 dBA is potentially significant, it is only significant if it impacts sensitive land uses. While adverse, noise increases in open-space or industrial areas would not be considered as significant. This is a conservative estimate as development would occur over a period.

Furthermore, the City Noise Element contains policies to minimize the potential noise sources and impacts generated by vehicular traffic on existing roadways. Policies include considering the compatibility of proposed land uses with the noise environment; requiring mitigation where sensitive uses are to be placed along transportation routes to ensure that noise levels are minimized; encouraging the proper site planning and architecture to reduce noise impacts; discouraging the siting of sensitive uses in areas in excess of 65 dBA CNEL without the appropriate mitigation; employing noise mitigation practices when designing future streets and highways; and requiring sound walls, berms, and landscaping along existing and future freeways to reduce noise.

Table 5.11-10 Buildout Traffic Volumes and Resultant Noise Levels Along Major Roadways Subject to Potentially Significant Change

Street Name	Segment	Existing ADT Volumes	Existing CNEL (dBA at 50 Feet)	Future Buildout ADT Volumes	Future Buildout CNEL (dBA at 50 Feet)	Increase in CNEL (dBA at 50 Feet)
Disney Way	Clementine St to Anaheim Blvd	13,026	65.3	28,861	68.8	3.5
Harbor Blvd	La Palma Ave to Romneya Dr	21,021	67.4	44,436	70.6	3.3
La Palma Ave	Kraemer Blvd to Miller St	12,094	67.8	34,419	72.4	4.5
	Miller St to Tustin Ave	12,326	67.7	37,321	72.5	4.8
	Yorba Lina Blvd to East City Limits	10,099	66.5	23,386	70.1	3.6
Nohl Ranch Rd	Imperial Hwy to Anaheim Hills Rd	8,612	65.2	19,577	68.8	3.6
Orangethorpe Ave	Lemon St to Raymond Ave	10,109	66.2	26,946	70.5	4.3
	State College Blvd to Placentia Ave	11,611	68.5	26,997	72.2	3.7
	Kraemer Blvd to Miller St	7,954	65.4	16,185	68.5	3.1
	Lakeview Ave to Kellogg Dr	6,494	65.8	15,669	69.6	3.8
	Kellogg Dr to Imperial Hwy	6,520	65.9	17,355	70.1	4.2
Orangewood Ave	Manchester Ave to State College Blvd	6,520	68.6	17,355	72.2	4.3
	State College Blvd to Rampart St	15,034	66.8	34,650	70.4	3.6
Santa Ana Cyn Rd	Fairmont Blvd to Eucalyptus Dr	14,565	67.6	32,880	70.7	3.5
	Eucalyptus Dr to Festival	9,059	66.8	18,599	70.5	3.1

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Table 5.11-10 Buildout Traffic Volumes and Resultant Noise Levels Along Major Roadways Subject to Potentially Significant Change

Street Name	Segment	Existing ADT Volumes	Existing CNEL (dBA at 50 Feet)	Future Buildout ADT Volumes	Future Buildout CNEL (dBA at 50 Feet)	Increase in CNEL (dBA at 50 Feet)
Tustin Ave	Old Santa Ana Cyn Rd to Riverdale Ave	7,856	65.3	18,410	68.6	3.7
	Riversdale Ave to Riverside Fwy	10,235	65.3	21,756	69.7	3.3
	La Palma Ave to Jefferson St	13,805	66.5	28,388	74.9	3.1

Note: See Appendix M for traffic noise level changes along all studies routes.

On-Road Mobile-Source Noise Impacts on New, Proposed Land Uses

As noted in the prior discussion, impacts on sensitive areas are considered significant if traffic noise increases would exceed 3 dBA or 5 dBA when a CNEL of 65 dBA for sensitive land uses is met or exceeded or when traffic noise levels remain below 65 dBA CNEL, respectively. The proposed project's projected buildout noise contours are presented in Figure 5.11-4, *Future Traffic Noise Contours – Section A*, Figure 5.11-5, *Future Traffic Noise Contours – Section B*, Figure 5.11-6, *Future Plus Project Traffic Noise Contours – Section A*, and Figure 5.11-7, *Future Plus Project Traffic Noise Contours – Section B*. These noise contours include existing plus ambient growth plus project-generated traffic. There are several areas in the City where the 65 dBA CNEL noise contours overlap residential, schools, churches, and other noise-sensitive land uses. Any siting of sensitive land uses within these contours then 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 Noise Element contains several goals and policies, referenced above, to reduce traffic noise impacts at sensitive receptors. These goals and policies would only apply to the development of new sensitive receptors, as existing receptors cannot always be redesigned to include noise abatement, and it is not possible to construct noise barriers between roadways and existing development.

Railroad Noise Impacts

The following railroad noise levels were calculated with the FTA Noise Impact Assessment Methodology. According to the Metrolink Strategic Business Plan, projected weekday operational lots for the year 2050 would increase to 86 along the Orange County Line, 42 along the Inland Empire-Orange County Line, and 40 along the 91/Perris Valley Line (Metrolink 2021). Future railroad operations would increase from 66 dBA to 69 dBA at 50 feet along the Orange County Line, from 62 dBA to 66 dBA along the Inland Empire-Orange County Line, and from 61 dBA to 66 dBA along the 91/Perris Valley Line. The projected increases in rail noise would be perceivable to existing receptors.

The daily number and timing of operations for the Union Pacific line varies day to day; therefore, it is not possible to determine the existing or future railroad noise impacts. Furthermore, noise increases proximate to the I-5 would be masked by the freeway noise and shielded by structures. As discussed above, freight operations

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data is confidential and not available to the public. However, it is assumed the freight operations would not increase substantially and that most of the rail noise along the BNSF line would be attributable to Metrolink operations.

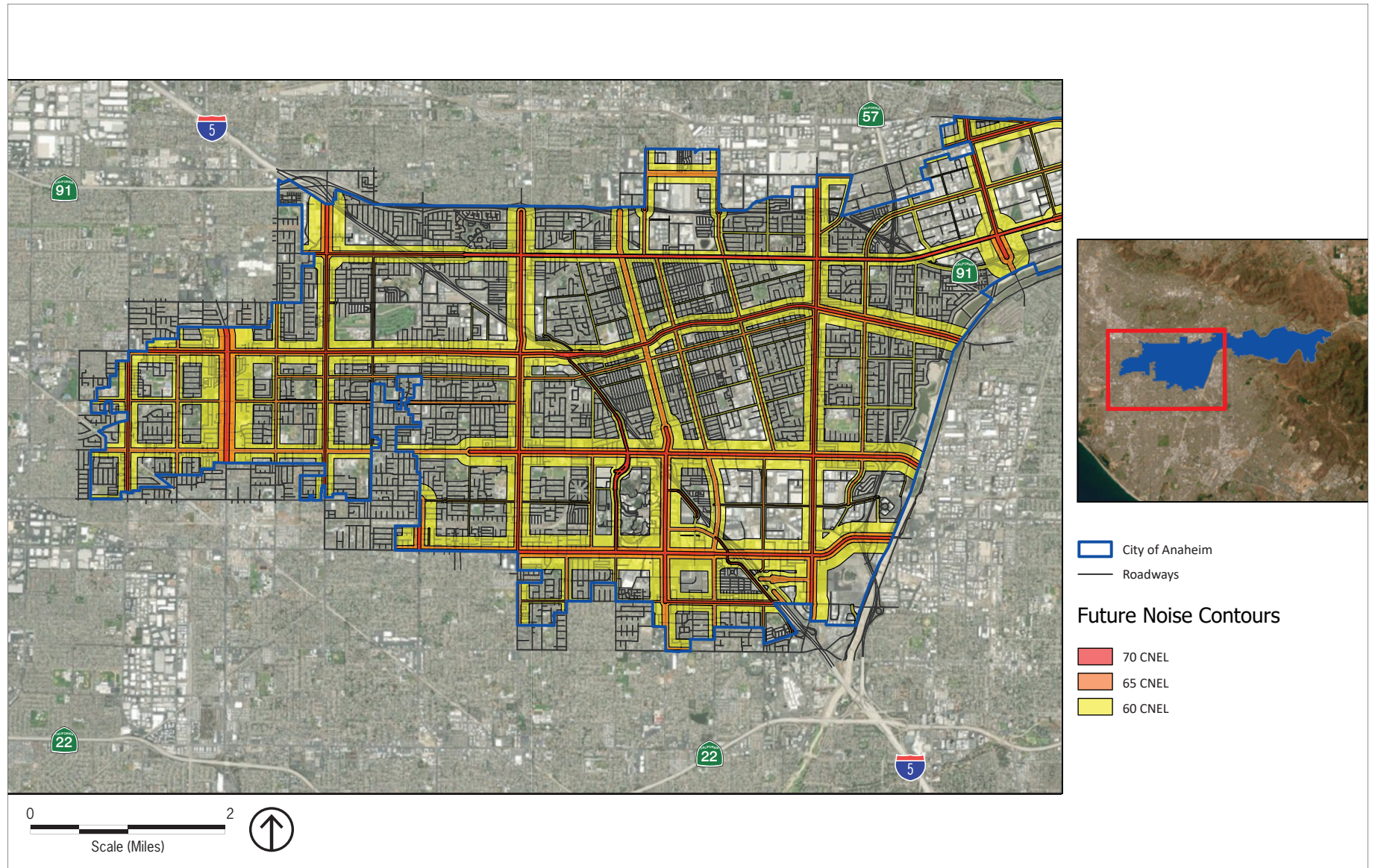
The actual noise level in all cases could be reduced due to the presence of intervening topography and structures. Furthermore, the City has limited authority to regulate railroad operations and the resulting noise. The General Plan Noise Element contains policies to minimize the potential impacts associated with railroad operations on noise-sensitive receptors including requiring sound walls, berms, and landscaping along existing and future railroad rights-of-way to reduce noise; encouraging the construction of noise barriers where residences exist next to the track; minimizing nighttime noise impacts by encouraging the reduction of nighttime operations; improving vehicle system technology; developing improved sound barriers where residences exist next to the track; and encouraging the use of sound-deadening matting leading to, from, and between the rails where public roads cross tracks in residential areas. Future development under implementation of the proposed project is not anticipated to result in increases or changes to existing rail activity, and impacts related to rail noise would be less than significant.

Stationary Noise Impacts

Operational stationary noise sources from residential, industrial, commercial, and school land uses vary in duration and noise level. Operational noise associated with future development facilitated by the proposed project is likely to occur from stationary sources, such as heating, ventilation, and air conditioning (HVAC) units, tankless water heaters, generators, lawn maintenance equipment, and swimming pool pumps.

The proposed project concentrates industry toward the north in The Canyon and the North Central Industrial Area; along the Metrolink rail line between Vermont Avenue and the northern edge of The Platinum Triangle; and, in various pockets along the I-5, generally north of Santa Ana Street. Potential areas of land use-noise conflict could occur at the borders along the residential areas (e.g., along Orangethorpe and La Palma Avenue), schools, hospitals, and other sensitive receptors.

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Source: Kimley-Horn, 2024.

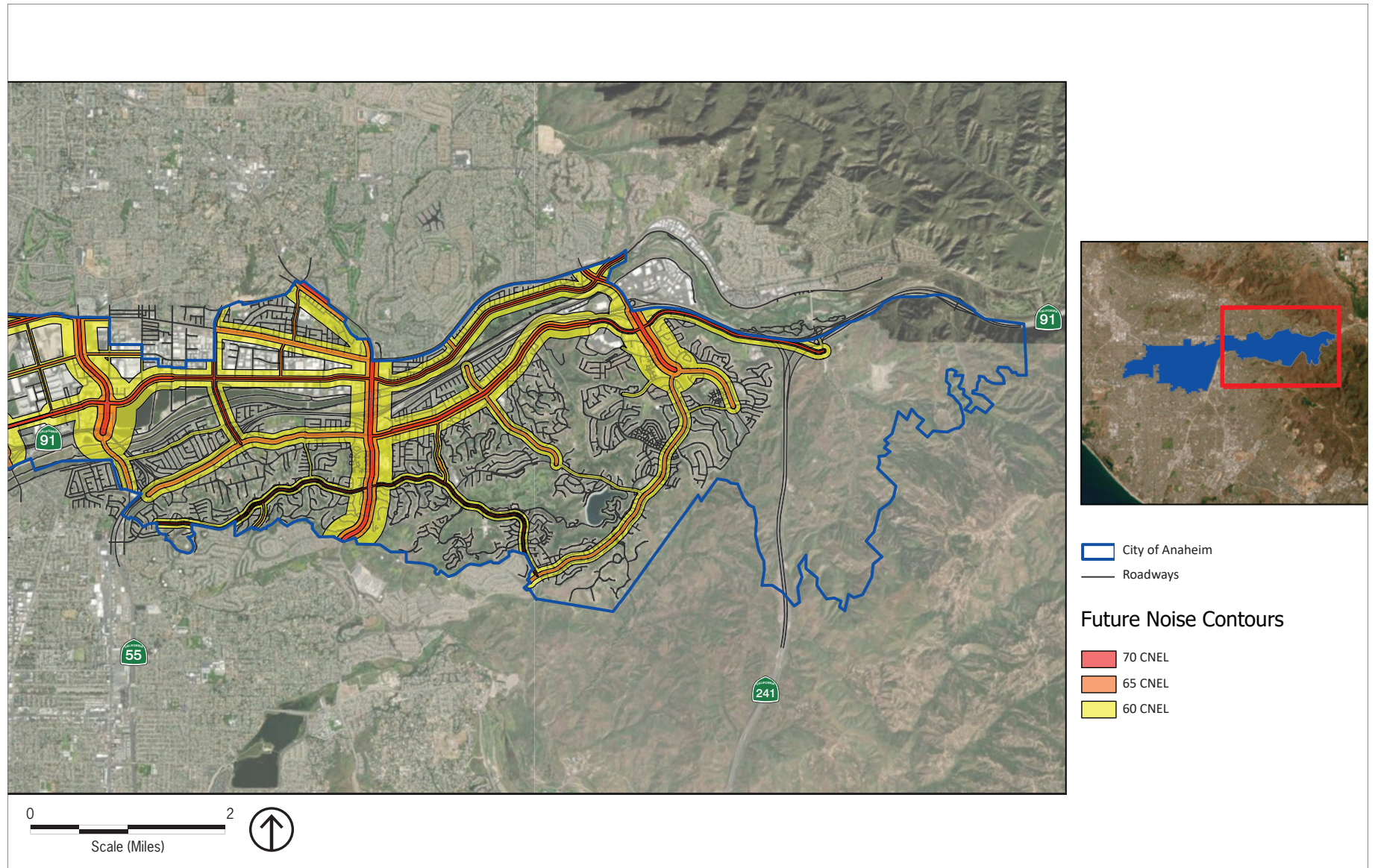
Figure 5.11-4
Future Traffic Noise Contours – Section A

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Source: Kimley-Horn, 2024.

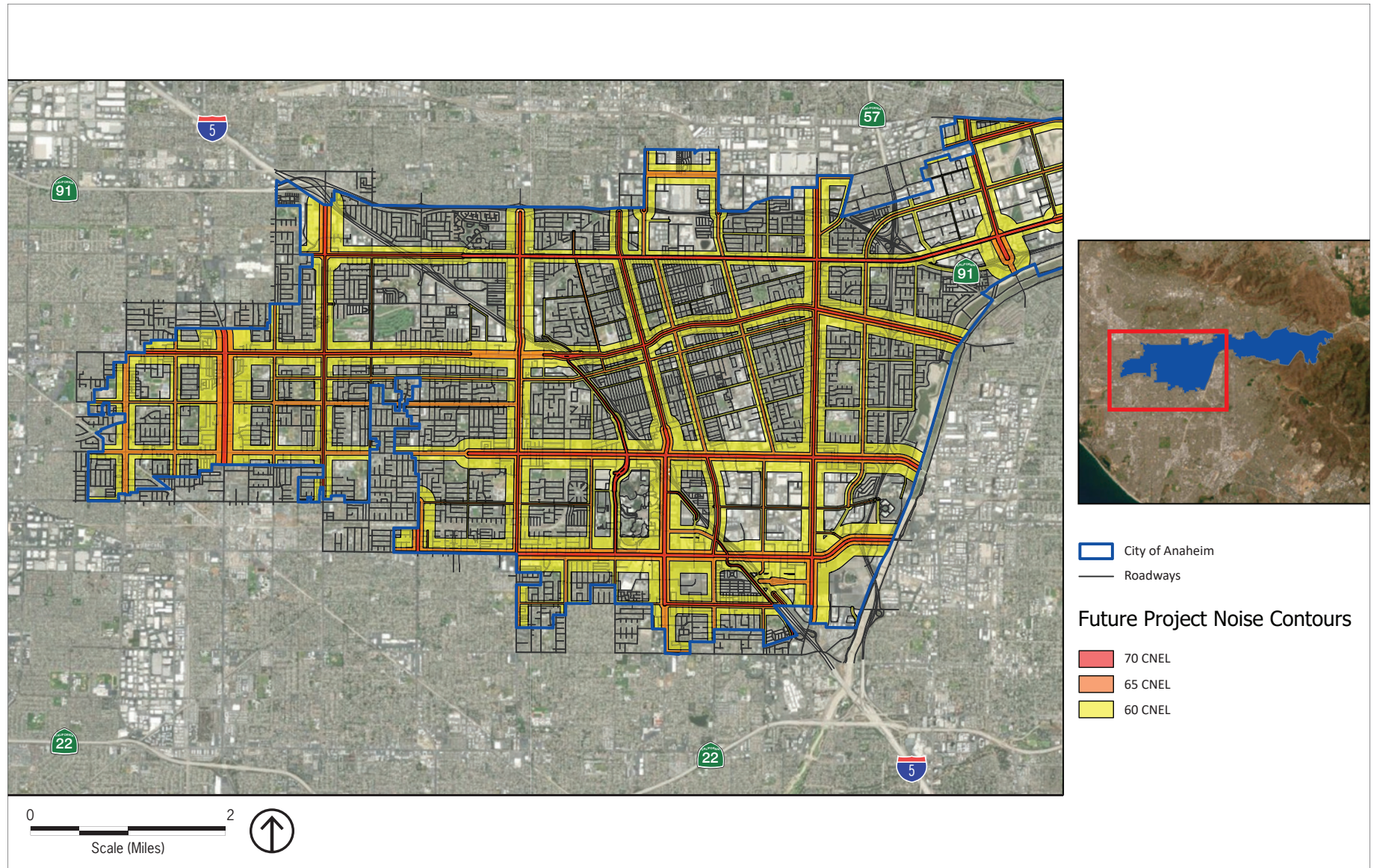
Figure 5.11-5
Future Traffic Noise Contours – Section B

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Source: Kimley-Horn, 2024.

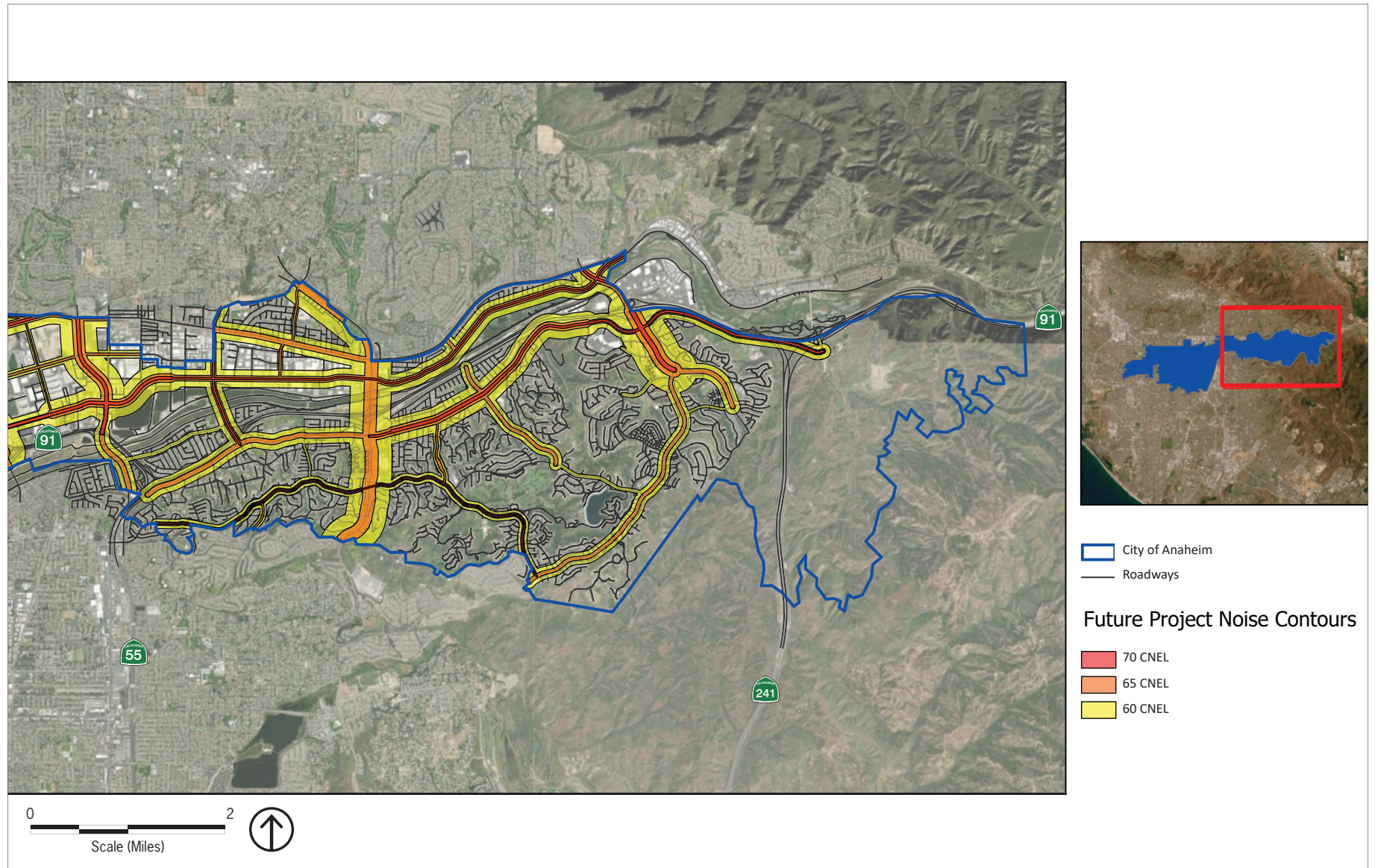
Figure 5.11-6
Future Plus Traffic Noise Contours – Section A

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Source: Kimley-Horn, 2024.

Figure 5.11-7
Future Plus Traffic Noise Contours – Section B

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Quantifying long-term stationary noise impacts from the future development is not feasible due to the variability of future development. Furthermore, future developments would be required to comply with City, state, and federal guidelines concerning noise abatement and insulation standards. The Noise Element includes policies to reduce the impact of noise through the adoption of Land Use Compatibility for Community Noise Exposure standards; enforcement of acceptable noise standards consistent with health and quality of life goals; employment of effective techniques of noise abatement through such means as a noise ordinance, building codes, and subdivision and zoning regulations; encourage proper site planning and architecture to reduce noise impacts; and requiring site-specific noise studies while reviewing the development of sensitive land uses or development that has the potential to impact sensitive land uses. Because future development under implementation of the proposed project may occur near noise-sensitive uses, operational noise impacts associated with future development under implementation of the proposed project would be significant and would require mitigation.

Level of Significance Before Mitigation: Impact 5.11-1 would be significant.

Mitigation Measures: Mitigation measures MM NOI-1 through MM NOI-5 are required.

Impact 5.11-2: Implementation of the proposed project could result in the generation of excessive groundborne vibration or groundborne noise levels. [Threshold NOI-2]

Proposed project buildout could potentially expose more people to the impacts of groundborne vibration or noise levels. Increased exposure could occur through increased residential or employment densities on lands within proximity to noise generating activities. Specifically, vibration created through construction, industrial, or transit activities.

Construction Vibration Impacts

Future construction activities for new development facilitated by the proposed project would require the use of heavy equipment, power tools, generators, and other vibration sources. Construction activities could result in groundborne vibration impacts at noise sensitive receptors within the City depending on the site location, duration of construction activities, and equipment used at the construction site. Groundborne vibration would primarily impact vibration sensitive land uses located adjacent to or within the vicinity of individual development sites. Groundborne vibration generated by construction equipment spreads through the ground and diminishes in magnitude with increases in distance. The types of construction vibration impacts include human annoyance and building damage.

Human annoyance occurs when construction vibration rises significantly above the threshold of human perception for extended periods of time. Building damage can be cosmetic or structural. Ordinary buildings that are not particularly fragile would not experience any cosmetic damage (e.g., plaster cracks) at distances beyond 30 feet. This distance can vary substantially depending on the soil composition and underground geological layer between vibration source and receiver. In addition, not all buildings respond similarly to vibration generated by construction equipment. For example, for a building that is constructed with reinforced concrete with no plaster, the FTA guidelines show that a vibration level of up to 0.20 in/sec is considered safe and would not result in any construction vibration damage.

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Groundborne vibration generated by construction equipment spreads through the ground and diminishes in magnitude with increases in distance.

Table 5.11-11, *Typical Vibration Levels for Construction Equipment*, identifies anticipated vibration velocity levels (in/sec) for standard types of construction equipment based on distance from the receptor. As shown in Table 5.11-11, vibration velocities from typical heavy construction equipment operations that would be used during construction from future development under implementation of the proposed project range from 0.003 to 0.644 in/sec PPV at 25 feet from the source of activity.

Table 5.11-11 Typical Vibration Levels for Construction Equipment

Equipment	PPV at 25 feet (in/sec)	PPV at 50 feet (in/sec)
Large bulldozer	0.089	0.031
Loaded Trucks	0.076	0.027
Small Bulldozer	0.003	0.001
Auger/drill rigs	0.089	0.031
Jackhammer	0.035	0.012
Pile Driver	0.644	0.228
Vibratory hammer	0.035	0.012

Source: FTA 2018.

Notes:

1. Calculated using the following formula: $PPV_{equip} = PPV_{ref} \times (25/D)^{1.5}$

where: PPV (equip) = the peak particle velocity in in/sec of the equipment adjusted for the distance,

PPV (ref) = the reference vibration level in in/sec from FTA *Transit Noise and Vibration Impact Assessment Manual*, Table 12-2, and

D = the distance from the equipment to the receiver.

Because specific project-level information is inherently currently not available, it is not possible nor appropriate to quantify the construction vibration impacts at specific sensitive receptors. Construction of future developments would generate temporary vibrations from the use of heavy-duty construction equipment. The nearest sensitive uses (e.g., residential uses) could be located within approximately 25 feet of future construction activities. As previously noted, construction equipment could generate vibration velocities of up to 0.644 in/sec at 25 feet. Nearby sensitive receptors may be exposed to vibration for the duration of construction. Because of the high degree of variability in construction vibration, exposure to such vibration levels could be brief, and the maximum vibration levels at adjacent uses would lessen as the equipment moves further away.

Mitigation Measures MM NOI-7 through MM NOI-8 would reduce construction vibration impacts at sensitive receptors to the extent feasible. However, because construction activities may occur near vibration-sensitive uses and because disturbances could occur for prolonged periods of time or during sensitive hours of the day, construction vibration impacts associated with future development under implementation of the proposed project would be significant and would require mitigation.

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Operational Vibration Impacts

Mobile Vibration Impacts

A Caltrans study noted that freeway groundborne vibration measured 5 meters from the centerline of the nearest lane would not exceed 0.08 in/sec. Regarding groundborne vibration from trains, Caltrans notes that train vibration levels are dependent on the speed, load, track condition, and amount of ballast used to support the track. Caltrans prepared a train groundborne vibration contour from recorded train vibration levels. The 0.2 in/sec and 0.08 in/sec vibration contour would extend to 7.5 feet and 25 feet from the rails, respectively. Future development under implementation of the proposed project would not involve railroads or heavy truck operations. Furthermore, sensitive land uses are not and will not be sited within areas with significant groundborne vibration impacts. Mobile vibration impacts would be less than significant.

Industrial Vibration Impacts

The use of heavy equipment associated with industrial operations can create elevated vibration levels in their immediate proximity. While the level of this vibration is indeterminate, it would not be expected to exceed that of railroad operations. Railroad operations are shown to create vibration levels under the most stringent Caltrans threshold levels at 25 feet from the rails. Any pieces of heavy vibration-causing equipment would be situated more than this distance from any sensitive land uses and any potential for impact is less than significant.

Level of Significance Before Mitigation: Impact 5.11-2 would be significant.

Mitigation Measures: Mitigation measures MM NOI-7 through MM NOI-8 are required.

Impact 5.11-3: Implementation of the proposed project would not expose people residing or working within the vicinity of a private airstrip or an airport land use plan, or where such a plan has not been adopted, within two miles of a public airport or public use airport, to excessive noise levels. [Threshold NOI-3]

The Fullerton Municipal Airport is located approximately two miles away from the City. The Los Alamitos Joint Training Base is located approximately one mile from the City. The 65 CNEL Noise Contour for the Fullerton Municipal Airport and the Los Alamitos Joint Training Base does not extend into the City (ALUC 2019, ALUC 2017). Implementation of the proposed project would not increase air traffic or associated noise from aircraft overflights; therefore, no significant impacts are anticipated to occur.

The City contains thirteen heliports within its boundaries (Airportmap 2024). Future development under implementation of the proposed project could be proposed within two miles of one of the thirteen heliports within the City. However, implementation of the proposed project would not increase air traffic or associated noise from aircraft overflights. Further, future residential developments would be subject to allowable interior noise levels pursuant to CBC Title 24, which requires new sensitive uses to achieve an interior noise level of 45 dBA or less in any habitable room. While existing and future sensitive uses would be subject to occasional overhead helicopter flights, implementation of the proposed project would not lead to excessive noise hazards as it relates to heliports.

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Level of Significance Before Mitigation: Impact 5.11-3 would be less than significant.

Mitigation Measures: No mitigation measures are required.

5.11.5 Cumulative Impacts

The geographic context of cumulative analysis for the proposed project is the entire City of Anaheim, consistent with the impact analysis provided above.

5.11.5.1 CONSTRUCTION NOISE

Construction of future development projects in the City under implementation of the proposed project would generate temporary noise impacts that would be localized to a project site and sensitive receptors within the immediate vicinity. As such, only sensitive receptors located near each construction site would be potentially affected by each future development. Construction activities associated with individual development projects may occur simultaneously as construction activities for other development projects. Typically, if a development site is 500 feet or more away from another site, noise levels would have attenuated to a point that they would not combine to produce a cumulative noise impact. Therefore, construction noise levels would typically become cumulative only if two development sites were to have construction occurring within 500 feet of each other.

Future construction activities associated with future development would be subject to the City's standard conditions and Mitigation Measures MM NOI-1 through MM NOI-5. Development of multiple projects simultaneously within could combine to substantially increase noise levels at specific noise-sensitive receptors. Therefore, the significant and unavoidable construction noise impacts from implementation of the proposed project could add to construction noise impacts associated with cumulative development. The incremental effect from implementation of the proposed project would be cumulatively considerable, and temporary construction noise impacts would remain significant and unavoidable.

5.11.5.2 OFF-SITE TRAFFIC NOISE

Cumulative development through the year 2045 would generate vehicle trips, increasing traffic on area roadways. As shown in Table 5.11-10, increases in vehicle trips associated with proposed project buildout would result in significant increases in traffic noise levels along 18 roadway segments. Therefore, off-site traffic noise would be cumulatively considerable, and cumulative impacts would be significant and unavoidable.

5.11.5.3 ON-SITE OPERATIONAL NOISE

On-site operational noise impacts are localized to an individual development site and sensitive receptors within the immediate vicinity. Future development in the City under implementation of the proposed project would include stationary sources, such as HVAC units, tankless water heaters, generators, lawn maintenance equipment, and swimming pool pumps. However, such activities would be typical of the urban environment in the City, and on-site activities would be required to comply with the City's Noise Ordinance and Mitigation Measure MM NOI-6. Even with compliance with City standards, sufficient reduction in operational noise levels cannot be assured for all projects, particularly in a cumulative scenario. Therefore, the impact of cumulative

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operational noise on sensitive receptors related to implementation of the proposed project would remain significant and unavoidable.

5.11.5.4 GROUNDBORNE VIBRATION

Construction of future development projects in the City under implementation of the proposed project would produce temporary vibration impacts that would be localized to a project site and sensitive receptors in the immediate vicinity. Therefore, only sensitive receptors located near each construction site would be potentially affected by each individual activity. Construction activities associated with individual development projects could overlap with construction activities of other projects. For the combined vibration impact from simultaneous construction projects to reach cumulatively significant levels, intense construction from these projects would have to occur simultaneously near a sensitive receptor. The incremental effect from implementation of the proposed project would be cumulatively considerable, and temporary construction vibration impacts would remain significant and unavoidable.

Operational groundborne vibration impacts are localized to a project site and sensitive receptors within the immediate vicinity. However, it is not anticipated that future development within the City would include substantial sources of operational groundborne vibration. Therefore, cumulative impacts related to operational groundborne noise and vibration at any sensitive receptor would not be significant. Impacts related to operational groundborne noise and vibration would not be cumulatively considerable, and cumulative impacts would be less than significant.

5.11.5.5 AIRPORT NOISE

Aircraft-related noise impacts occur only in the vicinity of airports or airstrips. Although citywide growth could increase the number of people who are exposed to aircraft-related noise impacts, such impacts would be localized in nature. In addition, future development would not result in a direct increase to aircraft operations that would increase noise exposure to aircraft overflight patterns within and outside the City. Implementation of the proposed project would have no contribution to any cumulative impact related to airport hazards or noise. Impacts related to airport or airstrip noise would not be cumulatively considerable, and cumulative impacts would be less than significant.

Level of Significance Before Mitigation: Cumulative impacts would be significant.

Mitigation Measures: Mitigation Measures MM NOI-1 through MM NOI-5 and MM NOI-6 would reduce construction and operational noise impacts to the extent feasible, respectively. Mitigation Measures MM NOI-7 through MM NOI-8 would reduce construction vibration impacts to the extent feasible.

Level of Significance After Mitigation: Cumulative impacts would be significant and unavoidable.

5.11.6 Level of Significance Before Mitigation

Upon implementation of regulatory requirements and General Plan policies, Impact 5.11-3 would be less than significant.

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Without mitigation, these impacts would be potentially significant:

- **Impact 5.11-1:** Construction, operational stationary, and traffic noise associated with future development that would be accommodated under the proposed project could exceed pertinent threshold criteria.
- **Impact 5.11-2:** Construction associated with future development that would be accommodated under the proposed project could exceed the FTA's threshold criteria for construction vibration.

5.11.7 Mitigation Measures

Impact 5.11-1

- | | |
|----------|---|
| MM NOI-1 | For all future development projects, power construction equipment (including combustion engines), fixed or mobile, shall be equipped with noise shielding and silencing devices consistent with manufacturer's standards or the Best Available Control Technology. Equipment shall be properly maintained, and the Project Applicant or Owner shall require any construction contractor to submit all construction equipment specification to the Anaheim Planning and Building Department prior to issuance of the respective demolition/grading/building permits. In addition, the contractor shall keep documentation on-site during any earthwork or construction activities demonstrating that the equipment has been maintained in accordance with manufacturer's specifications. |
| MM NOI-2 | Driven (impact), sonic, or vibratory pile drivers shall not be used in construction of future development projects, except in locations where the underlying geology renders alternative methods infeasible, as determined by a soils or geotechnical engineer and documented in a soils report. |
| MM NOI-3 | All outdoor mechanical equipment in future development projects shall be enclosed or screened from off-site noise-sensitive uses. The equipment enclosure or screen shall be impermeable (i.e., solid material with minimum weight of 2 pounds per square foot) and break the line-of-site from the equipment and off-site noise-sensitive uses. Prior to issuance of demolition permits, construction plans showing the location and specifications of enclosures and screens shall be submitted to the Anaheim Planning and Building Department. |
| MM NOI-4 | Construction staging areas in future development projects shall be located as far from noise-sensitive uses as reasonably possible and feasible in consideration of site boundaries, topography, intervening roads and uses, and operational constraints. Prior to issuance of demolition permits, construction plans showing the location of construction staging areas shall be submitted to the Anaheim Planning and Building Department. |
| MM NOI-5 | For future development projects in the City located within 500 feet of noise-sensitive land uses, a project-specific Construction Noise Study, prepared by a qualified noise expert to meet |

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the requirements herein, shall be submitted to the Anaheim Planning Division for review and approval during the first demolition/grading/building permit. The Construction Noise Study shall characterize sources of construction noise, quantify noise levels at noise-sensitive uses (e.g., residences, transient lodgings, schools, libraries, churches [or other places of assembly], hospitals, nursing homes, auditoriums, concert halls, amphitheaters, playgrounds, and parks), and identify measures to reduce noise exposure. The Construction Noise Study shall identify reasonably available noise reduction devices or techniques to reduce noise levels to acceptable levels and/or durations including through reliance on any relevant federal, state, or local standards or guidelines or accepted industry practices, and in compliance with AMC standards. Noise reduction devices or techniques may include but not be limited to mufflers, shields, sound barriers, and time and place restrictions on equipment and activities. Each measure in the Construction Noise Study shall identify anticipated noise reductions at noise-sensitive land uses.

- MM NOI-6 For development projects in the City located within 500 feet of noise-sensitive land uses, a project-specific Operational Noise Study, prepared by a qualified noise expert to meet the requirements herein, shall be submitted to the Anaheim Planning Division for review and approval prior to issuance of a building permit. The Operational Noise Study shall characterize sources of operational noise, quantify noise levels at noise-sensitive uses (e.g., residences, transient lodgings, schools, libraries, churches [or other places of assembly], hospitals, nursing homes, auditoriums, concert halls, amphitheaters, playgrounds, and parks), and identify measures to reduce noise exposure. If project noise would exceed City thresholds, identification of mitigation measures to reduce noise to below a 5 dBA increase in ambient noise shall be implemented. Each mitigation measure in the Operational Noise Study shall identify anticipated noise reductions at noise-sensitive land uses.

Impact 5.11-2

- MM NOI-7 Impact pile drivers shall be avoided to eliminate excessive vibration levels when feasible. Drilled piles or similar methods are alternatives that shall be utilized where geological conditions permit their use. In the event that drilled piles are not feasible, the project applicant shall prepare and submit to the Planning Division and Public Works Department, prior to the issuance of grading permits, a geotechnical report providing substantial evidence that impact piles are required.
- MM NOI-8 Construction activities shall involve rubber-tired equipment rather than metal-tracked equipment where feasible. In the event that rubber-tired equipment is not feasible, the project applicant shall prepare and submit to the Planning Division, prior to issuance of the respective permit, a memorandum providing substantial evidence that site conditions required metal-tracked equipment.

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5.11.8 Level of Significance After Mitigation

Impact 5.11-1

Implementation of General Plan goals and policies, existing codes and regulations, and Mitigation measures MM NOI-1 through MM NOI-5 and MM NOI-6 would reduce potential short-term and long-term noise impacts to the extent feasible. However, because specific project details are not yet known, impacts associated with construction and operational stationary noise would be significant and unavoidable. Regarding traffic noise, as shown in Table 5.11-10, 18 roadway segments within the City are expected to experience excessive increases in traffic noise. No feasible mitigation measures are available to reduce traffic noise impacts to existing noise sensitive receptors, and Impact 5.11-1 would be significant and unavoidable.

Impact 5.11-2

Implementation of General Plan goals and policies, existing codes and regulations, and Mitigation measures MM NOI-7 through MM NOI-8 would reduce potential short-term noise impacts to the extent feasible. However, because specific project details and structural integrity of structures adjacent to future development are not yet known, impacts associated with construction noise under Impact 5.11-2 would be significant and unavoidable.

5.11.9 References

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5.12 POPULATION AND HOUSING

This section of the Draft Program Environmental Impact Report (Draft PEIR) discusses the potential impacts to population and housing in the City of Anaheim (City) from implementation of the City of Anaheim's General Plan Focused Update (proposed project) and consistency with policies and programs related to population and housing.

No comments related to population and housing impacts were received during the scoping period for either the proposed project (see Appendix A) or the Center City Corridors Specific Plan (C3SP), which has been incorporated into the proposed project as the Center City Corridors Implementation Plan (C3 Plan) (see Appendix B).

5.12.1 Environmental Setting

5.12.1.1 REGULATORY BACKGROUND

State

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 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, and the council 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. HCD oversees the process to ensure that the council of governments distributes its share of the state's projected housing need.

California housing element laws (California Government Code Section 65580–65589) 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. 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.

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POPULATION AND HOUSING

- Assist in the development of adequate housing to meet the needs of low- and moderate-income households.
- 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.

This Draft PEIR addresses physical environmental effects associated with land use and zoning changes in the City of Anaheim 6th-cycle Housing Element for the 2021-2029 period.

Regional

Southern California Association of Governments

SCAG is a regional council of governments representing Imperial, Los Angeles, Orange, Riverside, San Bernardino, and Ventura counties, which encompass over 38,000 square miles. SCAG is the federally recognized metropolitan planning organization for this region 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 metropolitan planning organization, SCAG cooperates with the South Coast Air Quality Management District, the California Department of Transportation, and other agencies to prepare regional planning documents. The City of Anaheim is in the Orange County Council of Governments subregion of SCAG.

SCAG has developed regional plans to achieve specific regional objectives. In April 2024, SCAG adopted Connect SoCal, the 2024–2050 Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS), a long-range visioning plan that balances future mobility and housing needs with economic, environmental, and public health goals (SCAG 2024). This long-range plan, which is a requirement of the state of California and the federal government, is updated by SCAG every four years as demographic, economic, and policy circumstances change. A component of Connect SoCal is a set of growth forecasts that estimates employment, population, and housing growth. These estimates are used by SCAG, transportation agencies, and local agencies to anticipate and plan for growth. For more information regarding SCAG and Connect SoCal, see Section 5.10, *Land Use and Planning*, of this Draft PEIR.

Local

City of Anaheim General Plan

Adopted in May 2004, the City's General Plan provides a road map for growth and development within the City's boundaries and sphere of influence. Specifically, there are two elements of the City's General Plan that are relevant to assessing the potential growth impacts of the proposed project.

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Land Use Element

Goal 2.1: Continue to provide a variety of quality housing opportunities to address the City's diverse housing needs.

- **Policy 2.1-1.** Facilitate new residential development on vacant or underutilized infill parcels.
- **Policy 2.1-3.** Facilitate the conversion of the City's underutilized strip commercial areas into new housing opportunity sites.
- **Policy 2.1-4.** Encourage the development of and integration of residential land uses into mixed-use development where appropriate.
- **Policy 2.1-5.** Encourage a mix of quality housing opportunities in employment-rich and transit accessible locations.

Goal 7.1: Address the jobs-housing relationship by developing housing near job centers and transportation facilities.

- **Policy 7.1-1.** Address the jobs-housing balance through the development of housing in proximity to local job centers.
- **Policy 7.1-2.** Develop housing that addresses the need of the City's diverse employment base.
- **Policy 7.1-3.** Promote new residential development within Downtown, The Platinum Triangle, and other mixed-use districts, in accordance with the Land Use Plan.
- **Policy 7.1-4.** Continue to pursue infill residential development opportunities at mid-block locations along the City's arterial streets as an alternative to underutilized commercial land uses.

Growth Management Element

Goal 1.1: Provide a balance of housing options and job opportunities throughout the City.

- **Policy 1.1-4.** Facilitate the transition of underutilized mid-block strip commercial development to residential or other appropriate land uses.

Standard Conditions of Approval

As a matter of practice, the City applies standard conditions for development projects that are intended to reduce environmental impacts. Currently, there are no standard conditions that are related to population and housing.

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5.12.1.2 EXISTING CONDITIONS

Methodology

The project area's demographics are examined in the context of existing and projected populations and housing units at the regional level for Orange County and locally for the City of Anaheim. Information on population, housing, and employment for the project area is available from several sources, including:

- **United States Census Bureau.** The official US 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 US Census Bureau publishes population and household data gathered in the decennial census.
- **American Community Survey.** The American Community Survey is facilitated by the US Census Bureau and provides estimates of population, housing, household, economic, and transportation trends between decennial censuses.
- **California Department of Finance.** The Department of Finance prepares and administers California's annual budget. Other duties include estimating population demographics and enrollment projections.
- **California Employment Development Department.** The Employment Development Department collects, analyzes, and publishes statistical data and reports on California's labor force, industries, occupations, employment projections, wages, and other important labor market and economic data.
- **Southern California Association of Governments.** Policies, programs, employment, housing, and population projections adopted by SCAG to achieve regional objectives are expressed in Connect SoCal.

Population

As of January 2024, according to the Department of Finance, the City of Anaheim and Orange County have a population of approximately 340,160 persons and 3,150,835 persons, respectively (DOF 2024). Table 5.12-1, *Population Trends in the City of Anaheim and Orange County*, exhibits the population growth trends in the City and the County. According to the data, population has steadily increased in both the City and the County from 2010 to 2024, with the largest percentage increase for the City being 1.72 percent from 2010 to 2011, and largest percentage decrease in for the City being 3.52 from 2020 to 2021.

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Table 5.12-1 Population Trends in the City of Anaheim and Orange County

Year	City of Anaheim		Orange County	
	Population	Percent Change	Population	Percent Change
2010	336,265	N/A	3,010,232	N/A
2011	342,035	1.72%	3,037,205	0.90%
2012	346,112	1.19%	3,072,381	1.16%
2013	350,103	1.15%	3,103,018	1.00%
2014	351,011	0.26%	3,122,962	0.64%
2015	352,807	0.51%	3,144,663	0.69%
2016	353,284	0.14%	3,160,401	0.50%
2017	355,719	0.69%	3,180,125	0.62%
2018	356,147	0.12%	3,186,254	0.19%
2019	356,618	0.13%	3,185,378	-0.03%
2020	357,059	0.12%	3,180,491	-0.15%
2021	344,504	-3.52%	3,167,783	-0.40%
2022	335,946	-2.48%	3,151,946	-0.50%
2023	339,175	0.96%	3,141,065	-0.34%
2024	351,399	0.3%	3,150,835	0.3%

Source: DOF 2022, 2024.

Housing

As shown in Table 5.12-2, *Historical Housing Growth Trends in the City of Anaheim and Orange County*, the rate of housing growth has varied over the years.

Table 5.12-2 Historical Housing Growth Trends in the City of Anaheim and Orange County

Year	City of Anaheim		Orange County	
	Total Housing Units	Percent Change	Total Housing Units	Percent Change
2010	104,237	N/A	1,046,118	N/A
2011	105,525	1.24%	1,050,157	0.39%
2012	105,657	0.13%	1,052,346	0.21%
2013	105,846	0.18%	1,056,222	0.37%
2014	105,987	0.13%	1,063,093	0.65%
2015	106,407	0.40%	1,069,646	0.62%
2016	106,626	0.21%	1,076,199	0.61%
2017	107,557	0.87%	1,084,476	0.77%
2018	108,222	0.62%	1,094,256	0.90%
2019	109,544	1.22%	1,104,275	0.92%
2020	110,745	1.10%	1,111,615	0.66%

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Table 5.12-2 Historical Housing Growth Trends in the City of Anaheim and Orange County

Year	City of Anaheim		Orange County	
	Total Housing Units	Percent Change	Total Housing Units	Percent Change
2021	110,987	0.22%	1,135,474	2.15%
2022	111,775	0.71%	1,142,380	0.61%
2023	112,351	0.52%	1,149,943	0.66%
2024	113,172	0.73%	1,157,425	0.65%

Source: DOF 2022, 2024.

Housing units in Anaheim are primarily single-family homes. Table 5.12-3, *Housing Units by Type in the City of Anaheim and Orange County*, identifies the prevalence of housing types in the City and County. As shown in Table 5.12-3, in 2024, 40.1 percent of housing units in Anaheim and 49.5 percent of housing units in the County were detached single-family homes. In 2024, 9.92 percent of housing units in Anaheim were multi-family homes with two or more units, compared to 8.17 percent of housing units in the County.

Table 5.12-3 Housing Units by Type in the City of Anaheim and Orange County

Type	City of Anaheim		Orange County	
	Number of Units	Percentage	Number of Units	Percentage
Single-Family Detached	45,366	40.1%	573,186	49.5%
Single-Family Attached	11,039	9.75%	144,754	12.5%
Multifamily (2 to 4 Units)	11,228	9.92%	94,581	8.17%
Multifamily (5 or More Units)	41,085	36.3%	312,718	27.0%
Mobile Homes	4,454	3.94%	32,186	2.78%
Total	113,172	100.0%	1,157,425	100.0%
Vacancy Rate	Vacant = 4.2%		Vacant = 4.9%	
Household Size	Household Size = 3.1		Household Size = 2.81	

Source: DOF 2024.

Employment

According to the Employment Development Department, the growth rate of employment in Anaheim and Orange County increased throughout 2010 to 2019, saw a sharp decrease in 2020, then increased through 2022. Anaheim and Orange County employment among local residents and annual employment change percentages are shown in Table 5.12-4, *City of Anaheim and Orange County Employment Trends*. In 2024, Anaheim's employed residents made up 10.7 percent (162,900 persons) of Orange County's total employment of 1,524,600 persons.

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Table 5.12-4 City of Anaheim and Orange County Employment Trends

Year	City of Anaheim		Orange County	
	Employment (Persons)	Percent Change	Employment (Persons)	Percent Change
2010	148,000	N/A	1,383,900	N/A
2011	149,500	1.01%	1,400,900	1.23%
2012	152,500	2.01%	1,433,500	2.33%
2013	154,200	1.11%	1,455,300	1.52%
2014	156,000	1.17%	1,478,500	1.59%
2015	160,200	2.69%	1,513,100	2.34%
2016	162,300	1.31%	1,532,700	1.30%
2017	163,700	0.86%	1,549,000	1.06%
2018	165,800	1.28%	1,568,300	1.25%
2019	165,900	0.06%	1,571,300	0.19%
2020	152,500	-8.08%	1,427,000	-9.18%
2021	156,800	2.82%	1,467,300	2.82%
2022	164,600	4.97%	1,540,600	5.00%
2023	163,700	-0.55%	1,532,400	-0.53%
2024	162,900	-0.49%	1,524,600	-0.51%

Source: EDD 2024.

Table 5.12-5, *City of Anaheim, Industry by Occupation Among Employed Residents (2020)*, shows the City's total employed civilian residents by occupation and industry in 2019 (the most recent data available). According to the estimates calculated by the US Census, Anaheim had an employed civilian labor force (16 years and older) of 177,673 in 2020. The four largest occupational categories were manufacturing; professional, scientific, and management, and administrative and waste management services; educational services, and health care and social assistance; arts, entertainment, and recreation, and accommodation and food services.

Table 5.12-5 City of Anaheim, Industry by Occupation Among Employed Residents (2020)

Industry/Occupation	Number	Percent
Agriculture, forestry, fishing and hunting, and mining	1,216	0.68%
Construction	13,300	7.49%
Manufacturing	22,704	12.78%
Wholesale Trade	6,545	3.68%
Retail trade	19,043	10.72%
Transportation and warehousing, and utilities	8,024	4.52%
Information	2,972	1.67%
Finance and insurance, and real estate and rental and leasing	10,785	6.07%
Professional, scientific, and management, and administrative and waste management services	20,817	11.72%
Educational services, and health care and social assistance	34,774	19.57%
Arts, entertainment, and recreation, and accommodation and food services	23,139	13.02%
Other services, except public administration	8,877	5.00%
Public administration	5,477	3.08%

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Table 5.12-5 City of Anaheim, Industry by Occupation Among Employed Residents (2020)

Industry/Occupation	Number	Percent
Total Employed Residents	177,673	100.00%

Source: U.S. Census 2020.

Note: Employment figures count employed civilian residents 16 years and older.

Job-Housing Balance

The ratio of jobs to housing is important because an imbalanced ratio can lead to physical impacts on the environment. The “job-housing ratio” or “jobs-housing balance” is generally measured by comparing the total number of jobs compared to the number of housing units or employed residents in a defined geographic area without regard to economic constraints or individual preferences. The jobs-housing balance has implications for mobility, air quality, and the distribution of tax revenues and is one indicator of a project’s effect on growth and quality of life in the project area. There is no ideal ratio adopted in state, regional, or city policies. The American Planning Association (APA) is an authoritative resource for community planning best practices, including the following recommendations for assessing job-housing balance:

- Jobs-housing ratio
 - Recommended target: 1.5 jobs per housing unit
 - Recommended range: 1.3 to 1.7 jobs per housing unit
- Jobs-employed resident ratio
 - Recommended target: 1 job per employed resident
 - Recommended range: 0.8 to 1.25 jobs per employed resident (Weitz 2003)

The APA recognizes that an ideal ratio will vary across jurisdictions and that, beyond the numerical ratio, it is also important for there to be a match between the types of jobs available in a community, the skills of the local labor force, and the characteristics of available housing, such as price, size, and location (Weitz 2003).

According to data released by SCAG, in 2017 (the most recent year for which data are available) Anaheim had 198,113 jobs (SCAG 2019). As shown in Table 5.12-2, in 2017 Anaheim had 107,557 housing units. Therefore, in 2017 Anaheim had a jobs-housing ratio of 1.8 (198,113 jobs/107,557 housing units), which is considered slightly imbalanced using the APA’s recommended range of 1.3 to 1.7 jobs per housing unit. As shown in Table 5.12-4, in 2017, the City had 163,700 employed residents; therefore, the City had a jobs-employed resident ratio of 1.2 (198,113 jobs/163,700 employed residents), which is within the recommended range of 0.8 to 1.25 jobs per employed resident.

Based on the existing conditions and as shown in Chapter 3, *Project Description*, in Table 3-1, *Existing Land Use Statistical Summary*, the City has 213,193 jobs, 345,999 residents, and 105,689 housing units. Approximately 47 percent¹ of the population in the City makes up the labor force. Based on the current unemployment rate of 4.8 percent for the City and the labor force percentage in the City, under existing conditions, the City is

¹ (162,900 employed persons/345,999 persons) x 100 = 47%

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calculated to have approximately 154,814 employed residents.² Thus, under the existing conditions, the City is calculated to have a job-housing ratio of approximately 2.0 (213,193 jobs/105,689 housing units) and a jobs-employed resident ratio of 1.4 (213,193 jobs/154,814 employed residents). Under existing conditions, the City exceeds the recommended jobs-housing range of 1.3 to 1.7 and exceeds the recommended jobs-employed resident ratio range of 0.8 to 1.25.

Forecast

Regional Growth Forecast

Table 5.12-6, *SCAG Projections, City of Anaheim and Orange County*, shows SCAG's regional forecast population and job projections for 2019 to 2050 for Anaheim and the County. According to SCAG, the City and County are forecast to experience high growth in the next two decades. SCAG's regional growth forecast projects that the population in Anaheim will increase from 347,200 to 381,400 persons, a difference of 34,200 persons (a 9.85 percent increase) between 2019 and 2050. The number of housing units in the City are forecast to increase from 105,600 to 130,200, a difference of 24,600 (a 23.3 percent increase) between 2019 and 2050. The number of jobs in the City are forecast to increase from 212,300 to 256,200, a difference of 43,900 (a 20.7 percent increase) between 2019 and 2050. As shown in Table 5.12-6, SCAG projects a lower level of growth in Orange County as a whole, with a projected 7.77 percent population growth, 17.2 percent housing unit growth, and 11.9 percent job growth.

Table 5.12-6 SCAG Projections, City of Anaheim and Orange County

	2019	2050	Projected Change 2019–2050	Projected Percentage Change 2019–2050
Orange County				
Population	3,191,000	3,439,000	248,000	7.77%
Housing Units	1,069,000	1,253,000	184,000	17.2%
Jobs	1,805,000	2,019,000	214,000	11.9%
City of Anaheim				
Population	347,200	381,400	34,200	9.85%
Housing Units	105,600	130,200	24,600	23.3%
Jobs	212,300	256,200	43,900	20.7%

Source: SCAG 2024.

Regional Housing Needs Assessment

As shown in Table 5.12-7, *City of Anaheim 2021–2029 Regional Housing Needs Assessment*, Anaheim's RHNA allocation for the 2021–2029 planning period is 17,453 units.

² (345,999 persons x 0.47 employed resident rate) x 0.952 employment rate = 154,814 persons

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Table 5.12-7 City of Anaheim 2021–2029 Regional Housing Needs Assessment

Income Category (Based on County AMI)	Number of Units	Percentage
Very Low	3,767	21.58%
Low	2,397	13.73%
Moderate	2,945	16.87%
Above Moderate	8,344	47.81%
Total	17,453	100%

Source: SCAG 2021.

Note: AMI = Area Median Income

5.12.2 Proposed General Plan Goals and Policies and Objective Design Standards

The proposed project does not include any new or updated general plan goals and policies related to population and housing. The proposed project does not include any additional standard conditions.

The proposed project includes Objective Design Standards that are intended to provide regulations to establish compatibility of design, which works in tandem with developments standards established by the City's zoning districts. Specifically, Section 18.39.040, Site Planning and Landscaping, provides provisions to help guide development.

5.12.3 Thresholds of Significance

The City of Anaheim considers that a project would normally have a significant effect on the environment if the project would:

- POP-1 Induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure).
- POP-2 Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere.

5.12.4 Environmental Impacts

The following impact analysis addresses thresholds of significance that are identified in brackets after the impact statement.

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Impact 5.12-1: Implementation of the proposed project would not induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure). [Threshold POP-1]

Housing and Population Growth

One of the purposes of a general plan is to adequately plan for and accommodate future growth. As shown in Table 5.12-8, *Buildout Comparison of Existing Anaheim General Plan Land Use Plan to the Proposed Project*, implementation of the proposed project would result in an increase of 49,112 housing units (46 percent), 85,341 residents (25 percent), and 61,020 jobs (29 percent) compared to the existing conditions. Population projections are a conservative estimate based on full buildout of the proposed project to support the CEQA analysis; however, the current general plan did not reach its population projection during the plan period.

Table 5.12-8 Buildout Comparison of Existing Conditions to the Proposed Project

Scenario	Existing Conditions	Proposed Project	Net Difference (Percent)
Population	345,999	431,340	85,341 (25%)
Housing Units	105,689	154,801	49,112 (46%)
Jobs	213,193	274,213	61,020 (29%)
Jobs-Housing Ratio	2.0	1.77	-0.23 (12.0%)

Under proposed project conditions, there would be a total of 154,801 housing units and 431,340 people in Anaheim. As shown in Table 5.12-9, *Buildout Comparison of the Proposed Project to SCAG Projections*, the forecast population and housing units (431,340 persons and 154,801 housing units) at proposed project buildout would exceed the SCAG growth projections (49,940 persons and 24,601 housing units) by 13 percent and 19 percent, respectively.

Table 5.12-9 Buildout Comparison of the Proposed Project to SCAG Projections

Scenario	SCAG Projections (2050)	Proposed Project	Net Difference (Percent)
Population	381,400	431,340	49,940 (13.0%)
Housing Units	130,200	154,801	24,601 (19.0%)
Jobs	256,200	274,213	18,013 (7.0%)
Jobs-Housing Ratio	1.97	1.77	-0.20 (-10.0%)

It is important to note the differences between project buildout and SCAG projections. SCAG projections are utilized in this analysis for general comparison purposes. Buildout of the City is not linked to a development timeline and is based on a reasonable worst-case buildout of the parcels in the City. In addition, the proposed project provides policy-level guidance and does not contain specific project proposals. SCAG projections are

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based on annual increments in order to develop regional growth projections for land use and transportation planning over a 20-year horizon to 2050.

A comparison of the Anaheim General Plan Focused Update buildout to SCAG's population, housing, and employment projections assists in providing context for comparison. More importantly, the state of California has a shortage of housing. Since 2019, Governor Newsom signed several bills to address the need for more housing, including the Housing Crisis Act of 2019 (Senate Bill 330). The proposed project addresses the need for additional housing to accommodate population growth in the City, and focuses that growth within the urbanized part of the City with access to infrastructure, transportation options, and a variety of land uses so that impacts to the environment can be lessened as much as possible. The proposed project would comply with applicable Land Use Element goals and policies that support a variety of housing types and densities.

Land Use Element

Goal 2.1

- **Policy 1.** Facilitate new residential development on vacant or underutilized infill parcels.
- **Policy 3.** Facilitate the conversion of the City's underutilized strip commercial areas into new housing opportunity sites.
- **Policy 4.** Encourage the development of and integration of residential land uses into mixed-use development where appropriate.
- **Policy 5.** Encourage a mix of quality housing opportunities in employment-rich and transit accessible locations.

Goal 7.1

- **Policy 2.** Develop housing that addresses the need of the City's diverse employment base.

Employment Growth

The proposed project is estimated to generate a total of 274,213 jobs, approximately 61,020 more jobs (29 percent) compared to existing conditions.

The forecast for employment of 274,213 jobs in the City under proposed project conditions would exceed the SCAG employment projection of 256,200 jobs. The proposed project would result in 18,013 more jobs (7.0 percent) than SCAG employment projections.

Jobs-Housing Balance

The proposed project would introduce more job-generating land uses than what is currently available and planned under the adopted Land Use plan. In general, the land uses identified in the proposed project would

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provide opportunities for residents to both live and work in the City rather than commuting to other areas, in accordance with General Plan Land Use Element goal 7.1 and Growth Management Element goal 1.1.

As stated above, implementation of the proposed project would result in a total of up to 274,213 jobs and 154,801 residential units in the City of Anaheim. Under proposed project conditions, the City would have a jobs-housing ratio of 1.77, a 0.09 (5 percent) decrease from existing conditions. The housing ratio would be closer to the target ratio of 1.3 to 1.7 jobs for every housing unit. Additionally, based on the City's labor force percentage and the City's current unemployment rate, the proposed project is calculated to generate approximately 188,892 employed residents.³ The proposed project is calculated to generate a jobs-employed resident ratio of 1.5,⁴ which is a 0.1 increase (6.3 percent) from existing conditions. Therefore, although buildout of the proposed project would directly and indirectly induce population and employment growth, the proposed project would improve the jobs-housing ratio and job-employed resident ratio in the City.

Conclusion

Implementation of the proposed project would directly induce population and employment growth in the area but would slightly exceed the target jobs-housing ratio. Furthermore, the purpose of general plan updates is to accommodate increased growth in a responsible manner. As previously discussed, the areas proposed for land uses changes are urbanized and developed; future projects implementing the proposed project would mostly be infill development. This infill development would be designed to focus on redevelopment and revitalization of areas that are already largely served by adequate infrastructure. The proposed project accommodates future growth by providing for infrastructure and public services to accommodate the projected growth (see Section 5.9, *Hydrology and Water Quality*; Section 5.13, *Public Services*; Section 5.15, *Transportation*; and Section 5.17, *Utilities and Service Systems*). The proposed project would be generally consistent with regional growth projections, improve the jobs-housing balance, prioritize growth in infill areas, and require provision of adequate services to meet existing and future needs. Therefore, based on the foregoing analysis, implementation of the proposed project would result in a less than significant impact relating to population and employment growth.

Level of Significance Before Mitigation: Impact 5.12-1 would be less than significant.

Mitigation Measures: No mitigation measures are required.

Impact 5.12-2: Implementation of the proposed project would not displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere. [Threshold POP-2]

According to the RHNA, the City's share of regional future housing needs is 17,453 new units between 2021 through 2029, which were included in the 2021-2029 Housing Element (see Appendix B of the Housing Element). Anaheim is developed with a variety of land uses, and the proposed project includes minor changes in land use, with the majority of changes concentrated in the western and central part of the City that are

³ (431,340 persons x 0.46) x 0.952 = 188,892 persons

⁴ (274,213 jobs/188,892 employed resident)= 1.5 jobs-employed resident

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already highly urbanized. Land use changes under the proposed project would increase opportunities for housing in the City. Land use changes include converting commercial designations to mixed use and increasing residential density in existing residential areas to meet the City's RHNA obligation. Changes would occur on lands that offer opportunities for enhancement and in areas where business prosperity, job opportunities, and civic activity can be strengthened. While redevelopment may result on sites that contain existing housing units, which could be demolished and replaced at the discretion of property owners, the proposed project is projected to increase the overall number of dwelling units and provide additional housing opportunities to serve the diverse needs of the community at various socioeconomic levels. These land use changes are intended to shape future development and protect existing residential neighborhoods, economically successful commercial and industrial districts, and parks and open spaces. The proposed project's future development would be required to comply with the proposed Objective Design Standards, which provide provisions to help guide development. For example, Section 18.39.040, Site Planning and Landscaping, provides regulations to establish compatibility of design in accordance with the accompanying zone district standards.

Compliance with the Housing Element would facilitate the development of a variety of housing types by providing a supply of land that is adequate to accommodate the RHNA and maintain an inventory of housing opportunity sites. As part of the Housing Element, the City prepared a land inventory to demonstrate how it could meet the requirements for the regional housing needs allocation at a variety of affordability levels based on the permitted density of development (e.g., apartments, townhomes, single-family homes, mobile homes). The proposed project would provide land use designations for a variety of housing types and provide for additional residential opportunities throughout the City. Therefore, impacts to the displacement of people and/or housing would be less than significant as a result of the proposed project implementation.

Level of Significance Before Mitigation: Impact 5.12-2 would be less than significant.

Mitigation Measures: No mitigation measures are required.

5.12.5 Cumulative Impacts

The area considered for cumulative impacts is the SCAG region. As described above, although the proposed project would result in a direct increase in population and housing, the proposed project would improve the job-housing balance compared to the existing General Plan Land Use Plan. Any future projects implemented in accordance with the proposed project would be required to adhere to applicable General Plan policies, provide required development impact fees, and comply with applicable development regulations. Additionally, the proposed project would not, in and of itself, result in impacts from the displacement of people or housing because the proposed project would increase residential density. Therefore, impacts from the proposed project are not considered cumulatively considerable.

5.12.6 Level of Significance Before Mitigation

Upon implementation of regulatory requirements and General Plan policies, Impacts 5.12-1 and 5.12-2 would have less than significant impacts.

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5.12.7 Mitigation Measures

No significant impacts were identified and no mitigation measures are necessary.

5.12.8 Level of Significance After Mitigation

Impacts 5.12-1 and 5.12-2 would be less than significant with compliance with all applicable regulatory requirements and GP policies.

5.12.9 References

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5.13 PUBLIC SERVICES

This section of the Draft Program Environmental Impact Report (Draft PEIR) discusses the potential impacts to the public services provided in the City of Anaheim from implementation of the City of Anaheim's General Plan Focused Update (proposed project), including fire protection and emergency services, police protection, school services, and library services. Park services are addressed in Section 5.14, *Recreation*. Public and private utilities and service systems, including water, wastewater, and solid waste services and systems, are addressed in Section 5.17, *Utilities and System Services*.

No comments were received during the scoping period for either the proposed project (see Appendix A) or the Center City Corridors Specific Plan (C3SP), which has been incorporated into the proposed project as the Center City Corridors Implementation Plan (C3 Plan), that are related to public services (see Appendix B).

5.13.1 Fire Protection and Emergency Services

5.13.1.1 ENVIRONMENTAL SETTING

Regulatory Background

State

State and local laws, regulations, plans, and guidelines related to fire protection and emergency services and apply to the proposed project are summarized below:

California Building Code

The California Building Code (CBC), located in Part 2 of Title 24 of the California Code of Regulations, establishes the minimum state building standards. The CBC is currently updated every three years. The most recent update is the 2022 CBC, effective starting January 1, 2023. It is based on the 2021 International Building Code but amended to account for California conditions. The CBC is generally adopted on a jurisdiction-by-jurisdiction basis, subject to further modification based on local needs. Commercial and residential buildings are plan-checked by City building officials for compliance with the CBC. Typical fire safety requirements of the CBC include installing sprinklers in all high-rise buildings; establishing fire resistance standards for fire doors, building materials, and particular types of construction; and clearing debris and vegetation within a prescribed distance from occupied structures in wildfire hazard areas.

California Fire Code

The California Fire Code (CFC) (California Code of Regulations Title 24, Part 9) sets forth emergency access, emergency egress routes, interior, and exterior design and materials, fire safety features, including sprinklers, and hazardous materials. The CFC is issued on a three-year cycle; the 2022 edition took effect January 1, 2023, and was adopted and incorporated by reference in Chapter 15.08 (Fire Code) of the Anaheim Municipal Code (AMC).

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California Health and Safety Code

California Health and Safety Code Sections 13000 et seq. includes fire regulations for building standards (also in the CBC), fire protection and notification systems, fire protection devices such as extinguishers and smoke alarms, high-rise buildings and childcare facilities standards, and fire suppression training.

California Wildfire and Forest Resilience Action Plan

The California Wildfire and Forest Resilience Action Plan is the State’s “road map” for reducing the risk of wildfire. The overall goal of the plan is to reduce total costs and losses from wildland fire in California through focused, pre-fire management prescriptions and increased initial attack success. The current plan was released in January 2021 and provides guidance to local jurisdictions in meeting State goals.

California Occupational Safety and Health Administration

In accordance with the California Code of Regulations, Title 8, Sections 1270, “Fire Prevention,” and 6773, “Fire Protection and Fire Fighting Equipment,” the California Occupational Safety and Health Administration has established minimum standards for fire suppression and emergency medical services. The standards include but are not limited to guidelines on the handling of highly combustible materials, firehouse sizing requirements; restrictions on the use of compressed air; access roads; and the testing, maintenance, and use of all firefighting and emergency medical equipment.

Regional

Orange County Fire Authority Unit Strategic Fire Plan

The Orange County Fire Authority is one of the six county agencies contracted by the State of California to provide wildland fire protection in State Responsibility Areas and to implement the state’s 2010 Strategic Fire Plan for California. The 2022 Strategic Fire Plan outlines its pre-fire management strategies and tactics for fire prevention, vegetation management, fire suppression, fire protection, and pre-fire projects for fire hazard reduction habitat restoration, and training. It also details collaborative programs with outside agencies, including Anaheim Fire & Rescue.

Local

Anaheim Fire & Rescue’s Strategic Plan

Anaheim Fire & Rescue’s (AF&R) 2015–2020 Strategic Plan includes strategic initiatives, goals, and objectives along with the recommendations’ associated cost, which would subsequently be incorporated into the annual budget request and department work plan (AF&R 2015).

City of Anaheim General Plan

The following policies related to fire protection and emergency services are relevant to the proposed project:

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Public Services and Facilities Element

Goal 1.1: Provide sufficient staffing, equipment, and facilities to ensure effective fire protection, emergency medical and rescue services, permitting and fire inspection, and hazardous material response services that keep pace with growth.

- **Policy 1.1-1.** Maintain adequate resources to enable the Fire Department to meet response time standards, keep pace with growth, and provide high levels of service.
- **Policy 1.1-2.** Maintain adequate fire training facilities, equipment, and programs for firefighting and inspection personnel and educational programs for the general public, including fire safety and prevention and emergency medical-related information.
- **Policy 1.1-3.** Maintain and/or upgrade water facilities to ensure adequate response to fire hazards.

Safety Element

Goal 2.1: A community protected and prepared for urban and wildland fires.

- **Policy 2.1-1.** Protect the lives and property of residents, business owners, and visitors from the hazards of urban and wildland fires.
- **Policy 2.1-2.** Effectively enforce City and State regulations within the VHFHSZ and incorporate new techniques and best practices as they become available to reduce future risks to existing and new developments.
- **Policy 2.1-3.** Develop a post-wildfire recovery framework that assists City staff, residents, and business owners in planning and recovery efforts.
- **Policy 2.1-4.** Minimize urban and wildland fire exposure for residents, business owners, and visitors by incorporating Fire Safe Design into existing and new developments.
- **Policy 2.1-5.** Continually assess the need for additional greenbelts, fuel breaks, fuel reduction and buffer zones around existing communities and roadways. This assessment should include long-term maintenance of existing efforts and funding sources to sustain these projects.
- **Policy 2.1-6.** Maintain a weed abatement program to ensure clearing of dry brush areas.
- **Policy 2.1-7.** Expand vegetation management activities in areas adjacent to wildland fire prone areas.
- **Policy 2.1-8.** Refine procedures and processes to minimize the risk of fire hazards in the Special Protection Area including requiring new development to:
 - Utilize fire-resistant building materials;
 - Incorporate fire sprinklers as appropriate;

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- Incorporate defensible space requirements;
 - Comply with Anaheim Fire Department Fuel Modification Guidelines;
 - Provide Fire Protection Plans; and
 - Implement a Vegetation Management Plan, which results in proper vegetation modification on an ongoing basis within the Special Protection Area.
 - Develop fuel modification in naturalized canyons and hills to protect life and property from wildland fires, yet leave as much of the surrounding natural vegetation as appropriate.
 - Require development to use plant materials that are compatible in color and character with surrounding natural vegetation.
 - Provide wet or irrigated zones when required.
- **Policy 2.1-9.** Use selective trimming and obtain permits when necessary in designated areas to preserve environmentally sensitive native plants.
 - **Policy 2.1-10.** Site new essential public facilities outside of the VHFHSZ, where feasible.
 - **Policy 2.1-11.** Evaluate feasibility of relocating essential public facilities located within the VHFHSZ to areas outside of this hazard zone. If relocation is not possible, prioritize retrofitting and hardening of structures.
 - **Policy 2.1-12.** Continue to classify areas of varying fire hazard severity based upon the proximity to open wildland slope, grades, accessibility, water supply and building construction features.
 - **Policy 2.1-13.** All development projects within the VHFHSZ must prepare a Fire Protection Plan (FPP) to reduce or eliminate fire threats. FPPs shall be consistent with the following guidance:

A Fire Protection Plan (FPP) may be required by the fire code official for new development within the Very High Fire Hazard Severity Zones (VHFHSZ). FPPs are required to include mitigation strategies that consider location, topography, geology, flammable vegetation, sensitive habitats/species, and climate of the proposed site. FPPs must address water supply, access, building ignition, and fire resistance, fire protection systems and equipment, proper street signage, visible home addressing, defensible space, vegetation management, and long-term maintenance. All required FPPs must be consistent with the requirements of the California Building and Residential Codes, the California Fire Code as adopted by the City of Anaheim, and the City of Anaheim Municipal Code.

Anaheim Local Hazard Mitigation Plan

The City has adopted a local hazard mitigation plan (May 2022) to identify the City's hazards, review and assess past disasters, estimate the probability of future events, and identify resources and information to help community members, City staff, and local officials understand local threats and make informed decisions. Of

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the 17 hazards evaluated, wildfires were rated the highest risk. The local hazard mitigation plan has goals and mitigation programs to address each of the 17 hazards.

Anaheim Emergency Operations Plan

The City of Anaheim has prepared an Emergency Operations Plan to address the City's planned response to emergencies and disasters, including urban and wildland fires. It details capabilities, authorities, and responsibilities for specific individuals, divisions, departments, agencies, and organizations within the City. The plan does not address normal day-to-day emergencies or the well-established and routine procedures used in coping with such emergencies.

City of Anaheim Municipal Code

The following provision from the AMC focuses on fire service impacts associated with new development projects and is relevant to the proposed project.

- **Chapter 16.08 (California Fire Code).** The City Council of the City of Anaheim adopts and incorporates by reference into the AMC the 2019 CFC. The CFC sets forth requirements including emergency access, emergency egress routes, interior and exterior design and materials, fire safety features including sprinklers, and hazardous materials.

Standard Conditions of Approval

The City will be adopting Master Conditions of Approval that are applied to all development projects through the plan-check review process. As a matter of practice, the City has been implementing the following conditions that relate to fire protection and emergency services, compliance with which would reduce negative fire protection and emergency services impacts. Compliance with standard conditions would be required for all new development and redevelopment in the City.

- **SC PS-1:** Projects will be reviewed by the City of Anaheim on an individual basis and will be required to comply with requirements in effect at the time building permits are issued (impact fees, etc.) or if an initial study is prepared and the City determines the impacts to be significant, then the project will be required to comply with appropriate mitigation measures (fire station sites, etc.).
- **SC PS-2:** The owner/developer shall pay all applicable development impact fees required under the Anaheim Municipal Code.
- **SC PS-3:** All CBC and CFC requirements shall be followed for permit issuance. Any fire permits shall be submitted directly to the Anaheim Fire Prevention Bureau.
- **SC PS-4:** 2019 California Fire Code Section 503.1.1: Approved fire apparatus access roads shall be provided for every facility, building, or portion of a building hereafter constructed or moved into or within the jurisdiction. The fire apparatus access road shall comply with the requirements of this section and shall extend to within 150 feet of all portions of the facility and all portions of the buildings as measured by an approved route around the exterior of the building or facility.

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- **SC PS-5:** An adequate water supply capable of providing minimum fire flow requirements for fire hydrants and a fire sprinkler system shall be available for future, proposed condominiums.
- **SC PS-6:** The owner/developer shall provide a Fire Master Plan showing rescue ladder access, Knox box locations, fire hydrant location and fire flow requirements, as well as indicate fire sprinklers shall be provided in accordance with National Fire Protection Association (NFPA) 13 and fire alarms shall be provided in accordance with NFPA 72. The fire master plan shall be submitted directly at AF&R at the time that grading plans are submitted to the city.
- **SC PS-7:** A private water system with separate water service for fire protection and domestic water shall be provided by the owner/developer and shown on plans submitted by the owner/developer to the Water Engineering Division of the Anaheim Public Utilities Department.
- **SC PS-8:** All existing water services and fire services shall conform to current Water Services Standards Specifications. Any water service and/or fire line that does not meet current standards shall be upgraded if continued use is necessary or abandoned if the existing service is no longer needed. The Owner/Developer shall be responsible for the costs to upgrade or to abandon any water service or fire line.

Existing Conditions

Fire protection services in Anaheim are provided by Anaheim Fire and Rescue, which provides fire protection and emergency services to the City. The City holds a Public Protection Classification rating awarded by the Insurance Services Office as a Class 1 City for response time, equipment, and community water supply. There are 12 fire stations in the City, 11 of which are operated by AF&R. The Disney Fire station is within the Disneyland Resort and is operated by Disney. A replacement for Station #4 is currently being remodeled, and a new station in the Platinum Triangle area is under construction (Orange County Register 2024). AF&R employs approximately 276 full-time equivalent personnel, of which approximately 209 are sworn fire suppression personnel (AF&R 2021). AF&R staffs 17 fire companies, 10 engine companies, 4 paramedic companies assigned to the Disneyland Resort, 2 battalions, and several specialized units. Daily staffing is approximately 66 firefighters per day (AF&R 2018).

There are no federal or state regulations directing the level of service response times and outcomes. However, the NFPA 1710: Standards for the Organization and Deployment of Fire Suppression Operations, Emergency Medical Operations, and Special Operations to the Public by Career Fire Departments is a nationally recognized standard, and this standard is used as the benchmark for AF&R response times. NFPA 1710 states that a unit (i.e., engine company or ladder truck company) would arrive at the scene of a critical emergency in 8 minutes from time of call receipt in fire dispatch and remaining first alarm units (effective response force) in 12 minutes, 90 percent of the time, where the benchmark travel time benchmark is 4 minutes for the first unit on scene and 8 minutes for the effective fire force. Travel time is the time it takes a unit to arrive on scene minus call taking and turn out times. AF&R responds to approximately 80 emergency 911 calls per day. The type of event dictates the number of units and firefighters who are sent on the calls. Daily staffing is deployed with a high concentration of personnel assigned to units on the western side of

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Anaheim. Distribution of these units shows overlapping areas where more than two units have a travel time within the benchmark of 4 minutes. While this helps with stacked calls in the busier areas of the City, gaps exist in areas of Anaheim where no unit can travel within the benchmark goal of 4 minutes.

AF&R deploys units for Fire Suppression, Hazardous Material Response, Technical Rescue Services, Terrorism Liaison Officers, Metropolitan Medical Response Services, Tactical Medics (part of Anaheim Police Department SWAT), Metropolitan Medical Response Services, and Emergency Medical Services. AF&R has automatic aid and mutual aid agreements in place with neighboring agencies. Most calls placed to the AF&R are requests for medical aid.

The Community Risk Reduction Division operates under the direction of the Deputy Chief/Fire Marshal and currently consists of three operational sections. The Hazardous Materials Section (HMS) administers and implements a comprehensive hazardous materials management program within the City of Anaheim as a Certified Unified Program Agency authorized by the California Environmental Protection Agency since July 1, 2001. Program elements include Hazardous Waste Control, Underground Storage of Hazardous Substances, Aboveground Storage of Petroleum, Hazardous Materials Release Response Plans, the California Accidental Release Prevention Program, and Hazardous Materials Management Plans and Inventory Statements (Anaheim 2024). The HMS also administers the countywide hazardous materials responses team joint powers agreement under the Orange County-City Hazardous Materials Emergency Response Authority and implements the Small Hydrocarbon Acquisition and Recovery Program.

The Life Safety Section of the Community Risk Reduction Division provides fire safety inspections, annual fire code permits, and fire and building code plan reviews for new construction and fire protection systems. The section also coordinates the Knox-Box program and the private hydrants and fire protection systems' five-year certification program mandated by the California State Fire Marshal and responds to citizen complaints of fire hazards. Other services include regulation of trade shows, carnivals, fairs, and outdoor assemblies and issuing permits for pyrotechnic displays, tents, canopies, and temporary membrane structures as well as other types of one-time permits required by the Fire Code. Activities include providing advanced planning reviews and consultations for major projects and establishing mitigation measures for environmental impact reports. This section also coordinates the Citywide Weed Abatement program and brush clearance inspections and fuel modification plans for the Wildland Urban Interface Fire Area of the City.

The Community Engagement Section identifies and prioritizes risks through several community engagement programs to minimize the probability or occurrence and/or impact of unfortunate events. Such programs include community events, home safety visits, school programs, and station tours.

Under the direction of the Deputy Chief, the Operations Division is the largest division in AF&R and is focused on the provision of emergency services. The Fire Investigation Section is responsible for origin and cause determination and investigative services that include criminal prosecution of arson and related crimes. It conducts investigations on all fires involving large dollar loss, fatalities, or injuries to firefighters and/or civilians, undetermined fires by company officers, and any fires deemed suspicious in nature. All investigators are members of the California Conference of Arson Investigators and International Association of Arson Investigators and are in good standing with both organizations.

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The Hazardous Materials Response Section (HazMat) is responsible for providing guidance and technical expertise in the mitigation and removal of hazardous substances and wastes from incidents including spills, leaks, abandonment, and/or industrial process accidents as well as physical, chemical, biological or radiological hazards in the community. The HazMat team consists of highly trained Hazardous Materials Technicians and Specialists delivering emergency response staffing 24 hours a day.

The Urban Search and Rescue Team (US&R) primarily locates, extricates, and provides initial medical treatment to victims trapped as a result of structural collapses and other natural or man-made catastrophes. The US&R team consists of trained members with at least 150 hours of specialized training and is situated at Station #2 at 2141 W. Crescent Ave.

Along with other firefighting agencies, the City of Anaheim is also part of a regional coordination system that saves and prevents the loss of life and property through timely, organized containment. The Metro Cities Fire Authority Communications Center serves the citizens of seven cities: Anaheim, Brea, Fountain Valley, Fullerton, Huntington Beach, Newport Beach, and Orange. The Communication Center, commonly referred to as Metro Net, dispatches fire and emergency medical services covering approximately 200 square miles within Orange County. Day-to-day operations of the center are managed by AF&R.

The Operations Division also oversees the 911 communications center and the departmental training program and provides mandated training and instruction.

5.13.1.2 THRESHOLDS OF SIGNIFICANCE

The City of Anaheim considers a project to 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.

5.13.1.3 PROPOSED GENERAL PLAN GOALS AND POLICIES

The proposed project does not include any new or updated general plan goals and policies related to fire protection and emergency services:

5.13.1.4 ENVIRONMENTAL IMPACTS

The following impact analysis addresses thresholds of significance that are identified in brackets after the impact statement.

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Impact 5.13-1: Implementation of the proposed project would not 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. [Threshold FP-1]

Buildout of the proposed project would result in 431,340 residents (85,341 residents increase) and 274,213 employees (61,020 employees increase) in the City. The increase in residents and employees in the City would result in an increase in demand for fire protection and emergency services and facilities.

According to the City's General Plan, response times for AF&R require first engine response within 5 minutes to 90 percent of all incidents and 8 minutes to the remaining 10 percent. AF&R also requires a maximum of 10 minutes for truck company response to 100 percent of all incidents (Anaheim 2004a).

The proposed project would increase the number of service calls and demand for fire protection services. The City's costs to maintain equipment and apparatus and to train and equip personnel would also increase. However, all future development under the proposed project would comply with the California Fire and Building Codes, California Health and Safety Code, City ordinances and Standard Conditions, and applicable national standards. The additional personnel and materials costs may be offset through the increased revenue and fees, generated by future development. Development impact fees are collected to build and supply necessary infrastructure for fire protection services, and the general fund is used for ongoing staffing cost (City Standard Condition SC PS-1). The proposed project would also comply with City Standard Conditions SC PS-2 through SC PS-8 to reduce negative fire protection and emergency services impacts. In addition, future projects would be reviewed by the City on an individual basis and will be required to comply with requirements in effect at the time building permits are issued (impact fees, etc.) or if an initial study is prepared and City determines the impacts to be significant, then the project would be required to comply with appropriate mitigation measures.

Anaheim Fire and Rescue Strategic Plan 2015–2020 has various strategies to better protect the city from various emergency situations, including medical and fire emergencies. Implementation of various programs in the Strategic Plan, such the Community Risk Reduction (CRR) program and the Ready, Set, Go! program, would promote fire safety and reduce direct impacts to fire protection services. The CRR program advocates preventive measures for single-family and multifamily residences and the wildland urban interface area by reaching out to high-risk populations and delivering proactive services and community education. The Ready, Set, Go! program seeks to develop and improve the dialogue between AF&R and residents by using inspectors and firefighters to teach individuals who live in high-risk wildfire areas how to best prepare themselves and their properties for wildland fire threats.

The Strategic Plan also recommended measures to “begin the implementation of the capital improvement plan” and to “begin the implementation of the multi-year staffing plan.” The capital improvement plan included the addition of two new stations, one at La Palma/Euclid area and one at the Platinum Triangle; the retrofit of the La Palma Annex; and the relocation of Station 5 to La Palma/57 freeway area. Although development impact fees collected from the proposed project's implementing projects would not contribute

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toward these capital improvements—they would be funded through dedicated funding sources (e.g., Platinum Triangle fees and 2015 bond proceeds)—new facilities would have a positive effect on AF&R's performance. Additional fire personnel and associated facilities and equipment would be provided through the annual operating budget and capital improvement program review process. AF&R's needs are assessed annually, and budget allocations will be revised accordingly to ensure that adequate levels of service are maintained throughout the City.

Furthermore, policies identified in the General Plan would ensure adequate protection of public health and safety as they relate to fire and emergency services, such as policies 1.1-1 through 1.1-3 and policies 2.1-1 through 2.1-13. Therefore, impacts to fire protection and emergency services and facilities would be less than significant.

Level of Significance Before Mitigation: Impact 5.15-1 would be less than significant.

Mitigation Measures: No mitigation measures are required.

5.13.1.5 CUMULATIVE IMPACTS

The area considered for cumulative analysis for fire protection services is the City. A cumulative impact to fire services would occur if growth in the service area requires physical expansion of facilities, such as construction of new fire facilities that would result in adverse physical impacts. Future development in the City would have to comply with applicable hazard and risk reduction requirements and best practices, which would help to reduce the demand for fire protection services. Individual projects would be reviewed by AF&R to determine the specific requirements applicable to the development and ensure compliance with these requirements. This would further ensure an adequate level of service for fire protection and emergency services to residents and businesses throughout the City. Therefore, the proposed project's contribution to cumulative impacts would be less than cumulatively considerable.

Level of Significance Before Mitigation: Cumulative impacts would be less than significant.

Mitigation Measures: No mitigation measures are required.

Level of Significance After Mitigation: Cumulative impacts would be less than significant.

5.13.1.6 LEVEL OF SIGNIFICANCE BEFORE MITIGATION

Upon implementation of regulatory requirements, standard conditions of approval, and General Plan policies, the following impact would be less than significant: Impact 5.13-1.

5.13.1.7 MITIGATION MEASURES

No mitigation measures are required.

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5.13.2 Police Protection

5.13.2.1 ENVIRONMENTAL SETTING

Regulatory Background

Local

City of Anaheim General Plan

The following policies to minimize the risks associated with the provision of public safety are relevant to the proposed project:

Public Services and Facilities Element

Goal 2.1: Meet the community's needs for public safety and law enforcement by ensuring adequate resources for the prevention, detection, and investigation of crime, and response to calls for service.

- **Policy 2.1-1.** Maintain adequate resources to enable the Police Department to meet response time standards, keep pace with growth, and provide high levels of service.
- **Policy 2.1-2.** Maintain a well-trained, well-equipped police force to meet changing needs and conditions by continually updating and revising public safety techniques and providing for effective evaluation and training of personnel.
- **Policy 2.1-3.** Combat crime and increase public safety through community education programs, including active involvement in the Neighborhood Improvement and Neighborhood Watch Programs, and coordinate programs at local schools and other meeting locations.
- **Policy 2.1-4.** Periodically evaluate population growth, development characteristics, level of service and incidence of crime within the City to ensure that an adequate level of police service is maintained.

Standard Conditions of Approval

The City will be adopting Master Conditions of Approval that are applied to all development projects through the plan-check review process. As a matter of practice, the City has been implementing the following conditions that relate to police protection, compliance with which would reduce negative police protection impacts. Compliance with standard conditions would be required for all new development and redevelopment in the City.

- **SC PS-1:** Projects will be reviewed by the City of Anaheim on an individual basis and will be required to comply with requirements in effect at the time building permits are issued (i.e., impact fees, etc.) or if an initial study is prepared and the City determines the impacts to be significant, then the project will be required to comply with appropriate mitigation measures (i.e., fire station sites, etc.).

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- **SC PS-2:** The owner/developer shall pay all applicable development impact fees required under the Anaheim Municipal Code.
- **SC PS-9:** Parking structures shall have clearly marked emergency stations with hands-free, two-way communication with security/Police. These shall be placed adjacent to stairway landings and appropriately spaces throughout the structure.
- **SC PS-10:** In order to facilitate the efficient and rapid access by emergency vehicles and personnel, all electronically operated gates providing emergency vehicle access to any hotel or residential facility/community development with more than 20 rooms/residential units, or when otherwise required by the Chief of Police or his designated representative, shall include the installation of an electronic access system which allows for the use of a public safety radio frequency to open the gate. This shall be the responsibility of the property owner/developer.
- **SC PS-11:** Pedestrian access control shall be considered by the owner/developer to help prevent unwanted entry. If access control is installed, a digital keypad entry system shall be included to facilitate quick response by emergency personnel. The system's entry code shall be provided to the Anaheim Police Department Communication Bureau.
- **SC PS-12:** The owner/developer shall file Emergency Listing Card, Form APD-281, with the Police Department, available at the Police Department front counter. This card should include on and off-site property management contact information for regular business hours as well as emergency after hours contacts.

Existing Conditions

The Anaheim Police Department (APD) dispatches all calls for service from the main station (police headquarters) in downtown Anaheim, and patrol units are deployed throughout the City in two geographical policing districts (South and West, Central and East). The number of officers in each district varies based on the volume of calls and time of day. Officers from any area in the City can be called upon to respond to calls for service in the City. Anaheim maintains four stations in the City:

- **Main Station.** 425 S. Harbor Boulevard
- **East Substation.** 8201 E. Santa Ana Canyon Road
- **South Substation.** 1520 S. Disneyland Drive (not open to the public)

The East Substation is currently closed to the public until further notice. The West Substation is within the West Anaheim Youth Center building. The Police Heliport, housing the department's aircraft fleet, is at the Fullerton Municipal Airport, 4011 W. Commonwealth Ave., Fullerton.

Dispatch methods for calls are as follows:

- **Priority One (Units dispatched immediately).** If all units are busy, the need for units to clear for emergency call will be broadcast. If no units clear, the nearest unit from another area will be dispatched.

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- **Priority Two (Units sent immediately, if available).** The goal is to send the beat units so they are aware of the problems in their assigned area. If the area unit is not available, the nearest unit will be dispatched. If no units clear after 5 minutes, the need to clear will again be dispatched. If call is violent and text indicates imminent threat of injury, and no units clear after second broadcast, the nearest unit will be dispatched.
- **Priority Three.** Calls may be held by dispatch up to 15 minutes. If after 15 minutes and there are no units available, the dispatcher will send the closest available unit.
- **Priority Four.** Calls may be held up to 1 hour.
- **Priority Five.** Calls may be held up to 2 hours.

APD continues to tackle several issues in the area, including prostitution, human trafficking, and crimes taking place in the area's older motels. APD is also working with the City's Community Services department to tackle issues related to the homeless population that congregates at Twila Reid and Schweitzer Parks.

5.13.2.2 THRESHOLDS OF SIGNIFICANCE

The City of Anaheim considers a project to 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.

5.13.2.3 PROPOSED GENERAL PLAN GOALS AND POLICIES

The proposed project does not include any new or updated general plan goals and policies related to police protection services.

5.13.2.4 ENVIRONMENTAL IMPACTS

The following impact analysis addresses thresholds of significance that are identified in brackets after the impact statement.

Impact 5.13-2:	Implementation of the proposed project would not 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. [Threshold PP-1]
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Buildout of the proposed project would result in 431,340 residents (85,341 residents increase) and 274,213 employees (61,020 employees increase) in the City, which may result in the need for additional police

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protection services. To serve the additional population, the APD may need to assign additional officers to the main station and each substation. However, it is not anticipated that the number of new officers would require the construction of new police facilities. If additional police staff are needed, funding for any new personnel needed to maintain acceptable service levels would come from the City's General Fund as well as payment of development impact fees. Property taxes and other fees assessed for future development projects would contribute to the General Fund revenues.

The General Plan identifies several policies aimed to provide responsive, efficient, and effective police services that promote a high level of public safety. In light of projected population growth, the City does not anticipate the need for new or altered police facilities to meet the City's police protection performance goals. However, in the event that new or altered police facilities are needed in the future, construction of such a facility could result in subsequent environment impacts, the specific impacts of which are not known at this time and analysis would require speculation. This is because it is unclear what form, if any, new or altered police facilities would take and what their service needs and impacts on City's services will be. Additionally, the General Plan identifies policies (Policy 2.1-1 through 2.1-4) requiring adequate maintenance and training of crime prevention facilities and programs. The environmental impacts related to traffic, noise, air quality, and GHG emissions during construction and operation of the proposed project, which includes public facilities, have been considered throughout the technical modeling provided in other chapters of this Draft PEIR. Any future facilities would be subject to the policies associated with the General Plan that would address potential impacts of siting, construction, and operation of new facilities to the extent assessed in other sections of this Draft PEIR. Therefore, impacts would be less than significant.

Level of Significance Before Mitigation: Impact 5.13-2 would be less than significant.

Mitigation Measures: No mitigation measures are required.

5.13.2.5 CUMULATIVE IMPACTS

The area considered for cumulative analysis for police protection services is the City. Cumulative impacts to police protection services would occur if growth in the service area requires physical expansion of facilities, such as construction of new police facilities that would result in adverse physical environmental impacts. The proposed project envisions the future development and growth within the City; therefore, the project analysis in Impact 5.13-2 is, by its nature, a cumulative analysis. Development facilitated by the proposed project would be required to pay development fees, to fund the provision of public services, including police protection services. Therefore, development facilitated by the proposed project would not have a cumulatively considerable contribution to a cumulative impact related to police protection services.

Level of Significance Before Mitigation: Cumulative impacts would be less than significant.

Mitigation Measures: No mitigation measures are required.

Level of Significance After Mitigation: Cumulative impacts would be less than significant.

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5.13.2.6 LEVEL OF SIGNIFICANCE BEFORE MITIGATION

Upon implementation of regulatory requirements and standard conditions of approval, the following impact would be less than significant: Impact 5.13-2.

5.13.2.7 MITIGATION MEASURES

No mitigation measures are required.

5.13.3 School Services

5.13.3.1 ENVIRONMENTAL SETTING

Regulatory Background

State

Senate Bill 50

Senate Bill (SB) 50 (funded by Proposition 1A, approved in 1998) limits the power of cities and counties to require mitigation of school facilities impacts as a condition of supporting new development. It provides instead for a standardized developer fee. SB 50 generally provides a 50-50 match of state and local school facilities funding. SB 50 also provides for three levels of statutory impact fees. The application-level depends on whether state funding is available, whether the school district is eligible for state funding, whether the school district meets specific additional criteria involving bonding capacity, year-round school, and the percentage of moveable classrooms in use.

California Government Code, Section 65995(b), and Education Code Section 17620

SB 50 amended California Government Code Section 65995, which contains limitations on Education Code Section 17620, the statute that authorizes school districts to assess development fees within school district boundaries. According to inflation adjustments, the Government Code Section 65995(b)(3) requires the maximum square footage assessment for development to be increased every two years. Per California Government Code Section 65995, the payment of fees is deemed to fully mitigate the impacts of new development on school facilities.

California State Assembly Bill 2926: School Facilities Act of 1986

To assist in providing school facilities to serve students generated by new development, AB 2926 was enacted in 1986 and authorizes a levy of impact fees on new residential and commercial/industrial development. The bill was expanded and revised in 1987 through the passage of AB 1600, which added Sections 66000 et seq. to the Government Code. Under this statute, payment of impact fees by developers serves as a CEQA mitigation to satisfy the impact of development on school facilities.

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Local

City of Anaheim General Plan

The following policies related to school services are relevant to the proposed project:

Public Services and Facilities Element

Goal 11.1 Coordinate with public and private educational entities to provide a variety of high-quality education and training opportunities to meet the needs of a diverse community and economy.

- **Policy 11.1-1.** Continue to assist school districts in their long-range planning for school facilities.
- **Policy 11.1-2.** Encourage the provision of additional workforce training and development resources.

Economic Development Element

Goal 3.1 Expand the scope of the City's comprehensive job-training and workforce development programs.

- **Policy 3.1-1.** Continue to support, publicize, and expand the Anaheim Workforce Development system (One-Stop), in cooperation with the Economic Development Division.
- **Policy 3.1-2.** Support career education programs such as the Regional Occupation Program, career academies, internships, job shadowing, Career Speaker Programs, Career Day, Youth in Government Day, and other programs.
- **Policy 3.1-3.** Tailor job training and placement programs to all economic segments of the City.
- **Policy 3.1-4.** Continue to provide translation services and liaisons to help integrate the City's non-English speaking population into the workforce.

Standard Conditions of Approval

The City will be adopting Master Conditions of Approval that are applied to all development projects through the plan-check review process. As a matter of practice, the City has been implementing the following conditions that relate to school services, compliance with which would reduce negative school services impacts. Compliance with standard conditions would be required for all new development and redevelopment in the City.

- **SC PS-2:** The owner/developer shall pay all applicable development impact fees required under the Anaheim Municipal Code.

Existing Conditions

Educational services are provided by eleven school districts entirely within, partially within, or near the City. Table 5.13-1, *School District Enrollment of Districts Serving Anaheim*, provides the most current enrollment data

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available for the districts servicing the City, and Table 5.13-2, *School District Enrollment Trends (2016–2022)*, provides the historical enrollment data for the districts servicing the City. As shown in Table 5.13-1, none of the districts are currently experiencing enrollment that exceeds capacity. As shown in Table 5.13-2, enrollment trends have been generally decreasing or remaining steady over the last six years. Figure 5.13-1, *School Facilities*, shows the locations of schools servicing the City.

- **Anaheim Elementary** consists of 23 elementary schools and 1 online academy within the City.
- **Anaheim Union High** provides K-12 and alternative education and within the City.
- **Orange Unified** provides K-12 education in Anaheim, Orange, Villa Park, Garden Grove, Santa Ana, and unincorporated county areas.
- **Centralia Elementary** consists of 8 elementary schools in Anaheim, Buena Park, and La Palma.
- **Magnolia Elementary** consists of 8 elementary schools in Anaheim and 1 in Stanton.
- **Savanna Elementary** consists of 3 elementary schools in Anaheim and one in Buena Park.
- **Fullerton School District** doesn't operate within the City but has 9 schools within approximately one mile of the City of Anaheim boundaries and serves nearby Anaheim residents.
- **Fullerton Joint Union School District** doesn't operate within the City but has one school within approximately one mile of the City of Anaheim boundaries and serves nearby Anaheim residents.
- **Placentia-Yorba Linda Unified School District** provides K-12 education for Placentia, Yorba Linda, and portions of Anaheim, Brea, and Fullerton.
- **Garden Grove Unified School District** provides K-12 education for Anaheim, Cypress, Fountain Valley, Garden Grove, Santa Ana, Stanton, and Westminster.
- **Buena Park School District** provides K-8 education for Buena Park but has two schools within approximately one mile of the City of Anaheim boundaries and serves nearby Anaheim residents.

Table 5.13-1 School District Enrollment of Districts Serving Anaheim

District	Grades Serviced	Total Capacity	Enrollment
Anaheim Elementary	K-6	14,665 (2022-2023)	14,760 (2022-2023)
Anaheim Union High	9-12	32,881 (2021-2022)	28,404 (2021-2022)
Orange Unified	K-12	30,194 (2022-2023)	25,747 (2022-2023)
Centralia Elementary	K-6	4,077 (2022-2023)	4,052 (2022-2023)
Magnolia Elementary	K-6	5,811 (2015-2016)	5,117 (2021-2022)
Savanna Elementary	K-6	2,400 (2022-2023)	1,890 (2022-2023)
Fullerton Elementary	K-8	14,714 (2021-2022)	11,684 (2021-2022)

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Table 5.13-1 School District Enrollment of Districts Serving Anaheim

District	Grades Serviced	Total Capacity	Enrollment
Fullerton Joint Union High	9-12	15,687 (2021-2022)	13,431 (2021-2022)
Placentia-Yorba Linda	K-12	28,752 (2015-2016)	25,742 (2015-2016)
Garden Grove Unified	K-12	49,504 (2021-2022)	37,787 (2021-2022)
Buena Park	K-8	6,659 (2023-2028)	4,008 (2022-2023)

Sources: Cooperative Strategies 2022; SFC 2024a, SFC 2024b; KG 2024; SPS 2016; Studio W. Architects 2023; U.S. News Education 2024; Dolina Group 2016a; Dolina Group 2016b; SESD 2024.

Table 5.13-2 School District Enrollment Trends (2016–2022)

District	2016–2017	2017–2018	2018–2019	2019–2020	2020–2021	2021–2022	2022–2023
Anaheim Elementary	18,558	17,911	17,342	16,928	16,161	15,409	15,132
Anaheim Union High	30,964	30,729	30,292	29,832	29,183	28,404	27,748
Orange Unified	28,522	27,915	27,473	27,291	26,943	26,756	25,843
Centralia Elementary	4,417	4,327	4,221	4,218	4,044	4,077	4,129
Magnolia Elementary	6,277	6,080	5,851	5,678	5,385	5,121	5,001
Savanna Elementary	2,331	2,272	2,199	2,095	1,949	1,843	1,806
Fullerton Elementary	13,363	13,307	13,067	12,852	12,141	11,681	11,626
Fullerton Joint Union High	13,983	13,901	13,695	13,630	13,473	13,431	13,173
Placentia-Yorba Linda	25,798	25,741	25,477	25,162	24,296	23,657	23,138
Garden Grove Unified	44,223	43,163	42,301	41,423	40,124	38,560	38,164
Buena Park	4,837	4,684	4,552	4,464	4,133	4,015	3,966

Source: ED Data 2024.

5.13.3.2 THRESHOLDS OF SIGNIFICANCE

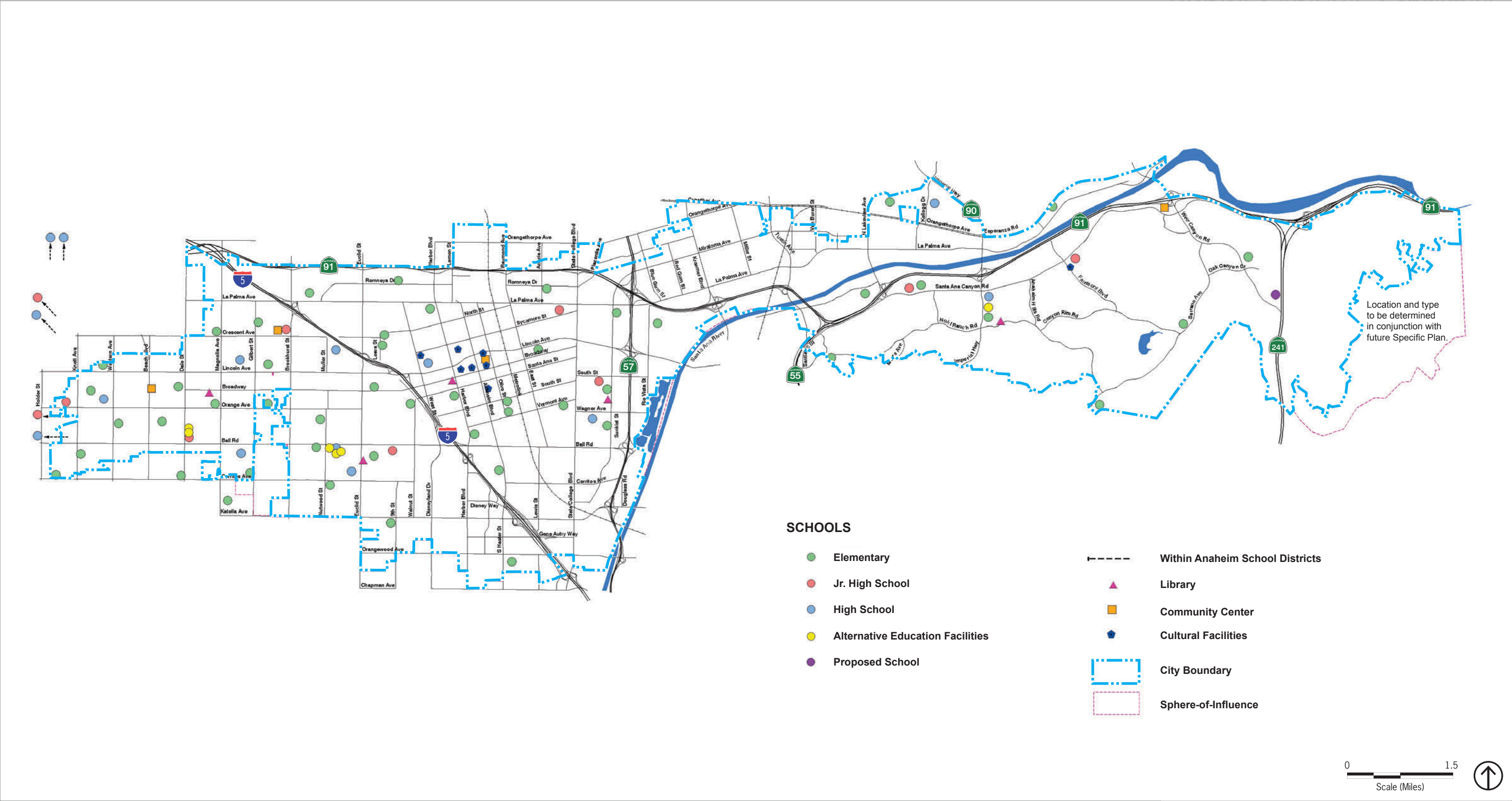
The City of Anaheim considers a project to have a significant effect on the environment if the project would:

- 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.

5.13.3.3 PROPOSED GENERAL PLAN GOALS AND POLICIES

The proposed project does not include any new or updated general plan goals and policies related to school facilities.

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Source: First Carbon Solutions, 2023.

Figure 5.1. -1
School Facilities

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5.13.3.4 ENVIRONMENTAL IMPACTS

The following impact analysis addresses thresholds of significance that are identified in brackets after the impact statement.

Impact 5.13-3: Implementation of the proposed project would not 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. [Threshold SS-1]

Development in accordance with the proposed project would result in a net increase of 85,341 residents in the City as compared to the current General Plan Land Use Plan. The increase in residents would result in a direct increase in the City's student population, which would be served by the current 11 districts that serve the City as well as other options (out-of-district transfers or private/alternative school methods). As shown in Table 5.13-1 and Table 5.13-2, enrollment for these districts is generally below capacity, and the capacity of the schools in addition to any already planned construction project would be able to accommodate the increased population due to the proposed project. Moreover, developers would be required to pay impact fees levied by each school district, set within the limits of SB 50. This funding program has been found by the legislature to constitute "full and complete mitigation of the impacts" on the provision of adequate school facilities (Government Code Section 65995[h]). SB 50 establishes three 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. Although the increased demand on school facilities would have the potential to impact one or more of the school districts or individual school sites that serve Anaheim, payment of impact fees in compliance with SB 50 would reduce the impacts to an acceptable level. Additionally, as included in Standard Condition SC PS-1, the City will work cooperatively with school districts to identify sites for new schools and school expansions in West and Central Anaheim and The Platinum Triangle area. It is speculative to assign future students to specific schools or districts, and outside of the jurisdiction of the City to plan for future school expansion. Any future expansions would continue to be undertaken by individual school districts as lead agencies under CEQA. Therefore, the proposed project would result in less than significant impacts.

Level of Significance Before Mitigation: Impact 5.15-3 would be less than significant.

Mitigation Measures: No mitigation measures are required.

5.13.3.5 LEVEL OF SIGNIFICANCE BEFORE MITIGATION

Upon implementation of regulatory requirements and standard conditions of approval, the following impact would be less than significant: Impact 5.13-3.

5.13.3.6 MITIGATION MEASURES

No mitigation measures are required.

5. Environmental Analysis

PUBLIC SERVICES

5.13.3.7 CUMULATIVE IMPACTS

The area considered for cumulative analysis is the service areas of school districts serving the City. Cumulative development projects that involve residential development would increase the public-school population in the region and could require the construction or expansion of school facilities so that adequate service ratios are maintained, depending on various factors including long-term enrollment projections, which as demonstrated above, have generally been decreasing. An increase in student population could require the construction or expansion of school facilities, which could result in adverse environmental impacts. As discussed above, under state law, development projects are required to pay established school impact fees in accordance with SB 50 at the time of building permit issuance. The funding program established by SB 50 has been found by the Legislature to constitute “full and complete mitigation of the impacts of any legislative or adjudicative act...on the provision of adequate school facilities” (Government Code Section 65995[h]). The fees authorized for collection under SB 50 are conclusively deemed full and adequate mitigation of impacts on school district facilities. Furthermore, cumulative school projects require discretionary actions and would be required to demonstrate compliance with CEQA prior to project approval. The proposed project would not combine with areawide growth to result in cumulatively considerable impacts to school services. This impact would be less than significant.

Level of Significance Before Mitigation: Cumulative impacts would be less than significant.

Mitigation Measures: No mitigation measures are required.

Level of Significance After Mitigation: Cumulative impacts would be less than significant.

5.13.4 Library Services

5.13.4.1 ENVIRONMENTAL SETTING

Regulatory Background

Local

City of Anaheim General Plan

The following policies are related to library services:

Public Services and Facilities Element

Goal 12.1: Maintain and expand library facilities to meet the community’s needs.

- **Policy 12.1-1.** Enhance library facilities to improve inventory, services, accessibility, and public image.
- **Policy 12.1-2.** Expand community programming activities and services.
- **Policy 12.1-3.** Encourage the use of technology both in library operations and resources to promote efficiency, accessibility, and innovation.

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Library Strategic Plan

The City of Anaheim Library Services Division maintains a Strategic Plan to guide the future program and development of the City's libraries. The Strategic Plan includes a vision statement and a list of strategies that identify the needs and functions of the library system. One of the major goals of the Strategic Plan is to provide and maintain adequate facilities (Anaheim 2004b).

Library Facilities Master Plan

The City developed a comprehensive Library Facilities Master Plan in 2000 in response to the Library Strategic Plan's strategic goal to provide adequate facilities and increase capacity of the City's library system. An overall library service delivery model was developed for the City with the aim to target specific needs of communities. In this model, each of the five community focus areas will contain local infrastructure for targeted community service delivery supported and complemented by resources from the Central Library (Anaheim 2004b).

Standard Conditions of Approval

As a matter of practice, the City applies standard conditions for development projects that are intended to reduce environmental impacts. Currently, there are no standard conditions that are related to library services and facilities.

Existing Conditions

The Anaheim Public Library system consists of a central library, six branch libraries, the Anaheim Heritage Center, a self-service book vending machine, a Bookmobile, and a STEAM education program. The library system provides a total of 159,809 square feet of library space in various sized facilities throughout Anaheim to serve 336,265 citizens (Anaheim 2024). Each library branch provides full programming to children (story times, special events, and STEM/STEAM reading programs), teens (special activities and events; reading programs; and volunteering opportunities), and adults (book groups and special programs). The branches increasingly serve as a source for free Wi-Fi services, computer use, and Internet access. The Anaheim library system also includes the Carnegie Museum.

Central Library

The Central Library at 500 W. Broadway is the largest library in the Anaheim system; contains the most comprehensive collections of fiction and nonfiction books; and maintains collections in Spanish, Vietnamese, Chinese, and Korean. Central Library's service area is central/downtown Anaheim. The 65,000-square-foot Central Library features an adult computer lab, children's computer lab, children's room, DVDs, music CDs, quiet zone, Spanish language books, teen computer lab, teen space, Wi-Fi, and zine collection (Anaheim 2024). The Central Library also provides virtual Anaheim Library services through its network. These services include Internet-based library catalog, book reserves, and full text printable/downloadable databases including Business and Company Resource Center, health and wellness resources, magazines, local and national newspapers, and practice tests for school, jobs, and the military. Live online reference service from a librarian is available on the library's website 24/7. Curbside service is available upon request. An extensive

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PUBLIC SERVICES

calendar of programs, tours, and other activities for library patrons, particularly for children, is available year-round (Anaheim 2024).

Anaheim Heritage Center

The Anaheim Heritage Center's history room originally opened in 1967 in the Anaheim Central Library. It is now at 241 S. Anaheim Boulevard in the Anaheim Museo Complex and is a part of the Central Library's network. The history room contains almost a million items organized and cataloged for use. The collection focuses on the history of Anaheim and its environs, and it also contains material on San Francisco in the 1850s and Los Angeles County prior to 1889 when Anaheim was a part of that county. It is open on weekdays from 11 a.m. to 6 p.m. (Anaheim 2024).

The Anaheim Heritage Center also oversees the historic Mother Colony House and Woelke-Stoffel Victorian House on the site of the Founders' Park (Anaheim 2024).

Books on the Go!

Books on the Go is the Central Library's first self-service branch, located at the Anaheim Regional Transportation Center on 2626 E. Katella Avenue. Users with an Anaheim Library Card are allowed to check out and return books in its free book vending machine and gain access to its downloadable digital collections. It is open every day from 4:30 a.m. to 12 a.m. (Anaheim 2024).

Bookmobile (The Mobile Library)

The Bookmobile is a mobile library serviced by the Anaheim Public Library that serves low-income neighborhoods. The vehicle carries 5,000 volumes at any one time (Anaheim 2024).

Canyon Hills Branch

The Canyon Hills Library, at 400 S. Scout Trail in Anaheim Hills, is a branch of the Central Library that serves the Canyon Hills area. The 18,000-square-foot library contains a meeting room that can be rented and a teen space. Services include curbside service upon request and public computers for use. Online catalogs and databases are available at the library and are also accessible to library patrons via the Internet. An extensive calendar of programs, tours, and other activities for library patrons, particularly for children, is available year-round (Anaheim 2024).

East Anaheim Branch

The East Anaheim Library, located at 8201 E. Santa Ana Canyon Road, is a branch of the Central Library that serves the East Anaheim area. The library features audio and e-books, Blu-rays, children's room, DVDs, music CDs for children, public computers, and Wi-Fi. Online catalogs and databases are available at the library and are also accessible to library patrons via the Internet. An extensive calendar of programs, tours, and other activities for library patrons, particularly for children, is available year-round (Anaheim 2024).

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Euclid Branch

Euclid Library, at 1340 S. Euclid Street, is a branch of the Central Library that serves the resort area and southeast West Anaheim. The 10,273-square-foot library features Blu-rays, children's room, DVDs, music CDs, parking, public computers, restrooms, Spanish language materials, teen space, and Wi-Fi. Curbside services are available upon request. Online catalogs and databases are available at the library and are also accessible to library patrons via the Internet. An extensive calendar of programs, tours, and other activities for library patrons, particularly for children, is available year-round (Anaheim 2024).

Haskett Branch

Haskett Library at 2650 W. Broadway is a branch of the Central Library that serves the west end of West Anaheim. The 7,484-square-foot library features an adult computer lab, Blu-rays, children's computer lab, children's room, DVDs, music CDs, quiet zone, reading garden, Spanish language books, teen computer lab, teen space, and Wi-Fi. It also provides curbside services upon request. Online catalogs and databases are available at the library and are also accessible to library patrons via the Internet. An extensive calendar of programs, tours, and other activities for library patrons, particularly for children, is available year-round (Anaheim 2024).

Ponderosa Joint-Use Branch

The Ponderosa Joint-Use Library at 240 E. Orangewood Avenue is a 3,500-square-foot facility that was designed as a shared space with Ponderosa Elementary. A branch of the public library, it functions as the Ponderosa Elementary School Library during school hours and a public library during evenings and weekends. The library features Blu-rays, computer lab, DVDs, parking, restrooms, and Spanish language materials. Online catalogs and databases are available at the library and are also accessible to library patrons via the Internet. An extensive calendar of programs, tours, and other activities for library patrons, particularly for children, is available year-round (Anaheim 2024).

STEAM Adventures: Exploration on Wheels

Exploration on Wheels, also known as the STEAM van, is a program of the public library that visits after-school programs sites and Mobile Family Resource Center outreach sites. It hosts hands-on activities that aim to promote STEAM education among elementary-age youth (Anaheim 2024).

Sunkist Branch

Sunkist Library, located at 901 S. Sunkist, is a branch of the Public Library that serves the East Anaheim area. The 10,573 square foot library features Blu-rays, children's room, computer lab, DVDs, graphic novels & manga, meeting room (for rent), music CDs, parking, public computers (16 computer workstations), Spanish language books, teen space, and Wi-Fi. Curbside services are available upon request. Online catalogs and databases are available at the library and are also accessible to library patrons via the Internet (Anaheim 2024).

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Anaheim Museum

The Anaheim Museum, located at 241 S. Anaheim Blvd., is housed in the original Carnegie Library built in 1908. The museum, operated by Anaheim Museum, Inc., in collaboration with the Library Division, operates this facility, provides tours to schoolchildren, sponsors exhibits, and supports historic Anaheim (Anaheim 2024).

5.13.4.2 THRESHOLDS OF SIGNIFICANCE

The City of Anaheim considers a project to 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.

5.13.4.3 PROPOSED GENERAL PLAN GOALS AND POLICIES

The proposed project does not include any new or updated general plan goals and policies related to library facilities.

5.13.4.4 ENVIRONMENTAL IMPACTS

The following impact analysis addresses thresholds of significance that are identified in brackets after the impact statement.

Impact 5.13-4: Implementation of the proposed project would not 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. [Threshold LS-1]

Although the proposed project would result in an increase in population, this does not necessarily mean that there would be a significant demand for more library facilities. Funding for library services comes primarily from the City's General Fund and development impact fees (City Standard Condition SC PS-2) as well as library fines and fees collected from patrons and State, federal, or other government aid. As development occurs, the General Fund would grow proportionally with the property tax collections. Additionally, access to online resources, including eBooks and audiobooks, is available on the Anaheim Library System.

Future projects would be reviewed by the City on an individual basis and would comply with requirements in effect at the time building permits are issued (i.e., payment of development impact fees). Since adequate services would be provided and payment of development impact fees would offset the costs associated with library services, impacts would be less than significant.

Level of Significance Before Mitigation: Impact 5.13-4 would be less than significant.

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Mitigation Measures: No mitigation measures are required.

5.13.4.5 LEVEL OF SIGNIFICANCE BEFORE MITIGATION

Upon implementation of regulatory requirements and standard conditions of approval, the following impact would be less than significant: Impact 5.13-4.

5.13.4.6 MITIGATION MEASURES

No mitigation measures are required.

5.13.4.7 CUMULATIVE IMPACTS

The area considered for cumulative analysis is the service area of the Anaheim library system. Cumulative development projects that involve residential development would increase the population in the region and could require the construction or expansion of library facilities so that adequate service ratios are maintained. This increase in population could require the construction or expansion of library facilities, which could result in adverse environmental impacts. New and/or expanded libraries in the City would be subject to general plan policies protecting the environment, and new or expanded libraries would be subject to environmental review and mitigation pursuant to CEQA. Impacts would be less than significant, and therefore, less than cumulatively considerable.

Level of Significance Before Mitigation: Cumulative impacts would be less than significant.

Mitigation Measures: No mitigation measures are required.

Level of Significance After Mitigation: Cumulative impacts would be less than significant.

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5.14 RECREATION

This section of the Draft Program Environmental Impact Report (Draft PEIR) discusses the potential impacts related to recreation in the City of Anaheim from implementation of the City of Anaheim's General Plan Focused Update (proposed project) and consistency with policies and programs related to recreation.

One comment was received during the scoping period for the proposed project (see Appendix A) from the Orange County Parks Foundation related to the Mountain Park Conservation Easement; no comments related to parks and recreation impacts were received for the Center City Corridors Specific Plan (C3SP), which has been incorporated into the proposed project as the Center City Corridors Implementation Plan (C3 Plan) (see Appendix B).

5.14.1 Environmental Setting

5.14.1.1 REGULATORY BACKGROUND

State

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

Mitigation Fee Act

The California Mitigation Fee Act (Government Code Section 66000 et seq.) allows cities to establish fees that will be imposed upon development projects for the purpose of mitigating the impact that the development projects have upon the City's ability to provide specified public facilities. In order to comply with the Mitigation Fee Act, the City must follow four primary requirements: 1) Make certain determinations regarding the purpose and use of a fee and establish a nexus or connection between a development project or class of project and the public improvement being financed with the fee; 2) Segregate fee revenue from the General Fund in order to avoid commingling of capital facilities fees and general funds; 3) Make findings each fiscal year describing the continuing need for fees that have been in the possession of the City for five years or more and that have not been spent or committed to a project; and 4) Refund any fees with interest for developer deposits for which the findings noted above cannot be made.

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

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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.

Regional

Master Plan of Regional Riding and Hiking Trails

The Master Plan of Regional Riding and Hiking Trails includes 348 miles of existing and proposed trails throughout Orange County, some of which traverse eastern parts of Anaheim (Four Corners Riding Trail) (Orange County 2021). The purpose of the plan is to provide policies and programs to direct the development and operation of a County-wide public trail system that provides for the public welfare by serving the recreational needs of equestrians, pedestrians, and mountain bikers.

Master Plan of Regional Recreation Facilities

The Master Plan of Regional Recreation Facilities aims to provide a countywide regional recreation network of sufficient size, with facilities in dispersed locations and recreation amenities to meet the major recreation needs of present and future residents of Orange County. It proposes several regional parks that are existing or potential extraction (e.g., sand and gravel) or disposal (e.g., landfill) sites. It details characteristics of different types of regional recreational facilities, including regional parks, public beaches and harbors, historic sites, and wilderness areas. A portion of the Santiago Oaks Regional Park and Ramon Peralta Adobe are within the boundaries of the City (Orange County 2024).

Local

City of Anaheim General Plan

The City of Anaheim General Plan includes the following policies regarding parks and recreation (Anaheim 2004).

Green Element

Goal 18.1: Provide sufficient indoor and outdoor park, recreation and community service opportunities for existing and future residents and employees.

- **Policy 18.1-1.** Maintain a Citywide standard of at least two acres of parkland per thousand residents.
- **Policy 18.1-2.** Locate neighborhood parks within walking distance of the surrounding neighborhood.
- **Policy 18.1-3.** Locate parks adjacent to schools, where possible, to facilitate joint-use of publicly owned land and facilities.
- **Policy 18.1-4.** Design new facilities to serve as many as compatible, overlapping uses as possible such as baseball/softball outfields also serving as soccer fields.
- **Policy 18.1-5.** Develop a network of at least one 10,000-square-foot, multi-use, indoor facility (e.g., gymnasium) per 25,000 residents.

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- **Policy 18.1-6.** Continue to provide a variety of park types and facilities, especially dedicated sports fields and practice fields, that serve the diverse needs of Anaheim’s neighborhoods.
- **Policy 18.1-7.** Encourage development of park and community service facilities in areas of high employment concentrations to serve workers and residents alike.
- **Policy 18.1-8.** Consider acquiring properties adjacent to schools, properties available on an opportunity basis, or excess freeway rights-of-way, when available, for park purposes.

Goal 19.1: Provide a broad range of recreation programs including fee and nonfee based sports activities, cultural programs, arts and crafts and Citywide events.

- **Policy 19.1-1.** Provide a wide variety of recreational facilities—in both active and passive areas of parks to satisfy diverse needs and activities.
- **Policy 19.1-2.** Design and redesign parks to reflect the latest recreational features, responsive to population trends and community needs.
- **Policy 19.1-3.** Continue to ensure responsive management practices that include staff training, efficient scheduling, and coordination with other City departments.
- **Policy 19.1-4.** Tailor recreation programs to serve the community and include specialized populations, such as pre-school and elementary school children, teens, senior citizens, families, young adults and those with special needs.
- **Policy 19.1-5.** Develop non-traditional approaches to provide supplementary services and programs where facility deficiencies exist (e.g., mobile programs, street events, entertainment, storefront operations).
- **Policy 19.1-6.** Continue to develop public/private partnerships to expand recreational programs and opportunities.
- **Policy 19.1-7.** Encourage the development of recreation programs aimed at serving the needs of businesses and employees within Anaheim.
- **Policy 19.1-8.** Provide disability access to all park and recreation facilities.

Goal 20.1 Vigorously maintain and upgrade Anaheim’s parks and recreation facilities to better serve the needs of residents and workers.

- **Policy 20.1-1.** Continue to promote safety through active ordinance enforcement, risk management reviews, improved signage, park security programs and neighborhood park stewardship and community-based safety programs.

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- **Policy 20.1-2.** Continue to improve and maintain proper lighting in park facilities and fields without undue glare impacts on adjoining residential areas.
- **Policy 20.1-3.** Reduce potential for injury by careful selection of equipment and timely repair of facilities.
- **Policy 20.1-4.** Continue to conduct safety reviews of each park on a regular basis.
- **Policy 20.1-5.** Convert underutilized areas within existing parks to better meet the needs of the community.
- **Policy 20.1-6.** Continue to conduct regular reviews of existing public parks to determine maintenance needs, funding priorities, and long-term rehabilitation costs.
- **Policy 20.1-7.** Reduce potential for vandalism through continued police patrols, neighborhood watch programs, stewardship programs and public outreach.

Goal 21.1 Conduct periodic and comprehensive community outreach efforts to improve our park and recreation facilities.

- **Policy 21.1-1.** Gather and evaluate community input on parks, recreation facilities and programs on a regular schedule.
- **Policy 21.1-2.** Reevaluate design improvements, equipment and amenities of all City parks as part of the periodic updating of the Green Element.
- **Policy 21.1-3.** Involve park users and citizens in the evaluation of park design through community workshops, design charrettes and evaluation forms and surveys.
- **Policy 21.1-4.** Pursue efforts to communicate in different languages with, and understand the needs of, the City's culturally diverse park users.
- **Policy 21.1-5.** Continue to create a greater sense of stewardship for parks within each neighborhood and community through active public involvement (e.g., "Kids for Parks," public meetings, booster and service clubs) and volunteerism.
- **Policy 21.1-6.** Maintain active outreach efforts between public and private agencies to provide a broad array of services and programs.

Equestrian, Riding, and Hiking Trails Plan

The City's 1992 Equestrian, Riding, and Hiking Trails Plan provides the general alignment and classification of present and future trails, establishes a trail hierarchy, sets forth development standards for the design and construction of each class of trails, and outlines an implementation program. It delineates approximately 48

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miles of trails for pedestrians, equestrians, and mountain bikers. Please refer to *Trails* in Section 5.14.1.2 for further delineation of the plan's trail hierarchy.

City of Anaheim Municipal Code

- **Chapter 01.16, City Golf Courses.** This chapter establishes a special division known as “Golfing Division/Center,” which manages, supervises, and controls all City golf courses, including without limitation, the Anaheim Municipal Course and all other City golf courses later acquired or constructed.
- **Chapter 17.34, Development Impact Fees.** This chapter provides for the means to finance adequate infrastructure and other public improvements and facilities made necessary by the impacts created by new residential development in the City. Prior to the issuance of a building permit for any dwelling unit or units, developers are required to pay a fee for the development thereof, or pay a fee in lieu of dedication and the development fee for the purpose of providing park and recreational facilities to serve the future residents of the unit or units; provided, however, that, for projects having fifty or fewer dwelling units, only the payment of the in-lieu fee is required. Sections 17.34.010 through 17.34.030 of the City Code apply to the construction of new dwelling units and to additions or improvements. These park development fees are calculated using a formula structured in accordance with the Quimby Act. Table 5.14-1, *Development Impact Fees*, identifies the applicable development fee to fund the creation of new recreational facilities in the City.

Table 5.14-1 Development Impact Fees

Single Family/Condo		Apartment		Platinum Triangle
Detached	Attached	2-4 Units	5 or More Units	All Units
\$6,936.46	\$5,388.14	\$6,998.39	\$5,408.78	\$8,114.01

Source: Anaheim 2020.

- **Section 18.20.110, Public Parks, Recreational-Leisure Areas and Landscaping.** For areas within the Platinum Triangle Mixed Use Overlay Zone, parcels eight acres or larger with residential development totaling more than 325 units shall provide and construct an onsite public park, at a minimum size of 44 square feet per residential dwelling unit and pay park-in-lieu fees. Parcels less than eight acres in size shall pay a park-in-lieu fee. Furthermore, 200 square feet of recreational-leisure area shall be provided for each dwelling unit, and may be provided by private areas, common areas, or a combination of both.

Standard Conditions of Approval

As a matter of practice, the City applies standard conditions for development projects that are intended to reduce environmental impacts. Currently, there are no standard conditions that are related to recreation facilities.

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5.14.1.2 EXISTING CONDITIONS

Natural Areas

Anaheim's location allows for residents to access natural open space areas, including mountains, hillsides, canyons, and preserves. Many of the following natural areas are also categorized as nature centers by the City's General Plan Green Element (see *Nature Parks*, below, for more information).

Anaheim Wetlands

Anaheim Wetlands is a 10-acre man-made wetlands area adjacent to the Santa Ana River (OC Parks 2018). It was established in 1986 as a replacement habitat for the fill-in of the City's last natural freshwater marsh. It includes the Anaheim Wetlands Trail Head, which gives direct access to the Santa Ana River Trail. Amenities include the connection to 14.6 miles of trail and trash receptacles. Street parking for approximately 25 vehicles is available.

Deer Canyon Park Reserve

The Deer Canyon Park Reserve is a 133-acre wilderness area in the Anaheim Hills. It provides 2.8 miles of trails for hiking and horse riding. The park includes the Deer Canyon Park Trail Head, which includes direct access to trail connections to the Four Corner Trail and Oak Canyon Nature Center. Street parking for approximately six vehicles is available. Park amenities include restrooms, drinking fountains, and trash receptacles (OC Parks 2018).

Oak Canyon Nature Center

Oak Canyon Nature Center is a 53-acre natural park in the Anaheim Hills. It is one of the few remaining areas of oak woodland and coastal sage scrub in the region. It consists of three adjoining canyons and a year-round stream that meanders through the park. It contains approximately four miles of interior hiking trails and a connection to the nearby Deer Canyon. Also located on the site is an amphitheater and the John J. Collier Interpretive Center, a small museum with live animal and regional natural history exhibits. Park amenities include parking for approximately 26 cars (no horse trailers), restrooms, trash receptacles, and picnic facilities.

Pelanconi Park

Pelanconi Park is a 23-acre local natural area in central Anaheim. It includes approximately 0.88 miles of hiking and riding trails; the Pelanconi Park Trail Head includes access to the Santa Ana Canyon Road Trail. Amenities include picnic tables, a drinking fountain, trash receptacles, and parking for 35 cars, including an ADA-compliant spot. Horse trailer parking is available.

Featherly Regional Park

Featherly Regional Park is a natural riparian wilderness area in Santa Ana Canyon and north of the Riverside Freeway (SR-91). Although it is not within the City, it is adjacent to the City and provides recreational opportunities. Only 63 of 795 acres are open for public access, and the rest is a nature preserve. The paved

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Santa Ana River Trail/Bikeway runs adjacent to the park and provides viewing opportunities of the park. The only developed portion of the park is Canyon R.V. Park, a privately operated facility that has RV sites, small cabins, youth group camping, and areas for group events.

Weir Canyon Nature Preserve

Weir Canyon Nature Preserve is a nature park and one of the Irvine Ranch Natural Landmarks, which is a collection of 25 distinct biological and geological treasures on more than 40,000 acres of Southern California's urban wildlands. The park is near SR-91 at the north end of the Irvine Ranch. Although it is not in the City, it is adjacent to the City and provides recreational opportunities. It contains one of the largest and healthiest oak woodlands in the county along with an abundance of rare habitats and wildlife. The park offers docent-led hikes, which require pre-registration due to the area's sensitive habitat. Equestrian and mountain bike rides are scheduled and conducted by the Irvine Ranch Conservancy.

Santiago Oaks Regional Park

Santiago Oaks Regional Park is a 1,269-acre park along Santiago Creek in the City of Orange. Although it is not in the City, it is adjacent to the City and provides recreational opportunities. It provides views of mountain vistas, an orange grove, a creek, and a forest of many tree species. The park contains interconnecting trails for equestrians, hikers, and mountain bikers and provide access to the Anaheim Hills Trail System. It offers various programs and exhibits. Park amenities include an amphitheater, picnic and barbecue areas, playgrounds, horseshoe pits, a historic dam, a scenic overlook, and accommodations for weddings and special events.

Chino Hills State Park

Chino Hills State Park is a state-owned, 14,100-acre preserve that stretches from San Bernardino County through parts of Orange County. Although it is not in the City of Anaheim, Chino Hills State Park is adjacent to the City and provides recreational opportunities for Anaheim residents. Chino Hills State Park has over 90 miles of trails for hiking, biking, and equestrian uses, and facilities for camping. The park is also a key wildlife corridor from the Puente Hills along the City's eastern border to the Cleveland National Forest in San Diego.

Mountain Park Conservation Easement

The Mountain Park Conservation Easement area is in the foothills of the northwest extent of the Santa Ana Mountains where SR-41 meets SR-91, approximately. The area is approximately 1,040 acres. The majority of the easement area is in the eastern portion of the City and is designated by the City as Open Space and zoned Specific Plan (SP-90-4 Mountain Park); the remaining portions are within unincorporated Orange County. The Mountain Park Specific Plan area encompasses 3,001 acres, of which 2,100 acres are open space. The easement is undeveloped with the exception of a 300-acre sand and gravel mining operation in the northeastern portion of Gypsum Canyon, which was vacated in June 2005 (Anaheim 2004, 2019).

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Trails

Regional Trails

These include major trails in Anaheim that are included in the Orange County General Plan, including the Santa Ana River Trail, developed to County standards.

Backbone Trails

These are major links in the overall City trail system. They provide access out of local areas to the trail system as a whole and, as such, will generally receive priority for trail capital improvements funded out of the City's budget or through grants. Backbone trails may also be dedicated and developed by individual developers, as conditioned by the City.

Feeder Trails

These are public trails that serve a local purpose, usually in an equestrian-oriented neighborhood. While not as critical as the backbone trail system, feeder trails do serve an important role as short loops. Feeder trail systems are required to be dedicated in connection with the development of properties along the trail route. Where private trails exist, they should remain under private ownership. Future private trails should be designed and laid out to link with the public trails system.

Feeder Trail Overlay

This specifies areas where feeder trails for primarily equestrian uses should be dedicated and improved as development occurs, but where precise trail routes have not yet been mapped.

Trail Heads

These are major nodes where resting and staging facilities are provided. Such amenities can include parking, hitching posts, water, picnic facilities, shade trees, trail markers, and informational postings and bulletin boards. Table 5.14-2, *Trail Heads*, lists the names and sizes of the City's 10 trail heads.

Table 5.14-2 Trail Heads

Trail Head Name	Size (acres)
Anaheim Wetlands	10
Yorba Regional Park	131
Pelanconi Park	23
Oak Canyon Nature Center	53
Sycamore Park	10
Ronald Reagan Park	18
Canyon Rim Park	6.5

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Table 5.14-2 Trail Heads

Trail Head Name	Size (acres)
Stagecoach Road	1,269
Deer Canyon Park	133
Riverdale Park	8

Source: Anaheim 2022a.

Trail Loops

These are the basis of the trail system in the Master Plan. The idea is to provide varying lengths of trail loops that allow riders to return to their point of departure without requiring them to double back during their trip.

Varied Trail Segments

Trail segments should vary in terrain, difficulty, and surrounding environment to provide users with varied and interesting trail options. Some trails run along urban streets with access to shopping and community facilities, offering an alternative to the car or sidewalks. Other trails link, circle or run through open, scenic, and natural areas.

Expanded Trail System East of Weir Canyon

The trail system will be expanded in the area east of Weir Canyon Road as the area develops. This provides direct links to the Chino Hills State Park and Cleveland National Forest trail network, and links to Riverside County's riding and hiking trails via the Santa Ana River Trail. Most of the trails in the City are located in East Anaheim. Tables 5.14-2, *Trail Heads*, and 5.14-3, *Trails*, list existing trail heads and trails in East Anaheim.

Table 5.14-3 Trails

Trail Name	Length (miles)
Ridgeline Trail	2.5
East Hills Trail	1.5
Hidden Canyon Trail	1.8
Walnut Canyon Trail	2.1
Santa Ana Canyon Rd Trail	1.4
Oak Canyon Trail	1.2
Savi Canal Trail	0.8

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Table 5.14.2 Trails

Trail Name	Length (miles)
Pelanconi Trail	0.6
Fairmont Trail	0.8
Country Trail	0.7
Santa Ana River Trail	14.6
Nohl Ranch Trail	2.4
Hummingbird Trail	0.1
Four Corners Trails	2.0
Mohler Drive Trail	0.2
Weir Canyon Trail	1.9
Deer Canyon Park Interior Trails	0.2
Pelanconi Park Interior Trails	0.1
Oak Canyon Nature Center Interior Trails	0.1

Source: Anaheim 2022a.

Developed Parks

Anaheim has numerous public parks covering about 800 acres, exclusive of natural open space areas (Anaheim 2024). The public park system includes pocket, neighborhood, community, and regional parks that are differentiated by scale, population served, and amenities. Additional recreational facilities may also be available as part of homeowner associations (Anaheim 2024).

Pocket Parks

Pocket parks are less than one acre generally serving the immediate area surrounding the park. They have no restrooms or parking. Pocket parks generally provide passive recreational uses such as picnic facilities, landscaping, and public art. Active uses such as a children's play area, court sports, or other amenities can be planned through public participation. There are no programmed activities in this type of park facility (Anaheim 2024).

Neighborhood Parks

Neighborhood parks are typically 5 to 14 acres with a park service radius of one-half mile, generally serving residents within walking distance. Uses can include family picnic or barbecue areas, children's play areas,

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paved hard-court areas, unlighted athletic fields, and restrooms. Neighborhood parks are often located next to elementary or middle schools to maximize open space for the community through shared joint-use agreements with local school districts (Anaheim 2024).

Community Parks

Community parks are typically 15 to 50 acres in size and are intended to serve the recreational needs of surrounding neighborhoods and broader areas of the City with athletic fields, community centers, and other major recreation amenities. Community parks are often located next to middle or high school facilities to maximize open space for the community through shared joint-use agreements with local school districts (Anaheim 2024).

Regional Parks

Regional parks are approximately 50 acres or larger and have a wide range of amenities to serve a broad range of active and passive recreational needs as well as indoor and outdoor recreational needs within and beyond the City limits. For such large-scale parks, service radii and standards can vary but they generally serve a population of between 50,000 to 100,000 people up to 30 miles away. The City of Anaheim has one regional park: Yorba Regional Park, which is 131 acres in the eastern portion of Anaheim along the north side of the Santa Ana River. There are also two regional parks adjacent to or near the City: Featherly Regional Park and Santiago Oaks Regional Park along Santiago Creek in the City of Orange (Anaheim 2024).

Mini-parks

Mini-parks are park facilities of less than 5 acres in size with a service radius of up to a quarter mile. Amenities depend on the size of the park, and they usually do not have restrooms or parking amenities. Passive uses are typical, but active uses can be included depending on the size of the park. Such amenities include picnic tables, children's play areas, and athletic fields (Anaheim 2024).

Nature Parks

Nature parks are passive-oriented recreational facilities that typically include open space, trails, and native landscaping; amenities like interpretive centers or signage; and off-street parking and restrooms. The City's nature parks include Anaheim Coves, Oak Canyon Nature Center, Anaheim Wetlands, Oak Park, Pelanconi Park, and Deer Canyon (Anaheim 2024).

Special Use Parks

Special use parks include parks and other City facilities that accommodate specialized recreational needs, such as dog parks, community gardens, skate parks, sports complexes, or swimming pools, or reflect important community values, such as cultural or historic facilities. Because of the specialized services, there is no established size associated with a special use park. These facilities can be stand-alone or incorporated with other recreational uses (Anaheim 2024).

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Municipal Golf Courses

The City has two 18-hole golf courses, the Anaheim Hills Golf Course and Dad Miller Golf Course. Both are publicly owned by the City. These golf courses offer views of the surrounding topography and provide additional recreational amenities. The Anaheim Hills Golf Course is in the Anaheim Hills area of eastern Anaheim, and Dad Miller Golf Course in northwestern Anaheim (Anaheim 2024).

Recreation Facilities

- **Brookhurst Community Center.** Brookhurst Community Center, located at 271 W. Crescent Avenue, contains features that can accommodate various events such as wedding receptions, dances, and trade shows, including a multipurpose room, conference and banquet facility, kitchen, and a patio with a landscaped garden. It also includes four meeting rooms.
- **Downtown Anaheim Youth Center.** Downtown Anaheim Youth Center, located at 225 S. Philadelphia Street, provides services and programs for children in the County. It includes a gym and activity available for rental by members of the community, schools, and businesses. The Children and Family Services Office provides services that promote the economic and social well-being of children, youth, and families as well as protective services.
- **Downtown Community Center.** Downtown Community Center is one of the City's main community centers and one of three family resource centers that the City currently operates. It is at 250 E. Center Street in central Anaheim. It includes an assembly hall that spans over 4,200 square feet, a landscaped patio, a senior activity center, an art gallery, and meeting rooms.
- **East Anaheim Community Center.** East Anaheim Community Center, located at 8201 E. Santa Ana Canyon Road, provides accommodations for special events. Amenities include a central room, a board room, four meeting rooms, a dance room, a kitchen, and a patio. The gym, which is adjacent to the community center, contains an indoor regulation size high school athletic court that can be used for basketball or volleyball. It offers several sports programs for people of all ages.
- **Miraloma Park Family Resource Center.** Miraloma Park Family Resource Center, located at 2600 E. Miraloma Way, is one of three family resource centers that the City currently operates. It includes family-friendly facilities where residents and organizations can plan and provide services that promote and support the safety, stability and healthy development of Anaheim families. Their monthly program calendar is featured on their website.
- **Ponderosa Park Family Resource Center:** Ponderosa Park Family Resource Center, located at 2100 S. Haster St., is one of three family resource centers in the City that provide family-oriented services and programs. Their monthly program is available on their website.
- **West Anaheim Youth Center.** West Anaheim Youth Center, located at 320 S. Beach Boulevard, features a 10,382-square-foot gym that seats 676 spectators and is equipped with a full-sized basketball court, six half courts, and two volleyball courts. Facility amenities include a community meeting room,

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dance/fitness room, computer room with 15 internet-accessible computers, two youth activity rooms, and two rooms dedicated to teen programming.

Recreational Programs

An abbreviated list of the types of recreation programs and services offered in the City of Anaheim are as follows (Anaheim 2022b):

- **Aquatics.** The City offers swimming lessons, adaptive swim lessons, junior lifeguard program, and recreational swimming. Lessons are available for children 6 months and older to adults. Private clubs also offer swimming lessons and activities.
- **Youth Programs.** The City offers basketball, volleyball, tennis, boxing, football, martial arts, soccer, track, baseball, and dance youth lessons. The City also offers passive recreation youth programs. Private organizations offer baseball, football, softball, soccer, swimming, track, tennis, basketball, and other active sports for youth. The City manages several youth programs that aim to provide a safe environment for youth and help develop their social skills through recreational games, arts, crafts, and special events. Such programs include Anaheim STARS (Study Time, Arts, Recreation and Sports), Camp Venture, Fun on Wheels After School Programs, O.A.K.S. Day Camp, Project SAY (Support Anaheim's Youth), Tiny Tots Academy, and Ramp N' Roll.
- **Adult Activities.** City adult sports include basketball, football, softball, and flag football leagues. Other activities such as track, tennis, martial arts, yoga, and dance classes are offered by the City. Passive recreation programs are also offered for adults.
- **Senior Activities.** City senior activities include a range of passive and active recreation, including movie matinees, special events, and English second language programs. Exercise classes include dance, pickleball, tai chi, and table tennis.

5.14.2 Proposed General Plan Goals and Policies and Objective Design Standards

The proposed project includes goals and policies related to recreation and recreational facilities.

Circulation Element

Goal 2: Support bicycling, walking, and other active transportation modes.

Policy 2-13 Pursue the completion of the Equestrian, Riding, and Hiking Trails Plan in a manner that complements bicycle and pedestrian facilities.

The proposed project includes objective design standards in the Anaheim Municipal Code that are related to parks and open space, including Recreational-Leisure areas, as well as publicly accessible Recreational-Leisure areas.

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5.14.3 Thresholds of Significance

The City of Anaheim considers a project to have a significant effect on the environment if the project:

- REC-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.
- REC-2 Includes recreational facilities or requires the construction or expansion of recreational facilities which might have an adverse physical effect on the environment.

5.14.4 Environmental Impacts

The following impact analysis addresses thresholds of significance that are identified in brackets after the impact statement.

Impact 5.14-1: Implementation of the proposed project would not 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. [Threshold REC-1]

Buildout of the proposed project would allow for the development of 49,112 net new housing units, which would result in an estimated population growth of up to 85,341 net new residents. This increase in population would increase the use of existing park and recreational facilities and result in a demand for new parks.

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's standard of parkland is 2.0 acres of parkland per 1,000 residents. Anaheim is responsible for approximately 800 acres of developed parkland. As discussed in Section 5.14, *Population and Housing*, of this Draft PEIR, based on a population of approximately 345,999 people under existing conditions, there would be approximately 2.3 acres of existing parkland per 1,000 people; as a result, the City would meet the 2.0 acres of parkland per 1,000 people standard. Under proposed project conditions, population within the City would reach approximately 431,430 people; thus, under proposed project conditions, the City would have a ratio of 1.9 acres of parkland per 1,000 people.

The extent to which the City can plan and implement future planned parks, trails, and other recreational facilities is related to funding availability. It should be noted that the City is currently working on several park improvement projects, including the OC River Walk, La Palma Park, River Park, and Little Pine Park, which would provide additional park acreage in the City to further ensure 2.0 acres of parkland per 1,000 people. These planned facilities would further reduce the potential for physical deterioration of not only City park and recreational facilities, but also regional parks and recreational facilities, such as the Mountain Park Conservation Easement, Four Corners Riding Trail, Santiago Oaks Regional Park, and Ramon Peralta Adobe. As described above, the Quimby Act establishes a funding mechanism for parkland acquisition for all local jurisdictions. Future development in accordance with the General Plan Update would be required to dedicate land or pay in-lieu impact fees per the Quimby Act. Collected park development impact fees would fund

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future park acquisition and development and assist the City in achieving the parkland standard of 2.0 acres per 1,000 residents. New residential development would also be required to meet open space requirements set forth by the new Objective Design Standard identified in proposed Chapter 18.39 of the AMC. Therefore, future projects would be required to meet the City's standards and overall would result in continuing to balance the ratio of parkland per City residents. Park and recreational improvements would also be funded by grants, Community Development Block Grant funds, and former redevelopment agency bond proceeds. Provision of parks under implementation of the proposed project, which will occur over time, is expected to keep pace with the increase in population growth related to the plan and would not have a significant impact.

At the General Plan level of analysis, it is speculative and infeasible to evaluate project-specific environmental impacts associated with the specific construction of future park and recreational facilities since specific sites and time frames for development are unknown. When specific projects are necessitated and subsequently undertaken to meet the growth demands from buildout of the proposed project, the appropriate level of analysis required under CEQA would be conducted by the City's Park, Recreation, and Community Services Agency. Therefore, impacts would be less than significant.

Level of Significance Before Mitigation: Impact 5.14-1 would be less than significant.

Mitigation Measures: No mitigation measures are required.

Impact 5.14-2: Implementation of the proposed project would not include recreational facilities or requires the construction or expansion of recreational facilities which might have an adverse physical effect on the environment. [Threshold REC-2]

Parks are also a permitted use under other land use designations (e.g., residential land uses), which could result in the development of recreational facilities outside of park-designated parcels.

Development and operation of new or expanded recreational facilities, such as trails (Proposed Circulation Element Policy 2-13), may have an adverse physical effect on the environment, including impacts relating to air quality, biological resources, lighting, noise, and traffic. Environmental impacts associated with the construction of new and/or expansions of existing recreational facilities in accordance with the proposed land use plan are addressed separately. Addressing the site-specific impacts of these parks at this time would be beyond the scope of this programmatic EIR. Furthermore, potentially adverse impacts to the environment that may result from the expansion of parks, recreational facilities, and multiuse trails pursuant to buildout of the proposed land use plan would be less than significant upon the implementation of the proposed project's goals, policies, and actions and existing State and local regulations. Consequently, impacts from the proposed project relating to new and/or expanded recreational facilities would be less than significant.

Level of Significance Before Mitigation: Impact 5.14-2 would be less than significant.

Mitigation Measures: No mitigation measures are required.

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5.14.5 Cumulative Impacts

While some of the City's recreational facilities could be used by persons not residing in Anaheim, the geographic area for the cumulative analysis of recreational facilities and parks is the City. Currently, the City maintains a parkland standard of 2.0 acres per 1,000 persons.

Based on the current demand for parkland and recreational facilities and future residential development in the City, there would be a cumulative contribution to need for more recreational open space and park facilities. However, with the inclusion of the planned park facilities, there would be adequate publicly available recreational land within the City to satisfy recreational opportunities for local residents.

The City has several regulations developed to address funding for parkland and park improvements. These regulations include Section 66477 of the California Government Code (the Quimby Act) and Chapter 17.34 of the Anaheim Municipal Code, which would require residential developers to pay established Development Impact Fees for community and recreation centers, and park facilities. By adhering to the requirements for provision of parkland and/or payment of Development Impact Fees, future and present residential developments in the City would provide parks and recreational facilities to meet the City's parkland standard by allocating sufficient funds and space for future parkland development. Because individual development projects must mitigate their incremental impact on parks and recreational facilities through land dedication or payment of fees, the proposed project's contribution to demand for park and recreation services would not be cumulatively considerable.

5.14.6 Level of Significance Before Mitigation

Upon implementation of regulatory requirements and General Plan policies, these impacts would be less than significant: Impact 5.14-1 and Impact 5.14-2.

5.14.7 Mitigation Measures

No mitigation measures are required.

5.14.8 References

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5.15 TRANSPORTATION

This section of the Draft Program Environmental Impact Report (Draft PEIR) discusses the potential impacts to transportation from implementation of the City of Anaheim's General Plan Focused Update (proposed project) and consistency with policies and programs related to transportation. The analysis in this section is based in part on the following technical report.

- *SB 743 Analysis*, Kimley-Horn and Associates, Inc., December 2024 (Appendix N)

Comments were received during the scoping period both the proposed project (see Appendix A) and Center City Corridors Specific Plan (C3SP), which has been incorporated into the proposed project as the Center City Corridors Implementation Plan (C3 Plan), that are related to transportation impacts (see Appendix B).

5.15.1 Environmental Setting

5.15.1.1 REGULATORY BACKGROUND

Federal

Federal Transportation Improvement Program

The Federal Transportation Improvement Program (FTIP) is a federally mandated four-year program of all surface transportation projects that will receive federal funding or are subject to a federally required action. The FTIP is a comprehensive listing of such transportation projects proposed over a six-year period. As the metropolitan planning organization (MPO) for the region, the Southern California Association of Governments (SCAG) is responsible for developing the FTIP for submittal to the California Department of Transportation (Caltrans) and the federal funding agencies.

The FTIP identifies specific funding sources and fund amounts for each project. It is prioritized to implement the region's overall strategy for providing mobility and improving the efficiency and safety of the transportation system, while supporting efforts to attain federal and State air quality standards for the region by reducing transportation related air pollution. Projects in the FTIP include highway improvements, transit, rail and bus facilities, high occupancy vehicle (HOV) lanes, high occupancy toll (HOT) lanes, signal synchronization, intersection improvements, freeway ramps, and non-motorized projects - bicycle and pedestrian.

The FTIP must include all federally funded transportation projects in the region, as well as all regionally significant transportation projects for which approval from federal funding agencies is required, regardless of funding source. Projects in the FTIP are consistent with SCAG's approved Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS).

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State

Statewide Transportation Improvement Program

Caltrans oversees the state's highway system. Caltrans is the public agency responsible for designing, building, operating, and maintaining the state's highway system, which consists of freeways, highways, expressways, toll roads, and State Right-of-Way (the area between the roadways and property lines). Caltrans is also responsible for permitting and regulating the use of state roadways. Caltrans' construction practices require temporary traffic control planning during activities that interfere with the normal function of a roadway.

The California 2022 State Transportation Improvement Program (STIP), adopted by the California Transportation Commission on March 16, 2022, is a multi-year, statewide, intermodal program of transportation projects that is consistent with the statewide transportation plan and planning processes, metropolitan plans, and Code of Federal Regulations (CFR) Title 23. The STIP is prepared by Caltrans in cooperation with the MPOs and the regional transportation planning agencies. The STIP contains all capital and non-capital transportation projects or identified phases of transportation projects for funding under the Federal Transit Act and CFR Title 23, including federally funded projects. The STIP is the biennial five-year plan.

Congestion Management Program

State Proposition 111, passed by voters in 1990, established a requirement that urbanized areas prepare and regularly update a Congestion Management Program (CMP). The purpose of a CMP is to monitor the performance of the region's transportation system, develop programs to address near-term and long-term congestion, and better integrate transportation and land use planning. A CMP has been prepared for Orange County.

Assembly Bill 1358: California Complete Streets Act

Assembly Bill (AB) 1358 or California Complete Streets Act, signed by former Governor Arnold Schwarzenegger on September 30, 2008, requires that the general plan circulation elements "plan for a balanced multimodal transportation network that meets the needs of all users of streets, roads, and highways, defined to include motorists, pedestrians, bicyclists, children, persons with disabilities, seniors, movers of commercial goods, and users of public transportation, in a manner that is suitable to the rural, suburban, or urban context of the general plan." Users are defined to include motorists, pedestrians, bicyclists, children, persons with disabilities, seniors, movers of commercial goods, and riders of public transportation.

Senate Bill 375: Sustainable Communities and Climate Protection Act

Senate Bill (SB) 375 (2008) is intended to reduce greenhouse gas (GHG) emissions from passenger vehicles through an integrated approach to regional transportation and land use planning. There is a strong link between land use, housing location decisions, and strategies to reduce emissions from the transportation sector. Within urbanized areas, residential development accounts for the largest share of land area, constituting a major influence on regional development footprints and travel patterns. As such, integrating transportation and residential land use is one of the most impactful strategies for reducing GHG emissions, as well as other forms

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of air pollution, for the transportation system. Governmental actions supporting the location, variety, and availability of housing are critical to implementing GHG emissions reduction policies. This can support the integration of transportation and housing development, offering more varied and efficient consumer choices. Infill development patterns that emphasize proximity and connectivity to public transit, walkable areas, employment and service centers and amenities can increase the effectiveness of these relationships.

Senate Bill 743

SB 743 was enacted in 2013 to shift from level of service (LOS) to vehicle miles traveled (VMT) for assessing transportation impacts under CEQA. As a result, the Governor's Office of Land Use and Climate Innovation (formerly Office of Planning and Research) amended the State CEQA Guidelines in December 2018 to clarify that a reduction in the LOS can no longer be considered an environmental impact under CEQA. LOS was replaced with VMT as the metric for transportation impact evaluations to encourage GHG emission reductions, support the development of multi-modal transportation networks, and promote a diversity of land uses. The City adopted local CEQA Guidelines to add significance thresholds and implementation procedures for the review of transportation-related impacts analysis in accordance with CEQA to clarify the local implementation procedures for SB 743 under City Council Policy K-3 (Implementation Procedures for the California Environmental Quality Act).

Orange County Congestion Management Program

The passage of Proposition 111 in June 1990 established a process for each metropolitan county in California, including Orange County, to prepare a CMP. The following year, Orange County's local governments designated the Orange County Transportation Authority (OCTA) as the Congestion Management Agency (CMA) for the County. As a result, OCTA is responsible for the development, monitoring, and biennial updating of Orange County's CMP. The Orange County CMP was originally adopted in 1991 and updated most recently in 2023. The goals of Orange County's CMP are to support regional mobility objectives by reducing traffic congestion; to provide a mechanism for coordinating land use and development decisions that support the regional economy; and to support gas tax funding eligibility. To meet these goals, the CMP contains several policies designed to monitor and address system performance issues.

OC Go (Measure M) – Orange County Half-Cent Sales Tax

In 1990, Orange County voters approved Measure "M1," a one-half cent increase in sales tax over a twenty-year period to be used for transportation purposes. Between 1990 and 2011, Measure M1 provided 4 billion dollars' worth of transportation improvements. In November 2006, Orange County community members launched Measure M2 by renewing the half-cent sales tax for another 30 years. In 2017, Measure M2 was rebranded as "OC Go." The OC Go Transportation Investment Plan outlines strategies to provide more than 13 billion dollars' worth of transportation enhancements to Orange County by the year 2041. The plan includes major improvement projects for the County's freeways, streets and roads, transit and environmental programs.

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California Fire Code

The 2022 California Fire Code sets requirements pertaining to fire safety and life safety, including for building materials and methods, fire protection systems in buildings, emergency access to buildings, and handling and storage of hazardous materials (California Code of Regulations Title 24 Part 9).

Regional

Regional Transportation Plan/Sustainable Communities Strategies

SCAG is responsible for most regional planning in Southern California. SCAG represents a six-county region that includes Orange, Imperial, Los Angeles, Riverside, San Bernardino, and Ventura counties and 189 cities. The City is part of the Orange County Council of Governments (OCCOG), which is a sub-region of the SCAG planning area. On April 4, 2024, SCAG's Regional Council adopted 2024-2050 RTP/SCS or Connect SoCal Plan. On May 10, 2024, the Federal Highway Administration (FHWA) and Federal Transit Administration (FTA) approved Connect SoCal 2024; however, CARB's approval is still pending before it is fully certified. The 2024-2050 RTP/SCS, or Connect SoCal Plan, is a long-range visioning plan that balances future mobility and housing needs with economic, environmental, and public health goals. The 2024-2050 RTP/SCS includes a strong commitment to reduce emissions from transportation sources to comply with SB 375, improve public health, and meet the National Ambient Air Quality Standards. This long-range plan, required by the state of California and the federal government, is updated by SCAG every four years as demographic, economic, and policy circumstances change. The RTP/SCS is a living, evolving blueprint for the region's future.

Of the goals presented in Connect SoCal 2024, the following six are applicable to transportation:

1. **Goal 2:** Improve mobility, accessibility, reliability, and travel safety for people and goods.
2. **Goal 3:** Enhance the preservation, security, and resilience of the regional transportation system.
3. **Goal 4:** Increase person and goods movement and travel choices within the transportation system.
4. **Goal 7:** Adapt to a changing climate and support an integrated regional development pattern and transportation network.
5. **Goal 8:** Leverage new transportation technologies and data-driven solutions that result in more efficient travel.
6. **Goal 9:** Encourage development of diverse housing types in areas that are supported by multiple transportation options.

Orange County Transportation Authority Long Range Transportation Plan

The OCTA is the regional agency responsible for overseeing the regional transportation system, the County Master Plan of Arterial Highways (MPAH), and local agency compliance with regional and statewide programs such as the CMP. The OCTA is the state-designated County Transportation Commission. In this role, OCTA prepares a Long Range Transportation Plan every four years to provide a system-level vision for Orange County. This vision considers a forecast of available revenues, changing demographics, and any other significant

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trends. The Directions 2045 Long Range Transportation Plan, adopted in May 2023, acts as local input for SCAG's RTP/SCS. It is a blueprint for Orange County's transportation future through 2045 for all transportation modes, including freeways, roadways, buses, and rail transit. The LRTP is the vehicle by which OCTA plans for the County's transportation, in response to changing trends in population and workforce, where residents live, how they commute, the dollars available to carry out transportation solutions, environmental priorities, and the policies and programs that foster mobility.

Local

City of Anaheim General Plan

The current City of Anaheim General Plan Land Use Element was adopted May 2004 and provides the basis for land use designations in the City. The principal method for the implementation of the General Plan is the zoning ordinance, or Title 18 of the Anaheim Municipal Code (AMC). The following 2004 General Plan Circulation Element goals and policies that have been adopted by the City for the purpose of supporting a balanced transportation network that will support and encourage walking, bicycling, and transit ridership in the City.

Circulation Element

Goal 1.1: Provide a comprehensive multimodal transportation system that facilitates current and long-term circulation of people and goods in and through the City.

- **Policy 1.1-1.** Assign street classifications to provide an acceptable level of service based on projected traffic demands, circulation functions and the areas that they are intended to serve. The system will be coordinated with the OCTA Master Plan of Arterial Highways and the circulation plans of adjacent cities.
- **Policy 1.1-2.** Provide enhanced access to destinations through the use of Intelligent Transportation Systems and by enabling modal choices.
- **Policy 1.1-3.** Require that major new development proposals include traffic impact analyses that identify measures and financing to mitigate traffic impacts.
- **Policy 1.1-4.** Update, when necessary, the City's Transportation Demand Management Ordinance.
- **Policy 1.1-5.** Continue to qualify for funds for transportation improvements by complying with OCTA Measure M requirements and State Congestion Management Program requirements.
- **Policy 1.1-6.** Ensure the provision of needed transportation improvements through the site plan and environmental review process.
- **Policy 1.1-7.** Enable modal choice to improve mobility as an alternative to roadway expansions or additions.
- **Policy 1.1-8.** Continue Capital Improvement Program funding processes for transportation improvements based on the most recent level of service and traffic accident data to balance safety, mobility and access.

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- **Policy 1.1-9.** Consider aesthetics, including the provision of appropriate landscaping, in the development of arterial highways.

Goal 1.2: Support improvements to highways passing near and through the City.

- **Policy 1.2-1.** Continue working with Caltrans, the Federal Highway Administration and the Federal Transit Administration to address traffic flow along State highways that traverse the City.
- **Policy 1.2-2.** Discourage Riverside (SR-91) Freeway bypass traffic through the Hill and Canyon Area by working with Caltrans and OCTA to improve traffic flow on SR-91.
- **Policy 1.2-3.** Work with Caltrans to identify needed improvements to its facilities in the City as necessary.
- **Policy 1.2-4.** Work with Caltrans and adjacent jurisdictions to improve the operational performance of highways within and adjacent to the City.
- **Policy 1.2-5.** Work with Caltrans in analyzing the performance of freeway interchanges located in the City and seek appropriate improvements.

Goal 2.1: Maintain efficient traffic operations on City streets and maintain a peak hour level of service not worse than D at street intersections.

- **Policy 2.1-1.** Make improvements to streets and intersections experiencing conditions worse than the applicable Level of Service standard by providing appropriate improvements, including, but not limited to:
 - Landscaped median islands to restrict left turns, with median opening spacing occurring a minimum of 400 feet apart, and preferably limited to signalized locations
 - Adequate driveway spacing of 125 feet (at 30 mph) to 230 feet (at 45 mph) between driveways on arterial highways
- **Policy 2.1-2.** Improve intersection operations by providing optimal ongoing traffic signal maintenance and Intelligent Transportation Systems operations per Institute of Transportation Engineer guidelines.
- **Policy 2.1-.** Install new warranted signals as funding permits, with minimum preferred spacing of 1,000 feet apart.
- **Goal 2.2: Provide a safe circulation system.**
- **Policy 2.2-1.** Promote the principle that streets have multiple uses and users, and protect the safety of all users.
- **Policy 2.2-2.** Discourage high speed, through traffic on local streets with appropriate traffic calming measures (e.g., traffic enforcement, bulb-outs, lane striping, chokers, etc.).
- **Policy 2.2-3.** Design access onto major arterial streets in an orderly and controlled manner.

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- **Policy 2.2-4.** Promote common driveways and reduce curb cuts along arterial highways to minimize impacts to traffic flows.
- **Policy 2.2-5.** Minimize disruptions to traffic and pedestrian/bicycle flow.
- **Policy 2.2-6.** Implement street design features on arterial highways such as the use of medians, bus turnouts, consolidated driveways and on-street parking prohibitions to minimize mid-block traffic congestion.
- **Policy 2.2-7.** Implement street design features that discourage through traffic intrusion on residential streets.
- **Policy 2.2-8.** Support freeway improvements that remove through traffic from local and arterial streets.
- **Policy 2.2-9.** Provide bus turnouts along heavily traveled arterials to minimize traffic conflicts.
- **Policy 2.2-10.** Provide adequate sight distances for safe vehicular movement on roadways, at intersections and at driveways.
- **Policy 2.2-11.** Implement arterial grade separations at railroad crossings.

Goal 2.3: Improve regional access for City residents and workers.

- **Policy 2.3-1.** Continue to implement the State-mandated Congestion Management Program and Orange County's Growth Management Program.
- **Policy 2.3-2.** Actively engage in inter-jurisdictional planning efforts as part of the Measure M program
- **Policy 2.3-3.** Engage in regionally based planning efforts to improve the jobs-housing balance and regional commuter rail and express bus transit systems.
- **Policy 2.3-4.** Participate in cooperative planning processes to promote effective regional transportation and sustainable development and ensure that citizens of Southern California can access jobs, housing and tourism destinations in Anaheim.
- **Policy 2.3-5.** Coordinate with neighboring jurisdictions and regional, State, and Federal agencies to implement Smartstreets, Intelligent Transportation Systems, High Speed Rail, Bus Rapid Transit and ARTIC.

Goal 3.1: Provide a well-maintained street system.

- **Policy 3.1-1.** Maintain the street network in optimal functioning condition.
- **Policy 3.1-2.** Maintain and rehabilitate all components of the circulation system, including roadways, sidewalks, bicycle facilities, pedestrian facilities, Intelligent Transportation systems and traffic signals.

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- **Policy 3.1-3.** Prioritize maintenance and reconstruction projects.
- **Policy 3.1-4.** Coordinate maintenance or enhancement of transportation facilities with related infrastructure improvements.
- **Policy 3.1-5.** Implement bicycle routes, priority signaling and bicycle amenities whenever roadways are improved.
- **Policy 3.1-6.** Give additional maintenance priority to streets with bike lanes or bike routes.

Goal 4.1: Preserve and enhance uniquely scenic or special visual resource areas along highways and designated State scenic routes for the enjoyment of all travelers.

- **Policy 4.1-1.** Continue to work with Caltrans in its implementation of the State Scenic Highway Program. Ensure the preservation and enhancement of scenic routes through special highway design and building regulation.
- **Policy 4.1-2.** Consider the unique natural features of the Hill and Canyon Area when arterial streets and highways are improved or constructed.
- **Policy 4.1-3.** Landscape arterial highways in keeping with the intent of the Scenic Corridor Overlay Zone and the Santa Ana River Greenbelt Plan, and maintain the residential character of the neighborhood by avoiding interference and intrusion into adjacent communities.
- **Policy 4.1-4.** Take such actions as may be necessary to protect the scenic appearance of the band of land generally adjacent to the scenic highway right-of-way, including but not limited to:
 - regulation of land use and intensity of development;
 - detailed land and site planning;
 - control of outdoor advertising;
 - careful attention to and control of grading and landscaping; and
 - careful design and maintained appearance of structures and equipment.
- **Policy 4.1-5.** Pursue designation of SR-241.

Goal 5.1: Promote bus service and paratransit improvements.

- **Policy 5.1-1.** Support the efforts of regional, State and Federal agencies to provide additional local and express bus service in the City.
- **Policy 5.1-2.** Support and encourage the provision of a range of paratransit opportunities to complement bus and rail service for specialized transit needs.
- **Policy 5.1-3.** Support transit supportive land uses in new development.

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- **Policy 5.1-4.** Support OCTA's development of a Bus Rapid Transit (BRT) system that is sensitive to the City's aesthetic needs.
- **Policy 5.1-5.** Intensify land uses in close proximity to future BRT stop(s) where appropriate.
- **Policy 5.1-6.** Improve pedestrian access to transit facilities.
- **Policy 5.1-7.** Integrate BRT with ARTIC.

Goal 6.1: Support the development of mass transit to enhance modal choice.

- **Policy 6.1-1.** Support efforts to enhance intercity and commuter rail systems and services.
- **Policy 6.1-2.** Pursue the development of multi-modal transit opportunities in The Platinum Triangle, including the development of an Intermodal Transportation Center.
- **Policy 6.1-3.** Participate in and support further study of regional and interstate rail projects.
- **Policy 6.1-4.** Participate in and support the California-Nevada High Speed Rail planning effort.
- **Policy 6.1-5.** Participate in passenger rail planning efforts.
- **Goal 7.1: Protect and encourage bicycle travel.**
- **Policy 7.1-1.** Provide safe, direct, and continuous bicycle routes for commuter and recreational cyclists.
- **Policy 7.1-2.** Incorporate bicycle planning into the traditional transportation and roadway maintenance planning process.
- **Policy 7.1-3.** Support and implement bicycle routes that minimize cyclist/motorist conflicts.
- **Policy 7.1-4.** Support roadway design policies that promote attractive circulation corridors and safe and pleasant traveling experiences for bicyclists.
- **Policy 7.1-5.** Support OCTA's program to provide bike racks on transit buses.
- **Policy 7.1-6.** Implement a bikeway system with linkages to routes in neighboring jurisdictions and regional bicycle routes.
- **Policy 7.1-7.** Maximize the use of easements and public rights-of-way along flood channels, utility corridors, rail lines and streets for bicycle and pedestrian paths.
- **Policy 7.1-8.** Connect Downtown with The Platinum Triangle for pedestrian, bicycle, and/or transit users.
- **Policy 7.1-9.** Require that new streets or developments contain adequate right-of-way for bicycle lanes, where appropriate.

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- **Policy 7.1-10.** Where space and appropriate roadway conditions currently exist, continue to install bike routes with priority to segments serving US Census documented existing high bicycle ridership areas.
- **Policy 7.1-11.** Work with the Caltrans to provide appropriate accommodation for bicyclists and pedestrians along Caltrans facilities, as well as applying for funding for state, local and regional non-motorized modal projects.

Goal 8.1: Protect and encourage pedestrian travel.

- **Policy 8.1-1.** Encourage and improve pedestrian facilities that link development to the circulation network and that serve as a transition between other modes of travel.
- **Policy 8.1-2.** Improve pedestrian and bicycle connections from residential neighborhoods to retail activity centers, employment centers, schools, parks, open space areas and community centers.
- **Policy 8.1-3.** Encourage barrier free accessibility for all handicapped residents, employees and visitors throughout the City's circulation system.
- **Policy 8.1-4.** Support the planning of sidewalks of appropriate width to allow the provision of buffers to shield non-motorized traffic from vehicles.
- **Policy 8.1-5.** Add raised, landscaped medians and bulbouts, where appropriate, to reduce exposure to cross traffic at street crossings.
- **Policy 8.1-6.** When appropriate, walkways should include pedestrian amenities such as shade trees and/or plantings, trash bins, benches, shelters, and directional kiosks.
- **Policy 8.1-7.** Ensure that streets and intersections are designed to provide visibility and safety for pedestrians.
- **Policy 8.1-8.** Improve pedestrian amenities adjacent to Metrolink and Amtrak stations.
- **Policy 8.1-9.** Enhance and encourage pedestrian amenities and recreation, retail and employment opportunities in mixed-use areas to enhance non-motorized transportation.
- **Policy 8.1-10.** Require commercial developments to provide specific pedestrian access points independent from auto entrances.
- **Policy 8.1-11.** Coordinate with appropriate agencies to ensure that transit stops are accessible to pedestrians.

Goal 9.1: Provide carpooling and vanpooling opportunities for commuters.

- **Policy 9.1-1.** Continue to encourage carpooling by promoting park-and-ride facilities.
- **Policy 9.1-2.** Continue to encourage vanpooling for City residents and workers.

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- **Policy 9.1-3.** Participate in OCTA's Rideshare program.
- **Policy 9.1-4.** Cooperate with public or private providers of vanpool services and publicize vanpool options to residents.

Goal 10.1: Facilitate safe surface truck movement while minimizing the impact of truck traffic on residential streets.

- **Policy 10.1-1.** Monitor truck traffic to ensure that street restrictions are met and truck routes can be enforced.
- **Policy 10.1-2.** Reexamine truck routes as needed to ensure the safety of residents, neighborhoods, pedestrians, cyclists, and other motorists.
- **Policy 10.1-3.** Require sufficient on-site loading to minimize interference with traffic circulation.
- **Policy 10.1-4.** Restrict heavy vehicles from entering the immediate vicinity of school and other institutions to minimize noise and safety impacts.

Goal 10.2: Facilitate safe rail freight movement while minimizing impacts on residents and motorists.

- **Policy 10.2-1.** Support a system of freight movement that minimizes conflicts with street circulation.
- **Policy 10.2-2.** Support grade separations for major arterials at rail crossings.

Goal 11.1: Support the safe operation of aviation and heliport facilities within and in proximity to the City.

- **Policy 11.1-1.** Ensure that reliable travel times and mode choices are provided to connect Anaheim residents and businesses with aviation facilities.
- **Policy 11.1-2.** Ensure that private heliports and adjacent developments are reviewed and constructed in compliance with the Airport Environs Land Use Plan for Heliports adopted by the Airport Land Use Commission.
- **Policy 11.1-3.** Implement and maintain appropriate policies identified in the Airport Environs Land Use Plan for Joint Forces Training Base Los Alamitos and Fullerton Municipal Airport adopted by the Airport Land Use Commission, which addresses compatible land use designations, noise issues, environmental impacts and safety considerations within and adjacent to the airport facility.
- **Policy 11.1-4.** Ensure that all new projects are developed in compliance with FAA requirements and the California Airport Land Use Planning Handbook developed by the State of California Department of Transportation, Division of Aeronautics.

Goal 12.1: Ensure adequate parking is made available to City residents, visitors, and businesses.

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- **Policy 12.1-1.** Assess the adequacy of existing or proposed on- and off-street parking as needed, especially in urban and commercial areas, to ensure that an adequate supply is provided.
- **Policy 12.1-2.** Explore strategies for the management of parking supply, which can include parking fees, metered on-street parking, and staggered work schedules.
- **Policy 12.1-3.** Develop strategies for the control of parking demand such as improved transit service, amenities for bicyclists, and rideshare vehicles.
- **Policy 12.1-4.** Develop strategies for shared parking opportunities in mixed-use and multiple-use development.
- **Policy 12.1-5.** Encourage the use of well-designed, aesthetically-enhanced parking structures as an alternative to large, expansive surface parking lots.
- **Policy 12.1-6.** Encourage businesses to provide bicycle parking facilities such as bike racks and lockers to promote bicycling.

City of Anaheim Municipal Code

Title 14, Traffic

The following section from the AMC is intended to meet the requirements of AB 1791, which requires development of a trip reduction and travel demand element to the CMP adopted by the County of Orange and adoption and implementation of a Trip Reduction and Travel Demand Ordinance.

- **Transportation Demand (Section 14.60).** This section is intended to meet the requirements of AB 1791, which requires development of a trip reduction and travel demand element to the Congestion Management Program adopted by the County of Orange and adoption and implementation of a Trip Reduction and Travel Demand Ordinance. To more efficiently utilize the existing and planned transportation system and to reduce vehicle emissions, it is the policy of the City of Anaheim to:
 - Reduce the number of peak-period vehicle trips generated in association with additional development;
 - Promote and encourage the use of alternative transportation modes such as ridesharing, carpools, vanpools, public bus and rail transit, bicycles and walking, as well as those facilities that support such modes;
 - Achieve related reductions in vehicle trips, traffic congestion, and public expenditure and achieve air quality improvements through utilization of existing local mechanisms and procedures for project review and permit processing;
 - Promote coordinated implementation of strategies on a countywide basis to reduce transportation demand; and
 - Achieve the most efficient use of local resources through coordinated and consistent regional and/or local transportation demand management programs.

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Bicycle Master Plan

The City's Bicycle Master Plan was adopted by the City in 2017 and amended in 2020 to guide implementation of citywide bicycle facilities, and is intended to improve bicycling safety, comfort, and accessibility (Anaheim 2020). The proposed project includes updates to the Bicycle Master Plan as part of the General Plan Focused Update. The Bicycle Master Plan identifies a network of existing and proposed bicycle facilities focusing on connecting existing routes, linking to parks, employment centers, and transportation hubs without reducing vehicle lanes. The plan serves multiple crucial purposes: it ensures eligibility for regional, State, and federal grant funding; prioritizes projects based on demand, utility, connectivity, and readiness; addresses critical network gaps, particularly around Interstate 5 (I-5) and State Route 91 (SR-91); enhances cyclist safety through dedicated facilities and education programs; and promotes public health by encouraging active transportation and reducing vehicle emissions.

Standard Conditions of Approval

The City will be adopting Master Conditions of Approval that are applied to all development projects through the building permit review process. As a matter of practice, the City has been implementing the following conditions that relate to transportation. Compliance with which would reduce negative transportation impacts. Compliance with standard conditions would be required for new development and redevelopment in the City.

- **SC TRN-1:** Prior to the issuance of the first grading and/or right-of-way construction permits, the owner/developer shall submit all plans for proposed improvements within Caltrans right-of-way (including but not limited to, improvement plans for pedestrian sidewalks, curb ramps, crosswalks, driveways, landscaping, traffic signals, and light poles) to the Caltrans for Caltrans' review and approval.
- **SC TRN-2:** Prior to issuance of a building permit, the owner/developer shall submit plans that specifically indicate that all vehicular ramps and grades conform to all applicable Engineering Standards.
- **SC TRN-3:** Prior to the issuance of building permits, street improvement plans shall be submitted by the owner/developer to the Public Works Department-- Traffic Engineering for review and approval of proposed signing and/or red curb painting. Signage and curb painting modifications shall be installed per the approved plans and shall be completed prior to the first final building and zoning inspection.
- **SC TRN-4:** That prior to the issuance of building permits, plans shall show conformance with the current version of Engineering Standard Detail 470 and 473 pertaining to parking standards. NO PARKING pavement markings shall be provided on both sides of the trash enclosure. The subject property shall thereupon be developed and maintained in conformance with said plans.
- **SC TRN-5:** Prior to the issuance of a building permit, the owner/developer shall submit draft Covenants Conditions and Restriction (CC&Rs) that are prepared by an authorized professional for review and approval by the City Engineer, Planning and Building Director, and City Attorney, which will generally provide for the following:
 - A requirement that residents shall use designated parking area, including garages, only for the parking of vehicles.

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- A provision that parking garages are subject to inspection by the Association or City of Anaheim staff.
 - A provision requiring that proposed amendments to the CC&Rs shall be submitted for review to the City Engineer, Planning Director or designee, and shall be approved by the City Attorney prior to the amendment being valid.
 - A provision that the City is a third-party beneficiary to the CC&Rs and has the right, but not the obligation, to enforce any of the provisions of the CC&Rs relative to common area and utility maintenance, Water Quality Management Plan, and internal parking.
- **SC TRN-6:** The owner/developer shall design per City Standards full improvements for all impacted public streets/facilities in accordance with City Code, Standards, and Specifications. Such improvements shall include, but not be limited to the following: driveways closures with new curb and gutter and sidewalk, commercial driveway approach, parkway landscaping with irrigation, storm drain lateral connection and manhole, sewer lateral connection.
 - **SC TRN-7:** Ongoing during drive-thru restaurant operations, should the vehicle queue reach the adjacent roadway, staff members shall be positioned at the end of the on-site queue near the driveway entrance to direct traffic. This measure shall be implemented for a short timeframe, as needed, until the queue dissipates.

5.15.1.2 EXISTING CONDITIONS

Vehicular Network

This section presents a description of the existing vehicular transportation network in the City.

Freeways and Highways

Anaheim is primarily served by three freeways that transverse the City: Interstate 5 (I-5), State Route 57 (SR-57), and State Route 91 (SR-91). In addition, State Route 55 (SR-55) connects to SR-91 in Anaheim near Tustin Avenue and Santa Ana Canyon Road, and State Route 22 (SR-22) is located less than one mile south of the city. These freeways and highways are described below:

The I-5 Freeway is a northwest-southeast freeway that serves interstate and regional travel, proceeding through the western and central parts of Anaheim. It has four to five mixed flow lanes through Anaheim and one HOV lane in each direction through the City. The SR-57 Freeway is a north-south freeway with its southern terminus at the I-5 and Garden Grove (SR-22) Freeways just south of the Anaheim City limit. It provides regional access to northern Orange County and eastern Los Angeles County. The SR-57 is a ten-lane freeway, including two high-occupancy vehicle (HOV) lanes. The SR-91 Freeway is an east-west freeway that lies at the northern edge of the City. It provides regional access to Riverside County, San Bernardino County and points east, as well as regional access westerly to Los Angeles County. The SR-91 generally has 8 mixed flow lanes through the City. The SR-55 Freeway is a north-south freeway, which terminates at the Riverside Freeway within the City limits of Anaheim. The facility provides five lanes in each direction, which are generally composed of eight mixed flow lanes and two HOV lanes. The SR-22 Freeway is located approximately 1 mile south of the City. It provides regional access to western Orange County and eastern Los Angeles County.

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Additionally, the SR-90 Freeway (Imperial Highway) is an east-west freeway within Caltrans' jurisdiction that turns north-south as it passes through eastern Anaheim.

Toll Roads

Two toll facilities travel through the City limits. The 91 Express Lanes are an automated 4-lane facility in the median of SR-91 that provides a variable congestion pricing facility between the SR-55 interchange and the I-15 interchange in Riverside. OCTA purchased and now operates these lanes. In addition, the Foothill/Eastern Transportation Corridor Agency and the San Joaquin Hills Transportation Corridor Agency (TCA), were formed to finance and construct toll roads in Orange County. The Eastern Transportation Corridor (SR-241) was built by this agency, connecting eastern Anaheim and the SR-91 Freeway with Rancho Santa Margarita at its southern terminus.

Scenic Highways

The intent of the California Scenic Highway program is to enhance the State's natural beauty and protect California's economic and social resources. Scenic Highways are transportation corridors where visual intrusions would impact the natural beauty of the highway. The SR-91 Freeway between the SR-55 Freeway and Weir Canyon Road is officially designated as a Scenic Highway. The portion of the SR-91 Freeway east of Weir Canyon is designated as an eligible Scenic Highway.

Congestion Management Plan

The Orange County Transportation Authority (OCTA) is responsible for adopting the Congestion Management Program (CMP) for Orange County. The CMP is designed to reduce traffic congestion and to provide a mechanism for coordinating land use and transportation decisions. Proposition 111, passed by California voters in June 1990, provides funds to those urbanized areas that adopt a CMP. In Anaheim, all or parts of Harbor Boulevard, State College Boulevard (north of SR-91), Katella Avenue, Tustin Avenue (north of SR-91), Orangethorpe Avenue, Beach Boulevard, and Imperial Highway (north of SR-91) are part of the CMP roadway system, in addition to the intersections listed below. If an intersection does not meet Level of Service (LOS) standards, then a deficiency plan is required, as described under California Government Code Section 65089.4. The deficiency plan identifies the cause of congestion, the improvements needed to solve the problem, and the cost and timing for implementing proposed improvements. The City is responsible for developing a deficiency plan for these intersections.

- Harbor Boulevard & SR-91 Freeway Eastbound Ramps
- Harbor Boulevard & I-5 Freeway Northbound Ramp
- Harbor Boulevard & I-5 Freeway Southbound Ramp
- Harbor Boulevard & Katella Avenue
- State College Boulevard & SR-91 Freeway Westbound Ramps

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- State College Boulevard & SR-91 Freeway Eastbound Ramps
- Katella Avenue & SR-57 Freeway Southbound Ramps
- Katella Avenue & SR-57 Freeway Northbound Ramps
- Tustin Avenue/ SR-91 Freeway Westbound Ramps
- Tustin Avenue/ SR-91 Freeway Eastbound Ramps
- Imperial Highway & Orangethorpe Avenue/Esperanza Road (Note: This location consists of three distinct intersections, due to the railroad grade separation along Orangethorpe Avenue.)
- Imperial Highway & SR-91 Freeway Westbound Ramps
- Imperial Highway & SR-91 Freeway Eastbound Ramps

Arterial Streets

A classification system is used to identify each roadway in the City. The system provides a logical framework for the design and operation of the roadway system. Since some major thoroughfares in the City are part of a Countywide arterial network, they must be coordinated with the Orange County Master Plan of Arterial Highways. A brief description of each of the roadway classifications follows:

- **Scenic Expressway.** Divided roadways that have restricted access, serve intercity traffic, and provide scenic vistas. This six-lane divided facility has a right-of-way that varies from a width of 106 to 148 feet. Weir Canyon and portions of Santa Ana Canyon Roads are both scenic expressways.
- **Resort Smartstreet.** Divided roadways that are six or eight lanes with a typical right-of-way width of 120 to 166 feet. Smartstreets improve roadway traffic capacity through a variety of measures such as traffic signal synchronization, bus turnouts, intersection improvements, removing on-street parking, consolidating driveways, and landscaped median island construction with limited left turn openings.
- **Stadium Smartstreet.** Divided roadways that are six or eight lanes with a typical right-of-way width of 120 to 144 feet. This facility utilizes capacity improvements like the Resort Smartstreet.
- **Major Arterial.** Roadways that connect to freeways and typically have six lanes, a landscaped median, left turn pockets, and a right-of-way width of 120 feet.
- **Primary Arterial.** Roadways that provide for circulation within the City and to its adjacent communities. Primary arterials are typically six-lane divided facilities or four-lane divided facilities with left turn pockets. [Primary arterials can have bike lanes.](#) The typical right-of-way width of a primary arterial is up to 120 feet.
- **Hillside Primary Arterial.** Roadways that provide for circulation within the City and to its adjacent communities through areas that are constrained by terrain. Primary arterials are typically six lane divided

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facilities or four lane divided facilities with left turn pockets and two parking lanes. Hillside primary arterials can have bike lanes. The typical right-of-way width of a hillside primary arterial is up to 112 feet.

- **Secondary Arterial.** Roadways that provide for circulation within the City. Secondary arterial facilities are four-lane roadways, with two parking lanes, that are undivided. Secondary arterials can have bike lanes or parking lanes, with some instances where both are provided. These facilities have a typical right-of-way width of 90 feet.
- **Hillside Secondary Arterial.** Roadways that provide for circulation within the City through areas that are constrained by terrain. Hillside secondary arterial facilities are four-lane roadways, that are undivided. These facilities have a typical right-of-way width of up to 78 feet.
- **Collector Street.** Roadways that distribute residential traffic from its point of origin to higher capacity facilities. They are typically two-lane undivided roadways with a 64- foot right of way width.
- **Hillside Collector Street.** Roadways that distribute residential traffic from its point of origin to higher capacity facilities through areas that are constrained by terrain. They are typically two-lane undivided roadways with up to a 70 foot right-of-way width. Hillside Collectors can include parking lanes.
- **Complete Streets Collector.** Roadways that distribute local traffic from its point of origin to higher capacity facilities. They include enhanced multimodal features to ensure the efficient and safe movement of all forms of travel including automobile, truck, transit, bicycle, and pedestrian. The typical right-of-way width of a complete streets collector is 90 feet.

Vehicle Miles Traveled

The VMT analysis was prepared using the most recent version of Anaheim Traffic Analysis Model (ATAM). Table 5.15-1, *Existing (2021) VMT Summary*, provides the estimates performed by Fehr & Peers for each land use of VMT for the Existing Baseline (2021). See also Appendix N, *VMT Memorandum*.

Table 5.15-1 Existing (2021) VMT Summary

Land Use	2021 Existing ³
Population	345,999
Households	105,689
Enrollment	86,409
Employment	213,193
Citywide Total OD ¹ VMT	16,572,825
Citywide OD VMT/SP ²	25.67

Source: Appendix N

¹ OD = Origin/Destination; the sum of all weekday VMT generated by trips with at least one trip end in the study area and tracks those trips to their estimated origins/destinations.

² SP = Service Population; the sum of population, enrollment and employment.

³ Current Version of the ATAM Model maintains a base year condition of 2021.

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Public Transit, Ridesharing and Ride-Hailing Facilities

The City is served by an extensive network of fixed-route bus and rail transit service as well as on demand-responsive services. They are described below.

- **Bus.** OCTA provides regular bus service throughout Orange County. OCTA operates regular, station-link, and express bus service routes within the City. Within Anaheim, OCTA operates 17 local bus routes, three community bus routes, and one bus rapid transit (BRT) route (Route 543 between Fullerton Transportation Center and Santa Ana along Harbor Boulevard). The Anaheim Transportation Network (ATN) connects residents and visitors generally within the Anaheim Resort area. ATN provides service seven days a week. In addition, two regional transit operators also provide service in the City: the Los Angeles County Metropolitan Transportation Authority (LA Metro) and Riverside Transit Agency (RTA). LA Metro Route 460 has stops at Disneyland and the Anaheim Convention Center, and RTA Route 200 has stops at Disneyland, Anaheim Convention Center, and Angel Stadium.
- **Commuter Rail.** Metrolink is a regional transportation agency providing passenger rail service to Los Angeles, Ventura, Riverside, San Bernardino, Orange, and San Diego Counties. The City is served by two Metrolink stations: the Anaheim Regional Transportation Intermodal Center (ARTIC) and the Anaheim Canyon Station. ARTIC serves the Orange Line and the Anaheim Canyon Station serves the Inland Empire-Orange County Line. In general, Metrolink operates seven days a week, with service focused during the weekday morning and evening commute periods. Anaheim Canyon Station provides access to the Metrolink Inland Empire-Orange County Line as well as OCTA and ATN bus service.
- **Rail Stations.** ARTIC is a key feature within the Platinum Triangle that provides access to multiple transportation services. ARTIC provides enhanced access to existing bus, Amtrak, and Metrolink services as well as a link to the proposed California High Speed Rail (CA HSR) system. ARTIC is in the northern portion of the Stadium District property adjacent to Douglass Road and south of Katella Avenue.
- **Commuter Services.** Park-and-ride lots provide safe and convenient vehicle parking facilities for individuals who carpool, use public transit, or other non-single occupant vehicle modes to commute or reach other destinations. Currently, there are two park-and-ride facilities located within Anaheim: at ARTIC and at Anaheim Canyon Station. The Anaheim Commuter Services program offers rideshare services to Anaheim employees and residents. The program currently offers six vanpools to and from inland destinations during the weekday morning and evening commute periods, with the option of part-time or full-time participation and fares. OCTA also offers the OC Vanpool program for commuters and provides a subsidy covering approximately 35 percent of the cost. In addition, OCTA provides resources for employers to offer vanpools and other rideshare services.
- **Demand-Responsive and Ride-Hailing Services.** Along with its bus service, OCTA offers Access Service to provide demand-responsive service to individuals with disabilities with door-to-door travel anywhere within the county. ATN also operates Free Rides Around the Neighborhood (FRAN) to provide demand-responsive transit around Anaheim City Center and the Packing House area. With FRAN, any person can request a vehicle to pick them up and drop them off at any one of the 16 available stops. In

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addition to these demand-responsive services, ride-hailing service through Transportation Network Companies (TNCs) such as Uber and Lyft have become a key component of the transportation network within the last decade.

Bicycle and Pedestrian Network

The City's active transportation facilities include bikeways that are generally categorized into four types, as described below.

- **Class I Bikeway (Bike Path).** Also known as a shared path or multi-use path, a bike path is a paved right-of-way for bicycle travel that is separate from any street or highway (e.g., along a creek or channel).
- **Class II Bikeway (Bike Lane).** A striped and stenciled lane for one-way bicycle travel on a street or highway. This facility could include a buffered space between the bike lane and vehicle lane (referred to as a buffered bike lane) and the bike lane could be adjacent to on-street parking.
- **Class III Bikeway (Bike Route).** A signed route along a street where the bicyclist shares the right-of-way with motor vehicles. This facility can also be augmented using shared-lane markings (also known as sharrows). An enhanced bike route, known as a bicycle boulevard, can include traffic calming treatments to slow down vehicles.
- **Class IV Bikeway (Separated Bike Lane).** Also known as a cycle track or a protected bike lane, this is a bikeway for the exclusive use of bicycles including a separation between the bikeway and the through vehicular traffic. The separation may include, but is not limited to, grade separation, flexible posts, inflexible physical barriers, or on-street parking. A cycle track can be one-way or two-way. The City does not have existing Class IV facilities.

Existing bike paths in the City include the Santa Ana River Trail, which is a Class I regional bike path running along the Santa Ana River between the city of Huntington Beach and the Orange/Riverside County line. The Santa Ana River Trail is a part of the Orange County (OC) Loop, which forms a 66-mile continuous facility for bicycles and pedestrians throughout the west and north portion of Orange County, linking regional bikeways such as the Santa Ana River, Coastal, San Gabriel River, and Coyote Creek bikeways.

The City's active transportation network also includes pedestrian facilities such as sidewalks, trails, bridges, crosswalks, pedestrian signals, and pedestrian lighting. Pedestrian activity is accommodated by the City's sidewalks as well as the existing Class I paths such as the Santa Ana River Trail. Intersections in the City generally provide marked crosswalks on most legs, and most City streets have sidewalks on both sides.

5.15.2 Proposed General Plan Goals and Policies and Standard Conditions

The proposed project includes new or updated Circulation Element goals and policies related to transportation. These additional goals and policies are identified below.

- Goal 1: Provide a vehicular transportation network that balances local and regional mobility needs within and through the city.**

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- Coordinate with the Orange County Transportation Authority (OCTA) to maintain consistency with the Orange County Master Plan of Arterial Highways' (MPAH) vision of accommodating regional travel demand needs and pursuing MPAH amendments to address local needs as needed.
- Provide enhanced access to destinations through the use of Intelligent Transportation Systems (ITS).
- Require that new development projects prepare transportation studies per the City's traffic impact analysis guidelines and pay appropriate fees towards required improvements.
- Continue working with the Federal Highway Administration (FHWA), the California Department of Transportation (Caltrans), OCTA, TCA, the Public Utilities Commission, and other appropriate agencies to improve regional throughput while also addressing localized impacts and effects on facilities.
- Strive to maintain acceptable vehicle operations along City roadways and intersections and maintain a peak hour level of service no worse than D at street intersections.
- Continue to participate in the OCTA CMP as outlined in the City's traffic impact analysis guidelines.
- Engage in federal, state, and regional planning efforts with FHWA, the Southern California Association of Governments (SCAG), OCTA, adjacent Cities, and other jurisdictions, as appropriate, to develop a transportation network that balances traffic flow and multimodal needs.
- Strive to implement roadway improvements that provide consistency of facility types and dimensions along corridors.
- Work with regional partners to evaluate and plan for emerging transportation modes and technologies.

Goal 2: Support bicycling, walking, and other active transportation modes.

- Implement bikeways recommended in the City's Bicycle Master Plan.
- Support roadway design principles that support a safe, pleasant, and comfortable experience for bicyclists and pedestrians.
- Coordinate with adjacent jurisdictions and regional agencies to encourage the development of a connected bikeway network across jurisdictional boundaries.
- Consider pedestrian, bicycle, and transit connectivity to the city's key destinations and trip generators.
- Work with Caltrans to provide appropriate improvements for bicyclists and pedestrians at locations along and/or intersecting Caltrans' facilities.
- Apply for funding for state, local, and regional non-motorized projects, as appropriate.
- Support installation of pedestrian and bicycle amenities in appropriate locations, in order to enhance non-motorized transportation.

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- Encourage developers to provide improved pedestrian and bicycle connectivity between developments and the circulation network, as well as between complementary uses, as appropriate.
- Implement pedestrian improvements that support pedestrian comfort and safety and a pleasant walking experience along streets and corridors.
- Maximize the use of easements and public rights-of-way along flood channels, utility corridors, rail lines and streets for the establishment of new bicycle and pedestrian paths.
- Monitor and consider the implementation of new technologies and innovative treatments in bicycle- and pedestrian-friendly design.
- Develop strategies to address and manage emerging shared mobility technologies and programs.
- Pursue the completion of the Equestrian, Riding, and Hiking Trails Plan in a manner that complements bicycle and pedestrian facilities.
- Consider grade-separated pedestrian crossings around recreational and tourism destinations to increase pedestrian safety and minimize conflicts with vehicles.
- Continue to require consistency with CALGreen bike parking standards for new developments.

Goal 3: Support and promote public transit and ridesharing.

- Support the efforts of OCTA, the Anaheim Transportation Network (ATN), and other regional, state, and federal agencies to provide improved transit service within and throughout the city.
- Enhance the ARTIC role as a regional transit and mobility hub.
- Evaluate transit connections between ARTIC, the Anaheim Resort, and Specific Plan areas.
- Continue to support OCTA ACCESS, similar paratransit, and senior transit programs.
- Work to improve first/last mile access to transit stops and stations, as appropriate.
- Support transit user comfort by providing bus stops with seating, shelters, lighting, and other passenger amenities.
- Work with agencies such as Metrolink, OCTA, and ATN to support integration and service between various transit operations and stations/stops in the city.
- Support and participate in California High-Speed Rail (CA HSR), Metrolink and other regional, state, and federal agencies' efforts to improve rail transit service within and throughout the city.
- Support the development of multi-modal access to public transit in areas where increased development and travel demand are expected.

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- Explore opportunities to provide, where feasible, bus turnouts and other transit priority treatments along heavily traveled arterials and high-quality transit corridors in order to minimize traffic conflicts and encourage transit ridership.
- Encourage and support ridesharing programs to serve resident, employee, and visitor needs through means other than single occupant vehicles.
- Explore implementation of microtransit and demand-responsive services in order to complement, enhance, and expand existing transit services—including first and last mile services.
- Plan for Transportation Network Company (TNC) and taxi passenger loading needs as part of roadway planning efforts.

Goal 4: Facilitate safe goods movement throughout and within the city.

- Continue to restrict truck traffic to designated truck routes.
- Support a system of freight movement that minimizes conflicts with other modes of travel.
- Consider e-commerce and other goods movement related needs as part of planning and development efforts, when appropriate.
- Work with railroad operators to minimize operational delays due to conflicts with local roadways.

Goal 5: Provide a network of Complete Streets that are accessible for all modes and users.

- Apply Complete Streets principals and improvements to serve all modes and user abilities.
- Minimize disruptions to traffic and pedestrian/bicycle flow.
- Pursue arterial grade separations at railroad crossings.
- Consider improvements to other modes of travel in conjunction with roadway expansions or additions.
- Continue implementing traffic calming measures to discourage speeding and cut-through traffic on residential streets, where appropriate.
- Encourage developers to provide access and circulation for all modes within development projects, as appropriate.
- Ensure that the City's mobility network is consistent with the Americans with Disability Act (ADA) and encourages barrier-free accessibility.
- Consider all affected and planned transportation modes when improving a corridor or specific locations along the transportation network.

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- Consider local land use and context when designing transportation facilities.
- Continue to monitor and evaluate the development of new mobility technologies and the potential effects of implementing a transportation network that accommodates all modes and users.
- Work with schools and school districts within the city to encourage parents and children to walk or bike to school through programs such as Safe Routes to School.
- Consistent with the City's Green Element, complete the comprehensive program of corridor landscaping and improve streetscapes in a manner than improves the experience of affected roadway users.

Goal 6: Support efforts to enhance transportation safety.

- Improve citywide awareness of safety for all roadway users.
- Continue to plan for and implement emergency vehicle and fire truck access and pre-emption requirements.
- Plan for and consider development of key evacuation routes.
- Support Local Roadway Safety Plan implementation efforts and Neighborhood Traffic Management Program Implementation efforts.

Goal 7: Develop a mobility network that is fiscally sound.

- Continue to qualify for funds for transportation improvements by complying with OCTA's Measure M eligibility requirements as well as state and federal funding requirements.
- Continue Capital Improvement Program (CIP) funding processes for transportation improvements based on the needs of the City's multiple transportation modes.
- Consider prioritizing maintenance and reconstruction projects.
- Require new development to pay traffic fees, or a fair share if appropriate based upon City guidelines.
- Continue to monitor and pursue discretionary funding sources at the federal, state, regional, and local levels.
- Focus upon the financial sustainability of the City's transportation systems.

Goal 8: Adhere the State's greenhouse gas emission reduction goals and reduce vehicle miles traveled (VMT).

- Cooperate with OCTA, the South Coast Air Quality Management District, and other service providers to publicize and encourage ridesharing for City residents and workers.
- Participate in and encourage private employer participation in OCTA's rideshare and vanpool programs to reduce vehicle trips generated in the city.

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- Support and encourage the development of public and/or private infrastructure facilitating the use of electric and other alternative fuel vehicles.
- Work with OCTA, employers, and developers to utilize transportation demand management (TDM) strategies in order to reduce congestion and achieve environmental goals.
- Require development proposals to analyze transportation impacts using the City's VMT thresholds and, if possible, mitigate potential impacts through transportation demand management (TDM) strategies and other appropriate improvements.

Goal 9: Support the safe operation of aviation and heliport facilities within and in proximity to the City.

- Work toward providing reliable travel times and mode choices in order to connect Anaheim visitors, residents, and businesses with aviation facilities.
- Ensure that private heliports and adjacent developments are reviewed and constructed in compliance with the Airport Environs Land Use Plan for Heliports adopted by the Airport Land Use Commission.
- Implement and maintain appropriate policies identified in the Airport Environs Land Use Plan for the Fullerton Municipal Airport and Joint Forces Training Base Los Alamitos, which addresses compatible land use designations, noise issues, environmental impacts, and safety considerations within and adjacent to airport facilities.
- Ensure that all new projects are developed in compliance with Federal Aviation Administration (FAA) requirements and the California Airport Land Use Planning Handbook developed by the State of California Department of Transportation, Division of Aeronautics.
- Monitor and study the implications of new technologies such as drones and vertiports within City limits.

5.15.3 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:

- | | |
|-----|---|
| T-1 | Conflict with a program, plan, ordinance, or policy addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities. |
| T-2 | Conflict or be inconsistent with CEQA Guidelines § 15064.3, subdivision (b). |
| T-3 | Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment). |
| T-4 | Result in inadequate emergency access. |

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CEQA VMT Impact Threshold

As the City of Anaheim thresholds of significance for use as part of the environmental review process under CEQA were not intended to specifically address the appropriate methodology and metric for analysis of a General Plan, the following thresholds of significance are proposed to evaluate the General Plan Focused Update:

1. Any increase in the VMT per Service Population calculated using the Origin/Destination method compared to the County of Orange baseline VMT per Service Population would be considered a significant impact.

5.15.4 Environmental Impacts

5.15.4.1 METHODOLOGY

Vehicle Miles Traveled Assumptions

For this analysis, the most recent version of ATAM was used as the tool to determine VMT impacts. ATAM was developed as a tool to help the City of Anaheim forecast future traffic volumes and estimate the traffic effects of changes in land use and roadway facilities. The model is trip-based and considers the interactions between different land uses based on socio-economic data (SED) such as population, households, and employment. Adjustments in SED (population and employment) were made to the appropriate Traffic Analysis Zones (TAZ) in the ATAM Model to reflect the General Plan Focused Update's proposed land uses. The current version of the ATAM Model was updated by Fehr & Peers as part of the proposed project and maintains a base year condition of 2021 and horizon year of 2045 (Appendix N).

For the proposed project scenario modeling, the following base year (2021) assumptions were made; see Table 5.15-2, *ATAM Model Land Use Inputs by Scenario*. Additionally, as shown in the table below, buildout under the General Plan Focused Update would result in a total of 431,340 residents, 154,801 households, and 274,213 employees.

Table 5.15-2 ATAM Model Land Use Inputs by Scenario

Land Use	2021 Base Year	2045 Buildout under the General Plan Focused Update	Delta
Population	345,999 ¹	431,340	+85,341
Households	105,689	154,801	+49,112
School/College Enrollment	86,409	133,988	+47,579
Total Employment	213,193	274,213	+61,020

Source: Appendix N, SB 743 Analysis

VMT Impact Criteria

The City of Anaheim Traffic Impact Analysis Guidelines for CEQA Analysis, adopted in June 2020, outlines methodology for VMT assessment for land use projects and defines adopted thresholds of significance for

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impact assessment. However, those thresholds were not intended to specifically address the appropriate methodology and metric for a general plan. As outlined above under Section 5.15.3, *Thresholds of Significance*, this analysis compares VMT generated by the General Plan Focused Update (2045) to VMT generated by the Existing Baseline (2021) to provide a comprehensive assessment.

VMT Analysis Methodology

As explained below, VMT can be presented as total VMT or as VMT per Service Population (VMT/SP). Total VMT represents all VMT generated in the City on a typical day. VMT/SP is an efficiency metric which represents VMT generated on a typical day per person who lives and/or works in the City. VMT per person can be measured as VMT/SP for projects and land use plans that include both residential and employment uses. Total VMT gives an estimate of the total travel, while VMT per person measures the efficiency of travel. Total VMT and per person estimates were calculated using the methodology outlined below.

Origin/Destination VMT

The Origin/Destination (OD) method for calculating VMT sums all weekday VMT generated by trips with at least one trip end in the study area and tracks those trips to their estimated origins/destinations. The OD method is completed after the final loops of assignment in the travel demand model after person trips are converted to total vehicle trips. The OD method accounts for external trips and therefore provides a more complete estimate of all VMT within the study area. This methodology also estimates VMT consistent with VMT estimates in Section 5.2, *Air Quality*, Section 5.5, *Energy*, and Section 5.11, *Noise*, of this Draft PEIR. It should also be noted that, although VMT includes trips to/from the City that originate or are destined to locations outside of the model area, those trip lengths are artificially truncated at the model boundary.

5.15.4.2 IMPACT ANALYSIS

The following impact analysis addresses thresholds of significance that are identified in brackets after the impact statement.

Impact 5.15-1: The proposed project would not conflict with a program, plan, ordinance, or policy addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities. [Thresholds T-1]

SCAG Connect SoCal

Connect SoCal aims to reduce or limit new trip generation and associated regional growth in traffic congestion and VMT by focusing growth, density, and land use intensity within existing urbanized areas. Connect SoCal also strives to enhance the existing transportation system, maximize multi-modal transportation, and integrate land use into transportation planning. Connect SoCal recommends local jurisdictions accommodate future growth within existing urbanized areas to reduce VMT, congestion, and GHG emissions. The City is within the SCAG region. The Connect SoCal 2024-2050 RTP/SCS forecasts the number of people, households, and jobs (at the jurisdictional level) expected throughout SCAG's 191 cities and in unincorporated areas by 2050. Please refer to Section 5.7, *Greenhouse Gas Emissions*, Section 5.10, *Land Use and Planning*, and Section 5.12, *Population*

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and Housing, which includes an evaluation of the proposed project's consistency with SCAG's Connect SoCal: 2024 and 2020.

Proposed project implementation would not, in and of itself, construct new development in the City but would facilitate development by providing programs and policies that would promote an expanded circulation network throughout the City. The proposed project includes Circulation Element updates that identify goals and policies to further the City's overall circulation network goal to support existing and future transportation needs for its residents, businesses, visitors, and workers through safe, comfortable, and functional facilities for all users and modes of travel. The General Plan Focused Update is consistent with and would assist the City in meeting transportation related Connect SoCal Goals; see Table 5.15-3, *Project Consistency with Connect SoCal 2024 and 2020*.

Table 5.15-3 Project Consistency with Connect SoCal 2024 and 2020

SCAG Goal	Compliance
Connect SoCal 2024	
<i>Mobility: Build and maintain an integrated multimodal transportation network.</i>	
Support investments that are well-maintained and operated, coordinated, resilient and result in improved safety, improved air quality and minimized greenhouse gas emissions	Consistent. The proposed project includes updates to the General Plan Circulation Element, which includes updates to circulation-related policies. The Circulation Element supports the use of alternative modes of transportation, including walking, bicycling, and transit, to increase access opportunities and community connectivity. The updated Circulation Element includes Policies 2-8, 5-6, and 8-5, which would support alternative modes of transportation and help the City adhere to the State's greenhouse gas emission reduction goals. Implementation of the proposed project would not impede the City's ability to support investments that are well-maintained and operated, coordinated, resilient and result in improved safety, improved air quality, and minimized greenhouse gas emissions.
Ensure that reliable, accessible, affordable, and appealing travel options are readily available, while striving to enhance equity in the offerings in high-need communities	Consistent. The proposed project would place a majority of growth in the central portion of the City, and the remaining in the western portion of the City. Both the central and western portions of the City are urbanized with planned or existing transit stations, commercial retail service areas, and active transportation corridors. Additionally, the proposed project includes Goal 1, which requires that the City provide a vehicular transportation network that balances local and regional mobility needs within and through the City. The proposed project would provide a variety of readily available travel options.
Support planning for people of all ages, abilities, and backgrounds	Consistent. The proposed project would target community-serving growth near planned or existing transit stations, commercial retail service areas, high-quality transit areas, and active transportation corridors.
<i>Environment: Create a healthy region for the people of today and tomorrow</i>	
Integrate the region's development pattern and transportation network to improve air quality, reduce greenhouse gas emissions and enable more sustainable use of energy and water	Consistent. The proposed project objectives include focusing new housing and commercial development in existing commercial corridors and centers and in proximity to transit; prioritizing local serving businesses; fostering land use development patterns and densities and improving streetscapes that promote a more active pedestrian environment; and improving the variety of travel choices for residents such as walking, biking, and public transit. Implementation of the proposed project would contribute to building denser communities and improving active and public transit infrastructure and contribute to reducing passenger vehicle trips, thereby also potentially reducing VMT and overall transportation fuel demands and mobile-source criteria air pollutant and GHG emissions.
<i>Economy: Support a sustainable, efficient, and productive regional economic environment that provides opportunities for all people in the region</i>	

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Table 5.15-3 Project Consistency with Connect SoCal 2024 and 2020

SCAG Goal		Compliance
Advance a resilient and efficient goods movement system that supports the economic vitality of the region, attainment of clean air and quality of life for our communities		Consistent. The updated Circulation Element of the General Plan focuses on further development of a multimodal transportation network that would accommodate efficient automobile, public transit, and active transit movement. It emphasizes improving access to public transit and improving the active transit network in addition to improving overall street system safety. m, improvement to street safety system. The updated Circulation Element includes a “goods movement” section and goal (Goal 4- Facilitate safe goods movement throughout and within the city.) that would help to advance a resilient and efficient goods movement system.
Connect SoCal 2020		
Goal 2:	Improve mobility, accessibility, reliability, and travel safety for people and goods.	Consistent. The buildout under the General Plan Focused Update would place most of the growth in the central portion of the City, and the remaining in the western portion of the City. Both the central and western portions of the City are urbanized with planned or existing transit stations, commercial retail service areas, and active transportation corridors. The proposed project includes Circulation Element updates that focus on further development of a multimodal transportation network that would accommodate efficient and safe automobile, public transit, and active transit movement. Additionally, the Circulation Element updates include Goal 1, which requires that the City provide a vehicular transportation network that balances local and regional mobility needs within and through the City. Additionally, Goal 4, would support safe goods movement throughout and within the City. Further, Goal 5 outlines support for a network of complete streets that are accessible for all modes and users within the City. Therefore, buildout under the proposed project would support improvement of accessibility, reliability, and travel safety for people and goods within the City.
Goal 3:	Enhance the preservation, security, and resilience of the regional transportation system.	Consistent. The proposed Circulation Element updates provide policies, programs, actions, and priority transportation networks that support the safe and efficient movement of people driving, walking, biking, and taking transit in Anaheim. The Circulation Element updates also include Goal 6 which identifies policies to support efforts to enhance transportation safety.
Goal 4:	Increase person and goods movement and travel choices within the transportation system.	Consistent. Refer to consistency analysis for Goal 2 above.
Goal 7:	Adapt to a changing climate and support an integrated regional development pattern and transportation network.	Consistent. The General Plan Focused Update includes objectives focusing new housing and commercial development in existing commercial corridors and centers and in proximity to transit; prioritizing local serving businesses; fostering land use development patterns and densities and improving streetscapes that promote a more active pedestrian environment; and improving the variety of travel choices for residents such as walking, biking, and public transit. Buildout under the proposed project would contribute to building denser communities, improving active and public transit infrastructure, and reducing passenger vehicle trips, thereby also potentially reducing VMT and overall transportation fuel demands and mobile-source criteria air pollutant and GHG emissions.
Goal 8:	Leverage new transportation technologies and data-driven solutions that result in more efficient travel.	Consistent. The proposed Circulation Element updates provide policies, programs, actions, and priority transportation networks that support the safe and efficient movement of people driving, walking, biking, and taking transit in Anaheim. The Circulation Element has also been updated to reflect changes in new technologies such as the ATAM that will facilitate efficient transportation planning and movement throughout the City. Additionally, the Circulation Element update includes Policy 1-9 and Policy 5-10 which highlight the use of new mobility technologies.
Goal 9:	Encourage development of diverse housing types in areas that are supported by multiple transportation options.	Consistent. Refer to consistency analysis for Goal 2 and Goal 7 above.

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Roadways

Buildout under the General Plan Focused Update includes existing and future capacity needs due to land use growth and shifts in travel patterns. See Figure 2: Planned Vehicular Network in the Updated Circulation Element (found at www.anaheim.net/generalplan), which identifies the corresponding buildout roadway classification for each roadway segment, based on the classifications and typical cross-sections outlined above. Buildout of the network to these roadway classifications would help meet the demands of local and regional traffic through the City while decreasing vehicular congestion.

Future development anticipated under the General Plan Focused Update would include OCTA plans for improvements to freeways and highways in the City of Anaheim, including the following projects within the freeway right-of-way:

- **SR-57 Northbound (Orangewood Avenue to Katella Avenue):** The proposed project will extend the fifth general-purpose lane and make ramp improvements along this one-mile stretch of the freeway.
- **SR-91(State Route [SR-241] to I-15):** The proposed project will add a sixth general-purpose lane in each direction.
- **SR-91 (SR-57 to SR-55):** The proposed project is intended to improve mobility by reducing weaving and merging between ramps and improve on- and off-ramps.
- **SR-241/SR-91:** The proposed project would provide a new, tolled direct connection between the 91 Express Lanes and the 241 Toll Road.
- **SR-55 (SR-22 to SR-91):** The proposed project is anticipated to indirectly benefit mobility in the City by improving the Lincoln Avenue interchange.

The City strives for consistency with the OCTA MPAH in and corresponding classifications; if future development facilitated by the General Plan Focused Update would be inconsistent with MPAH, an amendment would be required in cases of inconsistency. Future development facilitated by the General Plan Focused Update would be subject to the City's development review process, which would include both design and engineering review to ensure roads and access is configured consistent with established regulatory framework.

The General Plan Focused Update includes Circulation Element updates that incorporate policies related to supporting the vehicular network within the City. These include coordination with MPAH, utilization of Intelligent Transportation Systems (ITS), preparation of transportation studies per the City's traffic impact analysis guidelines and payment of the appropriate fees towards required improvements for new development projects, and continued participation in the OCTA CMP policies that promote a vehicular transportation network that balances local and regional mobility needs within and through the City are:

- **Circulation Element**
 - Policies under Goals 1 and 2

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Transit

Transit in the City consists of OCTA bus service, Access Service, and FRAN, Metrolink commuter and passenger rail service, Amtrak passenger rail, Anaheim Commuter Services program, and TNCs such as Uber and Lyft.

The General Plan Focused Update incorporates the following assumptions under buildout of the transit network within the City. OCTA will implement the Making Better Connections Plan to expand access to destinations, increase frequency, reduce transfer wait times at regional hubs, and extend hours of service. Overall, OCTA is proposing a 10 percent increase in weekday service, 9 percent increase in Saturday service, and 15 percent increase in Sunday service countywide. In Anaheim, frequent (15-minute or better) service will be available for OCTA routes 29, 42, 43, 47, 50, 53, 57, and 543. Another future transit improvement that would serve Anaheim residents, workers, and visitors is the CA HSR. The Los Angeles to Anaheim section of CA HSR would connect Los Angeles County and Orange County from Los Angeles Union Station to ARTIC using the existing Los Angeles-San Diego-San Luis Obispo (LOSSAN) rail corridor. The LOSSAN Corridor is currently used by Metrolink, Amtrak, and freight rail providers; t. As a result of existing service and future improvements, according to the SCAG RTP/SCS and OCTA, a significant portion of Anaheim residents and workers will be within walking distance of high-quality transit along major corridors in the City.¹

The General Plan Focused Update includes Circulation Element updates that identify improvements to support future transit services including but not limited to, signal improvements; bus bays; first/last mile condition improvements to and from transit stops and stations, which can help encourage transit use by reducing barriers to walking and biking to transit; pedestrian-scale lighting; and bus stop improvements such as seats and shelters. See Figure 5: Planned Key Transit Network in the Updated Circulation Element (accessed at www.anaheim.net/generalplan), which represents the City's planned key transit roadways for identified areas of potential future improvements. Buildout under the General Plan Focused Update would support the expanding transit network within the City.

The General Plan Focused Update includes Circulation Element updates that incorporate policies related to supporting transit facilities in the City. These include prioritizing multimodal systems, supporting first/last mile connectivity to transit, implementing additional complete streets improvements when it fits the context of the community, and supporting the improvement of transit opportunity corridors. Policies that promote a transit system that serves as a functional alternative to commuting by car are:

- **Circulation Element**
 - Policies under Goal 2 and 3

¹ Pub. Resources Code, § 21064.3 (“‘Major transit stop’ means a site containing an existing rail transit station, a ferry terminal served by either a bus or rail transit service, or the intersection of two or more major bus routes with a frequency of service interval of 15 minutes or less during the morning and afternoon peak commute periods.”).

Pub. Resources Code, § 21155 (“For purposes of this section, a high-quality transit corridor means a corridor with fixed route bus service with service intervals no longer than 15 minutes during peak commute hours.”).

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Bicycle Facilities

Upon buildout under the General Plan Focused Update, potential future bicycle facilities are shown on Figure 3: Existing and Planned Bikeway Network in the Updated Circulation Element (www.anaheim.net/generalplan). The City of Anaheim is planning improvements to its bikeway network to improve opportunities for bicycling and walking. Some of the more notable projects are included in the Updated Bicycle Master Plan and described below.

OC Loop

The OC Loop is a vision for 66 miles of bicycling and walking paths that travel from north and central Orange County to local beaches. Currently, the OC Loop contains 58 miles of trails along the San Gabriel River, Coyote Creek, Santa Ana River, and coastal/beach trails. About 88 percent of the OC Loop is already in place (OCTA 2024b). OTCA prepared a gap feasibility study to better position cities to pursue grant funding to implement the missing OC Loop segments. Segment H of the OC Loop is located within the City of Anaheim and would connect between the Santa Ana River and Fairlynn Boulevard and the El Cajon Trail in Yorba Linda (Anaheim 2020).

The General Plan Focused Update includes Circulation Element updates that incorporate policies related to supporting bicycle facilities in the City. These include prioritizing multimodal systems, maintaining a network of complete streets to provide mobility opportunities for all users, implementing additional complete streets improvements when it fits the context of the community, supporting connectivity, developing and maintaining local and regional bicycle networks, maintaining consistency with California Green Building Standards Code (CALGreen) bike parking standards, supporting new technologies for bicycle friendly design, and promoting bicycle safety and crossings when infrastructure improvements are made. Policies that promote a bicycle system that serves as a functional alternative to commuting by car are:

- **Circulation Element**
 - Policies under Goal 2 and 5

Pedestrian Facilities

The General Plan Focused Update includes Circulation Element updates that address pedestrian facility improvements through specific plan area improvements, the Capital Improvement Program, various grant pursuits, and developer requirements. Pedestrian improvements could include but are not limited to improving and enhancing sidewalks, crossing markings, traffic signals, bollards and safety features, wayfinding signage, recreational trails, pedestrian bridges, and safety education programs.

Safe Routes to School

The City is pursuing a citywide “Safe Routes to School” program. This program establishes safe routes to school, proposes specific capital improvements to the streetscapes to improve safety, and contains various programs for education and enforcement of existing traffic laws to improve pedestrian and bicycling safety.

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The General Plan Focused Update includes Circulation Element updates that incorporate policies related to supporting pedestrian facilities in the City. These include promoting safe pedestrian design features, promoting connectivity to key destinations, enhancing streets to facilitate safe walking, applying Complete Streets principals, minimizing disruptions to pedestrian flow, supporting Safe Routes to School, and improving streetscapes with landscaping. Policies that promote a safe pedestrian system that serves as a functional alternative to commuting by car are:

- **Circulation Element**
 - Policies under Goal 2 and 5

Conclusion

In summary, implementation of the General Plan Focused Update may increase demand for public transit, bicycle, and pedestrian facilities, which would require the improvement and expansion of the circulation system. A review of the General Plan Focused Update revealed no potential policy inconsistencies or conflicts with policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities or the performance or safety of those facilities. The General Plan Focused Update incorporates potential future networks and policies related to supporting transit, bicycles, and pedestrians in the City. These networks are consistent with regional and local planning efforts supporting these modes of travel. The General Plan Focused Update, which includes Circulation Element updates involving numerous policies supporting complete streets (providing accessibility for all users of all ages and abilities) and active transportation. Therefore, following compliance with the City's General Plan Focused Update, the proposed project would not conflict with a program, plan, ordinance, or policy addressing the circulation system, including transit, roadways, bicycle, and pedestrian facilities. Impacts would be less than significant.

Level of Significance Before Mitigation: Impact 5.15-1 would be less than significant.

Mitigation Measures: No mitigation measures are required.

Impact 5.15-2: The proposed project would not conflict with or be inconsistent with CEQA Guidelines § 15064.3, subdivision (b). [Threshold T-2]

The VMT analysis for the General Plan Focused Update was prepared in conformance with the Anaheim Traffic Impact Analysis Guidelines for CEQA Analysis (see Appendix N). The ATAM was used to determine VMT impacts. VMT is defined as the total miles traveled by vehicles (within a transportation network). Service population is described as the population generating the VMT of interest. A VMT analysis may be conducted for large-scale projects such as land use plans or individual transportation/development projects. For large-scale projects, it is appropriate to assess VMT impacts based on total VMT/SP. As noted above under Section 5.15.4.1, *Methodology*, the ATAM base year model is year 2021 and the General Plan Focused Update future year is 2045. The VMT estimates performed for each scenario are presented in Table 5.15-4, *Proposed Project Citywide VMT Summary*.

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Table 5.15-4 Proposed Project Citywide VMT Summary

Land Use	2021 Base Year	2045 Buildout under the General Plan Focused Update
Citywide Total OD VMT	16,572,825	20,298,951
Citywide OD VMT/SP ¹	25.67	24.18
Countywide Total OD VMT/SP	26.03	-
	<i>Baseline Threshold</i>	<i>26.03</i>
	Exceed Threshold?	No

Source: Appendix N

Notes:

1. SP = Service Population; the sum of population, enrollment and employment.

Table 5.14 shows that the buildout under the General Plan Focused Update would result in a lower Citywide VMT per Service Population in 2045 compared to the County of Orange VMT per Service Population baseline and therefore would result in a less than significant impact.

The reduction in VMT per Service Population under the General Plan Focused Update, despite higher population and employment growth, demonstrates a shift toward more sustainable and efficient land use patterns. The plan emphasizes a mix of land uses, higher densities, and the strategic placement of employment centers closer to residential areas, which collectively reduce trip lengths and encourage alternative transportation modes such as walking, biking, and transit. Higher densities naturally shorten trip lengths by bringing residential, commercial, and employment activities into closer proximity. In these densely developed areas, people can access goods, services, and jobs more conveniently, minimizing the need for long vehicle trips. Additionally, mixed-use developments, often associated with higher-density areas, amplify this effect by combining residential units with shops, offices, and recreational spaces, enabling many trips to be completed on foot, by bike, or via transit.

The General Plan Focused Update includes Circulation Element updates involving goals and policies that promote the reduction of VMT, which include measures to balance local and regional mobility needs within and throughout the City; support bicycling, walking, and other active transportation modes; promote public transit and ridesharing; apply Complete Streets principals, encourage utilization of transportation demand management (TDM) strategies, and require transportation impacts to use the City's VMT thresholds. Policies that promote a reduction of VMT are:

- **Circulation Element**
 - Policies under Goal 1, 2, 3, 5, and 8

In addition, the City anticipates continued support of the following programs and efforts, outlined further in the General Plan Focused Update, Updated Circulation Element, Bicycle Master Plan Update, and Citywide Transit Master Plan Update. These programs and efforts would contribute to a continued reduction in VMT within the City:

- The Anaheim Canyon Metrolink Station Feasibility Study will evaluate the potential for microtransit options, to better integrate the Anaheim Canyon Metrolink Station with major employment, residential

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other key destinations in the Anaheim Canyon area. If feasible, and if implemented, potential microtransit service could potentially further activate the newly updated Anaheim Canyon Metrolink Station area as well as emerging land uses in the area, thereby potentially reducing VMT increases as development evolves.

- Micro Transit Planning Efforts, Mobility Hubs Planning Efforts First-Last Mile Planning efforts throughout the City.
- OCTA- The Youth Ride Free provides youth aged 6 to 18 with free travel on safe, clean and reliable buses. Youth Ride Free passes are available from your child's participating Orange County school. Based upon early data, it appears that this program is making transit usage much more attractive to a new generation of transit users. Note: OCTA also provides a similar Community College Pass, for community college students.

Additionally, future projects facilitated by the General Plan Focused Update would be analyzed on a project-by-project basis through the City's development review process/building permit process to determine the need of a future project-level VMT analysis, consistent with the City's updated VMT Guidelines. Overall, buildout under the General Plan Focused Update would result in a less than significant transportation impact related to VMT.

Level of Significance Before Mitigation: Impact 5.15-2 would be less than significant.

Mitigation Measures: No mitigation measures are required.

Impact 5.15-3: The proposed project would not substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment). [Threshold T-3]

Impact 5.15-4: The proposed project would not result in inadequate emergency access. [Thresholds T-4]

Future development under the General Plan Focused Update would involve the alteration, intensification, and redistribution of land uses in the City. The General Plan Focused Update Circulation Element also includes circulation network improvements that would be subject to review and future consideration by the City. An evaluation of the roadway alignments, intersection geometrics, and traffic control features would be included during the City's development review process to ensure future development would not result in hazardous design features or inadequate emergency access.

The General Plan Focused Update Circulation Element includes goals and policies to improve the safety of all users of the transportation system in the City. For example, Circulation Element Goal 6, Policies, aim to support transportation safety through awareness of safety for all roadway users, continued planning and implementation of emergency vehicle and fire truck access and pre-emption requirements, and support of Local Roadway Safety Plan implementation efforts. Additionally, compliance with the AMC would ensure future development would not result in potential hazardous design features or inadequate emergency access. The City has adopted the California Fire Code under AMC Chapter 16.08, which applies to all proposed development and would ensure compliance with emergency access design standards as part of new construction of roads to provide

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sufficient access for emergency equipment. The Fire Code also sets minimum standards for road dimension, design, grades, and other fire safety features. Stringent California Building Code (CBC) standards regarding new construction and development of emergency access issues associated with earthquakes, flooding, and other natural hazards also apply. As described in more detail in Section 5.8, *Hazards and Hazardous Materials*, Threshold HAZ-6, future development would be required to be designed, constructed, and maintained in accordance with all applicable Orange County Fire Authority and Anaheim Fire and Rescue requirements for road widths, vertical clearances, and connectivity which would ensure adequate emergency access. Therefore, with compliance with established regulatory framework and the City's General Plan and AMC, future development facilitated by the proposed project would not result in hazardous conditions, create conflicting uses, or cause a detriment to emergency vehicle access. Therefore, impacts pertaining to hazards due to geometric design features as well as emergency access would be less than significant.

Level of Significance Before Mitigation: Impact 5.15-3 and Impact 5.15-4 would be less than significant.

Mitigation Measures: No mitigation measures are required.

5.15.5 Cumulative Impacts

Circulation System

Future development facilitated by the General Plan Focused Update would connect to the existing circulation system and implement the City's traffic engineering design standards. In addition, future development facilitated by the proposed project would provide new facilities, such as sidewalks, to improve pedestrian mobility; and would not conflict with a plan, ordinance, or policy addressing circulation. In addition, cumulative development in the City and surrounding jurisdictions would be subject to site-specific reviews that would not allow potential cumulatively considerable impacts related to inconsistencies with plans, programs, policies, and ordinances addressing circulation. Therefore, implementation of the proposed project would not combine with other cumulative projects to result in significant cumulative impact.

Vehicle Miles Traveled

For cumulative conditions, a project that is below the VMT impact thresholds and does not have a VMT impact under baseline conditions would also not have a cumulative impact if it were aligned with long-term state environmental goals, such as reducing GHG emissions, and relevant plans, such as the SCAG RTP/SCS. The geographic context for the analysis of cumulative traffic impacts includes traffic volumes resulting from buildout under the General Plan Focused Update. As identified above under Impact 5.15-2, buildout under the General Plan Focused Update would result in a decrease in Citywide VMT per service population in 2045 compared to the existing baseline and therefore would result in a less than significant impact. Therefore, buildout under the General Plan Focused Update would not result in a cumulatively considerable impact regarding VMT.

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Design and Incompatible Use Hazards and Emergency Access Adequacy

As evaluated in Impact 5.15-3, implementation of the proposed project would not result in impacts related to incompatible uses, hazards due to roadway design, or inadequate emergency access. Proposed improvements to the circulation network facilitated by the General Plan Focused Update would be required to be installed in conformance with City design standards that would be ensured through the City's development permitting process to ensure that no potentially hazardous design features or inadequate emergency access would be introduced that could combine with potential hazards from other nearby projects. In addition, cumulative development in the City and surrounding jurisdictions would be subject to site-specific reviews, including reviews by building and fire authorities that would require compliance with existing building and fire code standards that limit the potential of other projects to create design hazards or interference with emergency access. Therefore, the proposed project's impacts concerning design features (e.g., sharp curves or dangerous intersections) or incompatible uses or impediment emergency access would not be cumulatively considerable.

Level of Significance Before Mitigation: Cumulative impacts would be less than significant.

Mitigation Measures: No mitigation measures are required.

5.15.6 Level of Significance Before Mitigation

Upon implementation of regulatory requirements and General Plan policies, Impacts 5.15-1, 5.15-2, 5.15-3, and 5.15-4 would have a less than significant impact.

5.15.7 Mitigation Measures

No significant impacts were identified, and no mitigation measures are necessary.

5.15.8 Level of Significance After Mitigation

Impacts 5.15-1 through 5.15-4 would be less than significant.

5.15.9 References

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5.16 TRIBAL CULTURAL RESOURCES

This section of the Draft Program Environmental Impact Report (Draft PEIR) discusses the potential impacts to tribal cultural resources in the City of Anaheim from implementation of the City of Anaheim's General Plan Focused Update (proposed project) and consistency with policies and programs related to tribal cultural resources.

Comments related to tribal cultural resources were received from the Native American Heritage Commission (NAHC) during the scoping period for the proposed project (see Appendix A) and the Center City Corridors Specific Plan (C3SP), which has been incorporated into the proposed project as the Center City Corridors Implementation Plan (C3 Plan) (see Appendix B).

5.16.1 Environmental Setting

5.16.1.1 REGULATORY BACKGROUND

Federal

Archaeological Resources Protection Act

The Archaeological Resources Protection Act of 1979 regulates the protection of archaeological resources and sites which are on Federal lands 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.

National Historic Preservation Act of 1966

Enacted in 1966 and amended most recently in 2014, the National Historic Preservation Act (NHPA) instituted a multifaceted program administered by the Secretary of the Interior to encourage sound preservation policies of the nation's cultural resources at the federal, state, and local levels (54 US Code Section 300101 et seq.). The NHPA authorized the expansion and maintenance of the National Register of Historic Places, established the position of State Historic Preservation Officer, and provided for the designation of State Review Boards. The NHPA also set up a mechanism to certify local governments to carry out the goals of the NHPA, assisted Native American tribes to preserve their cultural heritage, and created the Advisory Council on Historic Preservation.

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State

California Public Resources Code

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

- **PRC Sections 5097.9 to 5097.991** provide 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 of discoveries of Native American human remains to descendants and provides for treatment and disposition of human remains and associated grave goods.

California Health and Safety Code

The discovery of human remains is regulated by California Health and Safety Code Section 7050.5, which states that:

In the event of discovery or recognition of any human remains in any location other than a dedicated cemetery, there shall be no further excavation...until the coroner...has determined...that the remains are not subject to...provisions of law concerning investigation of the circumstances, manner and cause of any death, and the recommendations concerning the treatment and disposition of the human remains have been made to the person responsible.... The coroner shall make his or her determination within two working days from the time the person responsible for the excavation, or his or her authorized representative, notifies the coroner of the discovery or recognition of the human remains. If the coroner determines that the remains are not subject to his or her authority and...has reason to believe that they are those of a Native American, he or she shall contact, by telephone within 24 hours, the Native American Heritage Commission.

California Senate Bill 18

Existing law provides limited protection for Native American prehistoric, archaeological, cultural, spiritual, and ceremonial places. These places may include sanctified cemeteries, religious, ceremonial sites, shrines, burial grounds, prehistoric ruins, archaeological or historic sites, Native American rock art inscriptions, or features of Native American historic, cultural, and sacred sites.

SB 18 was signed into law in September 2004 and went into effect on March 1, 2005. It placed new requirements on local governments for developments within or near “traditional tribal cultural places” (TTCP). Per SB 18, the law requires local jurisdictions to provide opportunities for involvement of California Native Americans tribes in the land planning process for the purpose of preserving traditional tribal cultural places. The Final Tribal Guidelines recommends that the NAHC provide written information as soon as possible but no later than 30 days to inform the lead agency if the proposed project is determined to be in proximity to a TTCP and another 90 days for tribes to respond to a local government if they want to consult to determine whether the project would have an adverse impact on the TTCP. There is no statutory limit on

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the consultation duration. Forty-five days before the action is publicly considered by the local government council, the local government refers action to agencies, following the CEQA public review time frame. The CEQA public distribution list may include tribes listed by the NAHC who have requested consultation or it may not. If the NAHC, the tribe, and interested parties agree upon the mitigation measures necessary for the proposed project, they would be included in the project's EIR. If both the city and the tribe agree that adequate mitigation or preservation measures cannot be taken, neither party is obligated to take action.

Per SB 18, a city or county is required to consult with the NAHC and any appropriate Native American tribe prior to the adoption, revision, amendment, or update of a city's or county's general plan. Although SB 18 does not specifically mention consultation or notice requirements for adoption or amendment of specific plans, the Final Tribal Guidelines advises that SB 18 requirements extend to specific plans as well, because state planning law requires local governments to use the same process for amendment or adoption of specific plans as general plans (defined in Government Code Section 65453). In addition, SB 18 provides a definition of TTCP that requires 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 amended Civil Code Section 815.3 and added California Native American tribes to the list of entities that can acquire and hold conservation easements for the purpose of protecting their cultural places.

Assembly Bill 52

AB 52 took effect July 1, 2015, and required inclusion of a new section in CEQA documents titled Tribal Cultural Resources, which includes heritage sites. Under AB 52, a tribal cultural resource (TCR) is defined as a site, feature, place, cultural landscape, sacred place, and object with cultural value to a California Native American tribe that is either included or eligible for inclusion in the California Register of Historic Resources or included in a local register of historical resources. Or the lead agency, supported by substantial evidence, chooses at its discretion to treat the resource as a tribal cultural resource.

Similar to SB 18, AB 52 requires consultation with tribes at an early stage to determine whether the project would have an adverse impact on the TCR and mitigation to protect them. Per AB 52, within 14 days of deciding to undertake a project or determining that a project application is complete, the lead agency must provide formal written notification to all tribes who have requested it. The tribe then has 30 days after receiving the notification to respond if it wishes to engage in consultation. The lead agency must initiate consultation within 30 days of receiving the tribe's request. Consultation concludes when both parties have agreed on measures to mitigate or avoid a significant effect to a tribal cultural resource, or a party, after a reasonable effort in good faith, decides that mutual agreement cannot be reached. Regardless of the outcome of consultation, the CEQA document must disclose significant impacts on tribal cultural resources and discuss feasible alternatives or mitigation that avoid or lessen the impact.

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Southern California Association of Governments

The Southern California Association of Governments' Growth Management Chapter (SCAGGMC) has instituted policies regarding the protection of cultural resources. SCAGGMC Policy No. 3.21 "encourages the implementation of measures aimed at the preservation and protection of recorded and unrecorded cultural resources and archaeological sites" (SCAG 2001).

Standard Conditions of Approval

The City will be adopting Master Conditions of Approval that are applied to all development projects through the plan check review process. As a matter of practice, the City has been implementing the following conditions that related to tribal cultural resources, compliance with which would reduce negative biological impacts. Compliance with standard conditions would be required for all new development and redevelopment in the City.

- **SC TCR-1:** In the event that tribal cultural resources such as human remains and artifacts are inadvertently unearthed during excavation activities, the contractor shall immediately cease all earth-disturbing activities within a 100-foot radius of the area of discovery and the contractor shall contact the City's Planning and Building Department immediately. The Applicant shall retain a qualified Native American tribal monitor from or approved by the Native American tribe(s) requesting consultation to evaluate the significance of the find, and in consultation with the City's Planning and Building Department, determine an appropriate course of action. If the tribal cultural resources are found to be significant, the Native American tribal monitor, in consultation with the City's Planning and Building Department, shall determine appropriate actions for exploration, salvage, and/or curation. After the find has been explored, salvaged, and/or curated, work within the vicinity of the find may resume.

5.16.1.2 EXISTING CONDITIONS

Tribal cultural resources are defined by the California PRC Section 21074 as sites, features, places, cultural landscapes, sacred places, and objects with cultural value to a California Native American tribe that are either included or determined to be eligible for inclusion in the California Register of Historical Resources (California Register) or included in a local register of historical resources, or a resource determined by the Lead Agency, in its discretion and supported by substantial evidence, to be significant. Historical resources, unique archaeological resources, or non-unique archaeological resources may also be tribal cultural resources if they meet these criteria.

Ethnographic Background

The Tongva (Gabrieliño)

Ethnographic accounts of Native Americans indicate that the Tongva (or Gabrieliño) once occupied the region that encompasses the project area. At the time of contact with Europeans, the Tongva were the main occupants of the southern Channel Islands, the Los Angeles Basin, and much of Orange County and extended as far east as the western San Bernardino Valley. The term "Gabrieliño" came from the tribe's

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association with Mission San Gabriel Arcangel, established in 1771. However, today the tribe prefers to be known by their ancestral name, Tongva. The Tongva are believed to have been one of the most populous and wealthy Native American tribes in Southern California prior to European contact, second only to the Chumash (City 2024).

The Tongva occupied numerous villages with populations ranging from 50 to 200 inhabitants. Residential structures within the villages were domed, circular, and made from thatched tule or other available wood. Tongva society was organized by kinship groups, with each group composed of several related families who together owned hunting and gathering territories. Settlement patterns varied according to the availability of floral and faunal resources. Vegetable staples consisted of acorns, chia, seeds, piñon nuts, sage, cacti, roots, and bulbs. Animals hunted included deer, antelope, coyote, rabbits, squirrels, rodents, birds, and snakes, and the Tongva also fished (City 2024).

By the late eighteenth century, the Tongva population had significantly dwindled due to the introduction of diseases and dietary deficiencies. Tongva communities near the missions disintegrated as individuals succumbed to Spanish control, fled the region, or died. Later, many of the Tongva fell into indentured servitude to Anglo-Americans. By the early 1900s, few Tongva people had survived and much of their culture had been lost. However, in the 1970s, a revival of the Tongva culture began which continues to this day with growing interest and support (City 2024).

The Luiseño

Of all the Southern California native groups, the Luiseño have been the most ethnographically studied and the literature is rich in detail. The tribe was once affiliated with the San Luis Rey Mission at Oceanside, California. Historically, the Luiseño spoke a language that belongs to the Cupan group of the Takic subfamily of the Uto-Aztecan language family, a language family that includes the Shoshonean groups of the Great Basin. The Luiseño occupational areas encompass over 1,500 square miles of Southern California, as well as the Channel Islands. Luiseño villages were found along the Pacific Ocean from Agua Hedionda on the south to Aliso Creek on the northwest in present day Orange County. Their territory extended inland to Santiago Peak, to the eastern side of the Elsinore Fault Valley, moving southward to the east of Palomar Mountain, then to the southern slope above the Valley of San José, and finally returning to the sea along the Agua Hedionda Creek. The villages were determined according to their proximity to a defined water source, access to a food gathering locale, and whether they were situated in a defensible location. Spatially, these villages were commonly located along valley bottoms, streams, or coastal strands. The Luiseño characteristically lived in sedentary and autonomous village groups. Ownership, whether tangible or intangible, ranged from communal to personal property that was owned either by the chief, an individual, a family, or by a group of individuals; therefore, one clan or family occupied several food gathering locations and aggressively guarded these areas against other clans (City 2024).

Luiseño thatched house structures were constructed of reeds, brush and/or bark, and any other locally available materials. The houses had a slightly conical roof with a floor that was usually excavated 2 feet below ground surface. All homes were built with a small fire pit in the center and a slight smoke hole in the roof just above the fire. These house structures were known by the Spanish term ramadas. The larger structures, such

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as ceremonial structures, wamkis, were typically constructed with forked posts supporting wood ceiling beams and were completely covered in thatch, which was lightly mixed with sand or soil. Ceremonial structures were located within the center of the village and enclosed with fencing. Raised altars with a skin and feather image upon them would sometimes be in the ceremonial area. Sweat houses were of similar thatch design to that of the smaller house pattern but varied in their construction in that they stood on two forked posts connected by a log and were shaped like an ellipse, with an entrance on one of the longer sides of the structure covered with a layer of mud (City 2024).

The pottery associated with the Luiseño was constructed simply, made for functionality, and tended to lack ornamental design, although Bean and Shipek (1978) note that if designs were included, “a simple line decoration was either painted or incised with a fingernail or stick.” The Luiseño made pots from the basis of a coil form, in which pieces of coiled clay were gradually added to the edge of the pot while it was being shaped with a wooden paddle and finished with a polishing stone. After completion, the pot was sunbaked and fired. Typical uses of pottery were for cooking, water jugs, containers, and a water vessel with two spouts used while gathering food. Plant fibers were also commonly used for purposeful household implements, such as brooms, brushes, nets, pouches, twine, and cedar bark skirts for women. The process of creating such items from plant fiber tended to rely on soaking, stretching, and then rolling the fiber.

Ceremony and ritual were of great importance to all native peoples, and the Luiseño had their own variety of traditional practices. Frequently practiced ceremonies included multiple rituals for mourning the dead, the eagle dance, separate ceremonies for the initiation of boys and girls, and a summer and winter solstice celebration. These ceremonies offered gatherers an opportunity to witness reenactments, songs, and the oral recitation of their history. Important equipment during rituals included blades made of obsidian, stone bowls, clay figurines, and headdresses constructed of eagle feathers. Ritual dances were limited to three standard dances, such as the fire dance, which was used during the Toloache Cult initiation for boys at puberty. Also, of great significance during the boys’ initiation were masterfully designed sand paintings, once thought to have originated in the Southwest though presently culturally identified with the Luiseño. Although not necessarily limited to ritual, Heizer and Whipple (1971) comment that the Luiseño of Riverside County decorated their rock designs in the same form as that of the native peoples of the Great Basin, which appeared as pecked abstracts displayed on boulders (City 2024).

Personal adornment was a common practice among the Luiseños. Ornamental items such as beads and pendants were made of clay, shell, stone, deer hooves, bear claws, and mica sheets. Men would wear ear and nose ornaments, sometimes made of bone or cane with beads attached. Body painting and tattooing were done purely for rituals (City 2024).

The Luiseño encountered Europeans as early as 1796, with the arrival of the Gaspar de Portola Expedition. The rapid decline of the population began with the spread of European diseases and ideas, coupled with the living conditions in the missions and the ranchos. Many coastal village people were moved into missions, and Indians from distant villages were moved into the San Juan Capistrano Mission where they were taught, among many other things, the Spanish language, the Roman Catholic faith, and European crafts. San Luis Rey Mission’s policy was to continue to maintain the settlement patterns of the Luiseño. When the missions became secularized in 1834, political imbalance among resulted in Indian revolts and uprisings against the

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Mexican rancheros. Many Indians left the ranchos and missions and joined more inland groups. Some acquired land grants and entered the conventional Mexican culture (City 2024).

The Juaneño

The Juaneño people ethnographically occupied Orange County and parts of San Diego County, Los Angeles County, and Riverside County. Archaeological evidence shows that the tribe inhabited the region for over 10,000 years. The Juaneño get their name from their association to Mission San Juan Capistrano. They resided in permanent villages ranging between 30 inhabitants to 300 inhabitants, with leadership consisting of single hereditary lineage with a dominant clan joining other families to form powerful affiliations and settlements. Each clan maintained their political autonomy, forming connections with other clans through trade or social networks that usually manifested in arranged marriages. Typically, the clan chief's duties included the continuation of community rites and coordination with the council of elders in the implementation of ceremonial and religious rites (City 2024).

Upon contact with the Spanish, the lives of the Juaneño were drastically transformed. In addition to disease, the Spanish were intent in spreading Christianity and laying claim to the newly discovered land. This was immediately followed by an aggressive campaign of mission construction and transforming the countryside to support the thousands of cattle and population. By the mid-1800s, the Juaneño population had declined to less than 800. After the Treaty of Guadalupe Hidalgo, a smallpox outbreak took the lives of 129 Juaneño people, bringing the population down to 227; however, there was strong sentiment among the remaining Juaneño to remain in the San Juan Capistrano region and preserve the traditions of their forefathers (City 2024).

Native American Heritage Commission

The NAHC conducted a sacred lands file search was conducted for the proposed project and identified 12 local representatives from Native American groups as potentially having local knowledge. As discussed in Chapter 3, *Project Description*, the City initiated preparation of the Center City Corridors Specific Plan (C3SP) in 2022, and determined that any changes proposed for this area could be incorporated into this Focused General Plan Update. Therefore, tribal consultation conducted for C3SP is included in this analysis. The list below includes tribes contacted for consultation, as provided by NAHC:

- Campo Band of Diegueno Mission Indians
- Ewiiapaayp Band of Kumeyaay Indians
- Gabrielino Band of Mission Indians – Kizh Nation
- Gabrielino/Tongva Band of Mission Indians
- Gabrielino/Tongva Nation
- Gabrielino/Tongva Tribal Council of San Gabriel
- Gabrielino/Tongva Tribe
- Gabrielino Tongva Indians of California Tribal Council
- Juaneño Band of Mission Indians
- Juaneño Band of Mission Indians – Acjachemen Nation

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- La Posta Band of Diegueno Mission Indians
- Manzanita Band of Kumeyaay
- Mesa Grande Band of Diegueno Mission Indians
- Pala Band Mission Indians
- Pechanga Band of Indians
- Rincon Band of Luiseno Indians
- Santa Rosa Band of Cahuilla Indians

The City notified all the tribal representatives about the proposed project on April 13, 2022, and asked for information about potential resources at or near the project site. The City received responses from the Gabrieleno Band of Mission Indians – Kizh Nation and Rincon Band of Luiseno Indians. Neither requested consultation for the General Plan Focused Update.

Additionally, the City notified all tribal representatives about the C3SP EIR on April 14, 2022, and asked for information about potential resources at or near the C3SP area. The City received a response from the Gabrieleno Band of Mission Indians – Kizh Nation. Consultation was not requested for the proposed project.

On June 22, 2023, a records search request was sent to the NAHC in an effort to determine whether any sacred sites are listed on its SLF for the General Plan Area (City-wide). A response was received on July 19, 2023, indicating that the SLF search is positive for the presence of Native American cultural resources in the General Plan Area. The NAHC included a list of 22 tribal representatives available to provide additional information pertaining to Tribal Cultural Resources (TCRs).

5.16.2 Proposed General Plan Goals and Policies and Standard Conditions

The proposed project does not include any new or updated general plan goals and policies related to tribal cultural resources. However, it does include certain standard conditions of approval that would be applicable to future development projects in the City, in addition to those listed above in Section 5.16.1.1. These additional standard conditions are identified below.

- **SC TCR-2:** If the monitoring site has hazardous materials concerns, the monitor(s) shall possess Hazardous Waste Operations and Emergency Response (HAZWOPER) certification. The on-site monitoring shall end when the project site grading and excavation activities are completed, or when the Tribal Representatives and monitor have indicated that the site is a low potential for tribal cultural resources.

5.16.3 Thresholds of Significance

The City of Anaheim considers a project to have a significant effect on the environment if the project would:

- TCR-1 Cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code § 21074 as either a site, feature, place, cultural landscape that is

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geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:

- i) Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k), or
- ii) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code § 5024.1. In applying the criteria set forth in subdivision (c) of Public Resource Code § 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.

5.16.4 Environmental Impacts

The following impact analysis addresses thresholds of significance that are identified in brackets after the impact statement.

Impact 5.16-1: Implementation of the proposed project could cause a substantial adverse change in the significance of a tribal cultural resource that is listed or eligible for listing in the California Register of Historical Resources or in a local register of historical resources as defined in Public Resources Code section 5020.1(k) or that is determined by the lead agency to be significant pursuant to criteria in Public Resources Code section 5024.1(c). [Threshold TCR-1]

Sacred Lands File Search and Consultation

The City requested a Sacred Lands File Search and a local government consultation list from the NAHC on February 8, 2022, in accordance with SB 18 and AB 52 requirements. The NAHC responded on March 28, 2022, and notified the City that the result of the SLF search was positive. The NAHC provided a list of tribes for the City to contact regarding potential consultation. The City sent initial notification letters to California Native American tribes and tribal contacts on April 13, 2022, via certified mail.

SB 18 and AB 52 Consultation

In accordance with AB 52 and SB 18 requirements, the City sent invitation letters to the Native American contacts provided by the NAHC on April 13, 2022, formally inviting tribes to consult with the City on the proposed project. The intent of consultations is to provide an opportunity for interested Native American contacts to work with the City during the project planning process to identify and protect TCRs. Gabrieleno Band of Mission Indians – Kizh Nation and Rincon Band of Luiseno Indians responded; however, neither requested consultation for the General Plan Focused Update.

Conclusion

Further development as a result of the implementation of the proposed project could include grading in portions of the City with sensitivity to TCRs. While the western and central portions and parts of the eastern portion of the City are urbanized, buried resources may remain in areas of minimal ground disturbance, such

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as parks, parking lots, and structures with shallow foundations. Grading and construction activities of undeveloped areas in the hillsides of eastern portion of the City or redevelopment that requires more intensive soil excavation than in the past could potentially cause disturbance to TCRs; however, the proposed project would focus redevelopment within the western and central portions of the City, which are developed. Nevertheless, similar to archaeological resources discussed in Section 5.4, *Cultural Resources*, the potential to encounter TCRs are site-specific in nature. Therefore, future development could potentially unearth previously unknown/unrecorded TCRs. The proposed project would incorporate Standard Conditions of Approval SC TCR-1 and SC TCR-2, Mitigation Measure MM TCR-1, Standard Conditions of Approval SC CUL-5 through SC CUL-7, and CUL-5 through MM CUL-7 to reduce impacts on archaeological resources, including tribal cultural resources. With implementation of the associated Standard Conditions of Approval and Mitigation Measures, the proposed project would result in a less than significant impact.

Level of Significance Before Mitigation: Impact 5.16-1 would be potentially significant.

Mitigation Measures: Mitigation measures MM TCR-1 and MM CUL-5 through MM CUL-7 shall apply.

5.16.5 Cumulative Impacts

The proposed project, in conjunction with other nearby past, present, and reasonably foreseeable probable future projects in the region, would have the potential to adversely impact tribal cultural resources. Cumulative development in the region would continue to disturb areas with the potential to contain tribal cultural resources. Cumulative projects are reviewed separately by the appropriate jurisdiction and undergo environmental review when it is determined that the potential for significant impacts exists. In the event that future cumulative projects would result in impacts to known or unknown tribal cultural resources, impacts to such resources would be addressed on a case-by-case basis and would likely be subject to mitigation measures similar to those imposed for this project as a result of the CEQA process. Cumulative impacts to tribal cultural resources would therefore be potentially significant but mitigable.

As described in Impact 5.16-1, compliance with AB 52 for future projects carried out under the proposed project would aid in determining if a specific project would have an adverse impact on known tribal cultural resources, and implement avoidance, minimization, or additional mitigation measures to reduce such impacts. Compliance with AB 52 would generally limit the destruction of tribal cultural resources such that cumulative impacts would not be considerable. Therefore, the proposed project's contribution to cumulative impacts to archaeological and tribal cultural resources would not be cumulatively considerable.

5.16.6 Level of Significance Before Mitigation

Without mitigation, these impacts would be potentially significant:

- **Impact 5.16-1** Implementation of the proposed project could impact tribal cultural resources.

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5.16.7 Mitigation Measures

MM TCR-1 Prior to the issuance of the first grading permit for projects that propose ground disturbing activities greater than current foundations present on a given site, and/or for projects in areas with documented or inferred resource presence, the property owner/developer or contractor as designee shall provide evidence in the form of an executed Agreement to the City of Anaheim Planning and Building department that they have retained a qualified Native American tribal monitor to provide third-party monitoring (Monitor) during specified excavation and grading activities and to recover and catalogue tribal resources as necessary. The Monitor shall be from or approved by the Native American tribe(s) requesting consultation.

The agreement shall include (i) professional qualifications of Monitor; (ii) detailed scope of services to be provided including but not limited to pre-construction education, observation, evaluation, protection, salvage, notification, and/or curation requirements, as applicable, with final documentation/report to Public Works Inspector; (iii) contact information; (iv) communication protocols between Contractor and Monitor for scheduling to facilitate timely performance; (v) acknowledgment that if the Monitor is unavailable or unresponsive based on terms stipulated in the agreement, property owner/developer or contractor as designee may contract with another qualified Monitor acceptable to the City. The selection of the qualified professional(s) shall be subject to City acceptance based on generally accepted professional qualifications and certifications, as applicable.

The cover sheet of the grading plans shall include a note to identify that (a) third party monitoring for tribal cultural resources is required during specified excavation and grading activities in accordance with the City-approved Agreement; and (b) contact information for approved Monitor shall be provided by the Contractor to the City inspector at the pre-construction meeting.

In addition, Mitigation Measures MM CUL-5 through MM CUL-7 shall apply (refer to Chapter 5.4, *Cultural Resources*, of this Draft PEIR).

5.16.8 References

Anaheim, City of. 2024. Cultural Resources Existing Conditions Report for the Anaheim General Plan Update, Anaheim, California. (Appendix J)

Southern California Association of Governments (SCAG). 2001. SCAG Growth Management Chapter (GMC) Policy No. 3.21. Los Angeles, CA.

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5.17 UTILITIES AND SERVICE SYSTEMS

This section of the Draft Program Environmental Impact Report (Draft PEIR) discusses the potential impacts to utilities and service systems in the City of Anaheim's General Plan Focused Update (proposed project). The section addresses wastewater treatment and collection, water supply and distribution, storm drainage, solid waste, and electricity and natural gas services.

The analysis in this section is based in part on the following technical reports:

- *City of Anaheim General Plan Update Water Supply Assessment*, Psomas, July 2024 (Appendix L).
- *General Plan Update Draft Sewer Study*, Psomas, June 2024 (Appendix O).

Comments were received during the scoping period for both the proposed project (see Appendix A) and the Center City Corridors Specific Plan (C3SP), which has been incorporated into the proposed project as the Center City Corridors Implementation Plan (C3 Plan), that are related to utilities and service systems (see Appendix B).

5.17.1 Wastewater Treatment and Collection

5.17.1.1 ENVIRONMENTAL SETTING

Regulatory Background

Federal

Clean Water Act

The federal Clean Water Act (CWA), United States Code, Title 33, Sections 1251 et seq. establishes regulations to control the discharge of pollutants into the waters of the United States and regulates water quality standards for surface waters. Under the CWA, the US Environment Protection Agency (EPA) is authorized to set wastewater standards for industry and runs the National Pollutant Discharge Elimination System (NPDES) permit program. Under the NPDES program, permits are required for all new developments that generate discharges that go directly into Waters of the United States. Additionally, Sections 1251 et seq. of the CWA requires wastewater treatment of all effluent before it is discharged into surface waters.

National Pollutant Discharge Elimination System

Under the NPDES program (under Section 402 of the CWA), all facilities that discharge pollutants from any point source into waters of the United States must have a NPDES permit. The term "pollutant" broadly applies to any type of industrial, municipal, and agricultural waste discharged into water. Point sources can be publicly owned treatment works (POTW), industrial facilities, and urban runoff. The NPDES program addresses certain agricultural activities, but the majority are considered nonpoint sources and are exempt from NPDES regulation. Direct sources discharge directly to receiving waters, and indirect sources discharge to POTWs, which in turn discharge to receiving waters. Under the national program, NPDES permits are issued only for direct, point-source discharges. The National Pretreatment Program addresses industrial and commercial

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indirect dischargers. Municipal sources are POTWs that receive primarily domestic sewage from residential and commercial customers. Specific NPDES program areas applicable to municipal sources are the National Pretreatment Program, the Municipal Sewage Sludge Program, Combined Sewer Overflows, and the Municipal Storm Water Program. Nonmunicipal sources include industrial and commercial facilities. Specific NPDES program areas applicable to these industrial/commercial sources are Process Wastewater Discharges, Non-process Wastewater Discharges, and the Industrial Storm Water Program. NPDES issues two basic permit types: individual and general. Also, the EPA has recently focused on integrating the NPDES program further into watershed planning and permitting.

State

State Water Resources Control Board: Statewide General Waste Discharge Requirements

The General Waste Discharge Requirements specify that all federal and state agencies, municipalities, counties, districts, and other public entities that own or operate sanitary sewer systems greater than one mile in length that collect and/or convey untreated or partially treated wastewater to a publicly owned treatment facility in the State of California need to develop a sewer master plan. The plan evaluates existing sewer collection systems and provides a framework for undertaking the construction of new and replacement facilities to maintain proper levels of service. The master plan includes inflow and infiltration studies to analyze flow monitoring and water use data, a capacity assurance plan to analyze the existing system with existing land use and unit flow factors, a condition assessment and sewer system rehabilitation plan, and a financial plan with recommended capital improvements and financial models.

General Pretreatment Regulations for Existing and New Sources of Pollution

The General Pretreatment Regulations establish responsibilities of the federal, state, and local government; industry; and the public to implement National Pretreatment Standards to control pollutants that pass through or interfere with treatment processes in POTWs or that may contaminate sewage sludge. Pretreatment standards are pollutant discharge limits that apply to industrial users.

California Green Building Standards Code

The residential provisions of the California Green Building Standards Code (CALGreen) outline planning, design, and development methods that include environmentally responsible site selection, building design, and building siting and development to protect, restore, and enhance the environmental quality of the site and respect the integrity of adjacent properties. The code also establishes the means of conserving water used indoors, outdoors, and in wastewater conveyance; outlines means of achieving material conservation and resource efficiency; and outlines means of reducing the quantity of air contaminants.

Regional

Orange County Sanitary District Reclamation Plants NPDES Permit

Wastewater discharge requirements for Orange County Sanitary District (OCSA) Reclamation Plants No. 1 and No. 2 are detailed in Order No. R8-2021-0010 issued on June 23, 2021. The permit includes the conditions needed to meet minimum applicable technology-based requirements. The permit includes limitations more

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stringent than applicable federal technology-based requirements where necessary to achieve the required water quality standards.

Orange County Sanitation District Capital Facilities Charges

The OCSD Capital Facilities Charge (Ordinance No. OCSD-40) is imposed when a property newly connects to the OCSD system or a previously connected property expands its use. Revenue generated from the charge is used for the acquisition, construction, and reconstruction of OCSD's wastewater collection, treatment, and disposal facilities; to repay principal and interest on debt instruments; or to repay federal or state loans for the construction and reconstruction of sewage facilities, together with costs of administration and provisions for necessary reserves.

Orange County Sanitation District Ordinance Nos. 25 and 48

OCSD Ordinance OCSD-25 sets forth some prohibitions on activities by food service establishments to minimize discharges of fat, oils, and grease to sewers.

OCSD Ordinance OCSD-48 sets limits on wastewater that is discharged to sewers and conveyed to OCSD wastewater treatment plants. The ordinance limits concentrations of certain substances, including metals, some hazardous materials such as pesticides, and oil and grease (petroleum derived).

Local

City of Anaheim General Plan

Public Services and Facilities Element

Goal 5.1: Provide a safe and effective sewer system that meets the needs of the City's residents, businesses, and visitors.

- **Policy 5.1-1.** Ensure that appropriate sewer system mitigation measures are identified and implemented in conjunction with new development based on the recommendations of prior sewer studies and/or future sewer studies that may be required by the City Engineer.

Anaheim Municipal Code

- **Chapter 10.08, Domestic and Industrial Waste.** This chapter requires all buildings or other structures that contain any plumbing fixtures and are located within any sewer district or district serviced by a public sewer be connected to a public sewer. The chapter also requires issuance of a permit before any sewer connection can be made. Building permits are reviewed by the director of public works for the purpose of determining whether the proposed development would result in an overload of existing sewer line capacity. This chapter also prohibits the discharge of fat, oils, and greases into public sewer lines.
- **Chapter 10.12, Sanitation Charges.** This chapter relates to sewer impact fees needed to mitigate the deficiency in the sewer system caused by new development and/or by additions and expansions to existing development within the Central City, West City, and East City areas of the City of Anaheim.

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- **Chapter 15.03, Building Standards Code and Administrative Provisions Pertaining to Building and Construction.** This chapter incorporates California Building Codes by reference, including the Building Code, Electrical Code, Energy Code, Green Building Standards Code, Plumbing Code, and Referenced Standards Code, as well as the International Building Code.

City of Anaheim Sanitary Sewer Master Plans

The City has sanitary sewer master plans for the areas of West Anaheim, Central Anaheim, and the Combined East Anaheim Areas, adopted 2019, 2017, and 2023, respectively. These master plans evaluate their respective sewer systems to identify potential deficiencies and sewer needs under different conditions.

City of Anaheim Sewer Design Manual

The objective of the Sewer Design Manual is to provide a concise guide for the analysis and design of sewer facilities in the City of Anaheim. This guide is intended to be used by design engineers for development projects.

Standard Conditions of Approval

As a matter of practice, the City applies standard conditions for development projects that are intended to reduce environmental impacts. Currently, there are no standard conditions that are related to wastewater and sewer infrastructure.

Existing Conditions

Wastewater Collection System

The City's Sewer and Storm Drain Division is responsible for the maintenance of the City's sewer lines which consist of approximately 578 miles of pipeline that connect to OCSD's trunk system to convey wastewater to OCSD's treatment plants. OCSD has an extensive system of gravity flow sewers, pump stations, and pressurized sewers. Collected wastewater is sent to OCSD's plants located in the cities of Huntington Beach and Fountain Valley.

The City's sewer system is divided into three areas, each with their own master plan:

- **West Anaheim.** The West Anaheim Master Plan of Sanitary Sewers study area is bounded on the north, west, and south by the City limits, and on the east by Euclid Street and the Central Anaheim sewer study area. This area consists of approximately 7,450 gross acres and approximately 870,000 linear feet of sewer pipelines that serve a population of approximately 140,500 people. The majority of the wastewater from this area drains into one of the OCSD trunk sewers located throughout the City for further treatment and recharge. The remainder of the wastewater flows into neighboring cities including Buena Park, Stanton, and Garden Grove.
- **Central Anaheim.** The Central Anaheim Master Plan of Sanitary Sewers (CAMPSS) study area consists of approximately 10,627 gross acres and a cumulative total of 23,777 linear feet of sewer pipelines that serve a population of approximately 134,000 people. The sewer collection systems in the Central Anaheim

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area generally convey wastewater from the northeast to the southwest by gravity flow to OCSD trunk sewers on Euclid Street, State College Boulevard, and Orangewood Avenue.

- **East Anaheim Area.** The study area for the Combined East Anaheim Area Master Plan of Sanitary Sewers (EAMPSS) consists of the Northeast Industrial Area, the remainder of the East Anaheim Area, and the Mountain Park East and West Areas. These areas encompass approximately 12,658 gross acres and serve a population of approximately 80,000 people. The sewer collection systems in this area generally convey wastewater from east to west to OCSD trunk sewers on Miraloma Avenue, Orangethorpe Avenue, La Palma Avenue, and Riverdale Avenue.

Primary trunk sewer facilities within each of these areas serve large tributary areas and are sized to serve area buildout. There are also numerous 6-inch through 10-inch existing sewers within each area. Figure 5.17-1, *Central Anaheim Sewer Facilities*, and Figure 5.17-2, *East Anaheim Sewer Facilities*, illustrates the existing City and OCSD sewer infrastructure in the areas that would experience a change in General Plan land use designations pursuant to the proposed project.

Existing Sewer Flows

The Sewer Study for the proposed project (see Appendix O) includes a sewer analysis for the sewer collection systems that are tributary to parcels experiencing a change in General Plan land use designation pursuant to the proposed project. The study area pipelines were evaluated utilizing the East Anaheim and Central Anaheim sewer models developed as part of the City's sewer master planning efforts for those areas. There are no parcels within the West Anaheim study area that would experience a change in land use designation.

Both models are loaded for residential and non-residential uses, based on dwelling units (DUs) and parcel acreage or building square footage, respectively. The existing model scenarios presented in the master plans represented sewer flows pursuant to buildout under the current General Plan.

The analysis in the Sewer Study was separated by sewer basin. Each sewer basin constituted a tributary to a sewer outfall location that discharges to the OCSD trunk sewer system. The tributary sewer basins within the Central Anaheim study area are illustrated in Figure 2 of the Sewer Study, and the tributary sewer basins within the East Anaheim study area are illustrated on Figure 3 (see Appendix O). Table 5.17-1, *Average Sewer Flow for Tributary Basins – Existing General Plan Buildout*, summarizes the average flow in million gallons per day (mgd) to the OCSD outfall from each tributary area.

Table 5.17-1 Average Sewer Flow for Tributary Basins – Existing General Plan Buildout

Tributary System	Existing Flow (mgd)
Central Anaheim	
Romneya	1.10
La Palma	1.55
Ball	4.82
Katella	5.58
Orangewood	5.06
Howell	0.20

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Table 5.17-1 Average Sewer Flow for Tributary Basins – Existing General Plan Buildout

Tributary System	Existing Flow (mgd)
Santa Cruz	0.36
Durst	0.05
East Anaheim	
Miraloma	0.40
La Palma	0.51
Etchandy	0.01
Orangethorpe	0.11
Kraemer	0.82
Riverdale	1.28
Total	21.85

Source: Psomas, 2024.

The maximum depth-to-diameter (d/D) ratio for the sewer collection system was used to identify existing pipe segment capacity deficiencies. Current City criteria was used when determining the pipe diameter sizes and flagging pipe segments as deficient. For peak dry weather flow conditions, the maximum d/D ratio for identifying an existing pipeline as deficient is 0.67 for pipelines smaller than 12-inch and 0.75 for pipelines 12-inch and larger¹.

Figure 5.17-1 illustrates the existing scenario limiting capacity pipelines for the Central Anaheim study area with d/D ratios above the analysis criteria shown in red. None of the project tributary pipelines within the East Anaheim study area were identified as deficient.

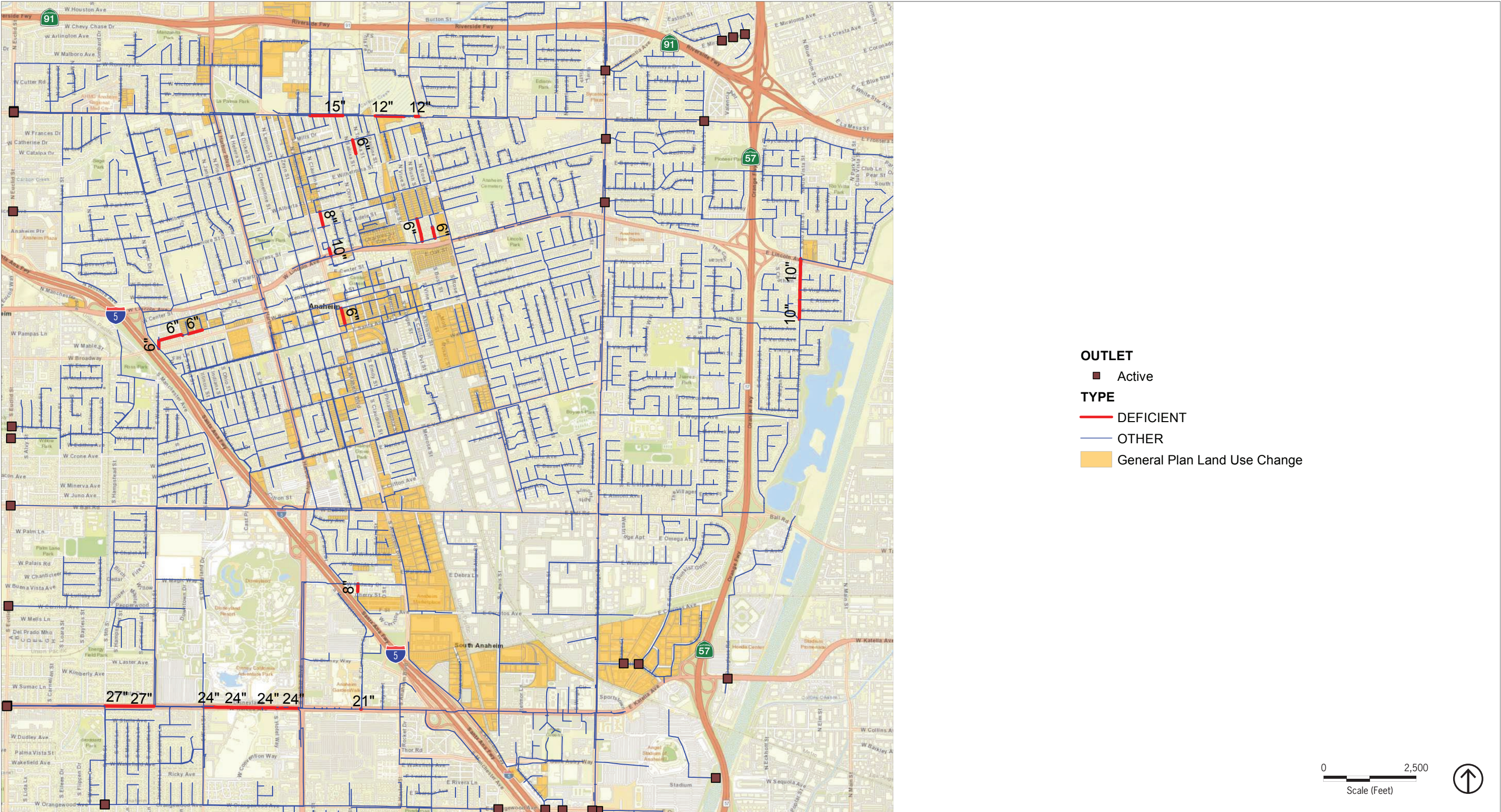
Wastewater Treatment

OCSD operates two treatment plants, Treatment Plant No. 1 and Treatment Plant No. 2. Per OCSD's NPDES Permit for Reclamation Plants No. 1 and No. 2, Treatment Plant No. 1 in Fountain Valley has a dry weather capacity of 182 mgd and Treatment Plant No. 2 in Huntington Beach has a dry weather capacity of 150 mgd. Wastewater treated at Treatment Plant No. 1 is sent to the Orange County Water District (OCWD) for further treatment in the groundwater replenishment system (GWRS) in Fountain Valley for beneficial reuse. Both plants share a common ocean outfall with a 120-inch diameter that extends four miles off the coast of Huntington Beach. A 78-inch diameter emergency outfall also extends 1.3 miles off the coast. A small amount of wastewater is treated at the City's water recycling demonstration facility, but the resulting waste is discharged back into the sewer system.

Per OCSD's NPDES Permit for Reclamation Plants No. 1 and No. 2, during 2018-2019, the wastewater treatment plants received and processed influent volumes averaging 191 mgd. Therefore, the two plants have a residual capacity of 141 mgd.

¹ This is referred to as the pipeline analysis criteria.

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Source: PSOMAS, 2024.

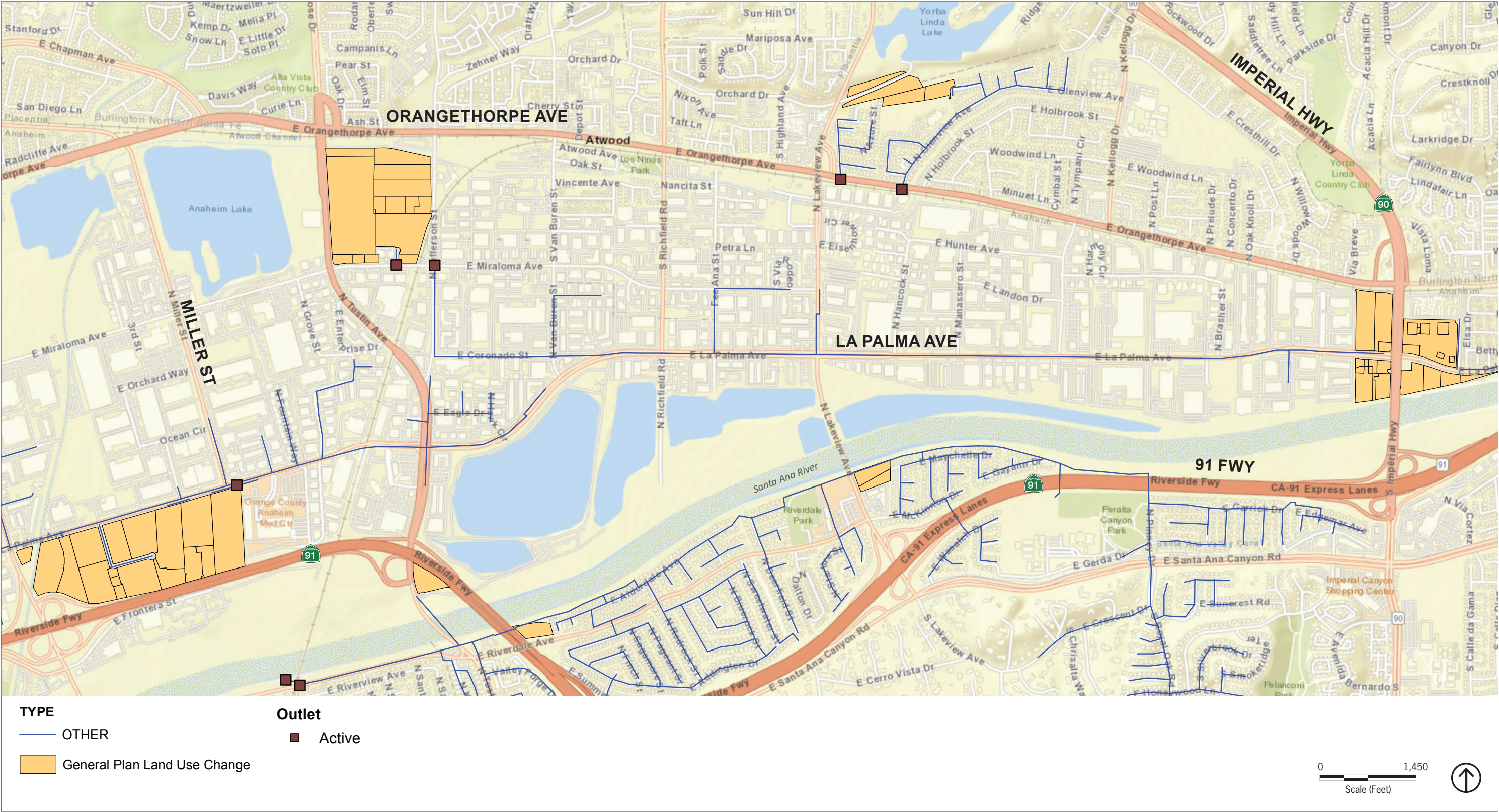
Figure 5.17-1
Central Anaheim Sewer Facilities

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Source: PSOMAS, 2024.

Figure 5.17-2
East Anaheim Sewer Facilities

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5.17.2 Water Supply and Distribution

5.17.2.1 ENVIRONMENTAL SETTING

Regulatory Background

Federal

Safe Drinking Water Act

The federal Safe Drinking Water Act is enforced by the EPA; it sets standards for drinking water quality and oversees the states, localities, and water suppliers who implement those standards. It also requires actions to protect drinking water and its sources, which include rivers, lakes, and groundwater.

State

California Urban Water Management Planning Act

The Urban Water Management Planning Act requires urban water suppliers to prepare a UWMP if they provide water for municipal purposes to more than 3,000 customers or provide more than 3,000 afy of water. The intent of the UWMP is to assist water supply agencies in water resource planning given their existing and anticipated future demands. The UWMP must include a water supply and demand assessment that compares total water supply available to the water supplier with the total projected water use over a 20-year period. It is also mandatory to update UWMPs every five years.

Sustainable Groundwater Management Act

The Sustainable Groundwater Management Act—collectively, Assembly Bill 1739, Senate Bill 1168, and Senate Bill 1319—was passed in 2014 and defines sustainable groundwater measures. The legislation provides guidance for groundwater management and identifies undesirable results of groundwater withdrawal. The plan is intended to ensure sustainability measures are used in all groundwater activities.

Senate Bills 610 and 221

Senate Bill 610 (SB 610) (2001) amended the California Urban Water Management Planning Act, Sections 10610 et seq. of the California Water Code. It mandates that a city or county approving certain projects subject to CEQA (i) identify any public water system that may supply water for the project, and (ii) request those public water systems to prepare a specified water supply assessment.² The assessment is to include the following:

1. A discussion of whether the public water system's total projected water supplies available during normal, single dry, and multiple dry water years during a 20-year projection would meet the projected water demand associated with the proposed project, in addition to the public water system's existing and planned future uses, including agricultural and manufacturing uses.

² Under Water Code Section 10912(a)(7), SB 610 applies to a CEQA project that “would demand an amount of water equivalent to, or greater than, the amount of water required by a 500-dwelling unit project.”

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2. The identification of existing water supply entitlements, water rights, or water service contracts relevant to the identified water supply for the proposed project and water received in prior years pursuant to those entitlements, rights, and contracts.
3. A description of the quantities of water received in prior years by the public water system under the existing water supply entitlements, water rights, or water service contracts.
4. A demonstration of water supply entitlements, water rights, or water service contracts by the following means:
5. The identification of other public water systems or water service contract holders that receive a water supply or have existing water supply entitlements, water rights, or water service contracts, to the same source of water as the public water system.
6. Additional information is required if groundwater is included in the supply for the proposed project.

The water supply assessment shall be included in any environmental document prepared for the project. The assessment may include an evaluation of any information included in that environmental document. A determination shall be made whether the projected water supplies would be sufficient to satisfy the demands of the project, in addition to existing and planned future uses.

Additionally, SB 610 requires new information to be included as part of a UWMP if groundwater is identified as a source of water available to the supplier. Information must include a description of all water supply projects and programs that may be undertaken to meet total projected water use. SB 610 prohibits eligibility for funds from specified bond acts until the plan is submitted to the state.

Furthermore, SB 221 requires written verification that there is sufficient water supply available for applicable new residential subdivisions. The verification must be provided before commencement of construction.

The Water Conservation Act of 2009 (Senate Bill X7-7)

The Water Conservation Act of 2009, SB X7-7, requires all water suppliers to increase water use efficiency. The legislation sets an overall goal of reducing per capita water use by 20 percent by 2020, with an interim goal of a 10 percent reduction in per capita water use by 2015. Effective in 2016, urban retail water suppliers who do not meet the water conservation requirements established by this bill are not eligible for state water grants or loans. SB X7-7 requires that urban water retail suppliers determine baseline water use and set reduction targets according to specified standards; it also requires that agricultural water suppliers prepare plans and implement efficient water management practices.

20x2020 Water Conservation Plan

The 20x2020 Water Conservation Plan of 2010 was a byproduct of the Water Conservation Act of 2009. The plan had a threefold effect, establishing: 1) a benchmark of current usage per capita off 2005 baseline data; 2) an intermediate goal for all water providers to meet by 2015; and 3) a 20 percent reduction by 2020 of water usage.

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Assembly Bill 1668 and Senate Bill 606

On May 31, 2018, Governor Brown signed AB 1668 and SB 606, which established long-term standards for water suppliers. The bills called for the creation of new urban efficiency standards for indoor use, outdoor use, and water lost to leaks as well as any appropriate variances for unique local conditions. The State Water Resources Control Board (SWRCB) adopted indoor water use standards by regulation. The indoor water use standard was established at 55 gallons per person per day until January 2025; the standard will become stricter over time, decreasing to 50 gallons per person per day in January 2030. The outdoor water use standard will be based on land cover, climate, and other factors determined by the Department of Water Resources (DWR) and the SWRCB. The SWRCB is in the process of adopting the water leaks standard and the outdoor standard.

Mandatory Water Conservation

Following the declaration on July 15, 2014, of a state of emergency due to drought conditions, the SWRCB adopted Resolution No. 2014-0038 for emergency regulation of statewide water conservation efforts. These regulations, which went into effect on August 1, 2014, were intended to reduce outdoor urban water use and persuade all California households to voluntarily reduce their water consumption by 20 percent. Water companies with 3,000 or more service connections were required to report monthly water consumption to the SWRCB. The SWRCB readopted the regulations several times until Governor Brown issued Executive Order B-40-17 in April 2017, ending the drought emergency and directing the SWRCB to rescind portions of its existing drought emergency water conservation regulations but maintain the portions that prohibit wasteful water use practices until permanent requirements are in place. The prohibitions that are still in effect address: 1) the application of potable water to outdoor landscapes in a manner that causes excess runoff; 2) the use of a hose to wash a motor vehicle except where the hose is equipped with a shut-off nozzle; 3) the application of potable water to driveways and sidewalks; 4) the use of potable water in nonrecirculating ornamental fountains; and 5) the application of potable water to outdoor landscapes during and within 48 hours after measurable rainfall. Also, urban water suppliers are still required to submit monthly water monitoring reports to the SWRCB.

Governor's 2021 Drought Declaration

Governor Gavin Newsom declared a drought state of emergency on April 21, 2021, and asked state agencies to partner with local water districts and utilities to make Californians aware of drought and encourage actions to reduce water usage by promoting the DWR's Save Our Water Campaign and other water conservation programs. The proclamation also included measures to be implemented by the DWR, SWRCB, the Department of Fish and Wildlife, and the Department of Food and Agriculture as well as coordinated state and local actions to address issues stemming from continued dry conditions.

The governor issued subsequent drought emergency proclamations on May 10, June 8, and October 19, 2021, and March 28, 2022. The May 10th proclamation included further measures to be implemented by DWR, SWRCB, the Department of Fish and Wildlife, and the Department of Food and Agriculture. The July 8th proclamation called on Californians to voluntarily reduce water use by 15 percent from their 2020 levels. The October 19th proclamation required local water suppliers to implement water shortage contingency plans that are responsive to local conditions and prepare for the possibility of a third dry year. The March 28th proclamation required that by May 25, 2022, the SWRCB must consider adopting emergency regulations

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defining nonfunctional turf³ and banning irrigation of nonfunctional turf in the commercial, industrial, and institutional sectors. The proclamation also required that by May 25, 2022, SWRCB must consider adopting emergency regulations to implement the shortage response actions specified in UWMPs for a water shortage level of up to 20 percent.

The SWRCB tracks and reports monthly on the state's progress toward achieving a 15 percent reduction in statewide urban water use compared to 2020 use.

State Water Resources 2022 Water Conservation Regulations

On January 4, 2022, the SWRCB adopted an emergency regulation. On January 18, 2022, the emergency regulation became effective and remains in effect for one year from the effective date unless the SWRCB acts to end, modify, or readopt it. The emergency regulation requirements include:

- Turning off decorative water fountains.
- Turning off/pausing irrigation systems when it rains and for two days after rain.
- Using an automatic shut-off nozzle on water hoses.
- Using a broom, not water, to clean sidewalks and driveways.
- Giving trees just what they need and avoid overwatering.

On May 24, 2022, the SWRCB adopted a second emergency regulation. The emergency regulations went into effect on June 10, 2022, and remain in effect for one year unless SWRCB modifies, readopts, or ends the regulations before then. The emergency regulation requirements include:

- Urban water suppliers must submit preliminary supply and demand assessments to the Department of Water Resources by June 1, 2022.
- Urban water suppliers must implement all conservation actions in their locally adopted plans meant to address at least a water shortage level of 10 to 20 percent (Level 2) by June 10, 2022.
- Owners and managers of commercial, industrial, and institutional properties must not use potable water for irrigating non-functional turf.

Water Conservation in Landscaping Act of 2006

The Water Conservation in Landscaping Act of 2006 (AB 1881) required the DWR to update the State Model Water Efficient Landscape Ordinance (MWELO) by 2009. The State's model ordinance was issued on October 8, 2009. Under AB 1881, cities and counties were required to adopt a State-updated model landscape water conservation ordinance by January 31, 2010, or to adopt a different ordinance that was at least as effective in

³ Nonfunctional turf is turf that is ornamental and not used for human recreation purposes such as school fields, sports fields, and parks.

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conserving water as the updated model ordinance. It also required reporting on the implementation and enforcement of local ordinances, with required reports due by December 31, 2015.

2015 Update of the State Model Water Efficient Landscape Ordinance (Executive Order B-29-15)

To improve water savings in the landscaping sector, in 2015 the DWR updated the State Model Water Efficient Landscape Ordinance in accordance with Executive Order B-29-15. The model ordinance promotes efficient landscapes in new developments and retrofitted landscapes. The executive order called for revising the model ordinance to increase water efficiency standards for new and retrofitted landscapes through more efficient irrigation systems, greywater usage, and on-site stormwater capture and by limiting the portion of landscapes that can be covered in turf.

New development projects that include landscaped areas of 500 square feet or more—including residential, commercial, industrial, and institutional projects that require a permit, plan check, or design review—are subject to the model ordinance. The previous thresholds ranged from 2,500 square feet to 5,000 square feet.

California Green Building Standards Code

The California Green Building Standards Code (CALGreen) (Title 24, California Code of Regulations, Part 11) establishes mandatory residential and nonresidential measures for water efficiency and conservation under Sections 4.3 and 5.3. The provisions establish the means of conserving water used indoors, outdoors, and in wastewater conveyance. The code includes standards for water-conserving plumbing fixtures and fittings and the use of potable water in landscaped areas.

California Plumbing Code

The California Plumbing Code was adopted as part of the California Building Code (CBC) and specifies technical standards of design, materials, workmanship, and maintenance for plumbing systems. The CBC code is updated on a three-year cycle; the latest edition is dated 2022 and is effective as of January 1, 2023. One of the purposes of the plumbing code is to prevent conflicting plumbing codes within local jurisdictions. Among many topics covered in the code are water fixtures, potable and nonpotable water systems, and recycled water systems.

Local

City of Anaheim General Plan

Public Services and Facilities Element

Goal 4.1: Provide a water system that produces high quality water, sufficient water pressure, and necessary quantities of water to meet domestic demands.

- **Policy 4.1-1.** Provide for the efficient and economic distribution of adequate water supply and pressure to all residential, commercial, industrial, and public areas served by the Public Utilities Department.
- **Policy 4.1-2.** Continue to provide municipal water service that meets or exceeds State and Federal health standards and monitor water quality according to established criteria, with respect to health standards.

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- **Policy 4.1-3.** Examine and utilize the use of alternative water supplies, such as grey water and reclaimed water, where appropriate and feasible.
- **Policy 4.1-4.** Continue to sponsor and provide water conservation and education programs.

Green Element

Goal 5.1: Continue Anaheim's water conservation efforts to ensure that all City facilities are water efficient.

- **Policy 5.1-1.** Continue to inspect, maintain and enhance City facilities relative to their water use.
- **Policy 5.1-2.** Continue inter-departmental coordination of water use and conservation policies to improve City-facility water use.
- **Policy 5.1-3.** Specify and install water-conserving plumbing fixtures and fittings in public facilities such as parks, community centers, and government buildings.

Goal 5.2: Continue and expand Anaheim's educational outreach and incentives programs aimed at water conservation.

- **Policy 5.2-1.** Continue to educate the public through the award-winning annual Water Awareness Month Campaign.
- **Policy 5.2-2.** Continue to offer all Anaheim public and private schools the opportunity to participate in the Water Conservation Poster Contest.
- **Policy 5.2-3.** Continue to encourage landscape projects employing water efficient irrigation.

Anaheim Municipal Code

- **Chapter 10.18, Water Conservation and Water Shortage Contingency Rules and Regulations.** This chapter adopts, implements, and enforces water conservation rules and regulations to reduce water consumption within the City. This chapter also implements and enforces shortage contingency rules and regulations including a water reduction plan during periods of water supply shortages and water shortage emergencies.
- **Chapter 10.19, Landscape Water Efficiency.** The City adopted this ordinance to be consistent with Executive Order B-29-15. The ordinance includes implementation procedures and landscape water use standards.
- **Chapter 15.03, Building Standards Code and Administrative Provisions Pertaining to Building and Construction.** This chapter incorporates California Building Codes by reference, including the Building Code, Electrical Code, Energy Code, Green Building Standards Code, Plumbing Code, and Referenced Standards Code, as well as the International Building Code.

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- **Chapter 18.38, Supplemental Use Regulations.** This chapter provides specific supplemental provisions for certain uses whose nature and potential impacts require additional and more specialized criteria. Section 18.38.160 requires ground mounted equipment be located a minimum of five feet from the property line and shall be screened with landscaping within a required setback area abutting any public or private street.
- **Chapter 18.46, Landscaping and Screening.** This chapter defines landscaping development standards, screening standards, and irrigation measures to enhance aesthetics, minimize graffiti opportunities, preserve privacy and security, and conserve water. Section 18.46.040 requires a minimum of 50 percent of required shrubbery, vines, and ground cover to be drought tolerant.

City of Anaheim Urban Water Management Plan 2020

The City's UWMP is required under Water Code Section 10610 through 10656 of the Urban Water Management Planning Act, effective January 1, 1984. The act requires all urban water suppliers to prepare, adopt, and file a UWMP with DWR every five years. The plan outlines current water demands, sources, and supply reliability to the City by forecasting water use based on climate, demographics, and land use changes within the City. The plan also provides demand-management measures to increase water-use efficiency for various land use types and details a water supply contingency plan in case of shortage emergencies (Psomas 2021).

Anaheim Public Utilities Water Standards

Anaheim Public Utilities (APU) Water Services provides three sets of documents intended to provide APU customers with a general understanding of the water service application process and water system design criteria for new development projects. These documents include the Water Rates, Rules, and Regulations (Water RRRs), Water Services Standard Specifications (WSSS), and the Water Services Administrative Procedures and Design Guidelines (Water APDG).

APU's WSSS are used as a guide by private engineers and contractors in the design and installation of additions or modifications to the City of water system. The WSSS provides uniformity in materials and installation of piping, valves, fire hydrants, service laterals and other appurtenant equipment. The WSSS also provides for construction methods and controls to be used by contractors to construct, pressure test, chlorinate and place into service domestic and recycled water systems in the City. APU's Water RRRs include rate schedules related to commodity adjustments, water system reliability adjustments, general water service, and private fire line service.

Anaheim Ordinance No. 6332

In April 2015, Governor Brown issued an Executive Order as a result of one of the most severe droughts in California's history, requiring a collective reduction in statewide urban water use of 25 percent by February 2016, with each agency in the state given a specific reduction target by the California Department of Water Resources (DWR). In response to the Governor's mandate, the City adopted Ordinance No. 6332, on May 19, 2015, establishing provisions against water waste and implementing higher (more restrictive) stages of water conservation to achieve its demand reduction target of 20 percent. The City was able to meet the mandated water use reduction from June 2015 through February 2016.

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Standard Conditions of Approval

The City will be adopting Master Conditions of Approval that are applied to all development projects through the plan-check review process. As a matter of practice, the City has been implementing the following conditions that relate to water supply and infrastructure, compliance with which would reduce negative impacts. Compliance with standard conditions would be required for all new development and redevelopment in the City.

- **SC USS-1:** The owner/developer shall submit a set of improvement plans prior to submittal of the grading plan or as determined by the City for Public Utilities Water Engineering review and approval in determining the conditions necessary for providing water service to the project.
- **SC USS-2:** The owner/developer shall ensure that all Landscape Plans shall comply with the City of Anaheim adopted Landscape Water Efficiency Guidelines. This ordinance is in compliance with the State of California Model Water Efficient Landscape Ordinance (AB 1881). The owner/developer shall submit a Certificate of Landscape Design to the Planning and Building Department prior to the issuance of a building permit.
- **SC USS-3:** Prior to the issuance of a building permit, a private water system with separate water service for fire protection, irrigation, and domestic water shall be provided by the owner/developer and shown on plans submitted by the owner/developer to the Water Engineering Division of the Anaheim Public Utilities Department
- **SC USS-4:** Per California Water Code, Division 1, Chapter 8, Article 5, Section 537-537.5, as amended by SB 7, water submetering shall be furnished and installed by the owner/developer and a water submeter shall be installed to each individual unit prior to the final building and zoning inspection. Provisions for the ongoing maintenance and operation (including meter billing) of the submeters shall be the responsibility of the owner and included and recorded in the Master CC&Rs for the project.
- **SC USS-5:** Any backflow assemblies currently installed in a vault will have to be brought up to current Water Services Administrative Procedures and Design Guidelines. Any other large water system equipment shall be installed to the satisfaction of the Water Engineering Division outside of the street setback area in a manner fully screened from all public streets and alleys. Said information shall be specifically shown on plans and approved by Water Engineering and Cross Connection Control Inspector.
- **SC USS-6:** All requests for new water services, backflow equipment, or fire lines, as well as any modifications, relocations, or abandonments of existing water services, backflow equipment, and fire lines, shall be coordinated and permitted through Water Engineering Division of the Anaheim Public Utilities Department.
- **SC USS-7:** All existing water services and fire services shall conform to current Water Services Standards Specifications. Any water service and/or fire line that does not meet current standards shall be upgraded if continued use is necessary or abandoned if the existing service is no longer needed. The owner/developer shall be responsible for the costs to upgrade or to abandon any water service or fire line.

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- **SC USS-8:** The owner shall irrevocably offer to dedicate to the City of Anaheim (i) an easement for all large domestic above-ground water meters and fire hydrants, including a 5-foot-wide easement around the fire hydrant and/or water meter pad. (ii) a 20-foot-wide easement for all water service mains and service laterals all to the satisfaction of the Water Engineering Division. The easements shall be granted on the Water Engineering Division of the Public Utilities Department's standard water easement deed. The easement deeds shall include language that requires the owner to be responsible for restoring any special surface improvements, other than asphalt paving, including but not limited to, colored concrete, bricks, pavers, stamped concrete, decorative hardscape, walls or landscaping that becomes damaged during any excavation, repair or replacement of City owner water facilities. Provisions for the repair, replacement, and maintenance of all surface improvements other than asphalt paving shall be the responsibility of the owner and included and recorded in the Master CC&Rs for the project.
- **SC USS-9:** The developer/owner shall submit a water system master plan, including a hydraulic distribution network analysis, for Public Utilities Water Engineering review and approval. The master plan shall demonstrate the adequacy of the proposed on-site water system to meet the project's water demands and fire protection requirements.
- **SC USS-10:** The owner/developer shall submit to the Public Utilities Department Water Engineering Division an estimate of the maximum fire flow rate and maximum day and peak hour water demands for the project. This information will be used to determine the adequacy of the existing water system to provide the estimated water demands. Any off-site water system improvements required to serve the project shall be done in accordance with Rule No. 15 of the Water Utility Rates, Rules, and Regulations.
- **SC USS-11:** Water improvement plans shall be submitted by the owner/developer to the Water Engineering Division for approval and a performance bond in the amount approved by the City Engineer and form approved by City Attorney shall be posted with the City of Anaheim.
- **SC USS-12:** Individual water service and/or fire line connections shall be provided by the owner/developer for each parcel or residential, commercial, industrial unit per Rule 18 of the City of Anaheim's Water Rates, Rules, and Regulations.
- **SC USS-13:** The owner/developer shall contact Water Engineering for recycled water system requirements and specific water conservation measures to be incorporated into the building and landscape construction plans.
- **SC USS-14:** The owner/developer shall install an approved backflow presentation assembly on the water service connection(s) serving the property, behind the property line and building setback in accordance with Water Services Administrative Procedures and Design Guidelines.

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Existing Conditions

Water Distribution System

APU provides water service to an area of approximately 49.3 square miles. The City's service area excludes several small areas within City limits serviced by other water purveyors and includes areas outside of the City limits. The City's current major water system facilities consist of eight imported water service connections to Metropolitan (one untreated water and seven treated water connections), 18 active wells, one 920 million gallon (mg) reservoir for untreated water, one 20 mgd water treatment plant, 13 treated water reservoirs with 38.75 mg of total storage capacity, permanent chlorination facilities at various sites, nine booster pump stations, approximately 758 miles of water mains and approximately 7,950 fire hydrants. Figure 5.17-3, *Anaheim Public Utilities' Major Water Facilities and Service Area*, depicts the location of the City's major water supply, treatment and storage facilities, and its water service area.

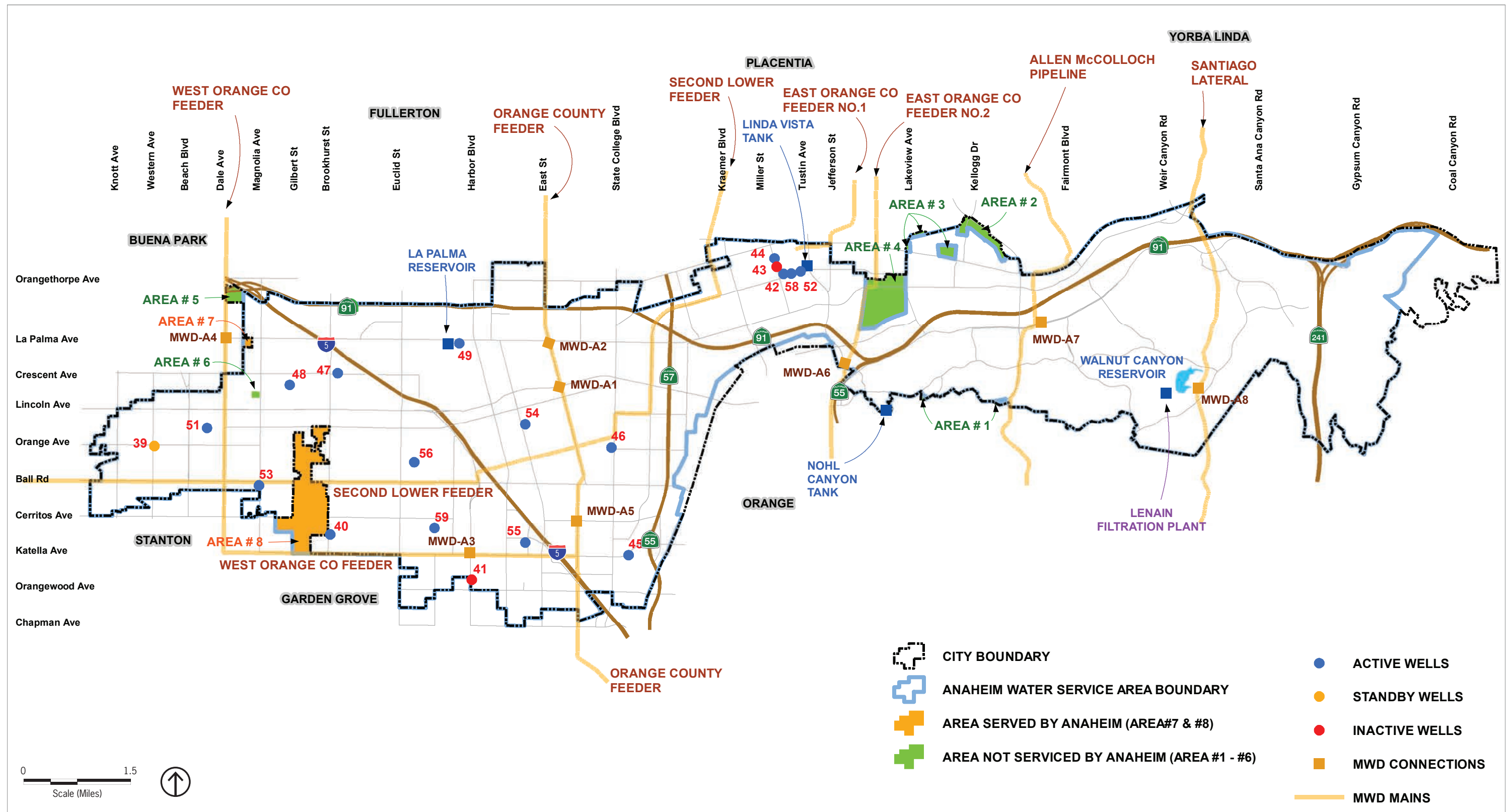
The City's water system serves areas ranging in elevation from less than 60 feet to over 1,200 feet above sea level. To provide appropriate operating pressures for such a wide range of elevations, the water system is divided into 19 pressure zones. The City's water distribution system is generally divided into two main geographic areas; the "Flatland Area" (i.e. 555 hydraulic grade line [HGL] elevation and below) and the "Hill and Canyon Area" (i.e. the 585 HGL elevation and above). The Flatland Area is approximately 22,500 acres, situated generally north and west of the Santa Ana River, and can almost be entirely served by groundwater (with Metropolitan imported water supplemented, as necessary.) The Hill and Canyon Area is approximately 9,060 acres, situated generally south and east of the Santa Ana River, and served primarily by imported water from Metropolitan and the City's Lenain Water Treatment Plant (LWTP). The City maintains 14 interconnections with neighboring cities and water districts including the City of Garden Grove, City of Orange, City of Fullerton, Golden State Water Company (GSWC), and Yorba Linda Water District. The purpose of these interconnections is to provide a nominal quantity of water during emergency situations or as necessary.

APU also owns, operates, and manages the Lenain Water Treatment Plant, which treats water that is imported from the Colorado River and stored in Anaheim's Walnut Canyon Reservoir. The plant has a treatment capacity of 15 to 20 mgd (Anaheim 2024a).

Water Demand

City water demands were developed and projected in the City's 2020 UWMP. The City's total water use in fiscal year (FY) 2020 was 56,912 acre-feet (AF). The water demand forecast was carried out in coordination with Municipal Water District of Orange County (MWDOC) and OCWD as a regional effort. Demand projections were based on existing water use data as well as projected land use, population, economic growth, and future passive and active conservation measures. Projections use baseline conservation which assume the implementation of future passive measures affecting new developments, including the Model Water Efficient Landscape, plumbing code efficiencies for toilets, and expected plumbing code for high-efficiency clothes washers. It also assumes the implementation of future active measures for existing customers and the implementation of Metropolitan Water District of Southern California (MWD) incentive programs at historical annual levels seen in Orange County.

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Source: PSOMAS, 2024.

Figure 5.17-3
Anaheim Public Utilities' Major Water Facilities and Service Area

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FY 2020 and projected City water demands from the 2020 UWMP are shown in Table 5.17-2, *2020 UWMP Projected Water Demands - Citywide*. All projected demands include an estimated 4.85 percent in water loss or non-revenue water consistent with the 2020 UWMP. The UWMP is required to be updated in 2025 (with lead agency approval of the UWMP required by June 2026) and would be based on the land use plan associated with the proposed project.

Table 5.17-2 2020 UWMP Projected Water Demands - Citywide

Land Use Type	Projected Water Demand (afy)					
	2020	2025	2030	2035	2040	2045
Single Family	20,098	20,374	20,012	19,664	19,303	19,229
Multi-Family	11,374	12,523	12,545	12,963	13,437	14,051
Commercial/Institutional/Industrial (CII)	20,912	22,794	26,778	28,117	29,523	29,523
Large Landscapes	349	350	350	350	350	350
Losses	3,282	2,717	2,895	2,964	3,038	3,064
Fire	796	-	-	-	-	-
Recycled	101	120	120	120	120	120
Total	56,912	58,878	62,700	64,178	65,771	66,337

Source: Psomas 2024.
afy = acre-feet per year

The Water Supply Assessment (WSA) calculated the water demand for parcels that would experience a change in General Plan land use designation pursuant to the proposed project (see Appendix L). The water demand numbers represent buildout under the existing General Plan to match the analysis in the UWMP. The residential and non-residential buildout numbers for the existing General Plan within these parcels were multiplied by the respective water use factors developed for the UWMP as shown in Table 5.17-3, *2020 UWMP Projected Water Demands – Parcels Experiencing Land Use Designation Changes*. The total water demand for the parcels experiencing land use designations for the proposed project as assessed in the UWMP is 4,622 AFY.

Table 5.17-3 2020 UWMP Projected Water Demands – Parcels Experiencing Land Use Designation Changes

Land Use Type	Residential (DU)	Non-Residential (KSF)
Residential	3,754	1,208
Non-Residential	13	6,578
Mixed-Use	5,673	4,342
Total	9,440	12,128
Unit Water Use Factor (gpd/unit)	154.4	220
Water Demand (gpd)	1,457,536	2,668,160
Water Demand (AFY)	1,633	2,989

Source: Psomas 2024.
DU = Dwelling unit; KSF = thousand square feet; gpd = gallons per day; AFY = acre feet per year.

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Southern California’s urban water demand has been largely shaped by the efforts to comply with The Water Conservation Act of 2009, also known as Senate Bill (SB) X7-7. The City has been actively engaged in efforts to reduce water use in its service area and has met the final 2020 water use target as documented in the 2020 UWMP.

Water Supply

The City relies on a combination of imported water, local groundwater, and recycled water to meet its water needs. The City works together with two primary agencies, MWD and OCWD, to ensure a safe and reliable water supply that will continue to serve the community in periods of drought and shortage. The sources of imported water supplies include the Colorado River and the State Water Project (SWP) provided by MWD.

The City’s main source of water supply is groundwater from the Orange County Groundwater Basin (OC Basin). The City has historically relied on approximately 70 percent groundwater (previous 10-year average) and 30 percent imported water under normal conditions. Over the 25- year planning period of the 2020 UWMP, groundwater supplies are anticipated to increase to between 80 and 85 percent of total water use. Recently, however, groundwater supply has been temporarily reduced while the City is constructing groundwater treatment facilities to treat for a group of chemicals referred to as per- and polyfluoroalkyl substances (PFAS). Recycled water represents less than 0.2 percent of the City’s total water supply. The WSA (see Appendix L) details the City’s different water supply sources under Section 4.3.

The City’s projected water supply is shown in Table 5.17-4, *Projected Normal-Year Water Supply (AFY)*. The projected supply was developed in coordination with OCWD, MWD, and MWD. The water supply and demand forecast for Anaheim projected the local groundwater supply as the amount needed to meet projected demands after subtracting the available supply from MWD (14,000 AFY) and recycled water supply (120 AFY), rather than using the amount of groundwater available to the City. The City will utilize local groundwater supplies first and supplement with imported water as needed to meet demands.

Table 5.17-4 Projected Normal-Year Water Supply (AFY)

Water Supply	2025	2030	2035	2040	2045
Imported	14,000	14,000	14,000	14,000	14,000
Recycled	120	120	120	120	120
Local Groundwater	48,182	51,316	52,528	53,834	54,298
Total	62,302	65,436	66,648	67,954	68,418

Source: Psomas 2024.

Note: afy = acre-feet per year

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5.17.3 Storm Drainage

5.17.3.1 ENVIRONMENTAL SETTING

Regulatory Background

Federal

National Pollutant Discharge Elimination System Program

Under the NPDES program, all facilities that discharge pollutants into waters of the United States are required to obtain an NPDES permit. Requirements for stormwater discharges are also regulated under this program.

State

Porter-Cologne Water Quality Control Act

Under the Porter-Cologne Water Quality Control Act (Water Code Sections 13000 et seq.), which was passed in California in 1969 and amended in 2013, the SWRCB has authority over State water rights and water quality policy. This act divided the state into nine regional basins, each under the jurisdiction of a Regional Water Quality Control Board (RWQCB) to oversee water quality on a day-to-day basis at the local and regional level. RWQCBs engage in a number of water quality functions in their respective regions. RWQCBs regulate all pollutant or nuisance discharges that may affect either surface water or groundwater. Moorpark is overseen by the Los Angeles RWQCB.

Regional

Orange County Regional Municipal Separate Stormwater Sewer System (MS4) Permit

In May 2009, the Santa Ana RWQCB re-issued the North Orange County MS4 Stormwater Permit as WDR Order R8-2009-0030 (NPDES Permit No. CAS618030) to the County of Orange, the incorporated cities of 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 update and implement a Drainage Area Management Plan (DAMP) for its jurisdiction, as well as Local Implementation Plans (LIPs), which describe the Co-permittees’ urban runoff management programs for their local jurisdictions.

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. The term “hydromodification” refers to the changes in runoff characteristics from a watershed caused by changes in land use condition. More specifically, hydromodification refers to 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 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, evapotranspiration, and runoff detention. LID BMPs try to offset these losses by introducing structural and non-structural design components that restore these water quality functions into the project’s land plan. These land development requirements are detailed in the county-wide Model Water Quality Management Plan (WQMP) and Technical

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Guidance Document (TGD), approved in May 2011, which cities have incorporated into their discretionary approval processes for new development and redevelopment projects.

The LID hierarchy requires new developments and re-developments to implement BMPs under the LID hierarchy, as described in the TGD. The LID hierarchy requires new projects to first infiltrate, then harvest and reuse, then biofilter stormwater runoff from their project site depending on site constraints. New projects and redevelopments within the plan area will follow the set hierarchy of BMP selection.

Local

City of Anaheim General Plan

Public Services and Facilities Element

Goal 6.1: Maintain a storm drain system that will adequately protect and enhance the health, safety and general welfare of residents, visitors, employees, and their property.

- **Policy 6.1-1.** Improve the City's storm drain system to address current deficiencies as well as long-term needs associated with future development to minimize flood damage and adequately convey rainfall and subsequent runoff from a 25-year frequency storm.
- **Policy 6.1-3.** Minimize the amount of impervious surfaces in conjunction with new development.

Goal 7.1: Reduce urban run-off from new and existing development.

- **Policy 7.1-1.** Ensure compliance with the Federal Clean Water Act requirements for National Pollutant Discharge Elimination System (NPDES) permits, including developing and requiring the development of Water Quality Management Plans for all new development and significant redevelopment in the City.
- **Policy 7.1-2.** Continue to implement an urban runoff reduction program consistent with regional and federal requirements, which includes requiring and encouraging the following:
 - Increase permeable areas and install filtration controls (including grass lined swales and gravel beds) and divert flow to these permeable areas to allow more percolation of runoff into the ground;
 - Use natural drainage, detention ponds or infiltration pits to collect runoff; and,
 - Prevent rainfall from entering material and waste storage areas and pollution-laden surfaces.
- **Policy 7.1-3.** Cooperate with surrounding jurisdictions and the County of Orange to provide adequate storm drainage facilities.
- **Policy 7.1-4.** Require new development and significant redevelopment to utilize site preparation, grading and best management practices that provide erosion and sediment control to prevent construction-related contaminants from leaving the site and polluting waterways.

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- **Policy 7.1-5.** Coordinate with appropriate Federal, State, and local resource agencies on development projects and construction activities affecting waterways and drainages.

City of Anaheim Municipal Code

- **Chapter 10.09, National Pollution Discharge Elimination System (NPDES).** This chapter states that new development and significant redevelopment within the City may have to comply with a water quality management plan as determined by the Director. If such a determination is made, the applicant must obtain a State General Permit, State Project Specific Permit, or Local Discharge Permit and undertake inspections to determine compliance with the permit.
- **Chapter 10.14, Storm Drain Impact and Improvement Fee.** This chapter enforces a storm drain impact fee to finance storm drain improvements and to pay for new developments and expansions and additions to existing developments. The City Council has found the fee to be consistent with its General Plan, and pursuant to Government Code 65913.2, has considered the effects of the fee with respect to the City's storm drain needs in the South Central City Area as established in the Master Plan of Drainage for the South Central City Area and within "The Anaheim Resort Specific Plan No. 92-2."

Storm Drainage Master Plans

In 1973, a Master Plan of Drainage was developed for the entire City. In this Master Plan, the City was divided into 44 distinct watershed areas, designated as Districts. Storm drain deficiencies and the needed drainage facilities were also identified. The Master Plans of Drainage have since been updated. The City's Department of Public Works oversees a storm drainage master planning program for eight primary storm drainage tributary areas in the City. Each storm drainage master plan identifies existing deficient drainage areas for the corresponding tributary area, recommends drainage improvements to reduce or eliminate deficiencies, and presents the probable cost for construction of such improvements. All master plans are based on the criteria outlined in the City's 2005 Drainage Manual for Public and Private Drainage Facilities. The City has storm drainage master plans for the following storm drainage tributary areas:

- East Garden Grove Wintersburg Channel: Adopted March 2006
- Stanton Channel: Adopted February 2008
- Anaheim-Barber City Channel: Adopted October 2009
- Carbon Creek Channel: Adopted October 2010
- Fullerton Channel: Adopted October 2010
- Moody Channel: Adopted October 2010
- North and West Santa Ana River: Adopted July 2014
- South and East Santa Ana River: Adopted February 2018

City of Anaheim Best Management Design Guidelines

The City has established best management guidelines to be used by applicants during the BMP design process for all proposed project within the City. All standards in the guidelines were developed to improve BMP functionality, stormwater treatment, and lifespan for all new project within the City (Anaheim 2024b).

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Compliance with the standards should be reflected within the grading plans and Water Quality Management Plan (WQMP) submitted to the City through design narrative and construction details.

Standard Conditions of Approval

The City will be adopting Master Conditions of Approval that are applied to all development projects through the plan-check review process. As a matter of practice, the City has been implementing the following conditions that relate to stormwater infrastructure, compliance with which would reduce negative impacts. Compliance with standard conditions would be required for all new development and redevelopment in the city.

- **SC USS-15:** Prior to the issuance of a grading permit, the owner/developer shall prepare and submit a final drainage/hydrology study, including supporting hydraulic and hydrological data to the City of Anaheim for review and approval. The study shall confirm or recommend changes to the City's adopted Master Drainage Plan by identifying off-site and on-site storm water runoff impacts resulting from build-out of permitted General Plan land uses. In addition, the study shall identify the project's contribution and shall provide locations and sizes of catchments and system connection points and all downstream drainage-mitigating measures including but not limited to offsite storm drains and interim detention facilities.
- **SC USS-16:** Prior to the issuance of a grading permit, the owner/developer shall execute a Save Harmless Agreement with the City of Anaheim for any storm drain connections to a City storm drain system. The agreement shall be recorded by the applicant on the property prior to the issuance of any permits.
- **SC USS-17:** Prior to the issuance of a grading permit, the owner/developer shall submit Water Quality Management Plan (WQMP) to the City for review and approval. The WQMP shall be consistent with the requirements of Section 7 and Exhibit 7.II of the Orange County Drainage Area Management Plan (DAMP) for New Development/Significant Redevelopment projects; identify potential sources of pollutants during the long-term on-going maintenance and use of the proposed project that could affect the quality of the storm water runoff from the project site; define Source Control, Site Design, and Treatment Control (if applicable) best management practices (BMPs) to control or eliminate the discharge of pollutants into the surface water runoff; and provide a monitoring program to address the long-term implementation of and compliance with the defined BMPs.

Existing Conditions

Storm Drain System

The City storm drain infrastructure feeds into a series of OCFCD regional drainage channels. These channels and their respective drainage areas divide the plan area into eight major tributary areas, named after the drainage channel. A description of the tributary areas is provided below and is shown on Figure 5.9-3, *Drainage Watersheds*:

- **East Garden Grove-Wintersburg Channel.** The East Garden Grove-Wintersburg Channel tributary area is in the southernmost portion of the city between Anaheim-Barber City Channel and North and West Santa Ana River. East Garden Grove Wintersburg Channel is a trapezoidal channel that is tributary to Ocean View Channel, which is tributary to the ocean. This tributary area consists of facilities that are

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tributary to OCFCD regional facilities, the East Garden Grove Wintersburg Channel, and the Haster Basin. The Platinum Triangle is in this tributary area.

- **Stanton Channel.** The Stanton Channel tributary area consists of three separate areas in the southwest portion of the City. All three areas are tributary to Stanton Channel, which is tributary to the ocean. This tributary area consists of three storm drain facilities, all of which are owned and maintained by the County of Orange and all of which are tributaries of the Bolsa Chica Flood Control Channel.
- **Anaheim-Barber City Channel.** The Anaheim-Barber City Channel tributary area is located in the southern portion of the city and drains into the Anaheim-Barber City Channel watershed approximately 2,000 feet downstream within the city of Stanton. The Anaheim-Barber City Channel is tributary to Stanton Channel, which is tributary to the ocean.
- **Carbon Creek Channel.** The Carbon Creek Channel tributary area is located in the western portion of the city and drains into the Carbon Creek Channel watershed. Carbon Creek Channel is a trapezoidal earthen rip rap channel that tributaries to the Coyote Creek Channel.
- **Fullerton Creek Channel.** The Fullerton Creek Channel tributary area is in the northern portion of the city. The Fullerton Channel is a trapezoidal concrete-lined channel that is tributary to Coyote Creek Channel.
- **Moody Creek Channel.** The Moody Channel tributary area comprises two separate areas in the western portion of the city. Both areas are tributary to the Crescent Avenue Storm Drain, which is tributary to Moody Creek Channel, which is tributary to Coyote Creek Channel.
- **North and West Santa Ana River.** The North and West Santa Ana River tributary area consists of the area north and west of the Santa Ana River. The Santa Ana River is tributary to the ocean.
- **South and East Santa Ana River.** The South and East Santa Ana River tributary area consists of the areas south and east of the Santa Ana River in eastern Anaheim.

The City maintains a master plan of drainage for each tributary area to ensure that storm drain facilities are functioning effectively and are protective of property and people. The tributary areas are further divided into 44 drainage districts that were established by the 1973 Master Plan of Drainage. For an exhibit of the existing storm drain network, see Figure 5.9-4, *Existing Storm Drain Facilities*.

The eight master plans of drainage analyzed the capacity of the storm drain facilities in the City and identified any deficiencies or capital improvements needed, using the 10-year design storm to quantify peak runoff. Regional flood control facilities, such as detention basins, are sized for the 100-year storm event. This sizing criteria, along with flood capacities in the street, provide 100-year protection of structures throughout the City. This is in line with the FEMA Flood Insurance program, where all new developments and redevelopments must achieve 100-year storm protection. Hydrology and hydraulics analyses were performed in accordance with the city of Anaheim Department of Public Works 2005 Storm Drainage Manual. Drainage patterns were revised after a review of project plans to reflect new development and a subsequent field review. Land use data

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was obtained from the city of Anaheim's 2004 General Plan, and soils information was obtained from the 1986 Orange County Hydrology Manual.

The City manages storm drain projects on an annual basis through the adopted operating and stormwater program local implementation plan budget. After determining several projects with the highest priority, the selected projects are incorporated into the current fiscal year budget. The projects on the 2024-2025 capital improvement plan (CIP) budget for the City and County's CIP (for projects that affect the City) budget are listed in Table 5.9-2, *Current City CIP List*. Improvements to storm drain infrastructure are included in the Watershed Protection Plan.

5.17.4 Solid Waste

5.17.4.1 ENVIRONMENTAL SETTING

Regulatory Background

Federal

Resource Conservation and Recovery Act

The Resource Conservation and Recovery Act of 1976 (Title 40 of the Code of Federal Regulations), Part 258, contains regulations for municipal solid waste landfills and requires states to implement their own permitting programs incorporating the federal landfill criteria. The federal regulations address the location, operation, design (liners, leachate collection, run-off control, etc.), groundwater monitoring, and closure of landfills.

State

California Solid Waste Reuse and Recycling Access Act of 1991

The California Solid Waste Reuse and Recycling Access Act (Public Resources Code (PRC) Division 30, Part 3, Chapter 18) requires development projects to set aside areas for collecting and loading recyclable materials. The Act required CalRecycle to develop a model ordinance for adoption by any local agency relating to 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, governing adequate areas in development projects for collection and loading of recyclable materials.

California Single Use Foodware Act (AB 1276)

AB 1276 (PRC Sections 42270 through 42273) was enacted in 2021 and requires all retail food facilities and food delivery services to provide single-use foodware items on request only. This law was established to reduce the amount of waste generated by single-use items and to encourage consumers to choose reusables. Single-use items include utensils, condiment cups and packages, straws, and stirrers, including those made from bioplastics, compostable plastic, bamboo, and paper. As of June 1, 2022, all cities and counties must authorize an enforcement agency to issue violations for infractions.

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CALGreen Building Code

Section 5.408 (Construction Waste Reduction, Disposal, and Recycling) of CALGreen requires that at least 65 percent of the nonhazardous construction and demolition waste from nonresidential construction operations be recycled and/or salvaged for reuse. CALGreen is updated on a three-year cycle; the 2022 CALGreen took effect on January 1, 2023.

Assembly Bill 1327

The California Solid Waste Reuse and the Recycling Access Act of 1991 (AB 1327) is codified in Public Resources Code Sections 42900 to 42911. As amended, AB 1327 requires each local jurisdiction to adopt an ordinance requiring commercial, industrial, institutional, and residential buildings with five or more living units to provide an adequate storage area for the collection and removal of recyclable materials. The size of these storage areas is determined by the appropriate jurisdictions' ordinance.

Assembly Bills 939, 341, and 1826

Assembly Bill 939 (Integrated Solid Waste Management Act of 1989; Public Resources Code 40050 et seq.) established an integrated waste-management system that focused on source reduction, recycling, composting, and land disposal of waste. AB 939 required every California city and county to divert 50 percent of its waste from landfills by the year 2000. Compliance with AB 939 is measured in part by comparing solid waste disposal rates for a jurisdiction with target disposal rates. Actual rates at or below target rates are consistent with AB 939. AB 939 also requires California counties to show 15 years of disposal capacity for all jurisdictions in the county or show a plan to transform or divert its waste.

Assembly Bill 341 (Chapter 476, Statutes of 2011) increased the statewide solid waste diversion goal to 75 percent by 2020. The law also mandates recycling for commercial and multifamily residential land uses as well as schools and school districts.

AB 1826, which was enacted in 2014, mandated organic waste recycling for businesses and multifamily dwellings with five or more units. The commercial organics recycling law took effect on April 1, 2016. As of September 2020, businesses and multifamily residences with five or more units that generate two or more cubic yards per week of solid waste (including recycling and organic waste) must arrange for organic waste recycling services. The bill requires each jurisdiction to report to CalRecycle on its progress implementing the organic waste recycling program, and CalRecycle reviews whether a jurisdiction is in compliance with the act.

Organic Waste Methane Emissions Reduction Act

In September 2016, SB 1383 established methane emissions reduction targets in a statewide effort to reduce emissions of short-lived climate pollutants in various sectors of California's economy. SB 1383 established goals to reduce the landfill disposal of organics by achieving a 50 percent reduction in the 2014 level of statewide disposal of organic waste by 2020 and a 75 percent reduction by 2025. SB 1383 granted CalRecycle the regulatory authority to achieve the organic waste disposal reduction targets and established an additional target that at least 20 percent of currently disposed edible food be recovered for human consumption by 2025.

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SB 1383 also requires that no later than July 1, 2020, CalRecycle and the California Air Resources Board analyze the progress that the waste sector, State government, and local governments made in achieving the targets for reducing organic waste in landfills.

Local

City of Anaheim General Plan

Public Services and Facilities Element

Goal 7.1: Minimize, recycle and dispose of solid and hazardous waste in an efficient and environmentally sound manner.

- **Policy 7.1-1.** Ensure that solid waste generated within the City is collected and transported in a cost-effective manner that protects the public health and safety.
- **Policy 7.1-2.** Reduce the volume of material sent to solid waste sites in accordance with State law by continuing source reduction and recycling programs and by ensuring the participation of all residents and businesses.

Green Element

Goal 16.1: Continue to monitor and improve the Anaheim Recycle program.

- **Policy 16.1-1.** Continue educational outreach programs for Anaheim's households, businesses, and schools on the need for recycling solid waste.
- **Policy 16.1-2.** Provide adequate solid waste collection and recycling for commercial areas and construction activities.

Anaheim Municipal Code

- **Chapter 10.10, Waste Recyclable Materials, Organic Materials, and Solid Waste Collection and Disposal.** This section provides a uniform procedure, regulation, and control for the collection and transportation of recyclable commodities, organic materials, and solid waste to a City-designated disposal site and provides for the regulation and control of the collection and diversion of solid waste from disposal at landfills through recycling, composting, or transformation of recyclables.

Standard Conditions of Approval

The City will be adopting Master Conditions of Approval that are applied to all development projects through the plan-check review process. As a matter of practice, the City has been implementing the following conditions that relate to solid waste, compliance with which would reduce negative impacts. Compliance with standard conditions would be required for all new development and redevelopment in the city.

- **SC USS-18:** Any proposed changes to the Solid Waste Management Plan must be approved by the Public Works Department, Sanitation Division.

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Existing Conditions

Solid Waste Collection

Anaheim residential and commercial solid waste service is provided by Republic Services. Residential and commercial customers are provided separate bins for trash, recyclables, and yard wastes. Republic Services also offers free bulky item pick-up, container exchange and rentals, and extra trash service to Anaheim residents. Hazardous waste can be disposed at household hazardous waste collectors in Anaheim as well as in other cities throughout Orange County including Huntington Beach, Irvine, and San Juan Capistrano (Anaheim 2022). The City of Anaheim also provides organic waste bins (Anaheim 2024c).

Landfills

Solid waste generated in the City is delivered to 19 landfills. Of these, Olinda Alpha Sanitary Landfill received the largest amount of waste in 2019, receiving 387,940 tons, followed by Lost Hills Composting and Bioenergy with 39,937 tons and Frank R. Bowerman Sanitary Landfill with 25,714 tons. Solid waste disposed from the City of Anaheim in 2019 totaled 471,767 tons (CalRecycle 2019).

Table 5.17-5, *Landfills*, provides more information on landfill capacity and closing dates for the three primary landfill sites that receive solid waste from the City.

Table 5.17-5 Landfills

Landfill Name and Location	Maximum Permitted Throughput, tons per day	Average Disposal, tons per day	Residual Disposal Capacity, tons per day	Remaining Capacity, cubic yards	Estimated Closing Year
Frank R. Bowerman Sanitary Landfill 11002 Bee Canyon Road Irvine, CA 92602	11,500	7,344 ¹	4156	205,000,000	2053
Lost Hills Environmental Waste Facility 14045 Holloway Road Lost Hills, CA 93249	3,753	1,379 ²	2374	N/A	2030
Olinda Alpha Sanitary Landfill 1942 North Valencia Avenue Brea, CA 92823	8,000	7,344 ³	637	17,500,000	2036
Total	23,253	16,067	7,167	222,500,000	N/A

Source: CalRecycle 2024a; CalRecycle 2024b; CalRecycle 2024c; CalRecycle 2024d.

¹ Based on six days per week operation (300 days per year).

² Based on seven days per week operation (350 days per year).

³ Based on six days per week operation (300 days per year).

Solid Waste Diversion

As discussed previously, the Integrated Waste Management Act (2000) requires all local jurisdictions to divert 50 percent of total annual solid waste tonnage to be recycled. Additionally, as discussed above, in 2008, the requirements were modified to reflect a per capita requirement, rather than tonnage. Each jurisdiction has both a per capita and per employee target diversion rate, which are calculated from the average of 50 percent of

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generation between base years 2003 through 2006, expressed in terms of per capita disposal. Disposal rates compared to disposal targets are one of several factors in determining a jurisdiction's compliance with AB 939; therefore, actual disposal rates at or below target disposal rates do not necessarily indicate compliance with AB 939.

The City's target disposal maximum rates are 8.2 pounds per capita per day and 16.3 pounds per employee per day. In 2022, the most recent year for which data are available, the actual disposal rates were 8.9 pounds per day per resident and 16.3 pounds per day per employee (CalRecycle 2024d). Table 5.17-6, *Solid Waste Generation – Existing Conditions*, shows the existing solid waste generation using these generation rates. As shown in Table 5.17-6, the City currently generates 6,554,437 lbs/day (or 3,277 tons/day) of solid waste.

Table 5.17-6 Solid Waste Generation – Existing Conditions

Total Population	Solid Waste Generation Rate (lbs/resident/day)	Solid Waste Generation (lbs/day)	Total Jobs	Solid Waste Generation Rate (lbs/employee/day)	Solid Waste Generation (lbs/day)
345,999	8.9	3,079,391	213,193	16.3	3,475,046

Source: CalRecycle 2024d.

5.17.5 Other Utilities

5.17.5.1 ENVIRONMENTAL SETTING

Regulatory Background

Federal

Energy Independence and Security Act of 2007

Signed into law in December 2007, this act is an energy policy law that contains provisions designed to increase energy efficiency and the availability of renewable energy. This act contains provisions for increasing fuel economy standards for cars and light trucks, while establishing new minimum efficiency standards for lighting as well as residential and commercial appliance equipment.

Energy Policy Act of 2005

Passed in July 2005, the Energy Policy Act includes a comprehensive set of provisions to address energy issues. This act includes tax incentives for the following: energy conservation improvements in commercial and residential buildings; fossil fuel production and clean coal facilities; and construction and operation of nuclear power plants, among other things. Subsidies are also included for geothermal, wind energy, and other alternative energy producers.

Natural Gas Pipeline Safety Act of 1968

The Natural Gas Pipeline Safety Act of 1968 authorizes the US Department of Transportation (DOT) to regulate pipeline transportation of flammable, toxic, or corrosive natural gas and other gases as well as the transportation and storage of liquefied natural gas. DOT's Pipeline and Hazardous Materials Safety

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Administration (PHMSA) develops and enforces regulations for the safe, reliable, and environmentally sound operation of the nation's 2.6 million miles of pipelines. DOT and PHMSA regulations governing natural gas transmission pipelines, facility operations, employee activities, and safety are in the Code of Federal Regulations (CFR)—49 CFR Parts 190 through 192, 49 CFR Part 195, and 49 CFR Part 199.

Pipeline Safety Improvement Act of 2002

The Pipeline Safety Improvement Act mandates that the DOT, the Department of Energy, and the National Institute of Standards and Technology in the Department of Commerce carry out a program of research, development, demonstration, and standardization to ensure the integrity of pipeline facilities. The purpose of the program is to identify safety and integrity issues and develop methodologies and technologies to characterize, detect, and manage risks associated with natural gas and hazardous liquid pipelines.

Pipeline Inspection, Enforcement, and Protection Act of 2006

The Pipeline Inspection, Enforcement, and Protection Act confirms the commitment to the Integrity Management Program (IMP) and other programs enacted in the Pipeline Safety Improvement Act of 2002. The 2006 legislation includes provisions on:

- Preventing excavation damage to pipelines through the enhanced use and improved enforcement of state “One-Call” laws that preclude excavators from digging until they contact the state One-Call system to locate the underground pipelines.
- Minimum standards for IMPs for distribution pipelines (including installation of excess flow valves on single-family residential service lines based on feasibility and risk).
- Standards for managing gas and hazardous liquid pipelines to reduce risks associated with human factors (e.g., fatigue).
- Authority to waive safety standards in emergencies.
- Authority to assist in restoration of disrupted pipeline operations.
- Review and update incident reporting requirements.
- Requirements for senior executive officers to certify operator integrity management performance reports.
- Clarification of jurisdiction between states and PHMSA for short laterals that feed industrial and electric generator consumers from interstate natural gas pipelines.

Pipeline Safety, Regulatory Certainty, and Job Creation Act of 2011

The Pipeline Safety, Regulatory Certainty, and Job Creation Act of 2011 was designed to examine and improve the state of pipeline safety regulation. The act:

- Reauthorizes PHMSA's federal pipeline safety programs through fiscal year 2015.

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- Provides the regulatory certainty necessary for pipeline owners and operators to plan infrastructure investments and create jobs.
- Improves pipeline transportation by strengthening enforcement of current laws and improving existing laws where necessary.
- Ensures a balanced regulatory approach to improving safety that applies cost-benefit principles.
- Protects and preserves Congressional authority by ensuring certain key rulemakings are not finalized until Congress has an opportunity to act.

National Energy Policy

Established in 2001 by the National Energy Policy Development Group, this policy is designed to help the private sector and state and local governments promote dependable, affordable, and environmentally sound production and distribution of energy for the future. Key issues addressed by the energy policy are energy conservation, repair, and expansion of energy infrastructure, and ways of increasing energy supplies while protecting the environment.

Federal Communication Commission Regulations

The Federal Communications Commission (FCC) regulates interstate and international communications by radio, television, wire, satellite and cable in all 50 states, the District of Columbia and US territories. FCC's regulatory powers include setting manufacturing standards for communications equipment, decency standards in radio and television broadcasts, and ensuring competition.

State

California Public Utility Commission

The California Public Utilities Commission regulates privately owned telecommunications, electric, natural gas, water, railroad, rail transit, and passenger transportation companies, in addition to authorizing video franchises. Among the commission's goals for energy regulation are: establish service standards and safety rules, authorize utility rate changes, oversee markets to inhibit anti-competitive activity, prosecute unlawful utility marketing and billing activities, govern business relationships between utilities and their affiliates, resolve complaints by customers against utilities, implement energy efficiency and conservation programs and programs for low-income and disabled people, oversee the merger and restructure of utility corporations, and enforce the California Environmental Quality Act (CEQA) for utility construction.

California Energy Commission

The California Energy Commission (CEC) was created in 1974 as the state's principal energy planning organization 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:

- Forecast statewide electricity needs.
- License power plants to meet those needs.

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- Promote energy conservation and efficiency measures.
- Develop renewable energy resources and alternative energy technologies.
- Promote research, development and demonstration.
- Plan for and direct the state's response to energy emergencies.

AB 802: California Energy Benchmarking and Disclosure

On October 8, 2015, AB 802 directed the CEC to establish a statewide energy benchmarking and disclosure program and enhanced the CEC's existing authority to collect data from utilities and other entities for the purposes of energy forecasting, planning, and program design. Among its specific provisions, AB 802 requires utilities to maintain records of the energy usage data of all buildings to which they provide service for at least the most recent 12 complete months. AB 802 requires each utility, upon the request and authorization of the owner, owner's agent, or operator of a covered building, to deliver or provide aggregated energy usage data for a covered building to the owner, owner's agent, operator, or to the owner's account in the Energy Star Portfolio Manager, subject to specified requirements. AB 802 also authorized the CEC to specify additional information to be delivered by utilities for certain purposes.

California Building Code: Building Energy Efficiency Standards

Energy conservation standards for new residential and nonresidential buildings were adopted by the California Energy Resources Conservation and Development Commission (now the CEC) in June 1977 (Title 24, Part 6, of the California Code of Regulations). Title 24 Part 6 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.

The CEC adopted the 2022 Building Energy Efficiency Standards on August 11, 2021, and they went into effect on January 1, 2023. The 2022 standards encourage efficient electric heat pumps, establish electric-ready requirements for new homes, expand solar photovoltaic and battery storage standards, strengthen ventilation standards, among other approaches. The 2022 standards require mixed-fuel single-family homes to be electric-ready to accommodate replacement of gas appliances with electric appliances. In addition, the new standards include prescriptive photovoltaic system and battery requirements for high-rise, multi-family buildings (i.e., more than three stories) and commercial buildings such as hotels, offices, medical offices, restaurants, retail stores, schools, warehouses, theaters, and convention centers.

California Green Building Code: CALGreen

CALGreen was adopted as part of the California Building Standards Code and established planning and design standards for sustainable site development, energy efficiency (in excess of the California Energy Code requirements), as well as water conservation and material conservation, both of which contribute to energy conservation. The 2022 CALGreen standards became effective January 1, 2023.

Appliance Efficiency Regulations

California's Appliance Efficiency Regulations (California Code of Regulations [CCR] Title 20, Parts 1600–1608) contain energy performance, energy design, water performance, and water design standards for appliances (including refrigerators, ice makers, vending machines, freezers, water heaters, fans, boilers, washing machines,

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dryers, air conditioners, pool equipment, and plumbing fittings) that are sold or offered for sale in California. These standards are updated regularly to allow consideration of new energy efficiency technologies and methods.

Governor's Green Building Executive Order (S-20-04)

On December 14, 2004, California's governor signed Executive Order S-20-04, creating a Green Building Action Plan to improve the energy performance of all state buildings. The order mandates reducing grid-based energy purchases for state-owned buildings by 20 percent by 2015, through cost-effective efficiency measures and distributed generation technologies. These measures should include, but not be limited to:

- Designing, constructing, and operating all new and renovated state-owned facilities paid for with state funds as "LEED Silver" or higher-certified buildings;
- Identifying the most appropriate financing and project delivery mechanisms to achieve these goals;
- Seeking out office space leases in buildings with a U.S. EPA Energy Star rating; and
- Purchasing or operating Energy Star⁴ electrical equipment whenever cost-effective.

State Greenhouse Gas Regulations

Current State of California guidance and goals for reductions in GHG emissions from stationary sources are generally embodied in Executive Orders S-03-05 and B-30-15, AB 32 and AB 197, and SB 32. While these regulations are inherently aimed at reducing GHG emissions, they have a direct relationship to energy conservation. A detailed discussion of these regulations is provided in Section 5.7, *Greenhouse Gas Emissions*, of the Draft PEIR.

Local

City of Anaheim General Plan

Public Services and Facilities Element

Goal 3.1: Generate electricity in a manner that is reliable, cost-effective, and sustainable.

- **Policy 3.1-1.** Coordinate with Southern California Edison and other suppliers regarding electricity supply and distribution to provide a continual source of reliable and efficient energy.
- **Policy 3.1-2.** Ensure that adequate electricity capacity exists for planned development.
- **Policy 3.1-3.** Encourage the development and use of renewable energy resources.

⁴ Energy Star is a government-backed labeling program that helps people and organizations save money and reduce GHG emissions by identifying factories, office equipment, home appliances, and electronics that have superior energy efficiency.

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Goal 8.1: Coordinate with private utilities to provide adequate natural gas and communications infrastructure to existing and new development in a manner compatible with the surrounding community.

- **Policy 8.1-1.** Coordinate with private utilities to provide Anaheim residents with highspeed, high-capacity information systems and adequate natural gas infrastructure.
- **Policy 8.1-2.** Coordinate with private utilities on site design and land use compatibility issues.

Green Element

Goal 15.1: Continue to lead the County in energy conservation programs, practices and community outreach.

- **Policy 15.1-1.** Continue to maintain and update energy conservation programs and information provided on the City's website.

Goal 15.2: Continue to encourage site design practices that reduce and conserve energy.

- **Policy 15.2-1.** Encourage increased use of passive and active solar design in existing and new development (e.g., orienting buildings to maximize exposure to cooling effects of prevailing winds and locating landscaping and landscape structures to shade buildings).
- **Policy 15.2-2.** Encourage energy-efficient retrofitting of existing buildings throughout the City.
- **Policy 15.2-3.** Continue to provide free energy audits for the public.

Goal 17.1: Encourage building and site design standards that reduce energy costs.

- **Policy 17.1-1.** Encourage designs that incorporate solar and wind exposure features such as daylighting design, natural ventilation, space planning and thermal massing.

Anaheim Municipal Code

- **Chapter 15.03, Building Standards Code and Administrative Provisions Pertaining to Building and Construction.** This chapter incorporates California Building Codes by reference, including the Building Code, Electrical Code, Energy Code, Green Building Standards Code, and Referenced Standards Code, as well as the International Building Code.

Standard Conditions of Approval

The City will be adopting Master Conditions of Approval that are applied to all development projects through the plan-check review process. As a matter of practice, the City has been implementing the following conditions that relate to electricity service, compliance with which would reduce negative impacts. Compliance with standard conditions would be required for all new development and redevelopment in the city.

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- **SC USS-19:** Prior to connection of electrical service, the legal owner shall provide to the City of Anaheim a Public Utilities easement with dimensions as shown on the approved utility service plan. The legal owner shall submit payment to the City of Anaheim for service connection fees.

Existing Conditions

Electric power is provided to the City by APU's Electrical Division. Natural gas is provided by the Southern California Gas Company (SoCalGas). Internet, phone, and satellite television services are currently provided by a variety of private sources, including AT&T, DIRECTV, Spectrum, and Dish.

Electricity

APU's distribution system consists of approximately 1,100 circuit miles of transmission and distribution lines, over 700 miles of which are underground. In order to facilitate the safe and efficient transfer of electricity to residences and businesses, 14 distribution substations are located throughout the City.

Anaheim obtains its electric supply from its resources located in or near Anaheim and across the western United States. To round out its electric supply, the City of Anaheim participates in seasonal power exchanges as well as additional market purchases where necessary.

APU's sources generate approximately 2,721,438 megawatt hours (MWh) annually (Anaheim 2024).

Natural Gas

SoCalGas provides natural gas service in and has facilities throughout the City of Anaheim. The service area of SoCalGas spans much of the southern half of California, from Imperial County on the southeast to San Luis Obispo County on the northwest to part of Fresno County on the north to Riverside County and most of San Bernardino County on the east (CEC 2022). Total natural gas consumption in the SoCalGas service area was 6,565 million therms for 2022 (CEC 2024).

Existing natural gas demands in the City, based on data provided by SoCalGas, are estimated at 71,086,666 therms per year, as shown in Table 5.5-3, *Existing Natural Gas Demand*, in Section 5.5, *Energy*.

5.17.6 Proposed General Plan Goals and Policies

The proposed project does not include any new or updated general plan goals and policies related to utilities and service systems.

5.17.7 Thresholds of Significance

The City of Anaheim considers a project to have a significant effect on the environment if the project would:

- U-1 Require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects.

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- U-2 Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry, and multiple dry years.
- U-3 Result in a determination by the waste water treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments.
- U-4 Generate solid waste in excess of state or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals.
- U-5 Comply with federal, state, and local management and reduction statutes and regulations related to solid waste.

5.17.8 Environmental Impacts

Methodology

Sewer System

The analysis of impacts to the sewer system in this Draft PEIR is based on the Sewer Study for the proposed project (see Appendix O). The primary objective of the study is to evaluate the capacity of the City's existing sewer collection system and any impacts due to the proposed project's sewer flows. The analysis identifies potential capacity issues and develops recommended capital improvement projects that would mitigate those issues and provide additional downstream system capacity for the buildout of the proposed project and other approved tributary development. The study area for the Sewer Study only includes the parcels that would undergo General Plan land use designation changes under the proposed project.

The study area pipeline analysis was evaluated utilizing the East Anaheim and Central Anaheim sewer models developed as part of City sewer master planning efforts. The existing model scenarios represent sewer flow from the existing General Plan buildout.

The buildout scenario analyzed in the Sewer Study reflects the proposed project and includes sewer flow associated with the current General Plan and flow from buildout land uses including approved specific plan areas and general growth and infill pursuant to the proposed project. Area-specific model output and graphics are provided by tributary basin that identify recommended system improvements to meet buildout peak flow capacity requirements. The project buildout analysis consists of development of average flow estimates for the proposed land uses in the project area and where those flows would logically be loaded to the existing sewer collection facilities. As shown in Appendix A of the Sewer Study, the proposed project would result in an increase of 20,662 DUs⁵ and 234,764 square-feet of non-residential use when compared to the existing General Plan.

⁵ Table 3-3 of this Draft PEIR notes that under buildout conditions the existing General Plan would include 134,139 dwelling units resulting in a difference of 20,662 DUs when compared to the proposed project (a total of 154,801 DUs). For the Sewer Study, the number of dwelling units at buildout of the existing General Plan is 134,139 DUs resulting in a difference of 20,622 DUs when compared to the proposed project. This slight difference of 64 units does not affect the results of the Sewer Study.

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The mix of non-residential uses (retail, restaurant, office, and hotel) for mixed-use designation flow projections were estimated based on the Center City Corridor Specific Plan (C3SP) Market Study (2021) which provides a breakdown by square footage for potential mixed-use development areas. Average flow factors were generated in close consultation with City staff and used to calculate project related buildout sewer flows. Table 1 and 2 of the Sewer Study (see Appendix O) summarize the flow factors in gallons per day (gpd) per thousand square feet (ksf) for non-residential; gpd per room for hotel; and gpd per DU for residential land uses. The assumed percentage breakdown for non-residential land uses from the C3SP Market Study (2021) was multiplied by the corresponding flow factors in Table 1 to calculate the weighted average non-residential flow for each of the mixed-use designations shown in Table 2. The project parcels have a mix of existing and proposed dwelling units and nonresidential square footage. As such, flow factors were applied on a per dwelling unit and per thousand square foot basis to calculate the increase in sewer flows due to project buildout.

Sewer flows were calculated for each parcel and were then allocated to the appropriate manhole in the model for the buildout scenario. Non-project parcels maintained the buildout flows utilized in the sewer master plan models. If flow from a particular parcel enters the system via a lateral between manholes its flow is loaded to the next upstream manhole. For project parcels, the model buildout flows were replaced with project buildout flows. This was done to avoid double counting development intensification.

Water Supply

A WSA has been prepared for the proposed project in accordance with applicable sections of the California Public Resources Code and California Water Code as referenced in SB 610 (see Appendix L). Section 2.1 defines what constitutes a project under SB 610 (i.e., a proposed residential development, having more than 500 dwelling units). The purpose of the WSA is to verify there is sufficient City water supply for the proposed project as well as other City water demands projected through the year 2045 as analyzed in APU's UWMP. The APU's water supply and demand analysis is based on the buildout of the existing General Plan. The WSA estimated the additional water demand that would result from parcels that are changing land use as a result of the proposed project as compared to the buildout analyzed in the UWMP (i.e. buildout of the existing General Plan). The WSA also analyzed the impact this additional water demand would have on APU's water supply. The proposed land use changes and commensurate additional water demand require the preparation of a WSA. The land use changes pursuant to the proposed project when compared to the buildout of the current General Plan would allow development of up to 20,662 additional dwelling units and 234,000 additional square feet of non-residential use⁶. As such, the proposed project necessitates the preparation of a WSA because the proposed project exceeds the development thresholds per SB 610 of 500 dwelling units.

Unit water use factors developed for the 2020 UWMP were used to develop projected demands for the proposed project. For the UWMP, a water demand base-year was chosen as an average of FY 2018 and FY 2019 as FY 2020 water use by user class was likely impacted by COVID-19. Demographic projections from the Center for Demographic Research (CDR) at California State University, Fullerton, were used to drive the

⁶ The WSA numbers for the existing General Plan match the numbers used in the Sewer Study and resulted in an increase of 20,622 DUs when compared to the proposed project. However, Tables 3-3 of this Draft PEIR notes that under buildout conditions the existing General Plan would include 134,118 dwelling units resulting in a difference of 20,683 DUs when compared to the proposed project. This slight difference of 64 units does not affect the results of the WSA.

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forecast. The major focus was on single-family (SF) and multifamily residential (MF) demand as the primary water demand in the City, and the relative consistency of CII demands over the years. The residential base-year demand was divided by the residential housing units to determine the total use per housing unit in gallons per home per day. The indoor use was estimated based on a rate of 55.3 gallons per capita per day (gpcd) applied to the estimated persons per unit for SF and MF housing from CDR. The outdoor use was then determined by subtracting the indoor use from the total household use for each housing type. For new homes, the residential water use was set equal to 51.1 gpcd (based on 2018 plumbing code) through the entire planning period with outdoor use reduced by 25 percent compared to existing homes. These rates were applied to the projected residential growth forecast from the CDR. The City's CII demand was estimated to increase annually by one (1.0) percent based on the projected increase in employment numbers from CDR. Projected distribution system losses were set equal to the average losses based on FY 2018 and FY 2019.

For the WSA, the increase in residential water use is estimated using the per dwelling unit factors developed for new homes in the 2020 UWMP as described above. The proposed increase in residential units includes multi-family housing of varying densities with single family housing reduced as part of the proposed project. As such, the multi-family unit demand factor for new homes was utilized in the water demand projection.

The 2020 UWMP did not develop specific factors for non-residential land uses. Therefore, the WSA used 220 gallons per day per thousand square-feet (gpd/ksf) based on an employee water use of 87 gpd per employee used in MWDOC's OC Reliability Study and the proposed project's employee generation rate of 400 employees per square foot.

The WSA assumes that 17,453 DUs would be constructed by the year 2029 as part of the proposed housing element (HE) sites to meet the City's Regional Housing Needs Allocation. The WSA calculated water demands in five-year increments beginning in 2025 and ending in 2045, consistent with the 2020 UWMP. Using five-year phasing increments, half of the HE DUs were assumed to be developed by 2025 and the other half by 2030. The remaining DUs were assumed to be constructed equally over the subsequent 15 years out to 2045 (see Table ES.2 of the WSA).

Solid Waste

The proposed project's waste generation presented below is based on an estimate of the City's baseline waste generation rate, which was derived from solid waste disposal data in 2022 from CalRecycle. This net increase in annual waste generation was compared to the residual waste capacity of the landfills that serve the City. In determining the level of significance, the analysis assumes that future projects facilitated by the proposed project would comply with federal, state, and local laws, ordinances, goals, objectives, policies, and regulations.

Electricity Services

The following analysis is based on the calculations of electricity and natural gas use under the proposed project presented in Section 5.5, *Energy*. Section 5.5 analyzes impacts with respect to wasteful consumption of energy resources while the analysis in Section 5.17.5.4, *Environmental Impacts*, analyzes potential impacts related to the supply of electricity and natural gas from the City's energy providers in addition to the ability of the City's

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energy and telecommunications infrastructure to meet the needs of the proposed project. The projected energy use under the proposed project is compared to the forecast energy use in the SoCalGas APU service areas.

Impact Analysis

The following impact analysis addresses thresholds of significance that are identified in brackets after the impact statement.

Impact 5.17-1: Implementation of the proposed project would not require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects. [Threshold U-1]

Wastewater

Table 5 of the Sewer Study (see Appendix O) summarizes the existing and proposed peak flows to the OCSD outfalls from each tributary system serving parcels that would undergo General Plan land use designation changes pursuant to the proposed project. As shown in the table, the proposed project would result in an increase of 8.22 mgd in peak sewer flow. Limiting capacity pipelines identified based on these peak flows are illustrated in Figure 5.17-4, *Central Anaheim Deficient Pipelines for GPU Buildout*, and Figure 5.17-5, *East Anaheim Deficient Pipelines for GPU Buildout*. Limiting capacity pipelines have maximum d/D ratios above the pipeline analysis criteria.

The Sewer Study includes Capital Improvement Projects (CIP) for these deficient pipelines. Numerous wastewater collection system improvement projects are recommended for implementation to provide sufficient capacity for future development within the study area. A summary of these improvements is shown in Table 5.17-7, *Sewer Pipeline CIP Summary*, followed by a description of the improvements within each applicable sewer basin. There are pipelines included in the recommended improvements that are not modeled as deficient in the buildout condition scenario using the analysis criteria but are upsized due to their location downstream of an improved segment to provide a consistent diameter and to meet City design criteria.

Table 5.17-7 Sewer Pipeline CIP Summary

Sewer Basin	Location	Pipeline Replacement	Pipeline Length (LF)
La Palma	La Palma Avenue	15, 18, and 21-inch	2,926
	Various Other	10,12, 15-inch	1,815
Ball	East Lincoln Avenue	12-inch	1,743
	West Lincoln Avenue	18-inch	334
	East Broadway	15-inch	316
	Lemon Street	24-inch, 27-inch	572
	Water Street	21-inch	2,520
	Vermont Avenue	21-inch	831
	West Ball Road	21 and 39-inch	3,788
	Various Other	8, 10, and 12-inch	7,779

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Table 5.17-7 Sewer Pipeline CIP Summary

Sewer Basin	Location	Pipeline Replacement	Pipeline Length (LF)
Katella	Midway Drive	15, 18, and 21-inch	1,200
	Harbor Boulevard	18-inch	1,662
	Katella South	27, 30, and 33-inch	6,903
	Katella North	36-inch	1,318
	Various Other	10, 12, and 15-inch	9,595
East Anaheim	Various Other	10,12, 15-inch	2,538
Total			44,901

Source: Psomas, 2024.
LF = Linear feet.

Romneya CIPs

The Romneya tributary system is in the northern area of Central Anaheim and consists of a recently constructed 24-inch trunk pipeline. Model results for the Romneya System major tributary pipelines (12-inch and larger) show sufficient capacity within the existing sewer collection pipelines for the increased sewer flow generated by the proposed project. There is one reach of 8-inch diameter pipeline within the tributary basin along Harbor Boulevard and just north of Romneya (see on Figure 5.17-4) that is modeled as deficient in the buildout condition. The required improvement includes replacing this pipeline with a 10-inch pipeline.

La Palma CIPs

The La Palma tributary system is also located in the northern area of Central Anaheim and includes parallel pipelines along La Palma Avenue. The La Palma South System major trunk lines consist of 15-, 18-, 21-, and 24-inch segments. The hydraulic analysis identifies six deficient segments along La Palma Avenue under project buildout conditions. Two additional segments that are not identified as deficient along the same reach are included to be upsized to meet City design criteria in the improvement area and to avoid a smaller diameter pipeline downstream of an improved pipeline. This improvement area includes 2,926 linear-feet of proposed 15-inch, 18-inch, and 21-inch pipeline.

There are two additional smaller diameter pipelines that are modeled as deficient under the project buildout condition. These include a 6-inch reach in an alleyway parallel to Topeka Street to be upsized to 10-inch pipeline and an 8-inch reach along North Street to be upsized to a 12-inch pipeline.

The La Palma North System consists of 10- and 12-inch major tributary pipelines. Model results show sufficient capacity within the existing sewer collection pipelines for the increased sewer flow generated by the proposed project.

Ball CIPs

The Ball System pipe network is spread across all areas within Central Anaheim. Significant improvements to the sewer system are necessary to address capacity deficiencies. On Lincoln Avenue there are six deficient segments along with three additional segments added to the improvement area to avoid a smaller diameter

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downstream from improved pipelines and to meet City design criteria along the entire segment. To be conservative, these pipelines, and associated costs, have been included with the recommended improvements in sewer analysis. The improvements along Lincoln Avenue include 8 reaches of existing 10-inch pipelines to upsize to a 12-inch and one reach of 15-inch pipeline at Lemon Street to upsize to 18-inch to eliminate any deficiencies.

There are two additional large pipeline reaches that are deficient for project buildout and identified for improvement. The first is an 18-inch pipe on Lemon Street to be upsized to 24-inch and the second is a 12-inch pipe on Broadway to be upsized to 15-inch. There are additional smaller diameter pipelines tributary to Lincoln Avenue and near the intersection of Anaheim and Broadway identified as deficient for project buildout conditions.

On Water Street there are 11 continuous deficient segments of 15-inch pipe. One solution is to upsize the 15-inch pipe to an 18-inch. An alternative solution is to adjust the estimated 50/50 pipe flow split in manhole SW084328 at Water Street and Lemon Street to allow more flow down Lemon Street to the south. The feasibility of this alternative may be evaluated as a potential cost saving option in the future prior to pipeline upsizing. All the flow in this system eventually combines before crossing the I-5 Freeway.

Along Ball Road, from the I-5 Freeway and Walnut, there is a modeled deficiency along the 33-inch pipeline segment. The recommended upsizing consists of 39-inch pipelines. Downstream of this section, the parallel pipelines on Ball Road join on Walnut Street and discharge to the OCSD trunk sewer system in Euclid Street.

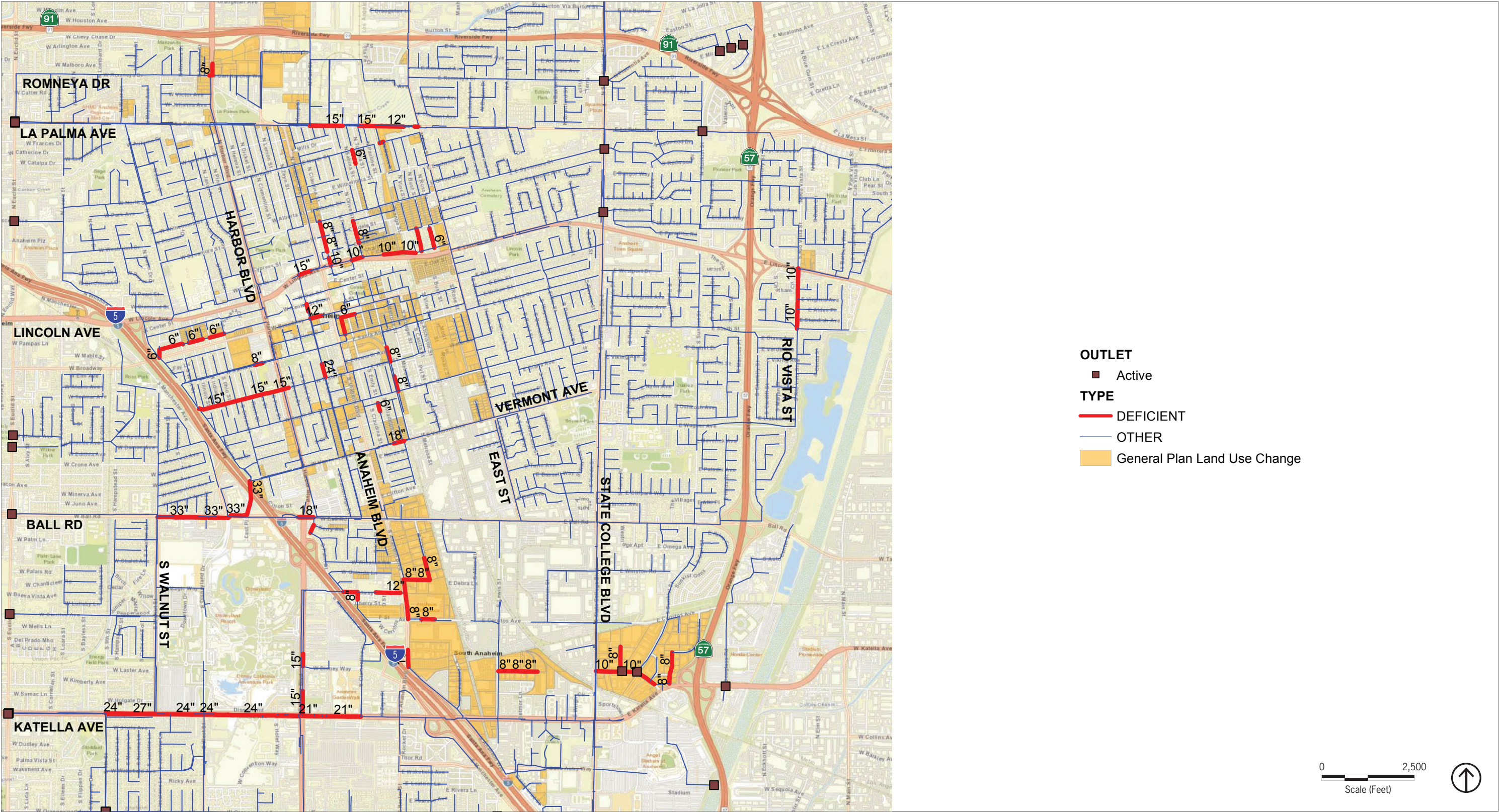
There are two additional segments of 18-inch pipeline that are modeled as deficient along the northern parallel pipeline in Ball Road at Harbor Boulevard. The improved size of these pipelines is 21-inch. There are alternative improvements identified in the South-Central Anaheim Sewer Study that involve diverting flow from the northern to the southern parallel pipeline along Ball Road to avoid upsizing these segments within this major intersection. Upsizing these segments is considered the worst-case scenario and has been included as an improvement in the sewer analysis.

Two 8-inch pipeline reaches along Palm Street were also modeled as deficient. These segments feed to a siphon prior to connecting to the 24-inch southern pipeline in Ball Road.

Katella CIPs

The Katella System is in the south area of Central Anaheim. The hydraulic model identified 60 deficient pipe segments within the Katella System. Flow from a portion of the project development discharges westerly in Midway Drive and across the I-5 Freeway to Manchester Avenue then southerly in the two parallel pipelines in Harbor Boulevard. There are deficient segments within the system tributary to Harbor with existing and recommended pipe sizes indicated in the Sewer study. Model output, including project buildout and improved scenarios, is provided in Table 6 of the Sewer study. Flow from Manchester is split into two parallel pipelines along Harbor Boulevard. The two pipelines along Harbor are also interconnected at Disney Way. The buildout improvement recommends upsizing the eastern parallel pipeline in Harbor Boulevard to provide sufficient combined capacity for buildout flows. There are also two reaches of 10-inch pipeline along Anaheim Boulevard, just north of the I-5 Freeway, that model as deficient.

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Source: PSOMAS, 2024.

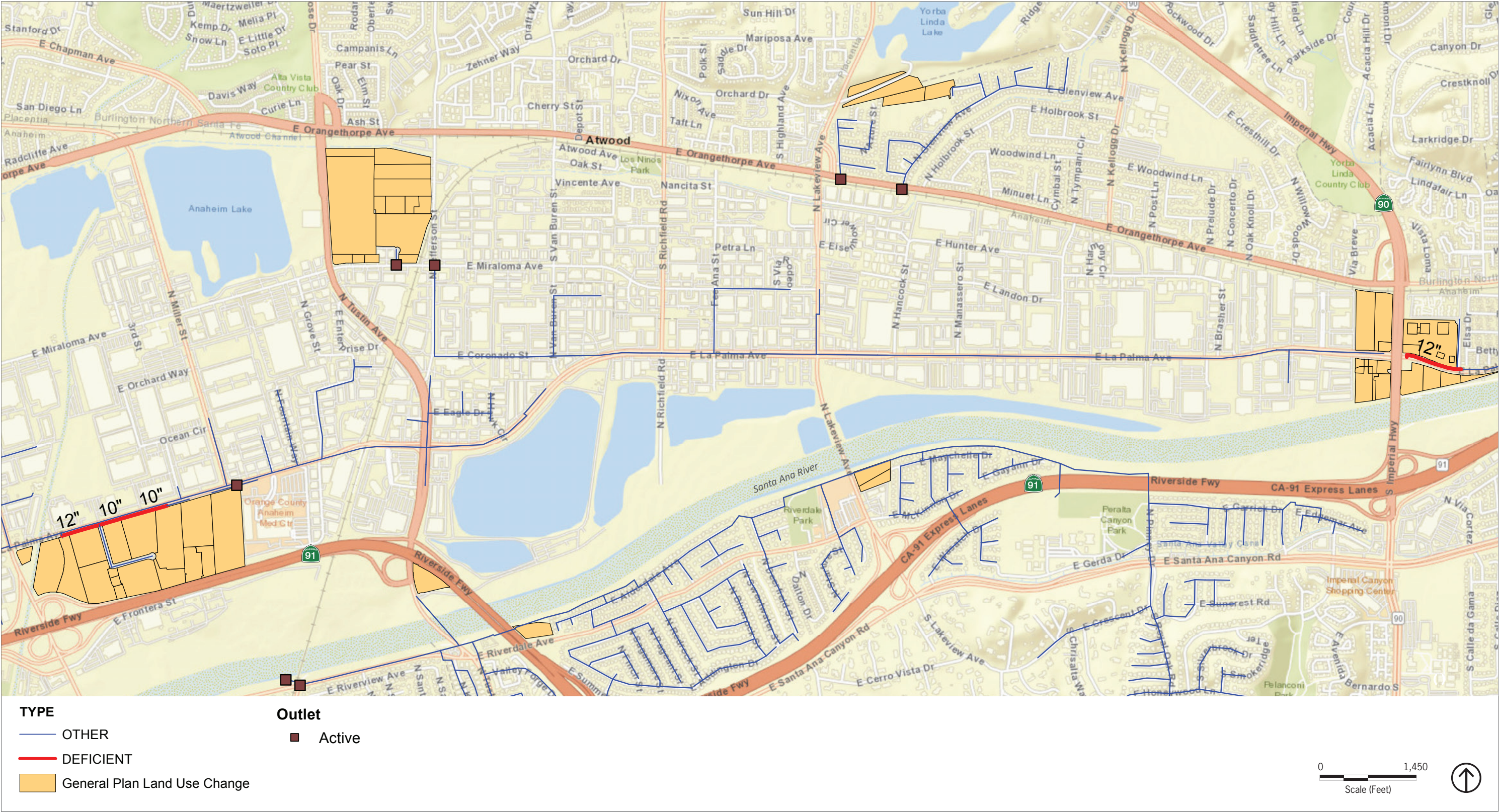
Figure 5.17-4
Central Anaheim Deficient Pipelines for GPU Buildout

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Source: PSOMAS, 2024.

Figure 5.17-5
East Anaheim Deficient Pipelines for GPU Buildout

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A recently constructed flow diversion is in place at Harbor Boulevard and Katella Avenue that sends all of the flow from for the eastern Harbor pipeline to the southern Katella pipeline. Conversely, all of the flow in the western Harbor pipeline discharges to the northern Katella pipeline. With this Harbor flow diversion and the additional project buildout flows, it is currently recommended to upsize the southern Katella pipeline between Clementine Street and 9th Street. Additionally, there are two deficient reaches in the northern Katella pipeline between Walnut Street and 9th Street. There are two flow splits that divert a portion of the flow to the south from the southern Katella pipeline, one at West Street and another at 9th Street. In addition, the two parallel pipelines along Katella have several interconnections. A detailed study should be conducted for the parallel pipeline systems along Harbor Boulevard and Katella Avenue to evaluate the combined capacity and potentially revise the design standards to consider the added flexibility and redundancy provided by these parallel systems.

There are additional, smaller diameter pipeline improvements shown on Figures G and H within the Katella tributary system and included in Table 6 of the Sewer Study along with improved diameters.

East Anaheim CIPs

The East Anaheim area has been separated into six project tributary basins. There are two areas with project related capacity deficiencies in the Eastern Anaheim area, both along East La Palma Avenue, shown on Figure 5.17-5. The first area consists of 6 reaches of 8- and 10- inch pipelines within the Kraemer System. Model output for the project buildout and improved conditions are provided in Table 6 of the Sewer Study. The second deficient area consists of 6 reaches of 10-inch pipeline within the La Palma System. Model output for project buildout and the improved condition is provided in Table 6 of the sewer study.

The buildout deficiencies and proposed improvements identified in the Sewer Study for the East Anaheim area will be included in an addendum to the EAMPSS and the EAMPSS Financial Implementation Plan (FIP). Since these improvements are long-term improvements, with the buildout condition extending out 20 years or more, the EAMPSS FIP will include a fee schedule update and updated impact fees to ensure sufficient funds are available.

The City is currently in the process of updating its CAMPSS and impact fee schedule. The buildout deficiencies and proposed improvements identified in the Sewer Study for the Central Anaheim area will be included in the updated CAMPSS which is scheduled to be presented to the Anaheim City Council for approval in the second quarter of 2025. The updated fees will consider buildout capacity needs and associated costs, including the proposed project.

As new development occurs within the City, individual sewer studies would be conducted by future applicants to evaluate the specific impact on downstream tributary pipelines. The sewer studies would include site-specific sewer flow monitoring and hydraulic sewer analysis. These detailed, site specific, sewer studies would build on the analysis in the more programmatic Sewer Study prepared for the proposed project. The sewer impact fees, Sewer Study, and any additional project related sewer improvements not previously identified would be paid for by the developer prior to the approval of sewer service. Where a larger CIP pipeline is identified as capacity deficient, the pipeline would be upsized to accommodate buildout flows as evaluated in the Sewer Study. Pipeline improvements along smaller diameter reaches would also be determined by individual sewer studies and improved as needed and as a condition of approval by the City. These improvements may require 6-, 8-,

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and 10-inch diameter pipelines to be increased by one or two diameters and would depend on the specific project land use and location.

As directed by policy 5.1-1 of the Public Services and Facilities Element, the City would ensure that appropriate sewer system mitigation measures are identified and implemented in conjunction with new development based on the recommendations of prior sewer studies and/or future sewer studies that may be required by the City Engineer. Additionally, Chapters 10.08 and 10.12 of the City's municipal code require a permit before any sewer connection can be made with permits reviewed by the director of public works for the purpose of determining whether the proposed development would result in an overload of existing sewer line capacity. Sewer impact fees would be collected if proposed development needs to mitigate the deficiency in the sewer system caused by new development and/or by additions and expansions.

The construction of on-site and off-site sewer lines and associated improvements would primarily include trenching for the pipelines. All construction would be performed in accordance with the Construction General Permit, which would include the preparation of a Stormwater Pollution Prevention Plan if the area of disturbance exceeds one acre. All other applicable mitigation associated with ground-disturbing impacts in this Draft PEIR would also be required (see for example mitigation measures MM CUL-1 and MM GEO-1). Any work that may affect services to the existing sewer lines would be coordinated with the City and OCSD. The City and OCSD would review all future developments within the City to determine whether sufficient trunk sewer capacity exists to serve each development and if the City and OCSD's facilities would be impacted by the development. This review is accomplished through the Will-Serve Program. A Will-Serve letter would include information regarding the anticipated wastewater flows that would be generated by the proposed development, along with a statement of whether the City and OCSD's trunk sewer system would have capacity to accept the flows.

Furthermore, a Construction Management Plan or equivalent, which would ensure safe pedestrian access as well as emergency vehicle access and safe vehicle travel in general, would be implemented to reduce any temporary pedestrian and traffic impacts occurring as a result of construction activities from future development of wastewater facilities. Compliance with OCSD procedures and City policy would ensure that impacts associated with the potential future construction of wastewater infrastructure would be less than significant.

Water

Projects under the General Plan Focused Update would require the construction of new water infrastructure where existing water lines are not sufficient to accommodate the increased supply demands. These determinations would be made on a project-by-project basis because development projects in the City would be required to obtain a Will-Serve letter from APU, pay connection fees, and undergo site-specific analyses.

Future improvements to the City's water system may include upsizing water lines on-site and off-site and the additions of boosters in low-pressure areas. Additionally, the 2025 UWMP for APU would be required to incorporate the proposed land use changes under the General Plan Focused Update into its water demand and supply projections out to 2050.

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Policies in the Public Services and Facilities Element of the existing General Plan also ensure that new development is served by water infrastructure. For example, Policies 4.1-1 and 4.1-2 encourage the provision of efficient and economic distribution of adequate water supply and pressure to all residential, commercial, industrial, and public areas that meet or exceeds State and Federal health standards. Goal 5.1 of the Green Element promotes Anaheim's water conservation efforts to ensure that all City facilities are water efficient, and Goal 5.2 aims to continue and expand Anaheim's educational outreach and incentives programs aimed at water conservation.

Additionally, the City has standard conditions of approval (as shown in Section 5.17.2) that require the submittal of improvement plans for Public Utilities Water Engineering review and approval in determining the conditions necessary for providing water service to the project. All requests for new water services, backflow equipment, or fire lines, as well as any modifications, relocations, or abandonments of existing water services, backflow equipment, and fire lines, would be coordinated and permitted through the Water Engineering Division of the Anaheim Public Utilities Department. Developers would also submit a water system master plan, including a hydraulic distribution network analysis, for Public Utilities Water Engineering review and approval. The master plan would demonstrate the adequacy of the proposed on-site water system to meet the project's water demands and fire protection requirements. Developers would also submit to the Public Utilities Department Water Engineering Division an estimate of the maximum fire flow rate and maximum day and peak hour water demands for the project. This information would be used to determine the adequacy of the existing water system to provide the estimated water demands. Any off-site water system improvements required to serve the project would be done in accordance with Rule No. 15 of the Water Utility Rates, Rules, and Regulations.

Other existing State regulations and policies would also ensure that new development provides water service that meets adopted water conservation requirements. For example, new construction would be required to comply with the water-efficiency requirements of CALGreen, California Plumbing Code, and the City's MWEL. New construction for both residential and commercial land uses typically achieves a reduction in water usage rates of 20 percent through compliance with these regulations. Additionally, projects that meet the criteria under California Water Code Section 10912 would be required to prepare a WSA that demonstrates that project water demands would not exceed water supplies. Furthermore, residential, commercial, and industrial water usage can be expected to decrease in the future as a result of the implementation of AB 1668 and SB 606, which set new standards for indoor and outdoor residential water use, commercial water use for landscape irrigation with dedicated meters, and water loss standards.

The construction of the on-site and off-site water lines and associated improvements would primarily include trenching for the pipelines. All construction would be performed in accordance with the Construction General Permit and associated requirements. All other applicable mitigation associated with ground-disturbing impacts in this Draft PEIR would also be required (see for example mitigation measures MM CUL-1 and MM GEO-1). Any work that may affect services to the existing water lines would be coordinated with APU, including the obtainment of encroachment permits from the City for all improvements within the public right-of-way. When considering impacts resulting from the installation of any required water infrastructure, all impacts are of a relatively short-term duration and would cease once the installation is complete. Therefore, impacts with the expansion of water infrastructure to serve the proposed project would be less than significant.

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Storm Water

The City is primarily built-out with buildings, roadways, pavement, and other impervious surfaces therefore no new sources of stormwater or flood flows are anticipated. Current runoff is captured and conveyed by existing City storm drain infrastructure throughout the City before discharging to County flood control facilities and channels and ultimately reaching the Pacific Ocean. New land development consistent with the proposed project would connect to the existing drainage facilities within the public right of way. Additionally, existing City and County regulations would ensure that new development and redevelopment does not exceed the capacity of storm drainage facilities.

Per the City's standard conditions of approval developers would prepare and submit a final drainage/hydrology study, including supporting hydraulic and hydrological data to the City of Anaheim for review and approval. The study would confirm or recommend changes to the City's adopted Master Drainage Plan by identifying off-site and on-site storm water runoff impacts resulting from build-out of permitted General Plan land uses. In addition, the study would identify the project's contribution and would provide locations and sizes of catchments and system connection points and all downstream drainage-mitigating measures including but not limited to offsite storm drains and interim detention facilities. Development under the proposed project would be required to comply with site-specific "allowable discharge rates" that limit post-project peak-flow discharges compared to existing conditions, thus minimizing the potential for flooding on- or off-site and exceedance of the capacity of existing or planned stormwater drainage systems.

Development projects would also be required to prepare and submit a WQMP per the MS4 permit and Chapter 10.09 of the City's municipal code. Projects would be designed to control pollutants, pollutant loads, and runoff volume as reasonably feasible by controlling runoff from impervious surfaces through infiltration, evapotranspiration, bioretention, and/or rainfall harvest and use. The final BMPs to be implemented for the proposed project would be determined through the City's review of the WQMP, which would occur during the City's building plan check process. Storm drain impact and improvement fee would also be collected per Chapter 10.14 of the municipal code. This chapter enforces a storm drain impact fee to finance storm drain improvements and to pay for new developments and expansions and additions to existing developments. Moreover, policies within the existing Public Services and Facilities Element also ensure that new development is adequately served by storm drainage utilities.

In addition, the specific location and design of future storm drainage systems (new or expanded) required to provide services in accordance with the proposed project are not known at this time, and therefore it would be speculative to provide environmental analysis for construction-related impacts. Improvements would also be subject to the General Plan goals and policies; federal, state, and local regulations; and applicable mitigation measures as detailed in each topical section of this Draft EIR. Therefore, construction-related impacts are concluded less than significant.

Electricity

Electrical service to the City is provided by APU through connections to existing off-site electrical lines and new on-site infrastructure. As shown in Section 5.5, *Energy*, in Table 5.5-5, *Annual Energy Consumption During Operations*, by horizon year 2045, the proposed project would increase electricity consumption by 727 gigawatt-

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hours (GWh) per year. The proposed project's estimated electricity consumption does not include some reductions associated with compliance with the 2022 Title 24 building code and compliance with the CALGreen standards per CalEEMod default modeling. APU generated 2,721,438 megawatt-hours (MWh) of electricity in 2023. APU would review implementation of the proposed project's estimated electricity consumption to ensure that the estimated power requirement would be part of the total load growth forecast for their service area and accounted for in the planned growth of the power system.

In addition, any development pursuant to the proposed GPU would be required to comply with appliance efficiency regulations set forth by Title 20 of the California Administrative Code. Furthermore, several policies in the existing Public Services and Facilities Element and Green Element would ensure that new development is served by electrical utilities and that the utilities comply with energy efficiency standards. Therefore, project development would not require APU to obtain new or expanded electricity supplies, and impacts would be less than significant.

Natural Gas

As shown in Section 5.5, *Energy*, Table 5.5-5 by 2045, the proposed project is forecast to use approximately 8.8 billion kilo-British Thermal Units (kBTUs) or 87,655,482 therms of natural gas per year. When compared to existing conditions, implementation of the proposed project would increase natural gas consumption by 16,568,816 therms. Implementation of the proposed project would account for less than 0.001 percent of the forecasted natural gas consumption in the SoCal Gas service area. As such, the consumption of natural gas associated with implementation of the proposed project is expected to fall within SoCal Gas' projected consumption and supplies for the area. Policies in the existing Public Services and Facilities Element and the Green Element of the existing General Plan would ensure that new development is served by natural gas utilities. Therefore, development pursuant to the proposed project would not require SoCalGas to obtain new or expanded natural gas supplies, and impacts would be less than significant. Therefore, impacts to electrical and natural gas utilities would be less than significant.

Telecommunication Facilities

Infrastructure supporting telecommunications services associated with the General Plan Focused Update would be provided and installed in compliance with all State and local regulations. Furthermore, a number of franchised telecommunications providers are available in the region, and no significant expansion or construction of the telecommunications network is anticipated as a result of implementation of the proposed project. Additionally, several policies in the existing General Plan would also ensure that telecommunications infrastructure is modernized and provided where needed and when new infrastructure is added, so it does not result in impacts to the environment. As discussed, the General Plan Focused Update would not require new or expanded telecommunication facilities, the construction or relocation of which could cause significant environmental effects, and impacts would be less than significant.

Level of Significance Before Mitigation: Impact 5.17-1 would be less than significant.

Mitigation Measures: No mitigation measures are required.

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Level of Significance After Mitigation: Impact 5.17-1 would be less than significant.

Impact 5.17-2: Implementation of the proposed project [would/would not] have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry, and multiple dry years. [Threshold U-2]

As shown in Table 5.17-8, *Projected Water Demand – Parcels Experiencing Land Use Designation Changes*, the proposed project would result in a total water demand of 8,252 AFY resulting in an increase of 3,631 AFY when compared to the buildout in the UWMP (which is based on buildout of the current General Plan).

Table 5.17-8 Projected Water Demand– Parcels Experiencing Land Use Designation Changes

Land Use Type	Residential (DUs)	Non-Residential (KSF)
Residential	6,090	1,246
Non-Residential	0	291
Mixed-Use	24,012	10,824
Total	30,102	12,361
Unit Water Use Factor (gpd/unit)	154.4	220
Water Demand (gpd)	4,647,749	2,719,420
Water Demand (AFY)	5,206	3,046

Source: Psomas 2024.

DU = Dwelling unit; KSF = thousand square feet; gpd = gallons per day; AFY = acre feet per year.

The proposed project would be implemented in multiple phases over the next 20 years or more. Development of the parcels undergoing a land use designation change and the time frames would be controlled by City decisions on parcels under their ownership and improvements to public infrastructure, as well as landowner decisions on the development of privately owned properties. For the purposes of this WSA, buildout of the proposed project is estimated to occur by 2045.

Based on the land use phasing assumptions in the WSA the estimated projected increase in water demand pursuant to the proposed project was distributed over 5-year increments with buildout assumed to occur by 2045 as shown in Table 5.17-9, *Estimated Projected Water Demand Phasing*.

Table 5.17-9 Estimated Projected Water Demand Phasing

Estimated Demand Phasing	Projected Water Demand (afy)				
	2025	2030	2035	2040	2045
Demand Increase for the Proposed Project	1,534	3,067	3,255	3,443	3,631
Required Supply (with 4.85% Water Loss)	1,612	3,223	3,421	3,619	3,816

Source: Psomas 2024.

afy = acre-feet per year

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City water demands projected in the City's 2020 UWMP for the years 2025 through 2045 are shown in Table 5.17-2. All projected demands include an estimated 4.85 percent in water losses. Because these demand projections were based on demographic forecasts from CDR, water demands for specific projects were not individually identified in the UWMP. In addition to the proposed project, the approved DisneylandForward project, which is within the study area of the WSA, allows for the continued and long-term growth of the Disneyland Resort. Projected water demands resulting from buildout of the Disneyland Resort entitled uses are also documented in the DisneylandForward Subsequent EIR Water Supply Assessment dated July 2023. Proposed development within the City resulting from the proposed project and DisneylandForward are evaluated in the WSA to confirm that sufficient growth was accounted for in the UWMP.

The phased water demand increases for the proposed project and the Disneyland Resort are shown in Table 5.17-10, *Projected Demand Increase Comparison*, and compared to the projected water demand increases reported in the City's 2020 UWMP. The increase in demand for each 5-year period represents the cumulative demand increase relative to 2020 demands. The table shows sufficient demand increases, based on demographic data, to accommodate water demands for proposed project and DisneylandForward, which has been approved.

Table 5.17-10 Projected Demand Increase Comparison

Demand Increase (AFY)	Projected Water Demand (afy)				
	2025	2030	2035	2040	2045
2020 UWMP	1,966	5,788	7,266	8,859	9,425
Proposed Project	1,612	3,223	3,421	3,619	3,816
DisneyLand Forward	0	2,274	2,853	3,421	4,010
Total Planned	1,612	5,597	6,274	7,050	7,826
Difference	354	291	992	1,809	1,599

Source: Psomas 2024.
afy = acre-feet per year

New construction is also subject to a number of regulations and policies that would further reduce water use. For example, developments would be required to comply with the water efficient requirements of CALGreen, California Plumbing Code, and the City's MWEL. New construction for both residential and commercial land uses typically achieve a reduction in water usage rates of 20 percent through compliance with these regulations. Also, policies in the Public Services and Facilities Element and the Green Element of the existing General Plan promote continuing Anaheim's water conservation efforts to ensure that all City facilities are water efficient.

Therefore, water supplies would be available to meet the demand of the proposed project and therefore impacts would be less than significant.

Level of Significance Before Mitigation: Impact 5.17-2 would be less than significant

Mitigation Measures: No mitigation measures are required.

Level of Significance After Mitigation: Impact 5.17-2 would be less than significant.

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Impact 5.17-2: Implementation of the proposed project would not result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments. [Threshold U-3]

The Sewer Study calculated the sewer flows for the buildout of the existing General Plan and the average sewer flows for the proposed project. As shown in Table 5.17-11, *Average Sewer Flow for Tributary Basins – Existing GP vs. Proposed GP*, the proposed project would result in an increase of 4.3 mgd in sewer flow.

It should be noted that while the baseline condition for the Draft PEIR is existing development, the analysis for the sewer flows in the Sewer Study mirrors the analysis in the City's sewer master plans and therefore compares the buildout of the proposed project to the maximum allowable buildout scenario permitted under the existing General Plan. The City's sewer system, including the wastewater treatment plants that serve the City, are designed to accommodate the buildout of the existing General Plan. Therefore, the Sewer Study analyzed whether the increase in buildout pursuant to the proposed project could also be accommodated by the sewer system and wastewater treatment plants.

Table 5.17-11 Average Sewer Flow for Tributary Basins – Existing GP vs. Proposed GP

Tributary System	Existing Flow (mgd)	Proposed Flow (mgd)	Difference (mgd)
Central Anaheim			
Romneya	1.10	1.62	0.52
La Palma	1.55	1.69	0.14
Ball	4.82	6.17	1.35
Katella	5.58	6.30	0.72
Orangewood	5.06	5.35	0.29
Howell	0.20	0.57	0.38
Santa Cruz	0.36	0.40	0.04
Durst	0.05	0.10	0.05
East Anaheim			
Miraloma	0.40	0.53	0.13
La Palma	0.51	0.59	0.08
Etchandy	0.01	0.05	0.04
Orangethorpe	0.11	0.15	0.05
Kraemer	0.82	1.29	0.447
Riverdale	1.28	1.33	0.05
Total	21.85	26.15	4.30

Source: Psomas, 2024.

While the land use plan under the proposed project is expected to increase sewer flows by approximately 4.30 mgd, this would be within the residual capacity for OCSD's Treatment Plant No. 1 and Treatment Plant No. 2. The two plants have a residual capacity of 141 mgd. Therefore, impacts would be less than significant.

Level of Significance Before Mitigation: Impact 5.17-3 would be less than significant.

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Mitigation Measures: No mitigation measures are required.

Level of Significance After Mitigation: Impact 5.17-3 would be less than significant.

Impact 5.17-4: Implementation of the proposed project would not generate solid waste in excess of state or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals, and the proposed project would comply with related solid waste regulations and reduction goals. [Thresholds U-4 and U-5]

The baseline solid waste disposal for the City is estimated to be 3,277 tons/day. The solid waste generation under buildout of the proposed project is shown in Table 5.17-12, *Solid Waste Generation – Proposed Project Conditions*. As shown in the table the projected solid waste generation is 8,308,598 lbs/day or 4,154 tons/day. This represents a net increase of 877 tons of waste per day. This assumes that the current diversion rate for Anaheim remains the same. It is likely that with the expansion of organics and recycling programs, the diversion rate would increase in the future, resulting in a decrease in solid waste landfill disposal. As shown in Table 5.17-5, the three major landfills servicing the City have a combined residual capacity of 7,167 tons/day.

Table 5.17-12 Solid Waste Generation – Proposed Project Conditions

Total Population	Solid Waste Generation Rate (lbs/resident/day)	Solid Waste Generation (lbs/day)	Total Jobs	Solid Waste Generation Rate (lbs/employee/day)	Solid Waste Generation (lbs/day)
431,340	8.9	3,838,926	274,213	16.3	4,469,672

Source: CalRecycle 2024d.

Furthermore, all development pursuant to the proposed project would comply with Section 4.408 of the 2022 California Green Building Code Standards, which requires that at least 65 percent of nonhazardous construction and demolition waste from nonresidential construction operations be recycled and/or salvaged for reuse. The California Building Code and Anaheim Municipal Code also require a construction and demolition materials management plan prior to issuance of building permits for large projects. Furthermore, project-related construction and operation phases would comply with the following federal, state, and local laws and regulations that govern solid waste disposal:

- The Resource Conservation and Recovery Act of 1976 and the Solid Waste Disposal Act of 1965, which govern solid waste disposal.
- AB 939 (Integrated Solid Waste Management Act of 1989; Public Resources Code 40050 et seq.), which required diversion of 50 percent of waste from landfills and required each county to provide landfill capacity for a 15-year period.
- AB 1327 (California Solid Waste Reuse and Recycling Access Act of 1991) which requires local agencies to adopt ordinances mandating the use of recyclable materials in development projects.
- AB 1826, which mandates that businesses that generate two or more cubic yards of solid waste, recycling, and organic waste combined per week to start recycling organic waste.

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- AB 341 that mandates recycling for commercial and multifamily residential land uses as well as schools and school districts. Businesses and housing that includes five or more units must also arrange for organic waste recycling services if they generate two or more cubic yards per week of solid waste (including recycling and organic waste), in accordance with AB 1826. Organic waste generation would be reduced in line with the targets set by SB 1383.

Additionally, the policies listed in the City's existing Public Services and Facilities Element and Green Element promote minimizing and recycling solid waste. Development under the General Plan would also be required to comply with the applicable provisions of Chapter 10.10 of the City's municipal code. With continued compliance with the applicable regulations, leading to increased recycling and waste diversion and adherence to the General Plan goals, policies, anticipated rates of solid waste disposal would be less than significant.

Level of Significance Before Mitigation: Impact 5.17-4 would be less than significant.

Mitigation Measures: No mitigation measures are required.

Level of Significance After Mitigation: Impact 5.17-4 would be less than significant.

5.17.9 Cumulative Impacts

5.17.9.1 WASTEWATER TREATMENT AND COLLECTION

The area considered for cumulative impacts to wastewater facilities is the OCSD service area. Cumulative population increases and development within the service area would increase the overall regional demand for wastewater treatment service. The combined residual capacity of OCSD's Reclamation Plants No. 1 and No. 2 is 141 mgd. Additionally, wastewater from the OCSD service area that is processed through the reclamation plants would meet established standards required by the NPDES permit process.

Wastewater infrastructure would be expanded with the implementation of the proposed project, to serve new development as it is proposed. Per Policy 5.1-1 of the Public Services and Facilities Element, the approval of new development is contingent upon the ability of a project to be served by sewer infrastructure. Future expansion or upgrades to the wastewater collection system in the City would be addressed through updating the EAMPSS, the CAMPSS, and the City's sewer fee schedule and impact fees.

Expansions and upgrades to the City and OCSD's sewer infrastructure are addressed through their review process of development. This process determines whether or not sufficient sewer capacity exists to serve each development, and if the City or OCSD's facilities would be impacted by the proposed development.

Therefore, with continued compliance with applicable regulations, cumulative development would not exceed wastewater collection or treatment capacities. Accordingly, the proposed project would not result in a cumulatively considerable impact related to wastewater, and cumulative impacts would be less than significant.

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5.17.9.2 WATER SUPPLY AND DISTRIBUTION

The area considered for cumulative impacts to water supply services is the APU's service area. Existing and future development within the service area would require additional quantities of water. APU's 2020 UWMP projects that it will have water supplies available for all years up to 2045 during normal years, single-dry years, and multiple-dry years.

Other future projects would result in increases in water demand. However, cumulative water demands are addressed through the WSA prepared for the proposed project, and expansion and upgrades to water infrastructure are addressed through the City's CIP. All new development projects would be required to obtain will-serve letters from APU. Projects that meet the SB 610 criteria, such as residential projects with more than 500 dwelling units, would be required to prepare WSAs. APU would review such projects for adequacy of water supply, and APU is required to update the UWMP every five years to ensure that there are adequate water supplies and contingency plans for future residents and customers. All future development under the General Plan Focused Update would require the implementation of water efficiency and water conservation measures, as per the CALGreen Code and the MWELI irrigation requirements.

All cumulative projects would require compliance with applicable General Plan goals, objectives, and policies, City or County ordinances, as well as local, State, and federal regulatory requirements. New construction projects and continuing conservation efforts would result in a reduction in per capita water use over time, which would ensure that cumulative impacts with respect to water supply would be less than significant.

5.17.9.3 STORM DRAINAGE

Cumulative impacts are considered for the Santa Ana River Watershed area. Cumulative projects could result in an incremental increase in impervious surfaces that could increase stormwater runoff and impact existing storm drain facilities. However, all cumulative projects would be required to comply with City or County ordinances as well as the countywide MS4 permit, which would minimize stormwater runoff.

Development within the watershed would require conformance with State, County, and City regulations that would reduce hydrology and infrastructure construction impacts to less than significant levels. Any new development in the City would be subject to the existing General Plan goals and policies, proposed goals, provisions in the municipal code, and other applicable City requirements that reduce impacts related to hydrology and stormwater drainage facilities. More specifically, potential changes related to stormwater flows, drainage, impervious surfaces, and flooding would be minimized by the implementation of stormwater control measures, retention, infiltration, and low-impact-development measures and review by the City's Public Works Department to integrate measures to reduce potential stormwater drainage and flooding impacts.

All cumulative projects in Orange County would be subject to the same requirements of the MS4 permit and would be required to comply with various municipal codes and policies and County ordinances, as well as numerous water quality regulations that control construction-related and operational discharge of pollutants in stormwater. For these reasons, impacts from future development within the watershed areas related to stormwater infrastructure construction are not cumulatively considerable.

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In combination with past, present, and reasonably foreseeable projects, proposed implementation of the General Plan Focused Update would not result in a cumulatively considerable impact to stormwater infrastructure, and cumulative impacts would be less than significant.

5.17.9.4 SOLID WASTE

Cumulative impacts are considered for the service areas of the three landfills that primarily serve the City, shown in Table 5.17-5. Cumulative projects would result in increased generation of solid waste that would need to be processed at these landfills. These landfills have a daily maximum throughput of 23,253 tons per day, a residual capacity of approximately 7,167 tons per day, and estimated closure dates ranging from 2030 to 2053. Other projects would recycle and compost parts of their solid waste in accordance with the California Integrated Waste Management Act (AB 939), AB 341, AB 1826, and CALGreen Section 5.408. AB 939 requires Orange County to maintain 15 years of available countywide solid waste disposal capacity. Therefore, cumulative impacts would be less than significant after compliance with existing regulations, and project impacts would not be cumulatively considerable.

5.17.9.5 OTHER UTILITIES

The area considered for cumulative impacts are the service areas of APU for electricity, SoCalGas for natural gas, and the service boundaries of the various telecommunications providers. Other projects within these service areas would increase electricity, natural gas, and telecommunications demands.

The project-related annual electricity consumption associated with implementation of the proposed project would represent approximately four percent of APU's electricity consumption in 2023. APU would review the estimated electricity consumption associated with implementation of the proposed project to ensure that the estimated power requirement would be part of the total load growth forecast for their service area and accounted for in the planned growth of the power system. When accounting for existing conditions, implementation of the proposed project would reduce natural gas consumption in the SoCal Gas planning area by approximately 0.03 percent. It should be noted that the planning projections of APU and SoCal Gas consider planned development for their service areas and are in and of themselves providing for cumulative growth. Therefore, it is likely that the cumulative growth associated with the related projects is already accounted for in the planning of future supplies to cover projected demand.

In addition, all future projects developed within the APU service areas would implement the requirements of the California Energy Code and CALGreen Code. New buildings would also use new energy-efficient appliances and equipment, pursuant to the Appliance Efficiency Regulations. Counties and cities review project design plans against these codes and ensure compliance before issuing construction permits. These measures would reduce the overall consumption of electricity and natural gas.

Infrastructure supporting telecommunications services would be provided and installed in compliance with all State and local regulations. Furthermore, a number of franchised telecommunications providers are available in the region, and no significant expansion or construction of the telecommunications network is anticipated. Additionally, several policies in the existing General Plan would also ensure that telecommunications

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infrastructure is modernized and provided where needed and when new infrastructure is added, so it does not result in impacts to the environment.

Therefore, the proposed project would not result in a cumulatively considerable impact to electric power, natural gas, or telecommunication facilities, and cumulative impacts would be less than significant.

Level of Significance Before Mitigation: Cumulative impacts would be less than significant.

Mitigation Measures: No mitigation measures are required.

Level of Significance After Mitigation: Cumulative impacts would be less than significant.

5.17.10 Level of Significance Before Mitigation

Upon implementation of regulatory requirements and General Plan policies, Impacts 5.17-1 through 5.17-4 would have less than significant impacts.

5.17.11 Mitigation Measures

No significant impacts were identified and no mitigation measures are necessary.

5.17.12 Level of Significance After Mitigation

No significant impacts were identified and no mitigation measures are necessary.

5.17.13 References

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This section of the Draft Program Environmental Impact Report (Draft PEIR) evaluates the potential for implementation of the City of Anaheim's General Plan Focused Update (proposed project) to exacerbate wildfire risk or result in exposure of people or structures to significant wildfire risks in the City of Anaheim (City) and its sphere of influence. Cumulative impacts related to wildfire are based on regional wildfire hazards in the southern California region associated with proximity to wildlands and are based on Fire Hazard Severity Zones (FHSZ) mapped by the California Department of Forestry and Fire Protection (CAL FIRE).

No comments related to wildfire were received during the scoping process for the proposed project (see Appendix A) or the Center City Corridors Specific Plan (C3SP), which has been incorporated into the proposed project as the Center City Corridors Implementation Plan (C3 Plan), that are related to wildfire (see Appendix B).

5.18.1 Environmental Setting

5.18.1.1 REGULATORY BACKGROUND

Federal

National Cohesive Wildfire Management Strategy

In the Federal Land Assistance, Management, and Enhancement Act of 2009 (FLAME Act), Congress mandated the development of a National Cohesive Wildland Fire Management Strategy for all lands in the United States. Wildfire management is guided by the National Cohesive Wildland Fire Management Strategy, which has three primary goals (USDI and USDA 2014):

- Resilient landscapes
- Fire adapted communities
- Safe and effective wildfire response

These three goals enable land managers to manage vegetation and fuels; protect homes, communities, and other values at risk; manage human-caused ignitions; and effectively and efficiently respond to wildfires. California is part of the Western Regional Strategy Committee, chartered to support and facilitate the implementation of the National Cohesive Wildland Fire Strategy.

National Fire Protection Association Standards

National Fire Protection Association (NFPA) codes, standards, recommended practices, and guides are developed through a consensus standards development process approved by the American National Standards Institute. NFPA standards are recommended (advisory) guidelines in fire protection but are not laws or "codes" unless adopted or referenced as such by the California Fire Code or local fire agency. Specific standards applicable to wildland fire hazards include, but are not limited to:

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- **NFPA 1141**, Fire Protection Infrastructure for Land Development in Wildlands
- **NFPA 1142**, Water Supplies for Suburban and Rural Fire Fighting
- **NFPA 1143**, Wildland Fire Management
- **NFPA 1144**, Reducing Structure Ignition Hazards from Wildland Fire
- **NFPA 1710**, Standard for the Organization and Deployment of Fire Suppression Operations, Emergency Medical Operations

State

California Department of Forestry and Fire Protection

CAL FIRE is dedicated to the fire protection and stewardship of over 31 million acres of California's wildlands. CAL FIRE provides fire assessment and firefighting services for land in State Responsibility Areas, conducts educational and training programs, provides fire planning guidance and mapping, and reviews general plan safety elements to ensure compliance with state fire safety requirements. CAL FIRE staff, or a designee, also reviews buildings permit applications parcel maps and use permits for construction or development.

The Board of Forestry and Fire Protection is a government-appointed approval body within CAL FIRE. It is responsible for developing the general forest policy of the state, determining the guidance policies of CAL FIRE and representing the state's interest in federal forestland in California. The Board of Forestry and Fire Protection also promulgates regulations and approves general plan safety elements that are adopted by local governments for compliance with State statutes.

The California Office of the State Fire Marshal supports the mission of CAL FIRE by focusing on fire prevention. These responsibilities include regulating buildings in which people live, congregate, or are confined; controlling substances and products which may, in and of themselves or by their misuse, cause injuries, death, and destruction by fire; providing statewide direction for fire prevention within wildland areas; regulating hazardous liquid pipelines; developing and renewing regulations and building standards; and providing training and education in fire protection methods and responsibilities. These are accomplished through major programs including engineering, education, enforcement, and support from the Board of Forestry and Fire Protection. For jurisdictions in state responsibility areas or Very High Fire Hazard Severity Zones (VHFHSZ), the Land Use Planning Program division of the Office of State Fire Marshal reviews safety elements during the update process to ensure consistency with California Government Code, Section 65302(g)(3).

Together, the Board of Forestry and Fire Protection, Office of State Fire Marshal, and CAL FIRE protect and enhance the forest resources of all wildland areas of California that are not under federal jurisdiction.

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Fire Hazard Severity Zones and Responsibility Areas

CAL FIRE designates FHSZs as authorized under California Government Code Sections 51175 et seq. CAL FIRE considers many factors when designating FHSZs, including fire history, existing and potential vegetation fuel, flame length, blowing embers, terrain, and weather patterns for the area. CAL FIRE designates FHSZ in three types of areas depending on which level of government is financially responsible for fire protection:

- **LRA: Local Responsibility Area.** Incorporated communities are financially responsible for wildfire protection. The recommended CAL FIRE 2011 map for Anaheim has one severity zone in the LRA, the VHFHSZ.
- **SRA: State Responsibility Area.** CAL FIRE and contracted counties are financially responsible for wildfire protection. There are three FHSZs—moderate, high, and very high.
- **FRA: Federal Responsibility Area.** Federal agencies such as the United States Forest Service, National Park Service, Bureau of Land Management, United States Department of Defense, United States Fish and Wildlife Service, and Department of the Interior are responsible for wildfire protection.

2018 Strategic Fire Plan for California

CAL FIRE produced the 2018 Strategic Fire Plan for California, with goals, objectives, and policies to prepare for and mitigate the effects of fire on California's natural and built environments (BFFP 2018). The 2018 Strategic Plan focuses on fire prevention and suppression activities to protect lives, property, and ecosystems in addition to providing natural resource management to maintain state forests as a resilient carbon sink to meet California's climate change goals. A key component of the 2018 Strategic Plan is the collaboration between communities to ensure fire suppression and natural resource management is successful (BFFP 2018).

2021 California's Wildfire and Forest Resilience Action Plan

The Governor's Forest Management Task Force developed California's Wildfire and Forest Resilience Action Plan, which is a framework for establishing healthy and resilient forests that can withstand and adapt to wildfire, drought, and climate change. This plan accelerates efforts to restore the health and resilience of California's forests, grasslands, and natural places; improves the fire safety of communities; and sustains the economic vitality of rural forested areas. CAL FIRE, in partnership with the US Forest Service, intends to scale up forest thinning and prescribed fire; integrate climate adaptation into the statewide network of regional forest and community fire resilience plans; improve the electricity grid resilience, and promote sustainable land use.

State Responsibility Area and Very High Fire Hazard Severity Zone Fire Safe Regulations

California Code of Regulations Title 14, Division 1.5, Chapter 7, Subchapter 2, SRA/VHFHSZ Fire Safe Regulations, establishes minimum wildfire protection standards for construction and development in the SRA and VHFHSZ and requires CAL FIRE to review development proposals and enact recommendations that

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serve as conditions of approval in these zones. These standards include basic emergency access and perimeter wildfire protection measures; signing and building numbering; private water supply resources for emergency fire use; and vegetation modification. These regulations apply to all residential, commercial, and industrial buildings in the SRA and VHFHSZ, the siting of new mobile homes, all tentative and parcel maps, and applications for building permits approved before 1991 where these standards were not proposed. Fire Safe Regulations also include a minimum setback of 30 feet for all buildings from property lines and/or the center of a road. Section 1273.08, Dead-End Roads, of these standards provide regulations for the maximum lengths of single access roadways:

- Parcels zoned for less than one acre: 800 feet
- Parcels zoned for 1 acre to 4.99 acres: 1,320 feet
- Parcels zoned for 5 acres to 19.99 acres: 2,640 feet
- Parcels zoned for 20 acres or larger: 5,280 feet

Fire Safe Regulations, Section 1299.03, Fire Hazard Reduction Around Buildings and Structure Requirements, provides defensible space requirements for areas within 30 feet of a structure (Zone 1) and between 30 and 100 feet from a structure (Zone 2). In Zone 1, all dead and dying plants must be removed, as must any flammable vegetation that could catch fire. In Zone 2, horizontal and vertical spacing among shrubs and trees must be created and maintained.

Public Resources Code Section 4291

Public Resources Code Section 4291, Mountainous, Forest-, Brush- and Grass-Covered Lands, is intended for any person who owns, lease, controls, operates, or maintains a building or structure in a mountainous area, forest-covered lands, shrub-covered lands, grass-covered lands, or land that is covered with flammable material, regardless of whether the property is in an SRA or VHFHSZ. This section requires defensible space to be maintained within 100 feet from each side of a structure. An ember-resistant zone is also required within 5 feet of a structure and more intense fuel reduction between 5 and 30 feet of a structure.

California Building Standards Code

The California Buildings Standards Code (California Code of Regulations Title 24) provides 12 different codes for construction and buildings in California. This code is updated every three years, with the most recent version effective January 1, 2023, and the next version expected to go into effect January 1, 2026. Anaheim regularly adopts the most recent version of the California Building Standards Code, with modifications, into the Anaheim Municipal Code, Title 15, Building and Housing, and Title 16, Fire.

Building Design Standards

The California Building Code (CBC), Part 2 of 24 California Code of Regulations, identifies building design standards, including those for fire safety. It is effective statewide, but a local jurisdiction may adopt more restrictive standards based on local conditions under specific amendment rules prescribed by the State Building Standards Commission. Residential buildings are plan checked by local city building officials for compliance with the CBC and any applicable local edits. Typical fire safety requirements of the CBC include

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the installation of sprinklers in buildings and other facilities; the establishment of fire-resistance standards for fire doors, building materials, and particular types of construction in high fire hazard severity zones; requirements for smoke-detection systems; exiting requirements; and the clearance of debris.

Materials and Methods for Exterior Wildfire Exposure

Chapter 7A of the CBC, Materials and Methods for Exterior Wildfire Exposure, prescribes building materials and construction methods for new buildings in a Fire Hazard Severity Zone or Wildland Interface Fire Area. Chapter 7A contains requirements for roofing; attic ventilation; exterior walls; exterior windows and glazing; exterior doors; decking; protection of underfloor, appendages, and floor projections; and ancillary structures. Other requirements include vegetation management compliance, as prescribed in California Fire Code Section 4906 and Public Resources Code 4291.

California Fire Code

The California Fire Code incorporates, by adoption, the International Fire Code of the International Code Council, with California amendments. This is the official fire code for the State and all political subdivisions. It is found in California Code of Regulations Title 24, Part 9 and, like the CBC, the California Fire Code is effective statewide, but a local jurisdiction may adopt more restrictive standards based on local conditions. The California Fire Code is a model code that regulates minimum fire safety regulations for new and existing buildings; facilities; storage; processes, including 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 include installation of sprinklers in all 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 wildfire hazard areas.

Fire Safety During Construction and Demolition

Chapter 33 of the California Fire Code, Fire Safety During Construction and Demolition, provides requirements for fire safety precautions during construction and demolition of a development project. The purpose of this chapter is to provide reasonable safety to life and property from fire during construction and demolition operations, including those in underground locations. Specific requirements include prohibition of smoking on-site, except for in approved areas; management of combustible materials and debris; cutting and welding; electrical wiring; and cooking. Additional requirements include the preparation of site safety plans prior to building permit issuance, providing fire watch during nonworking hours, and maintaining water supply for fire protection as soon as combustible materials arrive on a project site.

Wildland-Urban Interface Areas

Chapter 49 of the California Fire Code, Requirements for Wildland Urban Interface Fire Areas, applies to any geographical area identified as a FHSZ by CAL FIRE. It defines FHSZs, connects to the SRA/VHFHSZ Fire Safe Regulation requirements for defensible space, and parallels requirements for wildfire protection buildings construction and hazardous vegetation fuel management in other sections of the California Code of Regulations and the Public Resources Code. Chapter 49 of the 2022 California Fire Code, which went into

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effect January 1, 2023, includes a definition for the Wildland-Urban Interface (WUI) and provides requirements for fire protection plans, landslide plans, long-term vegetation management, and creation and maintenance of defensible space for all new development within the WUI.

California Public Utilities Commission

In 2007, wildfires in southern California were ignited by overhead utility power lines and aerial communication facilities near power lines. In response, the California Public Utilities Commission began considering and adopting regulations to protect the public from fire hazards posed by overhead power lines and nearby aerial communication facilities. The commission published a fire threat map—under Rulemaking 15-05-006, following procedures in Decision 17-01-009, revised by Decision 17-06-024—that adopted a work plan for the development of a utility high fire-threat district where enhanced fire safety regulations in Decision 17-12-024 apply (CPUC 2022a). The fire regulations require electrical utilities to:

- Prioritize the correction of safety hazards.
- Correct nonimmediate fire risks in “Tier 2” (elevated fire threat) areas in the high fire-threat district within 12 months, and in “Tier 3” (extreme fire threat) areas within 6 months.
- Maintain increased clearances between vegetation and power lines in the high fire-threat district.
- Maintain stricter wire-to-wire clearances for new and reconstructed facilities in Tier 3 areas.
- Conduct annual inspections of overhead distribution facilities in rural areas of Tier 2 and Tier 3 areas.
- Prepare a fire prevention plan annually if overhead facilities exist in the high fire-threat district (CPUC 2022b).

California Government Code

California Government Code Section 65302(g) and Section 65302.15 require that safety elements be reviewed and revised as needed with the revision of a housing element or local hazard mitigation plan, but no less than every eight years, to ensure the goals, policies, actions, mapping, and background content are consistent with State regulations and reflect the best available information for wildfire risks, climate adaptation and resiliency, and emergency evacuation routes for certain residential areas. Communities with local hazard mitigation plan updates after January 1, 2022, must also ensure their safety elements or local hazard mitigation plans include an assessment of evacuation routes and their capacity, safety, and viability as well as evacuation locations under a range of emergency scenarios.

For wildfire and evacuation purposes, a safety element must:

- Identify wildfire hazards with the latest fire severity zone maps from the Board of Forestry and Fire Protection, US Geological Survey, and other sources.
- Consider guidance given by the Office of Planning and Research’s Fire Hazard Planning document.

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- Demonstrate that the jurisdiction or contract agency and associated codes satisfactorily address adequate water supply, egress requirements, vegetation management, street signage, land use policies, and other criteria to protect from wildfires.
- Establish in the safety element (and other elements that must be consistent with it) a set of comprehensive goals, policies, and feasible implementation measures for protection of the community from unreasonable risks of wildfire.
- Identify evacuation constrains residential parcels in hazard prone areas.

Governor's Office of Planning and Research Fire Hazard Technical Advisory

The Governor's Office of Planning and Research published the Fire Hazard Technical Advisory in 2015 and revised it in 2022 as a planning guide for addressing fire hazards, reducing risk, and increasing resilience across California's diverse communities and landscapes. The guide provides a range of goals, policies, and programs for fire hazard prevention and mitigation, disaster preparedness, and emergency response and recovery. The 2022 update includes specific land use strategies to reduce fire risk to buildings, infrastructure, and communities.

Regional

Orange County Fire Authority Unit Strategic Fire Plan

The Orange County Fire Authority (OCFA) is contracted by the State of California to provide all aspects of wildland fire management for SRAs within Orange County (OCFA 2023). The OCFA's 2023 Unit Strategic Fire Plan has been developed in accordance with the California Fire Plan in conjunction with partner organizations and key stakeholders. This plan outlines its pre-fire management strategies and tactics for fire prevention, vegetation management, fire suppression, fire protection, and pre-fire projects for fire hazard reduction habitat restoration, and training. It also details collaborative programs with outside agencies, including Anaheim Fire & Rescue.

The Anaheim Hills Tactical Fire Suppression Plan of the OCFA Unit Strategic Fire Plan was developed by OCFA to guide fire and law enforcement agencies during major wildfire occurrences in the Anaheim Hills area. This plan identifies the needs for residents to evacuate and the safest means of evacuation and potential rendezvous sites.

Orange County Community Wildfire Protection Plan

The Orange County Community Wildfire Protection Plan (CWPP), updated in 2017, identifies and prioritizes pre-fire management strategies and tactics meant to reduce the loss of life and property at risk throughout the county. The CWPP has been developed with goals and objectives identified by CAL FIRE, Orange County, and local collaborators. The primary components of this plan are ignition prevention, planning, structure survivability and defensible space, communication and education, fuel management on public and large-scale private lands, and firefighting and mitigation within the CWPP area. The strategies in this plan are implemented in cooperation with the Orange County Fire Authority and Anaheim Fire & Rescue.

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Local

Anaheim Fire & Rescue Strategic Plan

Anaheim Fire & Rescue (AF&R) conducts strategic planning on a regular basis to ensure fire response capabilities and personnel can adequately address current service needs throughout the City and identifies potential issues to be addressed by the department. This strategic plan is completed every five years, with the most recent one updated in 2015 for the years 2015 to 2020 (AF&R 2022b).

AF&R's 2015–2020 Strategic Plan includes strategic initiatives, goals, and objectives along with the recommendations' associated cost, which would subsequently be incorporated into the annual budget request and department work plan.

Anaheim Emergency Operations Plan

The Anaheim Emergency Operations Plan, adopted in 2017, provides planned response actions for emergency events throughout the City. The plan establishes the emergency management organization required to respond to significant emergencies and disasters, identifies the roles and responsibilities required to protect Anaheim community members, and establishes the operational concepts for different emergencies, the Emergency Operations Center, and recovery processes. The plan also provides direction for specific emergency processes such as responding to wildfire, evacuation, pandemics, and aviation accidents.

Anaheim Local Hazard Mitigation Plan

The purpose of hazard mitigation planning is to reduce the loss of life and property by minimizing the impact of disasters. The Anaheim Local Hazard Mitigation Plan (LHMP), adopted in 2022 in accordance with the Federal Disaster Mitigation Act of 2000 (DMA 2000), provides an assessment of natural hazards in the City and a set of short-term mitigation actions to reduce or eliminate the long-term risk to people and property from these hazards. Of the eight hazards evaluated, wildfires were rated the highest risk. The LHMP has goals and mitigation programs to address each of the eight hazards. Mitigation actions related to wildfire and evacuation include the following (Anaheim 2022):

- **MH-6:** Inventory alternative firefighting water sources.
- **MH-7:** Prioritize enhancements to bridges and flood control facilities, especially along evacuation routes within the city limits.
- **MH-8:** Install solid walls around each existing electrical substation (where applicable) and evaluate the need for bollards or other protection items.
- **MH-12:** Maintain/rehabilitate existing water storage facilities to maintain adequate water pressure and ensure adequate water supply.

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- **MH-20:** Conduct traffic signal modification that may include undergrounding of existing overhead interconnect cables in conjunction with utilities undergrounding efforts. Additional signal modification projects are identified throughout the year as needs arise and funding becomes available.
- **MH-23:** Conduct system undergrounding that converts overhead power and communication lines to new underground lines along major thoroughfares, evacuation routes, and areas that are prone to wildfires. The Underground Conversion Program was amended in 2016 to expand the types of eligible projects that include reliability improvements such as wildfire safety. Under the current APU's Wildfire Mitigation Plan, there are seven remaining segments of overhead lines that are located within/adjacent to the various Fire Threat Zones.
- **MH-24:** Incorporate the Anaheim Hills evacuation plan and evacuation routes into appropriate planning documents (CIP, Safety Element, Circulation Element).
- **MH-26:** Conduct inspections and assessments of utility poles for hazard vulnerabilities (seismic, wildfire, and wind) and incorporate mitigation into future improvements.
- **WF-1:** Identify updated equipment and training to enhance emergency services and increase the efficiency of wildfire response and recovery activities.
- **WF-2:** Increase communication, coordination, and collaboration between wildland/urban interface property owners, City planners, and fire prevention crews and officials to address risks, existing mitigation strategies, and federal assistance programs.
- **WF-3:** Implement recommendations from the Utilities Department Wildfire Mitigation Plan.
- **WF-4:** Maintain and update the Wildfire Preparedness Plan for Public Utilities Department that includes:
 - Identification of existing conditions, short-term improvements, and long-term improvements for City facilities.
 - Annual updates for submittal to the Wildfire Safety Advisory Board (WSAB).
 - Engineered and operational mitigation measures to address potential wildfire hazards.
 - Feedback from public outreach and WSAB members.
- **WF-5:** Conduct vegetation management (brush clearance) in City maintained parks, Anaheim Golf Course, Canyon Hills Library, and Walnut Canyon Reservoir.
- **WF-6:** Encourage and conduct retrofits on City facilities, to include:
 - 1. Fire retrofits (roofing, building materials, other improvements) on all facilities.
 - 2. Install smoke detection units to HVAC systems in all libraries.
 - 3. Retrofit sprinkler systems with smoke detection units in all libraries.

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- **WF-7:** Continue to work with Public Works on the Fuel Modification Program.
- **WF-8:** Park Rangers will go on 24-hour patrols of 3 natural parks- Pelanconi, Deer Canyon, Oak Canyon Nature Center) with high possibilities of fire danger. Patrols to keep out trespassers and watch for fire spots during Red-Flag warnings.

The LHMP must be reviewed and approved by FEMA every five years to maintain eligibility for disaster relief funding. As part of this process, the California Governor's Office of Emergency reviews all local hazard mitigation plans in accordance with DMA 2000 regulations and coordinates with local jurisdictions to ensure compliance with FEMA's Local Mitigation Plan Review Guide. The Safety Element of the General Plan also adopts the LHMP in its entirety by reference.

Anaheim Utilities Department Wildfire Mitigation Plan

Developed by the Anaheim Public Utilities Department in consultation with Anaheim Fire & Rescue, and updated in 2022, the Anaheim Wildfire Mitigation Plan establishes methods and procedures used to construct, maintain, and operate the electric utility's electrical lines and equipment in a manner that will minimize the risk of wildfire (APU 2022). This plan was developed in accordance with Senate Bill 901, which amended Public Utilities Code Section 8387, and Assembly Bill 1054 which further defined requirements to be included in utility wildfire mitigation plans which are updated annually with a comprehensive revision not less than every three years. The provisions in the plan outline the preventative strategies and actions for fire prevention and suppression activities and specific operational response during elevated fire and weather conditions to limit potential fire ignition from electrical transmission infrastructure sources within the City.

City of Anaheim General Plan

The General Plan identifies potential wildfire impacts and methods to minimize the impacts to wildfire. The following General Plan policies are applicable to wildfire:

Safety Element

Goal 1.1: A community prepared and responsive to seismic and geologic hazards.

- **Policy 1.1-3.** Require geologic and geotechnical investigations in areas of potential seismic or geologic hazards as part of the environmental and/or development review process for all structures.
- **Policy 1.1-4.** Enforce structural setbacks from faults and other geologic hazards identified during the development review process.
- **Policy 1.1-9.** Require new construction, redevelopment, and major remodels located within potential landslide areas be evaluated for site stability, including potential impacts to other properties, during project design and review.

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Goal 2.1: A community protected and prepared for urban and wildland fires.

- **Policy 2.1-1.** Protect the lives and properties of residents, businesses owners, and visitors from urban and wildland fire hazards.
- **Policy 2.1-2.** Effectively enforce City and State regulations within the VHFHSZ and incorporate new techniques and best practices as they become available to reduce future risks to existing and new developments.
- **Policy 2.1-3.** Develop a post-wildfire recovery framework that assists City staff, residents, and business owners in planning and recovery efforts.
- **Policy 2.1-4.** Minimize urban and wildland fire exposure for residents, business owners, and visitors by incorporating Fire Safe Design into existing and new developments.
- **Policy 2.1-5.** Continually assess the need for additional greenbelts, fuel breaks, fuel reduction and buffer zones around existing communities and roadways. This assessment should include long-term maintenance of existing efforts and funding sources to sustain these projects.
- **Policy 2.1-6.** Maintain a weed abatement program to ensure clearing of dry brush areas.
- **Policy 2.1-7.** Expand vegetation management activities in areas adjacent to wildland fire prone areas.
- **Policy 2.1-8.** Refine procedures and processes to minimize the risk of fire hazards in the Special Protection Area including requiring new development to:
 - Utilize fire-resistant building materials;
 - Incorporate fire sprinklers as appropriate;
 - Incorporate defensible space requirements;
 - Comply with Anaheim Fire Department Fuel Modification Guidelines;
 - Provide Fire Protection Plans; and,
 - Implement a Vegetation Management Plan, which results in proper vegetation modification on an ongoing basis within the Special Protection Area.
 - Develop fuel modification in naturalized canyons and hills to protect life and property from wildland fires, yet leave as much of the surrounding natural vegetation as appropriate.
 - Require development to use plant materials that are compatible in color and character with surrounding natural vegetation.
 - Provide wet or irrigated zones when required.

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- **Policy 2.1-9.** Use selective trimming and obtain permits when necessary in designated areas to preserve environmentally sensitive native plants.
- **Policy 2.1-10.** Site new essential public facilities outside of the VHFHSZ, where feasible.
- **Policy 2.1-11.** Evaluate feasibility of relocating essential public facilities located within the VHFHSZ to areas outside of this hazard zone. If relocation isn't possible, prioritize retrofitting and hardening of structures.
- **Policy 2.1-12.** Continue to classify areas of varying fire hazard severity based upon the proximity to open wildland slope, grades, accessibility, water supply and building construction features.
- **Policy 2.1-13.** All development projects within the VHFHSZ must prepare a Fire Protection Plan (FPP) to reduce or eliminate fire threats. FPPs shall be consistent with the following guidance: (New Policy)

A Fire Protection Plan (FPP) may be required by the fire code official for new development within the Very High Fire Hazard Severity Zones (VHFHSZ). FPPs are required to include mitigation strategies that consider location, topography, geology, flammable vegetation, sensitive habitats/species, and climate of the proposed site. FPPs must address water supply, access, building ignition, and fire resistance, fire protection systems and equipment, proper street signage, visible home addressing, defensible space, vegetation management, and long-term maintenance. All required FPPs must be consistent with the requirements of the California Building and Residential Codes, the California Fire Code as adopted by the City of Anaheim, and the City of Anaheim Municipal Code.

Goal 3.1: A community resilient to the effects of flooding and dam inundation hazards.

- **Policy 3.1-1.** Evaluate all development proposals located in areas that are subject to flooding to minimize the exposure of life and property to potential flood risks.
- **Policy 3.1-4.** Encourage properties prone to flooding or creating new flooding conditions to incorporate flood safe design elements and appropriate setbacks to reduce flood damage potential.
- **Policy 3.1-5.** Encourage new development to maintain and enhance existing natural streams, as feasible.

Goal 6.1 A city that prioritizes emergency preparedness and public awareness of community risks.

- **Policy 6.1-3.** Assess emergency and evacuation capabilities for potential disruptions from existing and future hazards affecting the community.
- **Policy 6.1-4.** Ensure mapping of the City's emergency facilities, evacuation routes and hazardous areas are periodically updated to reflect additions or modifications.

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- **Policy 6.1-5.** Ensure access routes to and from hazard areas relative to the degree of development or use (e.g., road width, road type, length of dead-end roads, etc.) are adequately designed and sized to accommodate anticipated needs.
- **Policy 6.1-7.** Appropriately locate and coordinate emergency services including fire, police, and ambulance services to provide responsive services across the entire community.
- **Policy 6.1-8.** Conduct hazards-oriented public outreach to prepare the community for the following hazards:
 - Seismic and Geologic Hazards
 - Wildfire Hazards
 - Flooding and Dam Inundation
 - Hazardous Materials Release
 - Climate Change
 - Evacuation

Goal 7.1: A city that can effectively respond and evacuate during hazard events.

- **Policy 7.1-1.** Coordinate with neighboring jurisdictions and Caltrans regarding transportation network constraints and improvements.
- **Policy 7.1-2.** Coordinate with neighboring jurisdictions and County agencies to prioritize roadway and storm drain infrastructure retrofitting and enhancement projects along primary evacuation routes.
- **Policy 7.1-3.** Ensure all new development and redevelopment projects provide adequate ingress/egress for emergency access and evacuation.
- **Policy 7.1-4.** Identify and construct additional evacuation routes in areas of high hazard concern or limited circulation, where feasible.
- **Policy 7.1-5.** Ensure the City's transportation network allows for effective emergency response and evacuation activities.
- **Policy 7.1-6.** Develop evacuation standards and metrics for constrained neighborhoods and alternative evacuation plans, where necessary.
- **Policy 7.1-7.** Monitor changes to hazard conditions and vulnerabilities to ensure the accessibility or viability of evacuation routes in the future.
- **Policy 7.1-8.** Expand the "Know Your Way" program to identify and enhance evacuation resources that includes areas of the City with limited ingress/egress, limited circulation capacity, and/or critical infrastructure that could impact evacuation efforts.

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- **Policy 7.1-9.** Enhance the City’s existing education and outreach program, “Know Your Way,” with potential evacuation scenarios and the activities that residents and businesses can do to protect their properties and prepare for potential events.

City of Anaheim Municipal Code

The Anaheim Municipal Code includes various directives to minimize adverse impacts associated with wildfires and evacuation in Anaheim. Most provisions related to wildfire and evacuation are in the following chapters:

- **Chapter 06.04, Emergency Plan and Services.** This chapter provides for the preparation and carrying out of plans for the protection of persons and property within the City in the event of an emergency; the establishment of an emergency organization; and the coordination of the emergency functions of the City with all other public agencies and affected private persons, corporations, and organizations.
- **Chapter 16.08, Fire Code.** The City Council of the City of Anaheim adopts and incorporates by reference into the AMC the 2019 CFC, with amendments. The CFC sets forth requirements including emergency access, emergency egress routes, interior and exterior design and materials, fire safety features including sprinklers, and hazardous materials. Locally adopted amendments to the 2019 CMC include designation of a Wildland-Urban Interface Fire Area east of the Costa Mesa Freeway (SR-55) and south of the Riverside Freeway (SR-91), fuel modification requirements for new construction, and hazardous vegetation and fuel management.
- **Chapter 16.40, Designation of VHFHSZ.** This chapter adopts the VHFHSZ map published by CAL FIRE as VHFHSZs within the City. These areas are subject to the VHFHSZ Fire Safe Regulations.
- **Chapter 17.06, Grading, Excavations and Fills in Hillside Areas.** This chapter provides requirements for development in the hillside areas of the City. Requirements include excavations and fills being performed in accordance with good engineering practice, including transitional areas being between existing developed areas and areas that require grading, and encouraging contour grading. This chapter requires an approved grading plan with an engineering geological investigation report, and grading permit prior to conducting grading activities.
- **Chapter 17.24, Underground Utilities.** This chapter allows the Anaheim City Council to create underground utility districts to incentivize the removal of overhead utility structures and underground installation of these structures. Once an underground utility district is established, it is unlawful to construct poles, overhead wires, and associated overhead structures in the district.
- **Chapter 17.28, Flood Hazard Reduction.** This chapter provides methods for reducing flood losses through restricting or prohibiting uses that could endanger the health, safety, and property in the City; requires that uses vulnerable to flooding be protected against flood damage; provides for the control of the alteration of natural floodplains, stream channels, and natural protective barriers; provides for flood control infrastructure and prevents grading or dredging that may increase flood damage; and regulates the construction of flood barriers that divert floodwaters or increase flood hazards.

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Standard Conditions of Approval

The City will be adopting Master Conditions of Approval that are applied to all development projects through the plan-check review process. As a matter of practice, the City has been implementing the following conditions that relate to fire protection and emergency services, compliance with which would reduce negative fire protection and emergency services impacts. Compliance with standard conditions would be required for all new development and redevelopment in the City.

- **SC PS-1:** Projects will be reviewed by the City of Anaheim on an individual basis and will be required to comply with requirements in effect at the time building permits are issued (i.e., impact fees, etc.) or if an initial study is prepared and the City determines the impacts to be significant, then the project will be required to comply with appropriate mitigation measures (i.e., fire station sites, etc.).
- **SC WF-1:** All CBC and CFC requirements shall be followed for permit issuance. Any fire permits shall be submitted directly to Anaheim Fire Prevention Bureau.
- **SC WF-2:** 2019 California Fire Code Section 503.1.1 – approved fire apparatus access roads shall be provided for every facility, building, or portion of a building hereafter constructed or moved into or within the jurisdiction. The fire apparatus access road shall comply with the requirements of this section and shall extend to within 150 feet of all portions of the facility and all portions of the buildings as measured by an approved route around the exterior of the building or facility.
- **SC WF-3:** An adequate water supply capable of providing minimum fire flow requirements for fire hydrants and a fire sprinkler system shall be available for the future, proposed condominiums.
- **SC WF-4:** The owner/developer shall provide a Fire Master Plan showing rescue ladder access, Knox box locations, fire hydrant location and fire flow requirements, as well as indicate fire sprinklers shall be provided in accordance with NFPA 13 and fire alarms shall be provided in accordance with NFPA 72. The fire master plan shall be submitted directly at AFD at the time that grading plans are submitted to the city.
- **SC WF-5:** A Fire Master Plan shall be submitted at the time that grading plans are submitted to Public Works for review and approval prior to building permit issuance. Plan shall include (but not be limited to) emergency vehicle site access, water availability and fire flow requirements, any interior laddering requirements, and fire protection features like fire sprinklers and alarms.
- **SC WF-6:** Permanent, temporary, and phased emergency access roads shall be designed and maintained to support an imposed load of 78,000 lbs. and surfaced to provide all-weather driving capabilities.
- **SC WF-7:** Fire hydrants shall meet minimum Fire Department Specifications and Requirements for spacing, distance to structure, and available fire flow.
- **SC WF-8:** Emergency responder radio coverage (BDA/DAS) shall be provided for the proposed new building(s).

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- **SC WF-9:** A minimum 26' width for the fire access road is required for the proposed structure and a minimum vertical clearance of 13 feet, 6 inches.
- **SC WF-10:** An automatic fire sprinkler system shall be designed, installed, and maintained as required by the Fire Department per NFPA-13, 13R, or 13D. A fire alarm system shall be designed, installed, and maintained as required by the Fire Department per NFPA-72.
- **SC WF-11:** All CBC and CFC requirements shall be followed for permit issuance. Any fire permits which includes fire sprinklers, fire alarm, etc. shall be submitted directly the Anaheim Fire Prevention Department.

5.18.1.2 EXISTING CONDITIONS

Wildfire Background

The term “wildfire” refers to fires that usually result from the ignition of dry grass, brush, or timber. Historically, wildfires commonly occur in steep or heavily vegetated areas, which makes suppression of the fire difficult. More recently, wildfires have been encroaching into more urban areas, that is, the WUI, threatening homes, businesses, and essential infrastructure. Though wildfires play an important role in the ecology of many natural habitats, risks to human safety and property increase as urban development moves into areas susceptible to wildfire hazards.

Types of Wildfires

There are three basic types of wildfires:

- **Crown fires** burn trees to their tops and are the most intense and dangerous wildland fires.
- **Surface fires** burn surface litter and duff and are known for being the easiest fires to extinguish and causing the least damage. Brush and small trees enable surface fires to reach treetops, and so are referred to as *ladder fuels*.
- **Underground fires** occur underground in deep accumulations of dead vegetation. These fires move very slowly and can be difficult to extinguish due to limited access (Natural Resources Canada 2024).

Wildfires burn in many types of vegetation—forest, woodland, scrub, chaparral, and grassland. Many species of native California plants are adapted to fire, and habitats such as chaparral, shrubs, and conifer forests can recover from fire. For example, some species of chaparral plants, such as ceanothus, require intense heat for germination and therefore have flammable resins on leaves and roots that can quickly sprout up in burned areas (National Park Service 2018). Between 2010 and 2017, wildfires in California burned about 265,000 acres of forest land, 207,000 acres of scrub vegetation, 99,000 acres of grassland, 18,000 acres of desert vegetation, and 14,000 acres of other vegetation types (BFFP 2018). Wildfires have been observed to be more frequent and growing in intensity over the past several years, with 4,304,379 acres and 2,568,948 acres burning in 2020 and 2021, respectively (CAL FIRE 2022).

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Wildfire Causes

Although the term *wildfire* suggests natural origins, a 2017 study that evaluated 1.5 million wildfires in the United States between 1992 and 2012 found that humans were responsible for igniting 84 percent of wildfires, accounting for 44 percent of acreage burned (Balch et al. 2017). The three most common types of human-caused wildfires are debris burning (logging slash, farm fields, trash, etc.), arson, and equipment use (Pacific Biodiversity Institute 2007). Power lines can also ignite wildfires through downed lines, vegetation contact, conductors that collide, and equipment failures (Mitchell 2009). CAL FIRE determined that between 2017 and 2021, 1,344 fires and 639,437 acres have been burned due to electrical power and distribution lines (CAL FIRE 2018, 2021). Lightning is the most common cause of nature-induced wildfire (Balch et al. 2017).

An analysis of US Forest Service wildfire data from 1986 to 1996 determined that 95 percent of human-caused wildfires and 90 percent of all wildfires were within 0.5 mile of a road, and that about 61 percent of all wildfires and 55 percent of human-caused wildfires were within approximately 650 feet (200 meters) of a road. The study concluded that the increase in human-caused ignition greatly outweighs the benefits of increased access for firefighters (Pacific Biodiversity Institute 2007).

There are three primary methods of wildfire spread:

- **Embers.** Embers are the most prolific cause of home ignition, at a rate of two out of every three homes destroyed. Embers are glowing or burning pieces of vegetation or debris that are lofted during a wildfire and can move up to a mile ahead of a wildfire, especially during high winds. These small embers or sparks may fall on the vegetation near a home (on dry leaves, needles, or twigs on the roof) and subsequently ignite the home. Embers can travel several miles during high wind events, such as the Santa Ana winds, posing a potential risk to all structures without fire-resistant landscaping and construction within a mile of the fire (CAL FIRE 2019).
- **Direct Flame Contact.** Direct flame contact refers to the transfer of heat by direct flame exposure. Direct contact will heat the building materials of the home, and if the time and intensity of exposure is severe enough, windows will break and materials will ignite.
- **Radiant Heat.** A house can catch fire from the heat that is transferred to it from nearby burning objects, even in the absence of direct flames or embers. By creating defensible space around homes, the risk from radiant heat is significantly reduced.

Secondary Effects of Wildfires

After a high intensity wildfire is suppressed, the burn scar is typically bare of its vegetative cover, which had supported the hillsides and steeper slopes. As a result, rainstorms increase the possibility of severe landslides and debris flows in these areas. The intense heat from the fire can also cause a chemical reaction in the soil that makes it less porous, causing water to run off during precipitation events, which can lead to flooding downstream.

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In addition to damaging natural environments, wildfires can injure and cause fatalities of residents and firefighters as well as damage or destroy structures and personal property. Wildfires also deplete water reserves, down power lines, disrupt communication services, and block evacuation routes, which can isolate communities. Wildfires can also indirectly cause flooding if flood control facilities become inadequate to handle increases in stormwater runoff, sediment, and debris that are likely to be generated from burn scars. Regionally, smoke from wildfires creates poor air quality that can last for days or weeks, depending on the scale of the wildfire and wind patterns.

Wildfire in Anaheim

The geography, weather patterns, and vegetation in eastern Anaheim and surrounding areas provide ideal conditions for recurring wildfires. As recent wildfire activity revealed, several areas in eastern Anaheim face some level of threat from wildland fire. As shown on Figure 5.18-1, *Very High Fire Hazard Severity Zones*, VHFHSZs are located primarily in the Anaheim Hills community of eastern Anaheim and the City's unincorporated sphere of influence east of SR-241.

The WUI areas of Anaheim include areas designated as within the VHFHSZ. WUI areas occur when urban development is intermixed with wildland vegetation, or when pockets of wildland vegetation occur inside developed areas. The WUI is subdivided into the intermix zone (where houses and wildland vegetation directly mingle), the interface zone (housing adjacent to wildland vegetation, but not mingled with it), and the influence zone (areas of wildfire-susceptible vegetation surrounding the other zones). The interface and intermix zones carry the highest risk for wildfires affecting developed areas. Unlike wildfire in wildland areas, fires in WUI areas are more likely to damage or destroy buildings and infrastructure that support populations, the economy, and key services in the city.

Wildfire History

CAL FIRE maintains a list of historic fires throughout the state. According to CAL FIRE, Anaheim has experienced several wildfires in and near the eastern City limits, and in the wildland urban interface. Table 5.18-1, *Historic Wildfires in and Surrounding Anaheim*, lists historic wildfire incidents that have occurred within the City from 1914 to 2021. The largest fire in recent years was the Freeway Complex Fire in 2008.

Table 5.18-1 Historic Wildfires in and Surrounding Anaheim

Year	Fire Name	Size (Acres)
2020	Blue Ridge Fire	13,700
2017	Canyon II Fire	9,217
2017	Canyon I Fire	2,700
2014	Silverado Fire	985
2008	Freeway Complex	30,500
2007	Windy Ridge/241 Fire	1,600
2006	Sierra Fire	10,500
2002	Green Fire	2,200
1993	Stagecoach Fire	700

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Table 5.18-1 Historic Wildfires in and Surrounding Anaheim

Year	Fire Name	Size (Acres)
1985	Green River Fire	135
1984	Coal Canyon Fire	450
1982	Gypsum Fire	17,000
1967	Paseo Grande Fire	51,000
1962	Unnamed Fire	140
1951	Nohl Fire	175
1948	Green River Fire	53,000
1914	Unnamed Fire	19,000

Source: CAL FIRE 2021.

Factors Influencing Wildfire

Several factors influence wildfire conditions and facilitate the spread of wildfires, including topography, fuels, weather conditions, and climate change. Human actions are also the leading cause of wildfires in California, increasing the risk of wildfire devastating natural lands and communities. This section describes five factors in the context of Anaheim.

Weather

The climate in Anaheim is generally referred to as “Mediterranean,” with hot, dry summers and cool, wet winters. Warm summers and cold winters with rainfall are common in the City. Rainfall typically occurs during the winter months due to storm fronts that move inland from the Pacific Ocean or south from the Sierra Nevada. The City receives an average of approximately 14 inches of precipitation annually (Anaheim 2022). Because the summer months are generally hot and dry, the risk of wildfires has historically been greatest in summer and fall. Relative humidity is also an important fire-related weather factor. As humidity levels drop, the dry air causes vegetation moisture levels to decrease, thereby increasing the likelihood that plant material will readily ignite and burn; the risk of wildfire increases when lightning strikes occur during dry periods.

Wind is a primary weather factor in wildfire behavior. Specifically in Southern California, Santa Ana winds are warm easterly winds that flow from the Great Basin through the high desert to the ocean and are the primary contributor to wildfires in Southern California (Anaheim 2022). These winds can easily exceed 40 miles per hour and up to between 55 and 70 miles per hour (AF&R 2022a). As wind speeds increase, the rates of fire spread, intensity, and ember spread potential also increase. Gusty and erratic wind conditions, like those of the Santa Ana winds, can cause wildfire to spread irregularly, making it difficult to predict its path and effectively deploy fire suppression forces. Winds from the east in the fall compound the severity of fire conditions, as does lower relative humidity, creating red-flag conditions. Santa Ana winds are especially dangerous because they are accompanied by low humidity, which can dry out trees and other fuel that may also be weakened by the winds. This can increase wildfire conditions in the area. Wind shifts can also occur suddenly due to temperature changes and interactions with steep slopes or hillsides, causing fires to spread

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unpredictably. Fall has historically been one of the most dangerous times for wildfire risk, as periods of very high temperatures, low humidity, and strong wind increase extreme fire danger.

Fuel

As described in Section 5.3, *Biological Resources*, of this Draft PEIR, landcover in Anaheim consists primarily of urban areas consisting of residential and commercial uses. However, approximately 22 percent of the landcover consists of open space and recreation land uses, much of which is in East Anaheim, including native and nonnative vegetation. Each type of vegetation contributes to fire hazard severity to varying degrees. The qualities of vegetation that directly influence fire risk include fuel type and size, loading, arrangement, chemical composition, and dead and live fuel moisture, which contributes to the flammability characteristics of the vegetation. The dominant nonurban vegetation types include coastal sage shrubs, annual grasslands, and chaparral (Anaheim 2017). Grass and scrub fuel types react quickly to changes in weather such as low humidity or high wind speeds. Fires in areas covered by these vegetation types can spread quickly in gusty wind conditions.

Topography

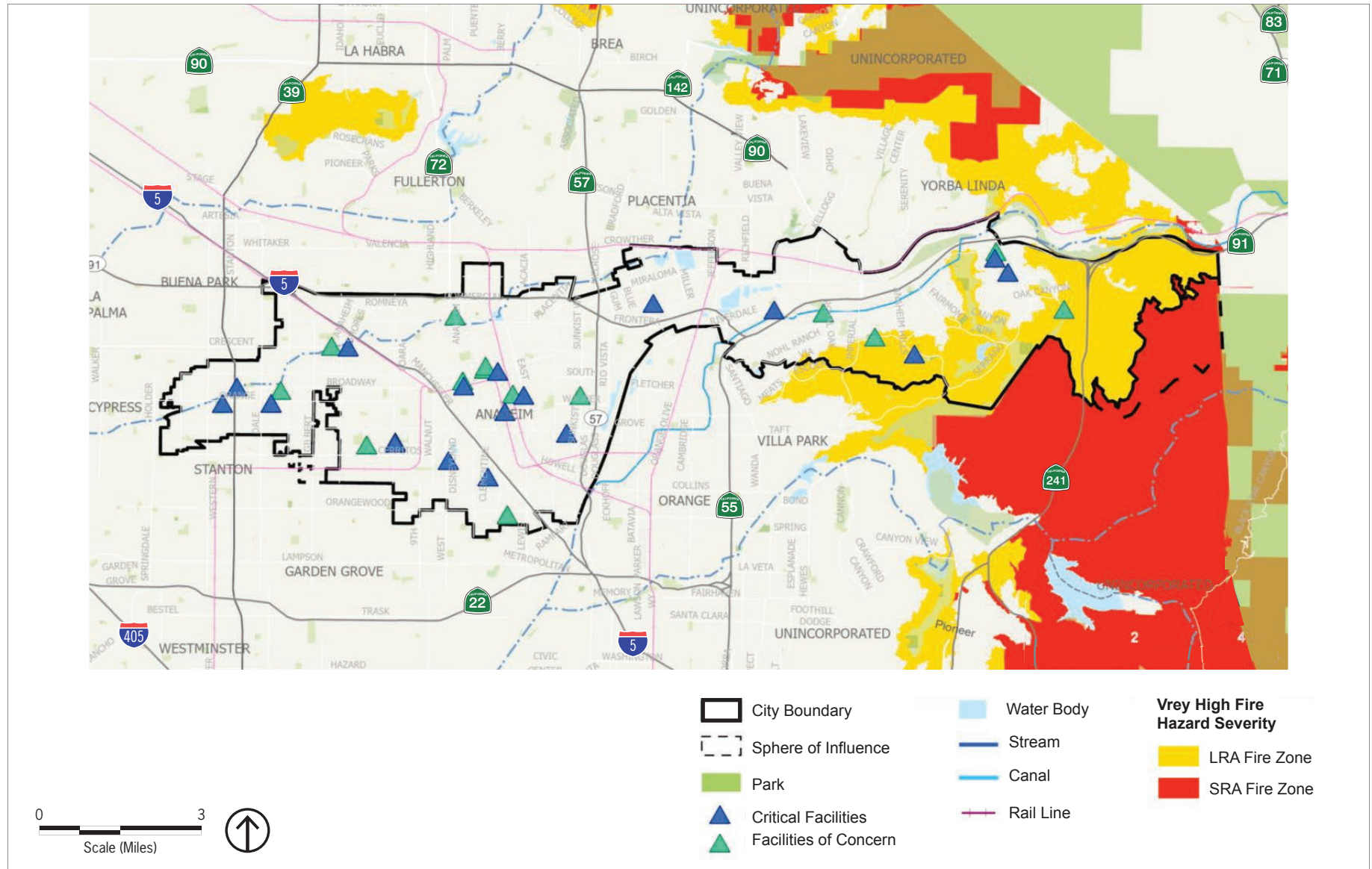
Steep terrain or slope plays a key role in the rate and direction in which wildfires spread since fires normally burn much faster uphill. When the gradient of a slope doubles, the rate of spread of a fire will also likely double. The City is relatively flat with the exception of East Anaheim, which is bordered by the foothills of the Santa Ana Mountains and is moderately to steeply sloped. These areas would also be more susceptible to debris flow after a fire, which have occurred historically (Anaheim 2022):

- **The Santiago Landslide.** In 1993, following a major El Niño weather event, a bluff in east Anaheim Hills slid and prompted the evacuation of dozens of families, destroyed over 30 homes, and impacted over 200 other structures in the vicinity.
- **The Ramsgate Landslide.** In 2005, a twenty-day rain event in Orange County led to flooding and caused a landslide along Ramsgate Dr in Anaheim, which destroyed three homes and a private street.

Human Actions

Most wildfires are ignited by human action, the result of direct acts of arson, carelessness, or accidents. Many fires originate in populated areas along roads and around homes and are often the result of the careless disposal of cigarettes, mowing of dead grass, electrical equipment malfunction, use of equipment, or burning of debris. Recreation areas with increased human activity that are in high or very high fire hazard areas also increase the potential for wildfires.

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Source: City of Anaheim General Plan Safety Element, 2023.

Figure 5.18-1
Very High Fire Hazard Severity Zones

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Climate Change

Climate change is likely to increase annual average maximum temperatures in Anaheim from a historical annual average of 76.1 degrees Fahrenheit (°F) to an annual average of 80.5 °F by 2064 and 81.9 °F by 2099 (Cal-Adapt 2024a). This will likely create warmer temperatures earlier and later in the year. Precipitation levels are projected to vary over the course of the century, changing from a historical annual average of 13.3 inches per year to an annual average of 13.1 inches by 2064 and an annual average of 13.4 inches by 2099 (Cal-Adapt 2024a). Variations in precipitation patterns will also lead to an increase in frequency and intensity of heavy precipitation events as well as prolonged periods of drought. The combination of extreme heat and droughts can cause soils and vegetation to dry out, creating more fuel for wildfires. These factors are expected to increase wildfire conditions, creating the risk of more frequent and intense wildfires. Because wildfires burn the trees and other vegetation that help stabilize a hillside and absorb water, more areas burned by fire may also lead to an increase in landslides and floods.

Fire Protection Resources

Anaheim Fire & Rescue

Fire protection services the City of Anaheim are provided by AF&R, which provides firefighting services for the City. AF&R has eleven fire stations in Anaheim, as discussed in Section 5.13, *Public Services*, of this Draft PEIR. AF&R has a goal of 8 minutes for the first unit on scene and 12 minutes for the effective fire response force, to be achieved 90 percent of the time. AF&R's overall 90 percent performance for first unit total response time over a three-year period from 2010 to 2012 was 9 minutes and 38 seconds (AF&R 2022a). Section 5.13, *Public Service*, of this Draft PEIR, provides additional details about fire protection resources and services in Anaheim.

Orange County Fire Authority

OCFA is contracted by CAL FIRE for the initial response of wildfires in Anaheim's unincorporated sphere of influence and surrounding areas, and if a wildland fire escapes the initial attack, CAL FIRE responds to assist OCFA. OCFA has a goal of 7 minutes and 20 seconds of total response time in urban and suburban areas, 12 minutes in rural areas, and as soon as possible in wilderness areas, to be achieved 80 percent of the time (OCFA 2024).

Evacuation and Access

Evacuation routes are designated roadways that allow many people to quickly leave an area due to a potential or imminent disaster. These routes should have sufficient capacity to accommodate the needs of the community, be safely and easily accessible, and allow people to travel far enough away to be safe from emergency conditions. However, several roadways and residential parcels in Anaheim have evacuation constraints, as shown on Figure S-7, *Constrained Roadways and Parcels*, in the Safety Element. Dozens of residential parcels and roadway segments overlap with VHFHSZs in East Anaheim.

According to the 2022 LHMP, the primary evacuation route to move people west, away from wildfires, is SR-91. Additional evacuation routes in the Anaheim Hills include:

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- Imperial Highway
- Weir Canyon Road
- Serrano Avenue
- Nohl Ranch Road
- Santa Ana Canyon Road
- Fairmont Boulevard
- La Palma Avenue
- Canyon Rim Road
- Via Escala

During emergencies, the Anaheim Police Department coordinates evacuations warnings and orders. Evacuations are also coordinated through the Anaheim emergency alert program, Anaheim Alert. AF&R has also adopted the Ready, Set, Go! Program as a public outreach effort on wildfires.

5.18.2 Thresholds of Significance

The City of Anaheim considers a project to have a significant effect on the environment if located in or near State responsibility areas or lands classified as very high fire hazard severity zones the project would:

- W-1 Substantially impair an adopted emergency response plan or emergency evacuation plan.
- W-2 Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire.
- W-3 Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment.
- W-4 Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes.

5.18.3 Proposed General Plan Goals and Policies

The proposed project does not include any new or updated general plan goals and policies related to wildfire.

5.18.4 Environmental Impacts

The following impact analysis addresses thresholds of significance that are identified in brackets after the impact statement.

Impact 5.18-1: The proposed project would not substantially impair an adopted emergency response plan or emergency evacuation plan. [Threshold W-1]

Adopted emergency response plans and emergency evacuation plans include those discussed under Section 5.18.1.1, such as the City of Anaheim Emergency Operations Plan and the Anaheim Hills Evacuation Plan.

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The proposed project could have a significant impact if it substantially impairs the implementation of these plans.

Land use and zoning changes associated with the proposed project are focused in the highly developed and urbanized parts of the City, as opposed to the eastern parts of the City, which are the parts of the City in the WUI and/or VHFHSZ. However, any potential development under the proposed project would be required to integrate the Emergency Operations Plan as necessary into development to continue its facilitation in evacuation for the people in wildfire-prone areas. Buildout under the proposed project would not result in substantial changes to the circulation patterns or emergency access routes in the City that would conflict with or require changes to the Emergency Operations Plan or Anaheim Hills Evacuation Plan. Additionally, future development in the WUI or VHFHSZs would be required to comply with the SRA and VHFHSZ Fire Safe Regulations, the California Building Code, the California Fire Code, the Anaheim Municipal Code, and the Standard Conditions of Approval, which have maximum requirements for lengths of single-access roads, minimum widths of roadways, and vegetation fuel management around roadways.

Furthermore, the General Plan Safety Element includes several policies and actions to prepare for and facilitate evacuations caused by wildfires and other hazards.

Goal 6.1: A city that prioritizes emergency preparedness and public awareness of community risks.

- **Policy 6.1-3.** Assess emergency and evacuation capabilities for potential disruptions from existing and future hazards affecting the community.
- **Policy 6.1-5.** Ensure access routes to and from hazard areas relative to the degree of development or use (e.g., road width, road type, length of dead-end roads, etc.) are adequately designed and sized to accommodate anticipated needs.

Goal 7.1: A city that can effectively respond and evacuate during hazard events.

- **Policy 7.1-1.** Coordinate with neighboring jurisdictions and Caltrans regarding transportation network constraints and improvements.
- **Policy 7.1-2.** Coordinate with neighboring jurisdictions and County agencies to prioritize roadway and storm drain infrastructure retrofitting and enhancement projects along primary evacuation routes.
- **Policy 7.1-3.** Ensure all new development and redevelopment projects provide adequate ingress/egress for emergency access and evacuation.
- **Policy 7.1-4.** Identify and construct additional evacuation routes in areas of high hazard concern or limited circulation, where feasible.
- **Policy 7.1-5.** Ensure the City's transportation network allows for effective emergency response and evacuation activities.

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- **Policy 7.1-6.** Develop evacuation standards and metrics for constrained neighborhoods and alternative evacuation plans, where necessary.
- **Policy 7.1-7.** Monitor changes to hazard conditions and vulnerabilities to ensure the accessibility or viability of evacuation routes in the future.
- **Policy 7.1-8.** Expand the “Know Your Way” program to identify and enhance evacuation resources that includes areas of the City with limited ingress/egress, limited circulation capacity, and/or critical infrastructure that could impact evacuation efforts.
- **Policy 7.1-9.** Enhance the City’s existing education and outreach program, “Know Your Way,” with potential evacuation scenarios and the activities that residents and businesses can do to protect their properties and prepare for potential events.

Implementation of these policies would increase the effectiveness of the Emergency Operations Plan and Anaheim Hills Evacuation Plan, and therefore would not impair or conflict with the plans.

A temporary impact to emergency operations and evacuation under the proposed project could occur from construction of potential future development projects if they were to result in temporary lane closures that would potentially alter evacuation routes in evacuation constrained areas, as shown on Figure S-7 of the General Plan Safety Element. Potential future development in the City would also be required to comply with VHFHSZ Fire Safe Regulations, the California Building Code, the California Fire Code, the Anaheim Municipal Code, and the Standard Conditions of Approval (SC WF-4, SC WF-5, SC WF-6, SC WF-8, SC WF-9). These would be limited to the duration of the construction period, and direct impacts of construction would be evaluated during the permit review process in accordance with Standard Condition of Approval SC PS-1, and by Anaheim Fire and Rescue and Police Department, and/or CAL FIRE. Review and approval of temporary lane closures, if needed, for future development projects in the City would ensure that that no inconsistencies with emergency evacuation plans would occur.

Future development, regardless of whether it includes new development or redevelopment, is required to comply with adopted local, regional, and State plans and regulations addressing emergency access, response, and evacuation.

Implementation of the proposed project would not substantially impair an adopted emergency response plan or emergency evacuation plan. Thus, this impact is considered less than significant.

Level of Significance Before Mitigation: Impact 5.18-1 would be less than significant.

Mitigation Measures: No mitigation measures are required.

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Impact 5.18-2: The proposed project would not due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby would not expose project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire. [Threshold W-2]

As discussed in Section 5.18.1.2, *Existing Conditions*, Anaheim is prone to Santa Ana winds in early fall through early spring. These winds have high speeds and can shift suddenly, and they are often accompanied by low humidity. They create dangerous conditions for starting and spreading wildfires during the drier months of the year, and they also spread wildfire smoke hazards, as can prevailing winds.

Section 5.18.1.1, *Regulatory Framework*, describes plans, policies, regulations, and procedures that help to reduce wildfire risks. The 2018 Strategic Fire Plan for California, 2021 California Wildfire and Forest Resilience Action Plan, Orange County Fire Authority Unit Strategic Fire Plan, Anaheim Fire & Rescue Strategic Plan, Anaheim Local Hazard Mitigation Plan, Anaheim Emergency Operations Plan, and Anaheim Utilities Department Wildfire Mitigation Plan are intended to reduce wildfire hazards and coordinate response to these hazards on a statewide, regional, and local scale. In addition, the South Coast Air Quality Management District and Orange County Public Health Services provide air quality alerts, advisories, and an interactive online map to view current air quality conditions in the region.

As discussed in Section 5.18.1.2, *Existing Conditions*, the topography in wildfire-prone areas (the eastern portion), of Anaheim are hilly to steeply sloped. The proposed project's candidate housing sites are primarily in the central and western portions of the City, as shown in Figure 3-4, *Candidate Sites*, of this Draft EIR. The central and western portions of the city are urbanized and not within a VHFHSZ.

All potential future development in Anaheim would be required to comply with the California Building Standards Code, VHFHSZ Fire Safe Regulations, Anaheim Municipal Code Grading, Excavations and Fills in Hillside Areas requirements, which include standards to minimize the ignition and spread of wildfire due to slopes. Additionally, the General Plan Safety Element includes Fire Hazard Goal 2.1, Policy 2, which requires the City to effectively enforce City and State regulations, including the California Building Standards Code, California Fire Code, and VHFHSZ Fire Safe Regulations to existing and new development. Additionally, all potential future development would be required to comply with Standard Conditions of Approval SC WF-1 and SC WF-11.

Compatibility with Policy 1.1-9 requires new construction, redevelopment, and major remodels within landslide-prone areas to be evaluated for site stability and downslope impacts during project design and review. Wildfire smoke could potentially travel up a slope during a wildfire. However, future potential development under the proposed project would not exacerbate these risks because they would not be within wildfire-prone areas.

Other factors, such as vegetation, have the potential to exacerbate wildfire risks. The grassland, brush, and woodland areas of eastern Anaheim are easily ignited, especially during late summer and fall when temperatures and winds are high and relative humidity is low. During these conditions, woodland and brush vegetation can dry out, particularly in areas with unirrigated vegetation, becoming extremely flammable and increasing wildfire risks.

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As described in Section 5.18.1.1, *Regulatory Framework*, the Anaheim LHMP and Anaheim Utilities Department Wildfire Mitigation Plan contain several vegetation management, fuel reduction, and fuel break projects to reduce the uncontrolled spread of wildfire due to vegetation. Additionally, all potential future development in wildfire-prone areas in Anaheim would be required to comply with VHFHSZ Fire Safe Regulations, Public Resources Code Section 4291, the California Fire Code, the Anaheim Municipal Code, and Standard Conditions of Approval. These regulations have specific requirements for new and existing development to create defensible space and extensive fuel reduction within 100 feet of a structure, an ember-resistant zone within 5 feet of a structure, and the overall maintenance of properties to reduce the risk of uncontrolled fires or the spread of fires to other properties.

Furthermore, the General Plan Safety Element contains policies and actions for existing and new projects that integrate with the LHMP and State and regional regulations to reduce wildfire risks associated with vegetation.

Goal 2.1: A community protected and prepared for urban and wildland fires.

- **Policy 2.1-5.** Continually assess the need for additional greenbelts, fuel breaks, fuel reduction and buffer zones around existing communities and roadways. This assessment should include long-term maintenance of existing efforts and funding sources to sustain these projects.
- **Policy 2.1-6.** Maintain a weed abatement program to ensure clearing of dry brush areas.
- **Policy 2.1-7.** Expand vegetation management activities in areas adjacent to wildland fire prone areas.
- **Policy 2.1-8.** Refine procedures and processes to minimize the risk of fire hazards in the Special Protection Area including requiring new development to:
 - Utilize fire-resistant building materials;
 - Incorporate fire sprinklers as appropriate;
 - Incorporate defensible space requirements;
 - Comply with Anaheim Fire Department Fuel Modification Guidelines;
 - Provide Fire Protection Plans; and,
 - Implement a Vegetation Management Plan, which results in proper vegetation modification on an ongoing basis within the Special Protection Area.
 - Develop fuel modification in naturalized canyons and hills to protect life and property from wildland fires, yet leave as much of the surrounding natural vegetation as appropriate.
 - Require development to use plant materials that are compatible in color and character with surrounding natural vegetation.
 - Provide wet or irrigated zones when required.

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- **Policy 2.1-13.** All development projects within the VHFHSZ must prepare a Fire Protection Plan (FPP) to reduce or eliminate fire threats. FPPs shall be consistent with the following guidance:

A Fire Protection Plan (FPP) may be required by the fire code official for new development within the Very High Fire Hazard Severity Zones (VHFHSZ). FPPs are required to include mitigation strategies that consider location, topography, geology, flammable vegetation, sensitive habitats/species, and climate of the proposed site. FPPs must address water supply, access, building ignition, and fire resistance, fire protection systems and equipment, proper street signage, visible home addressing, defensible space, vegetation management, and long-term maintenance. All required FPPs must be consistent with the requirements of the California Building and Residential Codes, the California Fire Code as adopted by the City of Anaheim, and the City of Anaheim Municipal Code.

These policies would ensure that fire hazard reduction measures occur and are maintained, and that existing and new development in grassland and woodland areas would incorporate vegetation management measures.

Adherence to the above building practices, fire safety regulations, and vegetation fuel management requirements would reduce the potential for exacerbating wildfire risks. Additionally, potential future development under the proposed project would be outside of wildfire-prone areas of the city.

Level of Significance Before Mitigation: Impact 5.18-2 would be less than significant.

Mitigation Measures: No mitigation measures are required.

Level of Significance After Mitigation: Impact 5.18-2 would be less than significant.

Impact 5.18-3: The proposed project could require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that would not exacerbate fire risk or result in temporary or ongoing impacts to the environment. [Threshold W-3]

Buildout under the proposed project may require the installation of new roadways, fuel breaks, emergency water sources, transmission lines, and other utilities to serve potential future development in Anaheim.

- **Roadways.** Circulation Element Policy 6-2 requires the continued planning and implementation of emergency vehicle and fire truck access and pre-emption requirements.
- **Fuel Breaks.** Safety Element Policies 2.1-5, 2.1-6, 2.1-7, and 2.1-8 require the assessment and implementation of vegetation management activities to clear dry brush and create fuel breaks and buffer zones. These activities would likely occur in VHFHSZs and the WUI.
- **Emergency Water Sources.** Safety Element Policy 2.1-13 requires new development in VHFHSZs to prepare a Fire Protection Plan, which must address adequate water supply for buildings, landscaping, and fire-fighting purposes. This may require the installation of new water conveyance infrastructure in new development or areas not served by adequate water supplies.

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- **Power Lines.** Potential future development under the proposed project could require the installation of electrical power lines and connections to provide power to buildings and infrastructure. Municipal Code Section 17.24, Underground Utilities, allows for the creation of underground utility districts, which prohibit the construction of poles, overhead wires, and associated overhead structures in the district. Areas in VHFHSZs in the Anaheim Hills are within underground utility districts.
- **Other Utilities.** Potential future development under the proposed project could also require the installation and maintenance of water systems, sewer systems, internet infrastructure, and stormwater systems in wildfire-prone areas.

These types of improvements would involve temporary construction and result in changes to the existing built environment. The installation and operation of new above-ground power transmission lines would create a higher risk of wildfire compared to other infrastructure. However, as stated above, Anaheim Municipal Code Section 17.24, Underground Utilities, enables the creation of underground utility districts to prevent the installation of overhead power lines, and LHMP Mitigation Action MH-23 provides an implementation mechanism for this through conducting system undergrounding that converts overhead power and communication lines to new underground lines along major thoroughfares, evacuation routes, and areas that are prone to wildfires. The General Plan Safety Element incorporates the LHMP in its entirety by reference, therefore maintaining consistency with these actions. Additionally, for areas with aboveground power lines, the California Public Utilities Commission requires maintenance of vegetation around power lines, strict wire-to-wire clearances, annual inspections of above-ground power lines, and preparation of fire prevention plans for above-ground power lines in high-fire-threat districts. These measures would reduce the wildfire risks associated with the installation and maintenance of power lines.

Any future development in the eastern portion of Anaheim would also be required to comply with building and design standards in the California Building Code and California Fire Code, which include provisions for fire-resistant building materials, the clearance of debris, and fire safety requirements during demolition and construction activities. Additionally, Public Resources Code Section 4291 requires a defensible space within 100 feet of a structure and an ember-resistant zone within 5 feet of a structure. These measures, along with policies in the General Plan Safety Element for creation and maintenance of vegetation and fuel breaks, and maintaining the weed abatement program would minimize wildfire risks associated with the installation and maintenance of infrastructure.

Such infrastructure and maintenance activities would also be required to comply with the adopted State regulations, Anaheim Municipal Code standards, Standard Conditions of Approval (SC WF-6, SC WF-7, SC WF-9) and the General Plan policies to mitigate the impact of infrastructure on the environment. Therefore, impacts would be less than significant.

Level of Significance Before Mitigation: Impact 5.18-3 would be less than significant.

Mitigation Measures: No mitigation measures are required.

Level of Significance After Mitigation: Impact 5.18-3 would be less than significant.

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Impact 5.18-4: The proposed project would not expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes. [Threshold W-4]

Wildfires, such as the 2020 Blue Ridge Fire or the 2017 Canyon Fires, can create favorable conditions for other hazards, such as flooding and landslides during the rainy season. Wildfires on hillsides can burn the vegetation that stabilizes the slope and create hydrophobic conditions that prevent the ground from absorbing water. This can lead to landslides, debris flows, and flooding. A project would result in a significant impact if—due to slopes, drainage patterns, or postfire slope instability—it would expose people or structures to significant risks from landslides, debris flows, or flooding.

As discussed in Chapter 5.9, *Hydrology and Water Quality*, of this Draft PEIR, parts of Anaheim are in the 100-year and 500-year floodplains. As shown on Figure 5.9-5, *Flood Zones*, floodplains are primarily along the Santa Ana River and Carbon Creek in western Anaheim and along SR-91 in eastern Anaheim.

As discussed in Chapter 5.6, *Geology and Soils*, of this Draft PEIR, slopes in the eastern part of the City are in areas with high landslide susceptibility and coincide with VHFHSZs. These areas are also considered prone to earthquake-caused landslides and susceptible to landslides from precipitation and other causes. This overlap may cause areas outside of a flood hazard or landslide-susceptible zone to be affected by runoff, postfire slope instability, or drainages changes following a wildfire.

Potential future development under the proposed project could contribute to post-fire slope instability or drainage changes upstream. However, General Plan Safety Element Policy 1.1-3 requires the preparation of geologic studies as part of the development review process; Policy 1.1-4 requires structural setbacks from geologic hazards identified during the development review process; and Policy 1.1-9 requires new construction, redevelopment, or significant remodels in landslide areas to be evaluated for site stability, including the impact to other properties during project review, consistent with Anaheim Municipal Code Chapter 17.06. Additionally, Policy 2.1-3 requires the development of post-wildfire recovery framework to assist City staff, residents, and business owners in planning and recovery efforts.

General Plan Safety Element Policy 3.1-1 requires development projects in areas subject to flooding to be evaluated to minimize the exposure of life and property to potential flood risks, Policy 3.1-4 encourages properties prone to flooding to incorporate flood safe design elements and appropriate setbacks to reduce potential flood damage, and Policy 3.1-5 encourages new development to maintain and enhance existing natural streams. Additionally, potential new development under the proposed project would be required to comply with Anaheim Municipal Code Chapter 17.28, Flood Hazard Reduction, which reduce losses from flooding and require new development to minimize stormwater and urban runoff into drainage facilities through implementing detention basins, on-site water features, or other strategies. Furthermore, all new development in the City is required to comply with State and local regulations, such as the California Building Code (Standard Condition of Approval SC WF-1 and SCWF-11) and Anaheim Municipal Code, both of which have provisions to reduce flooding and landslides in existing and new development. For example, Section 1803 of the 2022 California Building Code requires a geotechnical investigation that must assess existing landslide susceptibility on a project site.

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New development complying with these policies of the General Plan would not expose people or structures to downslope landslides or downstream flooding due to post-fire hazards. Furthermore, as identified in Impact 5.18-1 and Impact 5.18-2, development under the proposed project must also comply with best management practices regarding wildfire prevention, action, and recovery as outlined in the Anaheim Emergency Operations Plan, Anaheim Local Hazard Mitigation Plan, City of Anaheim Municipal Code, and Standard Conditions of Approval. All future development, regardless of the location, is required to comply with adopted local, regional, and State plans and regulations addressing wildfire prevention, which would minimize risks of post-fire hazards. Compliance with these policies and regulatory requirements would ensure that impacts from post-fire instability would be less than significant.

Level of Significance Before Mitigation: Impact 5.18-4 would be less than significant.

Mitigation Measures: No mitigation measures are required.

Level of Significance After Mitigation: Impact 5.18-4 would be less than significant.

5.18.5 Level of Significance Before Mitigation

Upon implementation of regulatory requirements and standard conditions of approval, the following impacts would be less than significant: Impact 5.18-1 through 5.18-4.

5.18.6 Cumulative Impacts

The cumulative setting includes potential future development in Anaheim and the surrounding Orange County region. Future development under the proposed project would not impair an adopted emergency response plan or emergency evacuation plan; would not exacerbate wildfire risks and thereby expose project occupants to pollutant concentrations from uncontrolled spread of a wildfire; would not exacerbate wildfire risks due to the installation or maintenance of infrastructure; and would not cause downslope or downstream post-fire flooding or landslide hazards. Cumulative development in the surrounding unincorporated County, local jurisdictions, and State lands would be subject to the same State regulations.

Future potential development in the City and the surrounding Orange County region would be required to comply with the same State and regional regulations, such as SRA and VHFHSZ Fire Safe Regulations, PRC Section 4291, California Building Standards Code, California Fire Code, and Orange County Fire Authority Unit Strategic Fire Plan. Lands throughout Orange County would also implement wildfire reduction strategies through implementation of the Orange County CWPP and the Orange County LHMP. Therefore, cumulative conditions would not impair an adopted emergency response plan or emergency evacuation plan; would not exacerbate wildfire risks and thereby expose project occupants to pollutant concentrations from a wildfire of uncontrolled spread of wildfire; would not exacerbate wildfire risks due to the installation or maintenance of infrastructure; and would not cause downslope or downstream postfire flooding or landslide hazards. These would not result in cumulatively considerable impacts when taken into consideration with the proposed project. Therefore, cumulative wildfire impacts would be less than significant.

Level of Significance Before Mitigation: Cumulative impacts would be less than significant.

5. Environmental Analysis

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Mitigation Measures: No mitigation measures are required.

Level of Significance After Mitigation: Cumulative impacts would be less than significant.

5.18.7 References

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6. Significant Unavoidable Adverse Impacts

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. 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 proposed project, the City must prepare a “Statement of Overriding Considerations” before it can approve the proposed 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 impacts and has determined that the benefits of the proposed project outweigh the adverse effects. Therefore, the adverse effects are considered to be acceptable. Mitigation measures would reduce the level of impact, but the following impacts would remain significant, unavoidable, and adverse after relevant policies, standard conditions of approval, and mitigation measures are applied:

Air Quality

- The project would 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 (construction and operation).
- The project would expose sensitive receptors to substantial pollutant concentrations (construction and operation).

Greenhouse Gas Emissions

- The project would generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment.

Noise

- The project would result in the generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies (construction).
- The project would result in generation of excessive groundborne vibration or groundborne noise levels (construction and operation)

6. Significant Unavoidable Adverse Impacts

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7. Alternatives to the Proposed Project

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 § 15126.6[a]). As required by CEQA, this chapter identifies and evaluates potential alternatives to the proposed project.

Section 15126.6 of the CEQA Guidelines explains the foundation and legal requirements for the alternatives analysis in an EIR. Key provisions are:

- “[T]he 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 is published, or if no notice of preparation is published, at the time environmental analysis is commenced, as well as what would be reasonably 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

- “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 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.
- Evaluates the comparative merits of the alternative and the project.

According to Section 15126.6(d) of the CEQA Guidelines, “[i]f an alternative would cause...significant effects in addition those that would be caused by the project as proposed, the significant effects of the alternative shall be discussed, but in less detail than the significant effects of the project as proposed.”

7.1.2 Project Objectives

As described in Section 3.3 of Chapter 3, *Project Description*, of this Draft Program Environmental Impact Report (Draft PEIR), the following objectives have been established for the proposed project and will aid decision makers in their review of the project, the project alternatives, and associated environmental impacts.

1. Provide for a wide range of housing opportunities in close proximity to existing and future employment centers and transportation facilities, consistent with the need identified in the City's 2021-2029 Housing Element and local and regional jobs/housing balance policies. Provide the recommended surplus between 15 and 30 percent above the Regional Housing Needs Assessment housing unit allocation.
2. Support intensification around the historic downtown Anaheim (Center City Corridors or C3) through the C3 Implementation Plan (C3 Plan), which identifies new and amended land use designations and zoning classifications along corridors.
3. Provide a focused update to the City's General Plan and Zoning Code to deal more effectively with State law housing and other requirements facing the City of Anaheim.
4. Establish clear design standards to be employed in future development of multifamily and mixed-use projects citywide.
5. Facilitate future use streamlining provisions allowed under the California Environmental Quality Act (CEQA) by providing updated community-level environmental review.

7. Alternatives to the Proposed Project

7.2 SIGNIFICANT AND UNAVOIDABLE IMPACTS

As evaluated throughout Chapter 5, *Environmental Analysis*, of this Draft PEIR, the following impacts related to the proposed project were determined to be significant and unavoidable after implementation of all feasible mitigation measures.

- **Air Quality** (Construction and Operation) (refer to Section 5.2, *Air Quality*, for a detailed discussion). Significant and unavoidable impacts would occur with implementation of the proposed project, where development would be facilitated under the 2021-2029 Housing Element and Center City Corridor Implementation Plan (C3 Plan) would result in a cumulative considerable net increase in any criteria pollutant for which the region is nonattainment under applicable federal or State ambient air quality standards and a cumulatively considerable impact resulting from construction or operational emissions that exceed an applicable South Coast Air Quality Management District recommended significance threshold.
- **Greenhouse Gas Emissions** (Construction and Operation) (refer to Section 5.7, *Greenhouse Gas Emissions*, for a detailed discussion). Implementation of the proposed project would contribute to global climate change through direct emissions from greenhouse gas emissions from on-site area sources and vehicle trips generated by the proposed project.
- **Noise** (Construction and Operation) (refer to Section 5.11, *Noise*, for a detailed discussion). Significant and unavoidable impacts would occur with implementation of the proposed project where development facilitated under the proposed project would result in direct and cumulative impacts related to generating a substantial temporary or permanent increase in ambient noise and vibration levels in the vicinity of the City in excess of standards established in the local general plan or noise ordinance from construction and operational activities.

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 EIR.

7.3.1 Alternative Development Areas

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 (CEQA Guidelines § 15126[5][B][1]). In general, any development of the size and type proposed by the project would have substantially the same impacts on air quality, land use/planning, noise, population/ housing, public services, recreation, transportation/traffic and utilities/service systems. Without a site-specific analysis, impacts on

7. Alternatives to the Proposed Project

aesthetics, biological resources, cultural resources, geology/soils, hazards and hazardous materials, hydrology/water quality and mineral resources cannot be evaluated.

The proposed candidate sites have been identified in the 2021-2029 Housing Element based on the Regional Housing Needs Assessment Allocation (RHNA), and through the C3 Plan process. Further, the proposed project's significant and unavoidable impacts would not be reduced or eliminated by moving the proposed project to alternative sites. Overall, due to the lack of viable and comparable sites in the City that would allow development of the proposed project in a manner that would avoid or substantially lessen the proposed project's potentially significant impacts while achieving the majority of the proposed project's objectives, development of the proposed project on alternative sites has been eliminated from consideration.

7.3.2 Minimum Regional Housing Needs Assessment Allocation Alternative

The City considered an alternative that would reduce the amount of residential dwelling units from 30,284 units to the identified minimum RHNA allocation of 17,453 units (a 12,831-unit or 42 percent reduction). A reduction in dwelling units that would be facilitated by the proposed project would be an appropriate means of reducing significant impacts. This alternative would result in a reduction in impacts proportional to the reduction in housing units.

However, this alternative would eliminate the buffer in RHNA allocation units. Buffers in RHNA allocations are encouraged to ensure that cities and counties meet their State-mandated housing targets effectively. The buffer helps to account for project failures because not all housing projects in the pipeline will be built; helps to comply with California Government Code Section 65863 (No Net Loss Law), which requires jurisdictions to maintain adequate zoning to meet their RHNA allocations throughout the planning period; allows flexibility in site selection because some housing sites may face legal challenges, environmental constraints, or community opposition; and provides a proactive approach to realistically meet RHNA targets.

Removing the buffer units has the potential to diminish the City's capacity to meet the State-mandated housing allocation. Therefore, this alternative was determined to be infeasible because implementation of the Housing Element and RHNA requirements must be implemented in accordance with State law. The California Department of Housing and Community Development (HCD) is responsible for determining the regional housing needs assessment (segmented by income levels) for each region's council of governments (COG), which is the Southern California Association of Governments (SCAG) for the City of Anaheim. HCD starts with demographic population information from the California Department of Finance and uses a formula to calculate a figure for each region of the State. Once HCD and the COG have agreed to a region's assessment figure (the amount of housing that must be planned for), the COG is responsible for allocating the housing needs amongst all the jurisdictions (cities/counties) within that region. All jurisdictions are required to plan for their RHNA allocation, and there are penalties from the State for not accommodating the required allocation of housing. SCAG provides one RHNA for all unincorporated areas. Therefore, the amount of housing anticipated through the implementation of the proposed project would satisfy the requirement of the Housing Element/RHNA and cannot be feasibly reduced, even if such reductions would reduce or eliminate significant environmental impacts.

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For the reasons listed above, the Minimum Regional Housing Needs Assessment Allocation Alternative was considered but rejected from further evaluation within this Draft PEIR.

7.4 ALTERNATIVES SELECTED FOR FURTHER ANALYSIS

Based on the criteria listed above, the following two 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/Buildout to Existing General Plan Alternative (Alternative 1)
- Housing Element Implementation Only Alternative (Alternative 2)

An EIR must identify an “environmentally superior” alternative, and where the No Project Alternative is identified as environmentally superior, the EIR is 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. Section 7.7 identifies the Environmentally Superior Alternative. The preferred land use alternative (proposed project) is analyzed in detail in Chapter 5 of this Draft PEIR.

7.4.1 Alternatives Comparison

The following statistical analysis provides a summary of general socioeconomic buildout projections determined by the three land use alternatives, as compared to 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 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 understand better the difference between the alternatives analyzed in the Draft PEIR. Table 7-1 identifies City-wide information regarding dwelling unit, population, and employment projections and also provides the jobs-to-housing ratio for each of the alternatives.

Table 7-1 Buildout Statistical Summary

	Proposed Project	Alternative 1	Alternative 2
Housing Units	154,801	134,118	135,328
Population	431,350	396,110	391,070
Employment	274,213	266,313	231,943
Jobs-to-Housing Ratio	1.77	2.0	1.71

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7.5 NO PROJECT/BUILDOUT TO EXISTING GENERAL PLAN ALTERNATIVE

Section 15126.6(e) of the State CEQA Guidelines requires that an EIR evaluate the specific alternative of “no project” along with its impact. As stated in this section of the State CEQA Guidelines, the purpose of describing and analyzing a No Project Alternative is to allow decision makers to compare the impacts of approving a proposed project with the impacts of not approving a proposed project. As specified in Section 15126.6(e)(3)(A), when a project is the revision of an existing land use or regulatory plan or policy or an ongoing operation, the No Project/Buildout to Existing General Plan Alternative (Alternative 1) will be the continuation of the plan, policy, or operation into the future. Therefore, Alternative 1, as required by the State CEQA Guidelines, would analyze the effects of not adopting and implementing the proposed project.

Under Alternative 1, the proposed project would not be adopted, and the candidate sites identified in the proposed 2021-2029 Housing Element would not be rezoned to support future development with mixed-uses with higher density residential uses. Instead, this alternative assumes the buildout of the existing General Plan in accordance with existing land use designations and zoning and 2014-2021 Housing Element. As shown in Table 7-2, *Existing Conditions and Alternative 1 Buildout Projections (2045)*, this alternative would result in 134,139 housing units (net increase of 28,450 housing units), 396,110 residents (net increase of 50,111 residents), and 266,313 employees (net increase of 53,120 employees) compared to existing conditions.

Table 7-2 Existing Conditions and Alternative 1 Buildout Projections (2045)

	Existing Conditions	Alternative 1	Change (percent)
Housing Units	105,689	134,139	28,450 (27%)
Population	345,999	396,110	50,111 (14%)
Jobs	213,193	266,313	53,120 (25%)

As shown in Table 7-3, *Alternative 1 Buildout and Proposed Project Buildout Conditions Comparison (2045)*, Alternative 1 would result in 20,638 fewer housing units (13 percent), 35,240 fewer residents (8 percent), and 7,900 fewer employees (3 percent) when compared to the proposed project.

Table 7-3 Proposed Project and Alternative 1 Buildout Projections (2045)

	Proposed Project	Alternative 1	Change (percent)
Housing Units	154,801	134,118	-20,683 (-13%)
Population	431,350	396,110	-35,240 (-8%)
Jobs	274,213	266,313	-7,900 (-3%)

Table 7-4, *Alternative 1 Consistency with the Proposed Project’s Objectives*, identifies Alternative 1’s ability to meet the proposed project’s objectives.

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Table 7-4 Alternative 1 Consistency with the Proposed Project's Objectives

Proposed Project Objectives	Alternative 1 Consistency
Objective 1: Provide for a wide range of housing opportunities in close proximity to existing and future employment centers and transportation facilities, consistent with the need identified in the City's 2021-2029 Housing Element and local and regional jobs/housing balance policies. Provide the recommended surplus between 15 and 30 percent above the Regional Housing Needs Assessment housing unit allocation.	Not Met. Alternative 1 would not rezone the housing opportunity sites identified in the 2021-2029 Housing Element, which would provide for a wide range of housing opportunities in proximity to existing and future employment centers. Alternative 1 would not help the City improve the local or regional jobs/housing balance.
Objective 2: Support intensification around the historic downtown Anaheim (Center City Corridors or C3) through the C3 Implementation Plan (C3 Plan), which identifies new and amended land use designations and zoning classifications along corridors.	Not Met. Alternative 1 would not include a General Plan or Zone Code Update to ensure consistency with the 2021-2029 Housing Element; therefore, Alternative 1 would not implement the C3 Plan
Objective 3: Provide a focused update to the City's General Plan and Zoning Code to deal more effectively with State law housing and other requirements facing the City of Anaheim.	Not Met. Alternative 1 would not include any updates to the General Plan or Zoning Code to ensure compliance with State law housing and other housing requirements facing the City of Anaheim. Alternative 1 would not ensure consistency between the 2021-2029 Housing Element, General Plan, or Zoning Code.
Objective 4: Establish clear design standards to be employed in future development of multifamily and mixed-use projects citywide.	Not Met. Alternative 1 would not include a Zone Code update to establish clear design standards to be employed in the future development of multifamily and mixed-use projects in accordance with the 2021-2029 Housing Element.
Objective 5: Facilitate future use streamlining provisions allowed under the California Environmental Quality Act (CEQA) by providing updated community-level environmental review.	Not Met. Alternative 1 would not include a Zone Code update to facilitate future use of statutory infill housing exemptions and other streamlining provisions under CEQA.

7.5.1 Aesthetics

As discussed in Section 5.1, *Aesthetics*, implementation of the proposed project would result in less than significant impacts related to aesthetics.

Future development under Alternative 1 would continue to be guided by the current General Plan Land Use Plan and zoning designations and 2014-2021 Housing Element, where any future development would be consistent with current City plans, policies, and regulations regarding aesthetics. The proposed objective design standards that are intended to guide consistency in future development would not be implemented under Alternative 1. Alternative 1 would result in less development than the proposed project; therefore, Alternative 1 would have a reduced potential to impact aesthetics and aesthetic resources. However, if future development under this alternative proposes increased building heights or a variance in building form or visual character, the City would require such projects to demonstrate their consistency with existing plans, policies, and regulations related to aesthetics on a project-by-project basis and would require each project to obtain all applicable permits to ensure visual and aesthetic impacts are reduced to a less than significant level during the project entitlement process. Therefore, Alternative 1 would not result in significant impacts related to aesthetics because there would be no change to scenic resources or the visual landscape in the project site other than what is currently allowed under existing land use and zoning designations. For these reasons, Alternative 1 would result in less than significant impacts related to aesthetics, similar to the proposed project.

7. Alternatives to the Proposed Project

While Alternative 1 would result in reduced aesthetic impacts compared to the proposed project, this alternative would not meet the objectives of the proposed project, as identified in Table 7-4.

7.5.2 Air Quality

As discussed in Section 5.2, *Air Quality*, the proposed project would result in significant and unavoidable impacts related to air quality. No additional mitigation is feasible.

Under Alternative 1, development would occur throughout the City in accordance with the current General Plan and zoning designations and 2014-2021 Housing Element. Although future development would be largely consistent with the existing land use and zoning designations, future development would be evaluated for environmental impacts on a project-by-project basis during the project entitlement process. During this individual approval/environmental review process, potential air quality impacts would be identified and compared against relevant thresholds to determine significance. It is reasonable to assume that since future development under Alternative 1 would be consistent with the City's General Plan land use designations and zoning, future projects would also be required to demonstrate consistency with applicable air quality plans, policies, and regulations because those projects would result in growth already counted in Southern California Association of Government's (SCAG) regional growth projections for the City. However, like the proposed project, operational emissions under Alternative 1 would result in emissions in the City that have the potential to exceed the South Coast Air Quality Management District's significance thresholds. Therefore, it is reasonable to assume that impacts would be significant and unavoidable, similar to the proposed project.

While Alternative 1 would result in reduced impacts related to air quality compared to the proposed project due to less development, this alternative would not meet the objectives of the proposed project, as identified in Table 7-4.

7.5.3 Biological Resources

As discussed in Section 5.3, *Biological Resources*, the proposed project would result in less than significant impacts to biological resources with the implementation of mitigation measures MM BIO-1 through MM BIO-6.

Under Alternative 1, development throughout the City would occur under the existing General Plan Land Use Plan and zoning designations and 2014-2021 Housing Element, which would result in less development compared to the proposed project. Although future development would be consistent with the existing land use and zoning designations, future projects' potential to impact biological resources would be determined on a site-by-site basis and would be evaluated during their individual approval and/or environmental review process in accordance with CEQA. Future development would be subject to applicable discretionary permits as appropriate and would be required to comply with all applicable federal, State, and local requirements for protecting biological resources. Because development under Alternative 1 would be governed by the current General Plan, future projects would be subject to all applicable General Plan EIR mitigation measures and City ordinance requirement for biological resources as well as project-specific mitigation measures, as applicable, to reduce potential impacts. Therefore, with the implementation of mitigation measures, impacts to biological resources under Alternative 1 would be less than significant, similar to the proposed project.

7. Alternatives to the Proposed Project

While Alternative 1 would result in reduced impacts on biological resources compared to the proposed project due to less development, this alternative would not meet the objectives of the proposed project, as identified in Table 7-4.

7.5.4 Cultural Resources

As discussed in Section 5.4, *Cultural Resources*, the proposed project would result in less than significant impacts on cultural resources with the implementation of mitigation measures MM CUL-1 through MM CUL-7.

Under Alternative 1, development would occur throughout the City and would be in accordance with the current General Plan and zoning designations and 2014-2021 Housing Element. Although future development would be consistent with the existing land use and zoning designations, future projects' potential to impact cultural resources would be determined on a site-by-site basis and would be evaluated during their individual approval and environmental review process in accordance with CEQA, as appropriate. Because a project's potential to impact cultural resources is site dependent, and because this alternative would result in overall reduced development, this alternative would have a reduced potential to impact cultural resources as the proposed project. As with the proposed project, future development under this alternative would be required to comply with all applicable federal, State, and local requirements for protecting cultural resources. Additionally, individual projects under this alternative would be required to incorporate and implement all feasible mitigation measures to reduce impacts to cultural resources, which could include but would not be limited to the same mitigation measures identified for the proposed project. Therefore, with the implementation of mitigation measures, impacts to cultural resources under Alternative 1 would be less than significant, similar to those identified for the proposed project.

While Alternative 1 would result in reduced impacts on cultural resources compared to the proposed project due to less development, this alternative would not meet the objectives of the proposed project, as identified in Table 7-4.

7.5.5 Energy

As discussed in Section 5.5, *Energy*, the proposed project would result in less than significant impacts related to energy.

Under Alternative 1, development would occur throughout the City and would be in accordance with the current General Plan and zoning designations and 2014-2021 Housing Element. While future development projects would be constructed and operated in accordance with existing land use and zoning designations, these activities would still be regulated by the same laws, regulations, plans, and policies related to energy use and savings as the proposed project. Compliance with the existing energy laws, regulations, plans, and policies would mandate that future projects incorporate similar energy efficiency and saving designs and strategies for both the construction and operation phases. Therefore, future projects developed under Alternative 1 would result in less than significant impacts related to energy, and less impact than the proposed project given reduced potential for redevelopment. Impacts under this alternative would be similar to those identified for the proposed project.

7. Alternatives to the Proposed Project

Alternative 1 would result in reduced impacts related to energy compared to the proposed project, though it would not meet the objectives of the proposed project as identified in Table 7-4.

7.5.6 Geology and Soils

As discussed in Section 5.6, *Geology and Soils*, the proposed project would result in less than significant impacts related to geology and soils with the implementation of mitigation measure MM GEO-1 (related to paleontological resources).

Under Alternative 1, development would occur throughout the City and would be in accordance with the current General Plan and zoning designation and 2014-2021 Housing Element. Although future development would be consistent with the existing land use and zoning designations, future projects' potential to result in impacts related to geology and soils would be determined on a site-by-site basis and would be evaluated during their individual approval and/or environmental review process in accordance with CEQA, as applicable. Since a project's potential to impact geology and soils is site dependent, future development under this alternative would have the same potential to impact geology and soils as the proposed project. However, given the reduced development potential for Alternative 1, there would be less ground-disturbing activities from less construction, and therefore a reduced potential to encounter or impact paleontological resources. As with the proposed project, future development under this alternative would be required to comply with all applicable federal, State, and local requirements related to building safety. Additionally, individual projects under this alternative would be required to incorporate and implement all feasible mitigation measures to reduce impacts to paleontological resources, which could include but would not be limited to the same mitigation measures identified for the proposed project. Therefore, with the implementation of mitigation measures, impacts related to geology and soils would be less than significant, similar to the proposed project.

While Alternative 1 would result in reduced impacts related to geology and soils compared to the proposed project, this alternative would not meet the objectives of the proposed project, as identified in Table 7-4.

7.5.7 Greenhouse Gas Emissions

As discussed in Section 5.7, *Greenhouse Gas Emissions*, even with compliance with regulatory requirements and standard conditions of approval, the proposed project would result in significant and unavoidable impacts related to greenhouse gas (GHG) emissions.

Under Alternative 1, development would occur throughout the City and would be in accordance with the current General Plan and zoning designations and 2014-2021 Housing Element. Although future development would be consistent with the existing land use and zoning designations, future projects' potential to generate GHG emissions would be dependent on the construction and operation characteristics of individual projects. Impacts would be determined on a project-by-project basis and would be evaluated during their individual approval and/or environmental review process in accordance with CEQA, as applicable. Implementation of projects under Alternative 1 would contribute to global climate change through direct emissions of GHG from on-site area sources and vehicle trips, though to a lesser degree given reduced potential for future development. Impacts under this Alternative would be significant and unavoidable, similar to those identified for the proposed project.

7. Alternatives to the Proposed Project

While Alternative 1 would result in reduced impacts related GHG emissions as compared to the proposed project, this alternative would not meet the objectives of the proposed project, as identified in Table 7-4.

7.5.8 Hazards and Hazardous Materials

As discussed in Section 5.8, *Hazards and Hazardous Materials*, the proposed project would result in less than significant impacts related to hazards and hazardous materials.

Under Alternative 1, development would occur throughout the City and would be in accordance with the current General Plan and zoning designation and 2014-2021 Housing Element. Although future development would be consistent with the existing land use and zoning designations, future projects' potential to create hazards or use hazardous materials would be dependent on the construction and operation characteristics of individual projects, where impacts would be determined on a project-by-project basis and would be evaluated during their individual approval and/or environmental review process in accordance with CEQA, as applicable. Future projects implemented under Alternative 1 would be required to be evaluated on a site-by-site basis for their impacts related to this criteria.

Compliance with existing regulations, plans, and policies would ensure that future projects' impacts related to creating a hazard or using hazardous materials are minimized to the greatest extent feasible. Furthermore, during the future approval/environmental review processes, future projects would be required to demonstrate consistency with the City's emergency and/or evacuation plans and incorporate mitigation if it was determined that the project was inconsistent. With the incorporation of all applicable mitigation measures, obtaining all discretionary permits, and compliance with federal, State and local requirements, impacts related to hazards and hazardous materials under Alternative 1 would be less than significant. Impacts under this Alternative would be reduced compared to those identified for the proposed project due to reduced development.

While Alternative 1 would result in similar impacts related to hazards and hazardous materials compared to the proposed project, this alternative would not meet the objectives of the proposed project, as identified in Table 7-4.

7.5.9 Hydrology and Water Quality

As discussed in Section 5.9, *Hydrology and Water Quality*, the proposed project would result in less than significant impacts related to hazards and hazardous materials.

Under Alternative 1, development would occur throughout the City and would be in accordance with the current General Plan and zoning designations and 2014-2021 Housing Element. Although future development would be consistent with the existing land use and zoning designations, future projects' potential to impact water quality and groundwater supplies or recharge, and potential to conflict with applicable surface- and groundwater plans would depend on the construction and operation characteristics of individual projects and individual project sites. Future projects' impacts would be determined on a project-by-project basis and would be evaluated during their individual approval and/or environmental review process in accordance with CEQA, as appropriate.

7. Alternatives to the Proposed Project

While future development under this alternative could occur anywhere within the General Plan jurisdiction, including undeveloped or nonurban areas, compliance with all applicable regulations, plans, and policies, including the California Building Code (CBC) and City Municipal Code, would reduce impacts to hydrology and water quality to the greatest extent feasible. In addition to regulatory compliance, standard mitigation measures in combination with best management practices would be adequate to further reduce future projects' impacts to a less than significant level, similar to the proposed project. As with the proposed project, future projects facilitated under Alternative 1 would be required to comply with applicable CBC requirements to account for potential groundwater use and implement appropriate water conservation measures. Therefore, impacts to water quality and groundwater supplies or recharge, and conflict with applicable surface- and groundwater plans would be less than significant, similar to the proposed project.

While Alternative 1 would result in reduced impacts related to hydrology and water quality compared to the proposed project due to a reduction in development, this alternative would not meet the objectives of the proposed, as identified in Table 7-4.

7.5.10 Land Use and Planning

As discussed in Section 5.10, *Land Use and Planning*, the proposed project would result in less than significant impacts related to land use and planning.

Under Alternative 1, development would occur throughout the City and would be in accordance with the current General Plan and zoning designation and 2014-2021 Housing Element. Because development would occur in accordance with the existing land use and zoning designations, future development projects under Alternative 1 would not conflict with the General Plan or other regional land use plans adopted to avoid or mitigate impacts on the natural or built environment. Alternative 1 would be consistent with the 2014-2021 Housing Element; however, the 2014-2021 Housing Element would not include updated RHNA allocation goals established by the 6th RHNA cycle. Additionally, because Alternative 1 would not result in updates to the General Plan Elements, the new Environmental Justice Element under the proposed project would not be adopted. The new Environmental Justice Element identifies goals and policies that are aimed at avoiding or mitigating environmental effects. Therefore, impacts related to conflict with the intent of regional plans or precluding the attainment of regional plans' primary goals would be increased compared to the proposed project.

Alternative 1 would result in an increased impact related to land use and planning compared to the proposed project. This alternative would not meet the objectives of the proposed project, as identified in Table 7-4.

7.5.11 Noise

As discussed in Section 5.11, *Noise*, even with the implementation of mitigation measures MM NOI-1 through MM NOI-8, the proposed project would result in significant and unavoidable impacts related to noise.

Under Alternative 1, development would occur throughout the City and would be in accordance with the current General Plan and zoning designations and 2014-2021 Housing Element. Although future

7. Alternatives to the Proposed Project

development would be consistent with the existing land use and zoning designations, future projects' potential to generate excessive noise and vibration levels during construction and operation would be dependent on the construction and operation characteristics of individual projects and individual project sites. Noise and vibration impacts would be determined on a project-by-project basis and would be evaluated during their individual approval and/or environmental review process in accordance with CEQA, as applicable. If development projects can demonstrate compliance with the City's established noise and vibration thresholds, with or without mitigation measures incorporated, then impacts related to noise and vibration would be considered less than significant. However, since the timing, intensity, surrounding uses, and design of future development permitted under Alternative 1 is unknown at this time, it would be speculative to assume that all future projects under Alternative 1 would be able to reduce their noise and vibration levels below established thresholds during construction and operation, even with mitigation measures incorporated. Therefore, noise and vibration impacts would be significant and unavoidable under Alternative 1, similar to the proposed project.

While Alternative 1 would result in reduced impacts related to noise compared to the proposed project due to a reduction in development, this alternative would not meet the objectives of the proposed project, as identified in Table 7-4.

7.5.12 Population and Housing

As discussed in Section 5.12, *Population and Housing*, the proposed project would result in less than significant impacts related to population and housing.

Under Alternative 1, development would occur throughout the City and in accordance with the current General Plan and zoning designations and 2014-2021 Housing Element. Because development would occur in accordance with the existing land use and zoning designations, development under Alternative 1 would not generate new unplanned population growth or increased non-residential development outside of what was projected in the City's General Plan. Higher residential densities would not occur under this alternative. Although this alternative would help the City meet its RHNA allocation of 17,453 units, this alternative would not accurately reflect the growth projections for the City identified in the 2021-2029 Housing Element and would not introduce the new land use designations (Mixed-Use Corridor, Mixed-Use Industrial, and Institutional Low/High) under the proposed project, which would result in increased residential density. Moreover, this alternative would not provide a 12,831-unit buffer to ensure the City meets its RHNA allocation. Additionally, under this alternative, the candidate sites identified in the 2021-2029 Housing Element would not be developed; therefore, residential units would not be placed in proximity to high-key resources. If residential development is not provided in step with population growth under this alternative, housing shortages could occur, which in turn could dissuade new residents from moving to the City or could cause some existing residents to move away. Therefore, while this alternative would not result in the same rate of growth as the proposed project, it also would not develop new residential units at the same rate as the proposed project. Impacts associated with population and housing would be less than significant, similar to the proposed project.

7. Alternatives to the Proposed Project

Alternative 1 would result in similar impacts related to population and housing compared to the proposed project. However, this alternative would not meet the objectives of the proposed project identified in Table 7-4.

7.5.13 Public Services

As discussed in Section 5.13, *Public Services*, the proposed project would result in less than significant impacts related to public services.

Under Alternative 1, development would occur throughout the City and would be in accordance with the current General Plan and zoning and 2014-2021 Housing Element. Higher residential densities would not occur under this alternative, all residential development would continue as planned, and population growth in the City would continue as projected by the General Plan. Similar to the proposed project, all future development under Alternative 1 would be required to pay all applicable development fees and taxes to support funding of public services in time as development occurs. Additionally, all future development would be required to demonstrate consistency with the policies and processes related to public services contained in the City's General Plan and other applicable regional planning documents. Therefore, impacts to public services would be less than significant, similar to the proposed project.

Alternative 1 would result in reduced impacts related to public services compared to the proposed project due to a reduction in development. However, this alternative would not meet the objectives of the proposed project, as identified in Table 7-4.

7.5.14 Recreation

As discussed in Section 5.14, *Recreation*, the proposed project would result in less than significant impacts on recreational facilities.

Under Alternative 1, development would occur throughout the City and would be in accordance with the current General Plan and zoning designations and 2014-2021 Housing Element. Higher residential densities would not occur, and all residential development would continue to occur as planned, where population growth in the City would continue as planned by the General Plan. Under this alternative, future development projects would be required to undergo project-specific analysis under CEQA and would be required to either provide a dedication of adequate parkland or pay in-lieu park and recreation facilities fees in accordance with the City's Municipal Code and the Quimby Act. At the project-level, dedication of adequate parkland or payment of in-lieu fees would be sufficient in reducing project impacts to recreational facilities to a less than significant level. Therefore impacts would be less than significant, similar to the proposed project.

Alternative 1 would result in reduced impacts on recreational facilities compared to the proposed project due to a reduction in development. However, this alternative would not meet the objectives of the proposed project identified in Table 7-4.

7. Alternatives to the Proposed Project

7.5.15 Transportation

As discussed in Section 5.15, *Transportation*, the proposed project would result in less than significant impacts related to transportation.

Under Alternative 1, development would occur throughout the City and in accordance with the current General Plan and zoning designations and 2014-2021 Housing Element. Higher residential densities would not occur under Alternative 1, all the residential and commercial development would continue as currently planned, and population growth would continue as projected by the General Plan. Although future development facilitated under this alternative would be consistent with the existing land use designations and zoning, future projects' potential to impact transportation would depend on the construction and operation characteristics of individual projects. Transportation impacts, specifically VMT, would be determined on a project-by-project basis and would be evaluated during their individual approval and/or environmental review process in accordance with CEQA, as applicable. Future development would be required to comply with all federal, State, and local requirements related to transportation.

Since development under Alternative 1 would be governed by the existing General Plan, future projects would be subject to all applicable City requirements and General Plan EIR mitigation measures identified for transportation, as well as project-specific mitigation measures to reduce potential impacts, as appropriate. Even with incorporation of all applicable mitigation measures and compliance with federal, State, and local requirements, it is speculative at this time to assume that all future projects would be able to reduce their impacts to transportation to a less than significant level under Alternative 1. Therefore, it is reasonable to assume that impacts related to transportation under Alternative 1 would be significant and unavoidable, greater than the proposed project. Furthermore, Alternative 1 would not provide additional policies and standards to help develop the project site as a whole as a way to reduce conflicting transportation decisions and VMT while also increasing walkability and usage of alternative transportation.

Alternative 1 would result in greater impacts related to transportation compared to the proposed project. Additionally, this alternative would not meet the objectives of the proposed project, as identified in Table 7-4.

7.5.16 Tribal Cultural Resources

As discussed in Section 5.16, *Tribal Cultural Resources*, the proposed project would result in less than significant impacts on tribal cultural resources with the implementation of mitigation measures MM CUL-5 through MM CUL-7.

Under Alternative 1, development would occur throughout the City and would be in accordance with the current General Plan and zoning designations and 2014-2021 Housing Element. Even though future development would be consistent with the existing land use designations and zoning designations, future projects' potential to impact tribal cultural resources would be determined on a site-by-site basis and would be evaluated during their individual approval and/or environmental review process in accordance with CEQA, as applicable. Since a project's potential to impact tribal cultural resources is site dependent, future development under this alternative would have the same potential to impact tribal cultural resources as the proposed project. Future development under this alternative would also be required to comply with all federal, State,

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and local requirements for protecting tribal cultural resources, including conducting tribal consultation in accordance with AB 52, as necessary, prior to approving a project. Similar to the proposed project, individual projects under Alternative 1 would also be required to incorporate and implement all feasible mitigation measures to reduce impacts to tribal cultural resources, which could include but would not be limited to the same mitigation measures identified for the proposed project. Therefore, with mitigation measures incorporated, Alternative 1 would result in less than significant impacts to tribal cultural resources. Impacts under this Alternative would be similar to those identified for the proposed project.

Alternative 1 would result in reduced impacts on tribal cultural resources compared to the proposed project due to a reduction in development. However, this alternative would not meet the objectives of the proposed project, as identified in Table 7-4.

7.5.17 Utilities and Service Systems

As discussed in Section 5.17, *Utilities and Service Systems*, the proposed project would result in less than significant impacts related to utilities and service systems.

Under Alternative 1, development would be in accordance with the existing zoning and land use designations and 2014-2021 Housing Element. Development under Alternative 1 would not induce population growth beyond SCAG's projections as development would be guided by the existing General Plan. Therefore, development would continue as planned under the existing General Plan and demand on utilities would incrementally increase in proportion to SCAG's population growth projections, which would ensure that utility providers would be able to continue to serve the City. Therefore, impacts on utilities and service systems would be less than significant, similar to the proposed project.

Alternative 1 would result in reduced impacts on utilities and service systems compared to the proposed project due to a reduction in development. However, this alternative would not meet the objectives of the proposed project, as identified in Table 7-4.

7.5.18 Wildfire

As discussed in Section 5.18, *Wildfire*, the proposed project would result in less than significant impacts related to wildfire.

Under Alternative 1, development would occur throughout the City and would be in accordance with the current General Plan and zoning designations and 2014-2021 Housing Element. Development under this alternative would continue as in existing conditions and could be implemented in an urban setting, as allowed under the existing General Plan. Although future development would be consistent with the existing land use and zoning designations, future projects' potential for wildfire would be determined on a site-by-site basis and would be evaluated during their individual approval and or/environmental review process in accordance with CEQA, as applicable. Future development under this alternative would also be required to comply with all applicable federal, State, and local requirements relevant to wildfires, which would help to reduce impacts. As with the proposed project, development under this alternative would not result in development in wildland-

7. Alternatives to the Proposed Project

urban interfaces or within Very High Fire Hazard Severity Zones. Therefore, impacts would be less than significant, similar to the proposed project.

Alternative 1 would result in similar impacts related to public services compared to the proposed project. However, this alternative would not meet the objectives of the proposed project, as identified in Table 7-4.

7.5.19 Conclusion

Implementation of Alternative 1 would result in less than or similar impacts for the majority of the issue areas, as identified for the proposed project, with the exception of Land Use and Planning. Alternative 1 would result in increased impacts related to land use and planning because the General Plan Land Use and Circulation Elements would not be updated to ensure consistency with the 2021-2029 Housing Element. Also, the new Environmental Justice Element would not be adopted, which includes goal and policies aimed at avoiding or mitigating environmental effects. Since the timing, intensity, and location of future development permitted under Alternative 1 is unknown at this time, it is speculative to assume that all future projects would be able to reduce the proposed project's significant and unavoidable impacts to a less than significant level under Alternative 1; thus, the potential impacts remain significant and unavoidable.

7.6 HOUSING ELEMENT IMPLEMENTATION ONLY ALTERNATIVE

The Housing Element Implementation Only Alternative (Alternative 2) would modify the proposed project to implement the 2021-2029 Housing Element only, which includes land use and zoning changes to the candidate sites and adjacent sites identified in the 2021-2029 Housing Element and eliminates the implementation of the C3 Plan component of the proposed project. However, it should be noted that the Housing Element identifies candidate sites in the C3 Plan area; these sites would continue to be rezoned as part of the 2021-2029 Housing Element under this alternative. The remaining C3 Plan sites not identified as candidate sites would not be rezoned under this alternative. Refer to Table 3-4, *Proposed Project Development*, of Chapter 3 of this Draft PEIR for a data related to net development increase due to the proposed project.

As shown in Table 7-5, *Existing Conditions and Alternative 2 Buildout Projections (2045)*, this alternative would result in 135,328 housing units (net increase of 29,639 units), 391,070 residents (net increase of 45,071 residents), and 231,943 employees (net increase of 18,750 employees), compared to existing conditions, all within the highly developed downtown area.

Table 7-5 Existing Conditions and Alternative 2 Buildout Projections (2045)

	Existing Conditions	Alternative 2	Change (percent)
Housing Units	105,689	135,328	29,639 (28%)
Population	345,999	391,070	45,071 (13%)
Jobs	213,193	231,943	18,750 (9%)

7. Alternatives to the Proposed Project

As shown in Table 7-6, *Alternative 2 Buildout and Proposed Project Buildout Conditions Comparison (2045)*, Alternative 2 would result in 19,473 fewer housing units (13 percent), 40,280 fewer residents (9 percent), and 42,270 fewer employees (15 percent) when compared to the proposed project.

Table 7-6 Proposed Project and Alternative 2 Buildout Projections (2045)

	Proposed Project	Alternative 2	Change (percent)
Housing Units	154,801	135,328	-19,473 (-13%)
Population	431,350	391,070	-40,280 (-9%)
Jobs	274,213	231,943	-42,270 (-15%)

Table 7-7, *Alternative 2 Consistency with the Proposed Project's Objectives*, identifies the ability of Alternative 2 to meet the proposed project's objectives.

Table 7-7 Alternative 2 Consistency with the Proposed Project's Objectives

Proposed Project Objectives	Alternative 1 Consistency
Objective 1: Provide for a wide range of housing opportunities in close proximity to existing and future employment centers and transportation facilities, consistent with the need identified in the City's 2021-2029 Housing Element and local and regional jobs/housing balance policies. Provide the recommended surplus between 15 and 30 percent above the Regional Housing Needs Assessment housing unit allocation.	Met. Alternative 2 would implement the 2021-2029 Housing Element; therefore, Alternative 2 would provide a wide range of housing opportunities and provide the recommended RHNA allocation surplus between 15 and 30 percent.
Objective 2: Supporting intensification of the historic downtown Anaheim (Center City Corridors or C3) through the C3 Implementation Plan (C3 Plan), which identifies new and amended land use designations and zoning classifications.	Not Met. Alternative 2 would not rezone properties within the C3 Plan area not identified as candidate site under the 2021-2029 Housing Element. Alternative 2 would not support the intensification of the historic downtown Anaheim through the implementation of the C3 Plan.
Objective 3: Provide a focused update to the City's General Plan and Zoning Code to deal more effectively with State law housing and other requirements facing the City of Anaheim.	Partially Met. Alternative 2 would implement the focused update to the City's General Plan and Zoning Code; however, Alternative 2 would not implement the C3 Plan. However, there are candidate sites in the C3 Plan area that are identified as candidate sites under the 2021-2029 Housing Element; these sites would be rezoned under this alternative. The remaining C3 Plan site would not be rezoned resulting in reduced residential development. Alternative 2 would not help to deal more effectively with State law housing and other requirements facing the City of Anaheim because Alternative 2 would not result in the creation of the new Mixed-Use land use designations and associated development standards.
Objective 4: Establish clear design standards to be employed in future development of multifamily and mixed-use projects citywide.	Partially Met. Alternative 2 would establish clear design standards to be employed in future development of multifamily and mixed use projects citywide. However, Alternative 2 would result in reduced Mixed-Use development in the City.
Objective 5: Facilitate future use of the statutory infill housing exemption and other streamlining provisions allowed under the California Environmental Quality Act (CEQA) by providing updated community-level environmental review.	Met. Alternative 2 would facilitate the use of the statutory infill housing exemption and other streamlining provisions throughout the City.

7. Alternatives to the Proposed Project

7.6.1 Aesthetics

As discussed in Section 5.1, *Aesthetics*, implementation of the proposed project would result in less than significant impacts related to aesthetics.

Future development under Alternative 2 would be guided by a modified version of the proposed project, which would result in an overall reduction in potential future redevelopment. Implementation of Alternative 2 would include land use and zoning changes to facilitate future development of only the RHNA-allocated units identified in the City's 2021-2029 Housing Element, excluding parcels within the highly developed C3 Plan area that were not identified as candidate sites. Future development of the RHNA-allocated units and mixed-use development would be implemented in accordance with modified project goals, policies, and implementation strategies; the 2021-2029 Housing Element; the proposed design guidelines; and other land use designation regulations governing visual character and scenic quality, similar to the proposed project. Additionally, similar to the proposed project, future development impacts related to scenic vistas and views from regional riding, hiking, or multiuse trails would be less than significant, and there would be no impacts to scenic resources along a State scenic highway. Alternative 2 would result in the introduction of new sources of light, glare, and shade/shadow that would be incrementally reduced due to the elimination of dwelling units. The reduction in units and mixed use development would result in a decrease in potential impacts compared to the proposed project. However, any future development under this alternative would be developed in accordance with the goals and policies of the alternative version of the proposed project. Because Alternative 2 would have a reduced potential for future development compared to the proposed project, particularly in the downtown area, impacts related to aesthetics under Alternative 2 would be less than significant like the proposed project.

Alternative 2 would result in similar impacts related to aesthetics compared to the proposed project. However, this alternative would not fully meet the objectives of the proposed project, as identified in Table 7-7.

7.6.2 Air Quality

As discussed in Section 5.2, *Air Quality*, the proposed project would result in significant and unavoidable impacts related to air quality.

Future development under Alternative 2 would be guided by a modified version of the proposed project, which would result in an overall reduction in potential future redevelopment. Implementation of Alternative 2 would include land use and zoning changes to facilitate future development of only the RHNA-allocated units identified in the City's 2021-2029 Housing Element, excluding parcels in the highly developed C3 Plan area that were not identified as candidate sites. Future development at a reduced amount compared to the proposed project would be proposed and evaluated for environmental impacts on a project-by-project basis during the project entitlement process. During individual environmental review process in accordance with CEQA, as appropriate, potential air quality impacts would be identified and compared against relevant thresholds to determine significance. As with the proposed project, future projects would also demonstrate consistency with the applicable air quality plans, policies, and regulations because those projects would result

7. Alternatives to the Proposed Project

in growth already accounted for in SCAG's regional growth projections for the City. Therefore, impacts related to conflicts with applicable air quality plans, policies, and regulations would be similar to the proposed project.

Regarding the proposed project's significant and unavoidable impacts, development facilitated under Alternative 2 would also have the potential to result in similar impacts; however these impacts would be reduced due to reduced development. As with the proposed project, beyond compliance with regulatory requirements and standard conditions of approval, there are no feasible mitigation measures available to reduce impacts to less than significant levels. Alternative 2 would result in a 13 percent reduction in residential units and 15 percent reduction in employees; therefore, the corresponding construction and operational emissions would also be reduced. As with the proposed project, future development would be subject to any applicable discretionary permits on a case-by-case basis, and all would be required to comply with all federal, State, and local requirements relevant to air quality. Because Alternative 2 would result in a 13 percent reduction in residential units and 15 percent reduction in employees, it is anticipated that a result in a proportionate reduction in emissions would occur. Therefore, impacts to air quality would be less than the proposed project; however, impacts would remain significant and unavoidable.

Alternative 2 would result in reduced impacts related to air quality compared to the proposed project due to a reduction in development. However, this alternative would not fully meet the objectives of the proposed project, as identified in Table 7-7.

7.6.3 Biological Resources

As discussed in Section 5.3, *Biological Resources*, the proposed project would result in less than significant impacts to biological resources with the implementation of mitigation measures MM BIO-1 through MM BIO-6.

Future development under Alternative 2 would be guided by a modified version of the proposed project, which would result in an overall reduction in potential future redevelopment. Implementation of Alternative 2 would include land use and zoning changes to facilitate future development of only the RHNA-allocated units identified in the City's 2021-2029 Housing Element, excluding parcels in the highly developed C3 Plan area that were not identified as candidate sites. Alternative 2 would result in less development compared to the proposed project; however, the reduction would be in the downtown area, which has limited to no biological resources. As with the proposed project, the potential impacts of future projects on biological resources under Alternative 2 would be determined on a site-by-site basis and would be evaluated during their individual approval and/or environmental review process in accordance with CEQA. Future development would be subject to applicable discretionary permits as appropriate and required to comply with all applicable federal, State, and local requirements for protecting biological resources. As with the proposed project, all applicable Draft PEIR mitigation measures would be implemented to reduce impacts on biological resources. Therefore, impacts related to biological resources would be similar to the proposed project.

7. Alternatives to the Proposed Project

Alternative 2 would result in similar impacts related biological resources compared to the proposed project. However, this alternative would not fully meet the objectives of the proposed project, as identified in Table 7-7.

7.6.4 Cultural Resources

As discussed in Section 5.4, *Cultural Resources*, the proposed project would result in less than significant impacts on cultural resources with the implementation of mitigation measures MM CUL-1 through MM CUL-7.

Future development under Alternative 2 would be guided by a modified version of the proposed project, which would result in an overall reduction in potential future redevelopment. Implementation of Alternative 2 would include land use and zoning changes to facilitate future development of only the RHNA-allocated units identified in the City's 2021-2029 Housing Element, excluding the properties in the C3 Plan area that were not identified as candidate sites. Alternative 2 would result in less development compared to the proposed project. Additionally, Alternative 2 would result in less intensification in the historic downtown area of the City, located within the C3 Plan area, which would reduce the potential to impact historic resources. Nevertheless, as with the proposed project, all applicable Draft PEIR mitigation measures would be implemented to reduce impacts on cultural resources. Moreover, future projects' potential to impact cultural resources would be determined on a site-by-site basis and evaluated during their individual environmental review process in accordance with CEQA. Therefore, impacts related to cultural resources would be less than the proposed project.

Alternative 2 would result in similar impacts on cultural resources compared to the proposed project. However, this alternative would not fully meet the objectives of the proposed project, as identified in Table 7-7.

7.6.5 Energy

As discussed in Section 5.5, *Energy*, the proposed project would result in less than significant impacts related to energy.

Future development under Alternative 2 would be guided by a modified version of the proposed project, which would result in an overall reduction in potential future redevelopment. Implementation of Alternative 2 would include land use and zoning changes to facilitate future development of only the RHNA-allocated units identified in the City's 2021-2029 Housing Element, excluding parcels in the highly developed C3 Plan area that were not identified as candidate sites. Additionally, similar to the proposed project, implementation of Alternative 2 would increase the demand for electricity, natural gas, gasoline, and diesel consumption in the City during construction and operation of future development. However, similar to the proposed project, Alternative 2 would not result in wasteful, inefficient, or unnecessary consumption of energy resources, including electricity, natural gas, or petroleum. Neither the proposed project nor Alternative 2 would conflict or obstruct a State or local plan for renewable energy or energy efficiency. Additionally, all the rules and regulations presented in Section 5.5, *Energy*, would continue to be applicable to future residential development under both proposed project and Alternative 2 conditions, which would help reduce energy

7. Alternatives to the Proposed Project

demand and increase energy efficiency under both scenarios. The scope of the residential and commercial component of Alternative 2 would be 13 percent and 15 percent less, respectively, than the proposed project. Thus, it is reasonable to assume that impacts related to energy consumption generated by the reduced residential and commercial component would be proportionate under Alternative 2. Therefore, impacts related to energy consumption would be less than significant and less than the proposed project.

Alternative 2 would result in reduced impacts related to energy compared to the proposed project due to a reduction in development. However, this alternative would not fully meet the objectives of the proposed project, as identified in Table 7-7.

7.6.6 Geology and Soils

As discussed in Section 5.6, *Geology and Soils*, the proposed project would result in less than significant impacts related to geology and soils (specifically paleontological resources) with the implementation of mitigation measure MM GEO-1.

Future development under Alternative 2 would be guided by a modified version of the proposed project, which would result in an overall reduction in potential future redevelopment. Implementation of Alternative 2 would include land use and zoning changes to facilitate future development of only the RHNA-allocated units identified in the City's 2021-2029 Housing Element, excluding parcels in the highly developed C3 Plan area that were not identified as candidate sites. As with the proposed project, any new development would be site specific and exposed to existing geologic and soil conditions and hazards that would be unique to that property. Similar to the proposed project, Alternative 2 would not increase the potential for existing geological hazards or create new, significant hazardous geology and soils conditions, similar to the proposed project, as discussed in Section 5.6, *Geology and Soils*, of this Draft PEIR. Given there would be a reduced level of potential ground-disturbing activity through construction due to a reduced number of parcels to be rezoned, there would be a reduced potential for these activities to impact subsurface paleontological resources compared to the proposed project. Compliance with existing regulatory requirements and policies and implementation of applicable Draft PEIR mitigation measures would be required under Alternative 2. As with the proposed project, future discretionary projects would be required to address the potential for adverse effects related to geological hazards, such as seismic activity, ground shaking, liquefaction, landslides, ground failure, soil expansion, and soil stability, on a site-by-site basis. Because the reduction of potential future redevelopment would result in less construction than under the proposed project, impacts would be less than the proposed project.

Alternative 2 would result in reduced impacts related to geology and soils compared to the proposed project due to a reduction in development. However, this alternative would not fully meet the objectives of the proposed project, as identified in Table 7-7.

7.6.7 Greenhouse Gas Emissions

As discussed in Section 5.7, *Greenhouse Gas Emissions*, the proposed project would result in significant and unavoidable impacts related to GHG emissions.

7. Alternatives to the Proposed Project

Future development under Alternative 2 would be guided by a modified version of the proposed project, which would result in an overall reduction in potential future redevelopment. Implementation of Alternative 2 would include land use and zoning changes to facilitate future development of only the RHNA-allocated units identified in the City's 2021-2029 Housing Element, excluding parcels in the highly developed C3 Plan area that were not identified as candidate sites. The reduction in future redevelopment sites would result in a corresponding reduction of GHG emissions, both for construction and operation. However, even with this reduction, similar to the proposed project, Alternative 2 would result significant and unavoidable GHG impacts. As with the proposed project, there are no feasible programmatic mitigation measures available to reduce impacts to less than significant levels. The proposed project and Alternative 2 would be consistent with all applicable plans, policies, or regulations adopted for the purposes of reducing GHG emissions, and impacts would be less than significant, similar to the proposed project. Future projects' potential impacts related to GHG emissions would be determined on a site-by-site basis and would be evaluated during their individual environmental review process in accordance with CEQA. Under Alternative 2 and the proposed project, no change to existing regulations would occur and that would result in a conflict with existing regulations. The scope of the residential component of Alternative 2 would be reduced by 13 percent compared to the proposed project. Thus, it is reasonable to assume that impacts related to GHG emissions generated by the residential and commercial components would result in a proportionate reduction in GHG emissions. Therefore, impacts related to GHG emission would be less than the proposed project; however, impacts would remain significant and unavoidable.

Alternative 2 would result in reduced impacts related to GHG emissions compared to the proposed project due to a reduction in development. However, this alternative would not fully meet the objectives of the proposed project, as identified in Table 7-7.

7.6.8 Hazards and Hazardous Materials

As discussed in Section 5.8, *Hazards and Hazardous Materials*, the proposed project would result in less than significant impacts related to hazards and hazardous materials.

Future development under Alternative 2 would be guided by a modified version of the proposed project, which would result in an overall reduction in potential future redevelopment. Implementation of Alternative 2 would include land use and zoning changes to facilitate future development of only the RHNA-allocated units identified in the City's 2021-2029 Housing Element, excluding parcels in the highly developed C3 Plan area that were not identified as candidate sites. As with the proposed project, future projects' potential impacts related to hazards and hazardous materials under Alternative 2 would be determined on a site-by-site basis and would be evaluated during their individual environmental review process in accordance with CEQA, as appropriate. At buildout, Alternative 2 would result in less development potential than what is proposed under the proposed project due to the reduction in residential units and mixed-use development. Therefore, the scope of development would be reduced compared to the proposed project, which would result in reduced potential for impacts associated with hazards and hazardous materials. Therefore, impacts related to hazards and hazardous materials would be less than the proposed project.

7. Alternatives to the Proposed Project

Alternative 2 would result in reduced impacts related to hazards and hazardous materials compared to the proposed project. However, this alternative would not fully meet the objectives of the proposed project, as identified in Table 7-7.

7.6.9 Hydrology and Water Quality

As discussed in Section 5.9, *Hydrology and Water Quality*, the proposed project would result in less than significant impacts related to hazards and hazardous materials.

Future development under Alternative 2 would be guided by a modified version of the proposed project, which would result in an overall reduction in potential future redevelopment. Implementation of Alternative 2 would include land use and zoning changes to facilitate future development of only the RHNA-allocated units identified in the City's 2021-2029 Housing Element, excluding parcels in the highly developed C3 Plan area that were not identified as candidate sites. As with the proposed project, compliance with existing regulatory requirements and policies would reduce impacts from adverse effects related to hydrology and water quality. Impacts related to hydrology and water quality would be determined on a site-by-site basis and would be evaluated during their individual environmental review process in accordance with CEQA, as appropriate. However, the scope of development/redevelopment activity anticipated would be reduced due to the reduction of residential units compared to the proposed project. Therefore, impacts related to hydrology and water quality would be less than the proposed project.

Alternative 2 would result in reduced impacts related to hydrology and water quality compared to the proposed project due to a reduction in development. However, this alternative would not fully meet the objectives of the proposed project, as identified in Table 7-7.

7.6.10 Land Use and Planning

As discussed in Section 5.10, *Land Use and Planning*, the proposed project would result in less than significant impacts related to land use and planning.

Future development under Alternative 2 would be guided by a modified version of the proposed project, which would result in an overall reduction in potential future redevelopment. Implementation of Alternative 2 would include land use and zoning changes to facilitate future development of only the RHNA-allocated units identified in the City's 2021-2029 Housing Element, excluding parcels in the highly developed C3 Plan area that were not identified as candidate sites. As with the proposed project, Alternative 2 would not result in impacts associated with the physical division of established communities. Furthermore, all other impacts related to consistency with applicable land use plans, policies, and regulations would be similar to the proposed project. Therefore, impacts related to land use and planning would be similar to the proposed project.

Alternative 2 would result in similar impacts related to land use and planning compared to the proposed project. However, this alternative would not fully meet the objectives of the proposed project, as identified in Table 7-7.

7. Alternatives to the Proposed Project

7.6.11 Noise

As discussed in Section 5.11, *Noise*, even with the implementation of mitigation measures MM NOI-1 through MM NOI-8, the proposed project would result in significant and unavoidable impacts related to noise.

Future development under Alternative 2 would be guided by a modified version of the proposed project, which would result in an overall reduction in potential future redevelopment. Implementation of Alternative 2 would include land use and zoning changes to facilitate future development of only the RHNA-allocated units identified in the City's 2021-2029 Housing Element, excluding parcels in the highly developed C3 Plan area that were not identified as candidate sites. Due to the reduced development intensity and density of Alternative 2, particularly in the downtown highly urbanized area, construction-related noise impacts would proportionally decrease compared to the proposed project. Additionally, operational noise impacts from fewer stationary and mobile noise sources under this alternative would be reduced compared to the proposed project. However, future projects' potential impacts related to noise would be determined on a project-by-project basis and would be evaluated during individual environmental review process in accordance with CEQA. Alternative 2 would require the same compliance requirements and mitigation measures (MM NOI-1 and MM NOI-8) as the proposed project. Therefore, noise impacts under Alternative 2 would be less than the proposed project but would remain significant and unavoidable.

Alternative 2 would result in reduced impacts related to noise compared to the proposed project due to a reduction in development. However, this alternative would not fully meet the objectives of the proposed project as identified in Table 7-7.

7.6.12 Population and Housing

As discussed in Section 5.12, *Population and Housing*, the proposed project would result in less than significant impacts related to population and housing.

Future development under Alternative 2 would be guided by a modified version of the proposed project, which would result in an overall reduction in potential future redevelopment. Implementation of Alternative 2 would include land use and zoning changes to facilitate future development of only the RHNA-allocated units identified in the City's 2021-2029 Housing Element, excluding parcels in the highly developed C3 Plan area that were not identified as candidate sites. Alternative 2 would result in less development compared to the proposed project. Because future redevelopment would be implemented in accordance with the goals and policies of the modified version of the proposed project, Alternative 2 would not exceed buildout projections in the Planning Area and would help to meet the City's RHNA allocation. Therefore, population and housing impacts under Alternative 2 would be less than the proposed project.

Alternative 2 would result in reduced impacts related to population and housing compared to the proposed project due to a reduction in development. However, this alternative would not fully meet the objectives of the proposed project as identified in Table 7-7.

7. Alternatives to the Proposed Project

7.6.13 Public Services

As discussed in Section 5.13, *Public Services*, the proposed project would result in less than significant impacts related to public services.

Future development under Alternative 2 would be guided by a modified version of the proposed project, which would result in an overall reduction in potential future redevelopment. Implementation of Alternative 2 would include land use and zoning changes to facilitate future development of only the RHNA-allocated units identified in the City's 2021-2029 Housing Element, excluding parcels in the highly developed C3 Plan area that were not identified as candidate sites. Alternative 2 would result in less development compared to the proposed project. However, as with the proposed project, future development under Alternative 2 would be required to pay development fees and taxes, which would fund public services to provide additional personnel and/or equipment and/or expand existing facilities to support population growth indirectly caused. Because there would be a reduced demand on public services from a reduced development potential, overall impacts to public services would be less than the proposed project.

Alternative 2 would result in reduced impacts related to public services compared to the proposed project due to a reduction in development. However, this alternative would not fully meet the objectives of the proposed project as identified in Table 7-7.

7.6.14 Recreation

As discussed in Section 5.14, *Recreation*, the proposed project would result in less than significant impacts on recreational facilities.

Future development under Alternative 2 would be guided by a modified version of the proposed project, which would result in an overall reduction in potential future redevelopment. Implementation of Alternative 2 would include land use and zoning changes to facilitate future development of only the RHNA-allocated units identified in the City's 2021-2029 Housing Element, excluding parcels in the highly developed C3 Plan area that were not identified as candidate sites. Alternative 2 would result in less development compared to the proposed project, and therefore less overall demand on recreational facilities, particularly in the downtown area. Impacts to recreational facilities under Alternative 2 would be less than the proposed project.

Alternative 2 would result in reduced impacts related to recreation compared to the proposed project due to a reduction in development. However, this alternative would not fully meet the objectives of the proposed project, as identified in Table 7-7.

7.6.15 Transportation

As discussed in Section 5.15, *Transportation*, the proposed project would result in less than significant impacts related to transportation.

7. Alternatives to the Proposed Project

Future development under Alternative 2 would be guided by a modified version of the proposed project, which would result in an overall reduction in potential future redevelopment. Implementation of Alternative 2 would include land use and zoning changes to facilitate future development of only the RHNA-allocated units identified in the City's 2021-2029 Housing Element, excluding parcels in the highly developed C3 Plan area that were not identified as candidate sites. Alternative 2 would not result in conflicts with an applicable plan, ordinance, or policy addressing the circulation system, similar to the proposed project. Similar to the proposed project, the proposed increase in transit-oriented residential in high-resource areas in the City would reduce automobile-based transportation, thereby reducing VMT. However, because Alternative 2 would result in less development compared to the proposed project, Alternative 2 could result in development elsewhere in the City or County, thereby potentially increasing regional VMT. There are no feasible mitigation measures to reduce impacts related to VMT impacts. Therefore, impacts related to transportation would be greater than proposed project. Furthermore, this alternative would not result in significant impacts related to the increase of transportation hazards due to a design feature or incompatible use, nor would a significant impact occur because of inadequate emergency access, similar to the proposed project.

Alternative 2 would result in greater impacts related to transportation compared to the proposed project. Additionally, this alternative would not fully meet the objectives of the proposed project, as identified in Table 7-7.

7.6.16 Tribal Cultural Resources

As discussed in Section 5.16, *Tribal Cultural Resources*, the proposed project would result in less than significant impacts on tribal cultural resources with the implementation of mitigation measures MM TCR-1 and MM CUL-5 through MM CUL-7.

Future development under Alternative 2 would be guided by a modified version of the proposed project, which would result in an overall reduction in potential future redevelopment. Implementation of Alternative 2 would include land use and zoning changes to facilitate future development of only the RHNA-allocated units identified in the City's 2021-2029 Housing Element, excluding parcels in the highly developed C3 Plan area that were not identified as candidate sites. Under Alternative 2, future projects' potential to impact tribal cultural resources would be determined on a site-by-site basis and would be evaluated during the environmental review process in accordance with CEQA, as applicable. A project's potential impact to tribal cultural resources is site dependent, but because there would be fewer redevelopment sites than the proposed project, future development under this alternative would have less potential to impact tribal cultural resources with the implementation of applicable Draft PEIR mitigation measures. Therefore, impacts related to tribal cultural resources would be less than the proposed project.

Alternative 2 would result in reduced impacts related to tribal cultural resources compared to the proposed project due to a reduction in development. However, this alternative would not fully meet the objectives of the proposed project, as identified in Table 7-7.

7. Alternatives to the Proposed Project

7.6.17 Utilities and Service Systems

As discussed in Section 5.17, *Utilities and Service Systems*, the proposed project would result in less than significant impacts on utilities and service systems.

Future development under Alternative 2 would be guided by a modified version of the proposed project, which would result in an overall reduction in potential future redevelopment. Implementation of Alternative 2 would include land use and zoning changes to facilitate future development of only the RHNA-allocated units identified in the City's 2021-2029 Housing Element, excluding parcels in the highly developed C3 Plan area that were not identified as candidate sites. Alternative 2 would result in less development compared to the proposed project. Similar to the proposed project, development under Alternative 2 would not induce population growth and would be guided by the proposed Housing Element projections. Development would incrementally increase the demand for utilities and service systems in proportion to the growth under this alternative. Because this alternative would not induce substantial unplanned population growth, the existing utility providers would be able to continue to serve future development. All other impacts related to utilities and service systems, including the availability of sufficient water supplies at the project-level, the adequacy of wastewater treatment services, the generation of solid waste, and the compliance with management and reduction regulations of solid waste, would be similar to the proposed project.

Alternative 2 would result in similar impacts related to utilities and service systems compared to the proposed project. However, this alternative would not fully meet the objectives of the proposed project, as identified in Table 7-7.

7.6.18 Wildfire

As discussed in Section 5.18, *Wildfire*, the proposed project would result in less than significant impacts related to wildfire.

Future development under Alternative 2 would be guided by a modified version of the proposed project, which would result in an overall reduction in potential future redevelopment. Implementation of Alternative 2 would include land use and zoning changes to facilitate future development of only the RHNA-allocated units identified in the City's 2021-2029 Housing Element, excluding the parcels in the highly developed C3 Plan area that were not identified as candidate sites. The eliminated sites under Alternative 2 are all in the urbanized downtown area, and similar to the proposed project, there would be no development in areas of the City that are identified as being in a very high fire hazard severity zone. As with the proposed project, future development under this alternative would be required to comply with all federal, State, and local requirements relevant to wildfires, which would help to ensure impacts remain less than significant. Therefore, impacts related to wildfire would be similar to the proposed project.

Alternative 2 would result in similar impacts related to wildfire compared to the proposed project. However, this alternative would not fully meet the objectives of the proposed project as identified in Table 7-7.

7. Alternatives to the Proposed Project

7.6.19 Conclusion

Implementation of Alternative 2 would result in similar or reduced impacts for all the issues identified for the proposed project. Alternative 2 would not eliminate any of the proposed project's significant and unavoidable impacts associated with air quality, greenhouse gas emissions, or noise.

7.7 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:

- Housing Element Only Alternative (Alternative 2)

“Among the factors that may be used to eliminate alternatives from detailed consideration in an EIR are: (i) failure to meet most of the basic project objectives, (ii) infeasibility, or (iii) inability to avoid significant environmental impacts” (CEQA Guidelines § 15126.6[c]). As suggested in the State CEQA Guidelines Section 25126.6(d), a matrix summarizing and comparing the impacts of the project alternatives with those of the proposed project is in Table 7-8, *Summary of Alternatives Impacts Compared to the Proposed Project*.

Table 7-8 Summary of Alternatives Impacts Compared to the Proposed Project

Issue Areas	Proposed Project	Alternatives to the Proposed Project	
		Alternative 1	Alternative 2
5.1 Aesthetics	LTS	▼	▼
5.2 Air Quality	SU	▼	▼
5.3 Biological Resources	LTSM	▼	=
5.4 Cultural Resources	LTSM	▼	▼
5.5 Energy	LTS	▼	▼
5.6 Geology and Soils	LTSM	▼	▼
5.7 Greenhouse Gas Emissions	SU	▼	▼
5.8 Hazards and Hazardous Materials	LTS	▼	▼
5.9 Hydrology and Water Quality	LTS	▼	▼
5.10 Land Use and Planning	LTS	▲	=
5.11 Noise	SU	▼	▼
5.12 Population and Housing	LTS	▼	▼
5.13 Public Services	LTS	▼	▼
5.14 Recreation	LTS	▼	▼
5.15 Transportation	LST	▲	▲
5.16 Tribal Cultural Resources	LTSM	▼	▼

7. Alternatives to the Proposed Project

Table 7-8 Summary of Alternatives Impacts Compared to the Proposed Project

Issue Areas	Proposed Project	Alternatives to the Proposed Project	
		Alternative 1	Alternative 2
5.17 Utilities and Service Systems	LTS	▼	▼
5.18 Wildfire	LTS	=	=

Notes:

- ▲ Alternative would result in greater issue area impacts when compared to the proposed project; however, this difference would be negligible and would not change the significance conclusion.
- = Alternative would result in similar issue area impacts when compared to the proposed project.
- ▼ Alternative would result in reduced issue area impacts when compared to the proposed project; however, this difference would be negligible and would not change the significance conclusion.

NI = No Impact

LTS = Less than Significant Impact

LSTM = Less than Significant Impact with Mitigation

SU = Significant and Unavoidable Impact

Alternative 2 has been identified as the environmentally superior alternative. This alternative would lessen impacts associated with air quality, greenhouse gas emissions, and noise. This alternative would result in greater impacts related to transportation because this alternative would result in less development in proximity to transportation facilities compared to the proposed project. This alternative may unintentionally result in development elsewhere in the City or County, thereby potentially increasing regional VMT. The remaining impacts are generally similar to the proposed project. However, Alternative 2 would lessen the proposed project's impacts due to a reduction in development.

Alternative 2 does not adequately meet the proposed project's objectives. Specifically, objectives that support intensification of the historic downtown Anaheim (Center City Corridors or C3) through the C3 Implementation Plan (C3 Plan), provide a focused zoning update that would deal more effectively with State law housing and other requirements facing the City of Anaheim, and establish clear design standards to be employed in future development of multifamily and mixed-use projects citywide are not met.

8. Impacts Found Not to Be Significant

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 California Environmental Quality Act Guidelines (CEQA 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.” 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 (Chapter 5).

As required by Section 15128 of the CEQA Guidelines, an EIR shall contain a brief discussion stating the reasons why various possible significant effects of a project were determined not to be significant and are therefore not discussed in detail in the EIR. In accordance with the CEQA Guidelines, this section discusses the environmental issue areas where impacts were found to not be significant and were therefore not discussed in detail in the Draft EIR. This chapter includes the analysis for the following environmental topics where the project would have no impact:

- Agriculture and Forestry
- Mineral Resources

The following 18 topics are analyzed in Chapter 5 of this Draft PEIR.

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

8. Impacts Found Not to Be Significant

8.1 AGRICULTURE AND FORESTRY 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 Department of Conservation (DOC) 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:

- 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?**

No Impact. According to the California Department of Conservation Farmland Mapping and Monitoring Program (FMMP), a majority of the City is designated Urban and Built-Up Land (DOC 2020). Areas within this designation are built out and currently do not contain agricultural or farmland uses. The eastern portion of the City also contains land designated Other Land, which consists of preserved open space that does not include agricultural, or farmland uses (DOC 2020). The southern portion of the City contains 16.7 acres of land designated Unique Farmland that contains an existing plant nursery and a farm (DOC 2020). The proposed project would allow for the development of a mix of uses within the western and central portions of the City that do not impede existing agricultural or farmland uses including limited agricultural production and there are no opportunity sites or zoning changes on sites designated as unique farmland. Therefore, the proposed project would not convert land designated for agricultural use to non-agricultural use, and no impact would occur.

- b) **Conflict with existing zoning for agricultural use, or a Williamson Act contract?**

No Impact. The City does not have land designated or zoned for agricultural use and there are no lands subject to a Williamson Act contract (Anaheim 2022, DOC 2022b). While the city does not have zoning exclusively for agricultural uses, there are some areas zoned as Transitional which can be used for agricultural purposes. The portion of the city designated as Unique Farmland, the plant nursery and farm, is zoned Transitional and would remain. No opportunity sites are designated as Unique Farmland. Furthermore, the city does not have any land subject to a Williamson Act contract (DOC 2022b). Thus, no impacts to agricultural zoning or a Williamson Act contract would occur, and no impact would occur.

8. Impacts Found Not to Be Significant

- 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. The city does not have any land designated or zoned for forestland, timberland, or timberland zoned Timberland Production (Anaheim 2022). Anaheim has been historically developed and is mostly built out and does not contain forest or timberland. Consequently, implementation of the proposed project would not result in the loss or conversion of timberland to non-forest uses. Thus, the proposed project would not result in the loss or rezoning of forestland or timberland to non-forestland or non-timberland uses. Therefore, no impact would occur.

- d) **Result in the loss of forest land or conversion of forest land to non-forest use?**

No Impact. Please see Section 8.1(c), above.

- 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. Please see Sections 8.1(a) through (c), above.

8.2 MINERAL RESOURCES

Would the project:

- 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. The City and its SOI are not located in any governmental databases monitoring mineral resources including the Mines Online map and CalGEM Well Finder (DOC 2016, 2022c). According to the Anaheim General Plan Green Element, portions of central and eastern Anaheim are within Mineral Resource Zone (MRZ) 2. Lands within this zone are determined to have a high potential for significant mineral deposits. The City of Anaheim has identified three sectors containing mineral resources of regional significance. However, these sectors are developed with industrial uses and are not used for mineral extraction (Anaheim 2004). In addition to local regulations, all projects are required to comply with applicable state and federal regulations. Therefore, implementation of the proposed project would not result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state, and no impact would occur.

- 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. As discussed in Section 8.2(a), although the current Anaheim General Plan identifies sectors containing mineral resources of regional significance, the sectors are developed with industrial uses and are

8. Impacts Found Not to Be Significant

not used for mineral extraction. There are also no known locally important mineral resource recovery sites identified in the Anaheim General Plan Update or a specific plan or other land use plan. Thus, implementation of the proposed project would not result in the loss of availability of a locally important mineral resources recovery site, and no impact would occur.

8.3 REFERENCES

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9. Significant Irreversible Changes Due to the Proposed Project

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. Specifically, the CEQA Guidelines state:

Uses of nonrenewable resources during the initial and continued phases of the project may be irreversible since a large commitment of such resources makes removal or nonuse thereafter unlikely. Primary impacts and, particularly, secondary impacts (such as highways improvement which provides access to a previously inaccessible area) generally commit future generations to similar uses. Also, irreversible damage can result from environmental accidents associated with the project. Irretrievable commitments of resources should be evaluated to assure that such current consumption is justified.

In the case of the proposed Anaheim General Plan Focused Update, implementation would cause the following significant irreversible changes:

- Implementation of the proposed project would include construction activities that would entail the commitment of nonrenewable and/or slowly renewable energy resources; human resources; and natural resources such as lumber and other forest products, sand and gravel, asphalt, steel, copper, lead, other metals, water, and fossil fuels. Future developments in accordance with the proposed project would require the use of natural gas and electricity, fossil fuels, and water. The commitment of resources required for the construction and operation of the proposed project would limit the availability of such resources for future generations or for other uses during the life of the project.
- An increased commitment of social services and public maintenance services (e.g., police, fire, schools, libraries, 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 developed.
- 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 (O₃) and particulate matter (PM_{2.5} and PM₁₀).
- Future development in accordance with the City of Anaheim General Plan Focused Update is a long-term irreversible commitment of vacant parcels of land or redevelopment of existing developed land in the City.

9. Significant Irreversible Changes Due to the Proposed Project

Given the low likelihood that the land would revert to lower intensity uses or to its current form, the proposed project would generally commit future generation to these environmental changes.

10. Growth-Inducing Impacts of the Proposed Project

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 Anaheim General Plan Focused Update could remove obstacles to growth. Portions of the City that are planned for land use and zoning changes are already served by infrastructure. Implementation of Anaheim General Plan Focused Update would allow for development of currently undeveloped and redevelopment of existing land uses. This would induce construction of infrastructure extensions and improvements, such as roadways, storms drains, water and recycled water pipes, sewer collection systems, and energy/communication throughout the City. In addition, the proposed project would increase demand for electricity and natural gas that could require expansion of energy infrastructure, as

10. Growth-Inducing Impacts of the Proposed Project

provided by Anaheim Public Utilities, Clean Power Alliance, and the Southern California Gas Company. As infrastructure is extended throughout the City, obstacles to growth would be removed. Impacts to existing utilities and service systems and potential needs for future improvements are discussed further in Section 5.17, *Utilities and Service Systems*.

Would this project result in the need to expand one or more public services to maintain desired levels of service?

As stated above, proposed project buildout may require additional fire and police services, school facilities, and library space to maintain desired levels of service. This would include expanding existing facilities; acquiring land to construct new stations, schools, and libraries; and adequately equipping and staffing new facilities. Section 5.13, *Public Services*, analyzes the impacts of the proposed project on existing public services in more detail.

Buildout of the proposed project may require additional firefighting and police personnel, and construction of new and/or expanded facilities to improve response times, if necessary. Buildout may also require future construction of new and/or expanded schools in the various school districts within the City. Impacts from the proposed project on public services facilities are discussed in detail in Section 5.13, *Public Services*.

Buildout of roadways in the City per roadway classifications in the proposed Anaheim General Plan Focused Update's Circulation Element would increase roadway capacity to maintain adequate levels of service. This would allow for more efficient multimodal transportation throughout the City and would promote the development of land near these enhanced roadways. Proposed roadway classifications and their impacts are described in Section 5.15, *Transportation*.

Would this project encourage or facilitate economic effects that could result in other activities that could significantly affect the environment?

Implementation of the proposed project would not encourage or facilitate economic effects that could result in other activities that could significantly affect the environment. Buildout of the Anaheim General Plan Focused Update would increase employment in the City to from 208,650 jobs to 274,213 jobs, resulting in a net increase of 65,563 jobs as compared to existing conditions. Impacts of these job-generating land uses and employment pursuant to the Anaheim General Plan Focused Update are analyzed throughout the various topical sections in Chapter 5, *Environmental Analysis*, of this Draft PEIR. No additional impacts would occur.

Would approval of this project involve some precedent-setting action 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. Thus, approval of the proposed Anaheim General Plan Focused Update would not set a precedent that could encourage and facilitate other activities that could significantly affect the environment.

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