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REDONDO BEACH FOCUSED GENERAL PLAN UPDATE, ZONING ORDINANCE UPDATE AND LOCAL COASTAL PROGRAM AMENDMENT

City of Redondo Beach

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Abbreviations and Acronyms

ABBREVIATIONS AND ACRONYMS

$\mu\text{g}/\text{m}^3$	micrograms per cubic meter
AACAP	Artesia & Aviation Corridors Area Plan (2020)
AAQS	ambient air quality standards
AB	Assembly Bill
ACF	Advanced Clean Fleets Regulation
ACM	asbestos-containing materials
ADT	average daily traffic
af	acre-foot
afy	acre-feet per year
APA	allowable pumping allocation
AQMD	air quality management district
AQMP	air quality management plan
AR5, AR6	<i>Fourth [or Sixth] Assessment Report: Climate Change 2007</i> (by the IPCC)
ATSP	Active Transportation Strategic Plan (Metro)
BCT	Beach Cities Transit
BES	battery energy storage
BMP	best management practices
BTU	British thermal unit
CAA	Clean Air Act
CAFE	corporate average fuel economy
CAISO	California Independent System Operator
CAL FIRE	California Department of Forestry and Fire Protection
CALGreen	California Green Building Standards Code
Cal OES	California Office of Emergency Services
CalRecycle	California Department of Resources, Recycling, and Recovery
Caltrans	California Department of Transportation
CAP	climate action plan
CARB	California Air Resources Board
CBC	California Building Code
CCR	California Code of Regulations
CDFW	California Department of Fish and Wildlife

Abbreviations and Acronyms

CEC	California Energy Commission
CEQA	California Environmental Quality Act
CERCLA	Comprehensive Environmental Response, Compensation and Liability Act
CES	CalEnviroScreen (California Communities Environmental Health Screening Tool)
CES4	CalEnviroScreen version 4
CESA	California Endangered Species Act
CFR	Code of Federal Regulations
CGP	Construction General Permit
CH ₄	methane
CHP	California Highway Patrol
CIP	capital improvements program
CLUP	comprehensive land use plan
CNDDB	California Natural Diversity Database
CNEL	community noise equivalent level
CNPS	California Native Plant Society
CO	carbon monoxide
CO _{2e}	carbon dioxide equivalent
COOP	continuity of operations plan
CPA	Clean Power Alliance
CPUC	California Public Utilities Commission
CRHR	California Register of Historical Resources
CSO	combined sewer overflows
CUPA	Certified Unified Program Agency
CWA	Clean Water Act
dB	decibel
dBA	A-weighted decibel
DEIR	draft environmental impact report
DPM	diesel particulate matter
DTSC	Department of Toxic Substances Control
DWR	Department of Water Resources (CA)
EJ	environmental justice
EO	Executive Order
EOP	emergency operations plan

Abbreviations and Acronyms

EPA	United States Environmental Protection Agency
EPCRA	Emergency Planning and Community Right-to-Know Act
EWMP	Enhanced Watershed Management Program
FEMA	Federal Emergency Management Agency
FESA	Federal Endangered Species Act
FHWA	Federal Highway Administration
FIRM	flood insurance rate map
g	acceleration of gravity
GHG	greenhouse gases
gpcd	gallons per capita per day
GSA	groundwater sustainability agency
GSP	groundwater sustainability plan
GW	gigawatt
GWh	gigawatt-hour
GWP	global warming potential
IFC	International Fire Code
IIP	infrastructure improvement plan
IPCC	Intergovernmental Panel on Climate Change
IRP	Integrated Resource Plan
JWPCP	joint water pollution control plant
kW	kilowatt
kWh	kilowatt-hour
L _{dn}	day-night noise level
L _{eq}	equivalent continuous noise level
LACDPW	Los Angeles County Department of Public Works
LACSD	Sanitation Districts of Los Angeles County
LARA	Los Angeles Regional Agency (Los Angeles area integrated waste management authority)
LBP	lead-based paint
LCP	local coastal program
LEPC	local emergency planning committee
LHMP	local hazard mitigation plan
LID	low impact development
LOS	level of service

Abbreviations and Acronyms

LRTP	long range transportation plan
LSE	load-serving entities
LUST	leaking underground storage tank
MATES	Multiple Air Toxics Exposure Study
MBTA	Migratory Bird Treaty Act
Metro	Los Angeles County Metropolitan Transportation Authority
mgd	million gallons per day
MMT	million metric tons
mpg	miles per gallon
MPO	metropolitan planning organization
MS4	municipal separate storm sewer system
MT	metric ton
MW	megawatt
MWELO	Model Water Efficient Landscape Ordinance
NAHC	Native American Heritage Commission
NHTSA	National Highway Traffic Safety Administration
NO _x	nitrogen oxides
NPDES	National Pollution Discharge Elimination System
NPPA	Native Plant Protection Act
NRHP	National Register of Historic Places
O ₃	ozone
PFYC	Potential Fossil Yield Classification system
PHMSA	Pipeline and Hazardous Materials Safety Administration (US Dept. of Transportation)
PM	particulate matter
ppb	parts per billion
ppm	parts per million
PRC	Public Resources Code
PRD	permit registration documents
PVPTA	Palos Verdes Peninsula Transit Authority
RBFD	Redondo Beach Fire Department
RBMC	Redondo Beach Municipal Code
RBPD	Redondo Beach Police Department
RBUSD	Redondo Beach Unified School District

Abbreviations and Acronyms

RCRA	Resource Conservation and Recovery Act
RHNA	regional housing needs assessment
RPS	renewable portfolio standard
RTAC	Regional Targets Advisory Committee (CARB)
RTP/SCS	regional transportation plan / sustainable communities strategy
RWQCB	Regional Water Quality Control Board
SARA	Superfund Amendments and Reauthorization Act
SB	Senate Bill
SBCCOG	South Bay Cities Council of Governments
SCADA	supervisory control and data acquisition
SCAG	Southern California Association of Governments
SCAG ABM	2020 RTP/SCS Activity Based Model
SCCIC	South Central Coastal Information Center
SCE	Southern California Edison
SCS	sustainable communities strategy
SEA	significant ecological area
SERC	State Emergency Response Commission
SFHA	special flood hazard area
SGMA	Sustainable Groundwater Management Act
SIP	state implementation plan
SMARTS	Stormwater Multiple Application and Report Tracking System
SoCAB	South Coast Air Basin
SO _x	sulfur oxides
SP	service population (residents and workers)
SPA	special policy area
SRA	source receptor area
SSMP	sewer system management plan
SUSMP	standard urban stormwater mitigation plan
SVP	Society of Vertebrate Paleontology
SWPPP	Storm Water Pollution Prevention Plan
SWRCB	State Water Resources Control Board
TAC	toxic air contaminants
TMDL	total maximum daily load

Abbreviations and Acronyms

TRU	transport refrigeration unit
TTCP	traditional tribal cultural places
USACE	United States Army Corps of Engineers
USDOT	United States Department of Transportation
USFWS	United States Fish and Wildlife Service
UST	underground storage tank
UWMP	urban water management plan
VMT	vehicle miles traveled
VOC	volatile organic compound
WBMWD	West Basin Municipal Water District
WMG	Watershed Management Group
WRD	Water Replenishment District
WSA	water supply assessment
ZE	zero emissions
ZEV	zero emissions vehicle
ZNE	zero net energy

Abbreviations and Acronyms

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1. Executive Summary

1.1 INTRODUCTION

This Draft Program Environmental Impact Report (DEIR) addresses the environmental effects associated with the implementation of the proposed Redondo Beach Focused General Plan Update, Zoning Ordinance Updates, and Local Coastal Program Amendment. 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 DEIR has been prepared pursuant to the requirements of CEQA and the City of Redondo Beach's CEQA procedures. The City of Redondo Beach, 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 DEIR 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, agricultural resources, air quality, biological resources, cultural resources, energy, geological resources, greenhouse gas emissions, hazards and hazardous materials, hydrology and water quality, land use, mineral resources, noise, population and housing, public services, recreation, transportation and traffic, tribal cultural resources, utilities and service systems and wildfire).

1.2 ENVIRONMENTAL PROCEDURES

This DEIR has been prepared pursuant to CEQA to assess the environmental effects associated with implementation of the proposed project, as well as anticipated future discretionary actions and approvals that are consistent with the proposed project. 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.

1. Executive Summary

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 EIR Format

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

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

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 EIR.

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 thresholds used to determine if a significant impact would occur; the methodology to identify and evaluate the potential impacts of the project; the existing environmental setting; the potential adverse and beneficial effects of the project; the level of impact significance before mitigation; the mitigation measures for the proposed project; the level of significance after mitigation is incorporated; and the potential cumulative impacts of the proposed project and other existing, approved, and proposed development in the area.

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 a Reduced Intensity Alternative.

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

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

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 EIR.

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

Chapter 13. Bibliography: The technical reports and other sources used to prepare this EIR.

Appendices: The appendices for this document comprise these supporting documents:

- Appendix A: Notice of Preparation and Public Comment Letters
- Appendix B: Buildout Methodology Memorandum
- Appendix C: Air Quality and Greenhouse Gas Emissions
- Appendix D: Cultural and Paleontological Resources Assessment
- Appendix E: Service Provider Questionnaires
- Appendix F: Noise Monitoring and Modeling
- Appendix G: Infrastructure Assessment Report
- Appendix H: Tribal Consultation Letter Correspondence
- Appendix I: Implementation Plan

1.2.2 Type and Purpose of This DEIR

This DEIR fulfills the requirements for a Program EIR. Although the legally required contents of a Program EIR are the same as 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 on 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, as well as 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.

1. Executive Summary

Once a Program EIR has been prepared, subsequent activities within the program must be evaluated to determine whether an additional CEQA document 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]). If the agency finds that pursuant to Section 15162, no subsequent EIR would be required, the agency can approve the activity as being within the scope of the project covered by the program EIR, and no new environmental document would be required. Whether a later activity is within the scope of a program EIR is a factual question that the lead agency determines based on substantial evidence in the record. Factors that an agency may consider in making that determination include, but are not limited to, consistency of the later activity with the type of allowable land use, overall planned density and building intensity, geographic area analyzed for environmental impacts, and covered infrastructure, as described in the program EIR (Guidelines § 15168[c][2]). 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.
- 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])

1.3 PROJECT LOCATION

The City of Redondo Beach is in the South Bay region of Los Angeles County. It is bordered to the north by Hermosa Beach, Manhattan Beach, Hawthorne, and El Segundo; to the east by Torrance and Lawndale; to the south by the Palos Verdes Peninsula; and to the west by the Pacific Ocean. The southwestern portion of the city stretches along approximately 2.6 miles of coastline between the border of Hermosa Beach to the north and Torrance to the south. Interstate and regional access are provided by Interstate 405 (I-405), which runs in a general north-south direction and passes through the northern portion of the city; State Route 107 (SR-107), a north-south state highway that borders the northeastern portion of the city; and Pacific Coast Highway (SR-1), a north-south highway that bisects the southern portion of the city. The regional location of Redondo Beach is depicted on Figure 3-1, *Regional Location Map*.

The Redondo Beach General Plan Update, Zoning Ordinance updates, and Local Coastal Program amendment (proposed project) encompasses the entire geographic area of the city, which has a total land area of

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approximately 3,970 acres (6.2 square miles). The city's sphere of influence is contiguous with the city boundaries. As further described below, the city is developed with a variety of land uses, including established residential neighborhoods, commercial corridors, industrial complexes, public facilities, and parks. The local context of the project area is depicted on Figure 3-2, *Project Area Map*.

1.4 PROJECT SUMMARY

The General Plan represents the community's vision of its future; it also serves as the blueprint guiding the City. The City will use the goals and policies of the General Plan as a basis from which to make land use, housing, mobility, infrastructure (capital improvements), and open space and parks decisions. Redondo Beach has selected the year 2050 as its planning horizon. The City is updating five of the State-required elements that make up the General Plan:

- **Land Use.** Key components of the update to this element include the policy framework, which includes the goals and policies that guide land-use decisions and help shape future development and public investment; the land use plan, including the land use map and designations some of which implement the housing sites; the focus areas and special policy areas discussions; and the implementation measures.
- **Open Space and Conservation.** Key components of the update to this element include goals and policies that reconcile competing demands on open space resources, and emphasize the role parks, public spaces, recreation facilities and programs, community events, and the preservation of natural resources play in economic development, land use, sustainability, climate adaptation, infrastructure, and transportation goals.
- **Safety.** Key components of the update to this element include identifying natural and human-caused hazards and evaluating how these hazards are projected to change in the future. Goals and policies aim to minimize the effects of these hazards. For the Redondo Beach General Plan Update, the Environmental Hazards/Natural Hazards Element will become the state-mandated safety element.
- **Noise.** Key components of the update to this element include assessing the community's existing noise environment and providing goals and policies and implementation actions to proactively reduce noise and land use compatibility problems considerate of future noise contours.
- **Zoning Ordinance and Zoning Ordinance for the Coastal Zone.** Updates to the City's Zoning Ordinance and Zoning Ordinance for the Coastal Zone will include modifications for consistency with the proposed General Plan, recently adopted Housing Element, and in the context of State laws such as Senate Bills 35 and 330.
- **Local Coastal Amendment.** To implement the changes proposed by the Focused General Plan Update and the proposed Zoning Ordinance Update within the coastal zone, the City must also amend portions of both the Land Use Plan (LUP) and Implementation Plan (IP) components of its Local Coastal Program (LCP). Proposed changes to the LUP include updates to the Land Use Map consistent with the Land Use Map in the Focused General Plan Update.

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Proposed changes to the IP will include updates to the Zoning Map within the Coastal Zone to implement the Focused General Plan Update and updates to the Zoning Code for the Coastal Zone. Proposed changes to the Zoning Code for the Coastal Zone are consistent with the proposed Zoning Ordinance Update, except where changes would conflict with the provisions of the California Coastal Act. The Zoning Code changes related to the General Plan Update for areas the Coastal Zone do not include any changes that would impact coastal resource requirements, including provisions for off-street parking in parking constrained areas near the shoreline. In addition, development in the coastal zone will remain subject to current coastal development permit (CDP) procedures to ensure protection of coastal resources.

Each General Plan element contains a number of goal statements and related policy statements for each stated goal. Additionally, details for implementing policies in the General Plan are contained in the form of Implementation Actions. Updates to these elements are accompanied by associated revisions to the City's Zoning Ordinance and Local Coastal Program (LCP) needed to make them consistent and implement the updated goals and policies. The entirety of the updates to the General Plan, Zoning Ordinance, and LCP updates constitutes the "proposed project." 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 City.

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 EIR were based, in part, on their potential ability to reduce or eliminate the impacts determined to be significant and unavoidable for implementation of the project. Project alternatives are assessed in further detail in Chapter 6, *Alternatives to the Project*.

1.6 NO-PROJECT/EXISTING GENERAL PLAN ALTERNATIVE

Under the No Project/Existing General Plan Alternative, the General Plan Update, Zoning Ordinance Update, and Local Coastal Amendment would not be implemented by the City. The current General Plan, Zoning Ordinance, and Local Coastal Program would remain in effect. The proposed land use designations under the proposed project would not be implemented under this alternative. Impacts of the No Project/Current General Plan alternative would be similar for aesthetics, agriculture and forestry resources, biological resources, cultural resources, geology and soils, hazards and hazardous materials, hydrology and water quality, mineral resources, noise, tribal cultural resources, and wildfire. Impacts would be greater for air quality, energy, GHG emissions, land use and planning, and housing and population. Vehicle miles traveled (VMT) per service population would be slightly higher as compared to the proposed project. In addition, this alternative would not be consistent with the City's recently adopted and state certified Sixth Cycle Housing Element. Impacts would be reduced for public services, recreation, and utilities and service systems as less demand for services would occur as compared to the proposed project. The No Project/Current General Plan Alternative would meet most of the project objectives but to a lesser extent; however, this alternative would not implement the proposed Redondo Beach General Plan policies, which are designed to further enhance the project objectives.

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1.6.1 INCREASED RESIDENTIAL DENSITY AND INTENSITY IN TOD AREAS

The Increased Residential Density and Intensity in TOD Areas Alternative would result in a greater buildout as compared to the proposed project and would concentrate this increased residential and commercial growth in TOD areas. Under this alternative, growth would occur citywide but the increased residential density and nonresidential land use intensity would occur in Special Policy Areas 1, Tech District, and 2, Galleria District (see Figure 3-5, *Proposed Land Use Plan*). Special Policy Areas 1 and 2 are in close proximity to existing and proposed Metro stations. The increase in residential units and nonresidential square feet in TOD areas would reduce VMT because there would be more residential uses within proximity to public transit, alternative transportation, jobs, and amenities. Impacts of the Increased Residential Density and Intensity in TOD Areas Alternative would be similar for agriculture and forestry resources, biological resources, cultural resources, geology and soils, hazards and hazardous materials, hydrology and water quality, noise, mineral resources, tribal cultural resources, and wildfire. Impacts would be greater for aesthetics, population and housing, public services, recreation, and utilities and system services. Impacts would be slightly reduced for air quality, energy, GHG emissions, land use and transportation. The Increased Residential Density and Intensity in TOD Areas Alternative would meet three project objectives to a lesser extent, and would only meet one project objective to a greater extent as compared to the proposed project.

1.7 ISSUES TO BE RESOLVED

Section 15123(b)(3) of the CEQA Guidelines requires that an EIR contains 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 DEIR adequately describes the environmental impacts of the project.
2. Whether the benefits of the project override those environmental impacts which cannot be feasibly avoided or mitigated to a level of insignificance.
3. Whether the proposed land use changes are compatible with the character of the existing area.
4. Whether the identified goals, policies, 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 DEIR.
6. Whether there are any alternatives to the project that would substantially lessen any of the significant impacts of the proposed project and achieve most of the basic project objectives.

1.8 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 raised by agencies and the public. Comments received during the NOP's public review period, from June 1, 2023, to June 30, 2023 are provided in Appendix A. The NOP

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process helps determine the scope of the environmental issues to be addressed in the DEIR. Seven agencies and 14 individuals responded to the NOP. (see Chapter 2, Introduction, Table 2-, *Summary of Comments on the Notice of Preparation*. Based on the scoping process, the primary areas of controversy known to the City include:

- Zone changes to the Beach Cities Health District (BCHD) (See Section 3, *Project Description*)
- Changes to floor area ratio (FAR) for Public Institutional (PI) land use and zoning designations (See Section 3, *Project Description*)

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.

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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: Development in accordance with the proposed project would not substantially alter or damage scenic vistas.	Less Than Significant	No mitigation measures are required.	Less Than Significant
Impact 5.1-2: The proposed project would not alter scenic resources within a state scenic highway.	Less Than Significant	No mitigation measures are required.	Less Than Significant
Impact 5.1-3: Buildout in accordance with the proposed project would alter the existing visual appearance of the City but would not substantially degrade its existing visual character or quality and would not 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: The proposed project would not generate additional light and glare.	Less Than Significant	No mitigation measures are required.	Less Than Significant
5.2 AIR QUALITY			
Impact 5.2-1: Buildout of the proposed project, and associated emissions, would exceed the assumptions of the South Coast AQMD's AQMP.	Potentially Significant	AQ-1 Prior to discretionary approval by the City of Redondo Beach for development projects subject to CEQA (California Environmental Quality Act) review (i.e., nonexempt projects), project applicants shall prepare and submit a technical assessment evaluating potential project construction-related air quality impacts to the City of Redondo Beach Planning Division for review and approval. The evaluation shall be prepared in conformance with South Coast Air Quality Management District (South Coast AQMD) methodology for assessing air quality impacts. If construction-related criteria air pollutants are determined to have the potential to exceed the South Coast AQMD-adopted thresholds of significance, the City of Redondo Beach Building & Safety Division shall require feasible mitigation measures to reduce air quality emissions. Potential measures shall be incorporated as conditions of approval for a project and may include, but are not limited to the following:	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
		<ul style="list-style-type: none"> Require fugitive dust control measures that exceed South Coast Air Quality Management District's Rule 403, such as: <ul style="list-style-type: none"> Requiring use of nontoxic soil stabilizers to reduce wind erosion. Applying water every four hours to active soil disturbing activities. Tarping and/or maintaining a minimum of 24 inches of freeboard on trucks hauling dirt, sand, soil, or other loose materials. Using construction equipment rated by the United States Environmental Protection Agency as having Tier 4 interim or higher exhaust emission limits. Ensuring construction equipment is properly serviced and maintained to the manufacturer's standards. Limiting nonessential idling of construction equipment to no more than five consecutive minutes. Using Super-Compliant VOC paints for coating of architectural surfaces whenever possible. A list of Super-Compliant architectural coating manufacturers can be found on the South Coast Air Quality Management District's website at: https://www.aqmd.gov/home/rules-compliance/compliance/vocs/architectural-coatings/super-compliant-coatings. <p>These identified measures shall be incorporated into all appropriate construction documents (e.g., construction management plans) submitted to the City and shall be verified by the City's Planning Division.</p> <p>AQ-2 Prior to discretionary approval by the City of Redondo Beach for development projects subject to CEQA (California Environmental Quality Act) review (i.e., nonexempt projects), project applicants shall prepare and submit a technical assessment evaluating potential project operation-phase-related air quality impacts to the City of Redondo Beach Planning Division for review and approval. The evaluation shall be prepared in conformance with South Coast Air Quality Management District (South Coast AQMD) methodology in assessing air quality impacts. If operation-related air pollutants are determined to have the potential to exceed the South Coast AQMD-adopted thresholds of significance, the City of Redondo Beach Planning Division shall require that</p>	

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
		<p>applicants for new development projects incorporate mitigation measures to reduce air pollutant emissions during operational activities. The identified measures shall be included as part of the conditions of approval. Possible mitigation measures to reduce long-term emissions could include, but are not limited to the following:</p> <ul style="list-style-type: none"> • For site-specific development that requires refrigerated vehicles, the construction documents shall demonstrate an adequate number of electrical service connections at loading docks for plug-in of the anticipated number of refrigerated trailers to reduce idling time and emissions. • Applicants for manufacturing and light industrial uses shall consider energy storage and combined heat and power in appropriate applications to optimize renewable energy generation systems and avoid peak energy use. • Site-specific developments with truck delivery and loading areas and truck parking spaces shall include signage as a reminder to limit idling of vehicles while parked for loading/unloading in accordance with California Air Resources Board Rule 2845 (13 CCR Chapter 10 § 2485). • Provide changing/shower facilities as specified in the Nonresidential Voluntary Measures of CALGreen. • Provide bicycle parking facilities per the Nonresidential Voluntary Measures and Residential Voluntary Measures of CALGreen. • Provide facilities to support electric charging stations per the Nonresidential Voluntary Measures and Residential Voluntary Measures of CALGreen. • Applicant-provided appliances shall be Energy Star–certified appliances or appliances of equivalent energy efficiency (e.g., dishwashers, refrigerators, clothes washers, and dryers). Installation of Energy Star–certified or equivalent appliances shall be verified by the City during plan check. 	

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 5.2-2: Construction activities associated with future development that would be accommodated under the proposed project could generate short-term emissions in exceedance of the South Coast AQMD's threshold criteria.	Potentially Significant	Implement Mitigation Measure AQ-1.	Significant and Unavoidable
Impact 5.2-3: Implementation of the proposed project would generate additional, long-term emissions in exceedance of South Coast AQMD's threshold criteria and cumulatively contribute to the South Coast Air Basin's nonattainment designations.	Potentially Significant	Implement Mitigation Measure AQ-2.	Significant and Unavoidable
Impact 5.2-4: The proposed project could expose sensitive receptors to substantial criteria air pollutant and toxic air contaminant concentrations	Potentially Significant	<p>Implement Mitigation Measures AQ-1 and AQ-2.</p> <p>AQ-3 Industrial and Warehouse Development Health Risk Assessments. Prior to discretionary approval by the City of Redondo Beach, project applicants for new industrial or warehousing development projects that 1) have the potential to generate 100 or more diesel truck trips per day or have 40 or more trucks with operating diesel-powered transport refrigeration units, and 2) are within 1,000 feet of a sensitive land use (e.g., residential, schools, hospitals, nursing homes), as measured from the property line of the project to the property line of the nearest sensitive use, shall submit a health risk assessment (HRA) to the City of Redondo Beach Planning Division for review and approval. The HRA shall be prepared in accordance with policies and procedures of the state Office of Environmental Health Hazard Assessment and the South Coast AQMD. If the HRA shows that the incremental cancer risk and/or noncancer hazard index exceeds the respective threshold, as established by the South Coast AQMD at the time a project is considered, the project applicant will be required to identify best available control technologies for toxics (T-BACTs) and appropriate enforcement mechanisms and demonstrate that they are capable of reducing potential cancer and noncancer risks to an acceptable level. T-BACTs may include but are not limited to restricting idling on-site or electrifying warehousing docks to reduce diesel particulate matter, or requiring use of newer equipment and/or vehicles. T-BACTs identified in</p>	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
		the HRA shall be identified as mitigation measures in the environmental document and/or incorporated into the site plan.	
Impact 5.2-5: The proposed project would not result in other emissions (such as those leading to odors) adversely affecting a substantial number of people.	Less Than Significant	No mitigation measures are required.	Less Than Significant
5.3 BIOLOGICAL RESOURCES			
Impact 5.3-1: The proposed project could have a substantial adverse effect, either directly or through habitat modifications, on species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations by the California Department of Fish and Wildlife or United States Fish and Wildlife Service.	Less Than Significant	No mitigation measures are required.	Less Than Significant
Impact 5.3-2: The proposed project could impact sensitive natural communities, including wetlands and riparian habitat.	Less Than Significant	No mitigation measures are required.	Less Than Significant
Impact 5.3-3: The proposed project could interfere with the movement of wildlife species, or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites.	Less Than Significant	No mitigation measures are required.	Less Than Significant
Impact 5.3-4: The proposed project would not conflict with any local policies or ordinances protecting biological resources nor with the provisions of an adopted habitat conservation plan, natural community conservation plan, or other approved local, regional, or State habitat conservation plan.	No Impact	No mitigation measures are required.	No Impact

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
5.4 CULTURAL RESOURCES			
Impact 5.4-1: Future development facilitated by the proposed project could impact an identified or potentially eligible historic resource.	Potentially Significant	CUL-1 Historical Resources Assessment. For discretionary projects that involve construction activities that may adversely impact potentially eligible historical resources (i.e., structures 45 years or older), a historical resources assessment shall be performed by an architectural historian or a historian who meets the Secretary of the Interior's Professionally Qualified Standards (PQS) in architectural history or history. The assessment shall include a records search to determine if 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 Historic Resources (CRHR), or local register of historic resources. Following the records search, the qualified historian or architectural historian shall conduct a reconnaissance-level and/or intensive-level 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. Pursuant to the definition of a historical resource under CEQA, potential historical resources shall be evaluated under a developed historic context. The assessment shall provide the historic context, methods, results, and recommendations for appropriate findings. The assessment shall be provided to the Director of the Community Development Department for concurrence as to the appropriate mitigation for historic resources.	Significant and Unavoidable
Impact 5.4-2: Future development facilitated by the proposed project could impact or cause substantial adverse changes in the significance of known and/or unknown archaeological resources.	Potentially Significant	CUL-2 Cultural Resources Assessment. For discretionary projects that involve ground-disturbing activities during construction on areas where no previous ground disturbance or excavation has occurred, or ground-disturbing activities would occur in native soil, a site-specific cultural resources study shall be completed prior to project approval. The study shall include records searches of the California Historical Resources Information System and 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.	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
		<p>If the records search identifies a sensitivity for archaeological resources, an archaeological resources assessment shall be performed under the supervision of an archaeologist that meets the Secretary of the Interior's PQS in either prehistoric or historic archaeology. If the archaeological assessment indicates the area to be of medium sensitivity for archaeological resources, an archaeologist who meets the PQS shall be retained on an on-call basis.</p> <p>If the archaeological assessment indicated the area to be highly sensitive for archaeological resources, a qualified archaeologist shall monitor all ground-disturbing construction and pre-construction activities.</p> <p>CUL-3 All Projects. If cultural resources are discovered during ground-disturbing activities, all ground-disturbing activities within 50 feet of the find shall be halted until a meeting is convened between the developer, archaeologist, tribal representatives, and the Director of the Community Development Department, or their assigned designee. At the meeting, the significance of the discoveries shall be discussed and after consultation with the tribal representatives, developer, and archaeologist, a decision shall be made, with the concurrence of the Director of the Community Development Department, as to the appropriate mitigation (documentation, recovery, avoidance, etc.) for the cultural resources.</p>	
Impact 5.4-3: Future development facilitated by the proposed project could potentially disturb 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: 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.	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 5.5-2: The proposed project would conflict with or obstruct a state or local plan for renewable energy or energy efficiency.	Potentially Significant	There are no feasible mitigation measures at the General Plan-level.	Significant and Unavoidable
5.6 GEOLOGY AND SOILS			
Impact 5.6-1: Project residents and visitors would be subject to potential seismic-related hazards; however, development associated with the proposed project would adhere to existing structural safety requirements.	Less Than Significant	No mitigation measures are required.	Less Than Significant
Impact 5.6-2: Unstable geologic unit or soils conditions, including soil erosion and loss of topsoil, could result from development of the proposed project; however, such development would adhere to existing regulatory requirements.	Less Than Significant	No mitigation measures are required.	Less Than Significant
Impact 5.6-3: Soil conditions may adequately support proposed septic tanks.	Less Than Significant	No mitigation measures are required.	Less Than Significant
Impact 5.6-4: Development under the proposed project could directly or indirectly destroy a unique paleontological resource or unique geologic feature.	Potentially Significant	<p>GEO-1 Low-to-High Sensitivity. Prior to issuance of a grading permit for discretionary projects that involve ground disturbance in previously undisturbed areas mapped with “low-to-high” paleontological sensitivity, the project applicant shall consult with a geologist or paleontologist to confirm whether the grading would occur at depths that could encounter highly sensitive sediments for paleontological resources. If confirmed that underlying sediments may have sensitivity, a qualified paleontologist shall be retained to develop and implement a Paleontological Resources Impact Mitigation Plan. The paleontologist shall have the authority to halt construction during ground disturbing activities as outlined in Mitigation Measure GEO-2.</p> <p>GEO-2 All Projects. In the event of any fossil discovery, regardless of depth or geologic formation, ground disturbing activities shall halt within a 50-foot radius of the find until its significance can be determined by a qualified paleontologist. Significant fossils shall be recovered, prepared to the point of curation, identified by qualified experts, listed in a database to facilitate</p>	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
		analysis, and deposited in a designated paleontological curation facility in accordance with the standards of the Society of Vertebrate Paleontology. The most likely repository is the Natural History Museum of Los Angeles County. The repository shall be identified, and a curatorial arrangement shall be signed as part of the Paleontological Impact Mitigation Plan (GEO-1) and prior to collection of the fossils.	
5.7 GREENHOUSE GAS EMISSIONS			
Impact 5.7-1: Implementation of the proposed project would not result in a substantial increase in emissions but would not place the City on a trajectory to achieve the goals established under Executive Order S-03-05 or progress toward the State's carbon neutrality goal.	Potentially Significant	<p>GHG-1 The City of Redondo Beach shall prepare an update Climate Action Plan (CAP) to achieve the greenhouse gas (GHG) reduction targets of Senate Bill (SB) 32 for the year 2030 and chart a trajectory to achieve the long-term GHG reduction goal set by Assembly Bill (AB) 1279. The updated CAP shall be completed within three years of certification of the General Plan EIR. The updated CAP shall be updated every five years to ensure the City is monitoring the plan's progress toward achieving the City's GHG reduction target and to require amendment if the plan is not achieving a specified level. The update shall consider a trajectory consistent with the GHG emissions reduction goal established under SB 32 for year 2030, AB 1279 for year 2045, and the latest applicable statewide legislative GHG emission reduction that may be in effect at the time of the CAP update.</p> <p>The CAP update shall include the following:</p> <ul style="list-style-type: none"> • GHG inventories of existing and forecast year GHG levels. • Tools and strategies for reducing GHG emissions to achieve the GHG reduction goals of Senate Bill 32 for year 2030. • Tools and strategies for reducing GHG emissions to ensure a trajectory with the long-term GHG reduction goal and carbon neutrality goal for year 2045 of AB 1279. • Plan implementation guidance that includes, at minimum, the following components consistent with the proposed updated CAP: <ul style="list-style-type: none"> • Administration and Staffing • Finance and Budgeting • Timelines for Measure Implementation • Community Outreach and Education 	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
		<ul style="list-style-type: none"> Monitoring, Reporting, and Adaptive Management Tracking Tools. 	
Impact 5.7-2: Implementation of the proposed project would conflict with an applicable plan, policy, or regulation of an agency adopted for the purpose of reducing GHG emissions.	Potentially Significant	There are no feasible mitigation measures at the General Plan-level.	Significant and Unavoidable
5.8 HAZARDS AND HAZARDOUS MATERIALS			
Impact 5.8-1: Project construction and operations would not create a significant impact due to the transport, use, and/or disposal of hazardous materials; and reasonably foreseeable upset and accident conditions; and would not impact an existing or proposed school.	Less Than Significant	No Mitigation Measures are required.	Less Than Significant
Impact 5.8-2: There are sites within the planning area that are on the list of hazardous materials sites but would not create a significant hazard to the public or environment.	Less Than Significant	No Mitigation Measures are required.	Less Than Significant
Impact 5.8-3: The project site is not located in the vicinity of an airport or within the jurisdiction of an airport land use plan.	Less Than Significant	No Mitigation Measures are required.	Less Than Significant
Impact 5.8-4: Project development would not affect the implementation of an emergency responder or evacuation plan.	Less Than Significant	No Mitigation Measures are required.	Less Than Significant
Impact 5.8-5: The project site is not in a designated fire hazard zone and could expose structures and/or residences to fire danger.	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
5.9 HYDROLOGY AND WATER QUALITY			
Impact 5.9-1: The proposed project would not violate water quality standards or waste discharge requirements or otherwise substantially degrade surface or groundwater quality.	Less Than Significant	No Mitigation Measures are required.	Less Than Significant
Impact 5.9-2: The proposed project would not substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that it may impede sustainable groundwater management of the basin.	Less Than Significant	No Mitigation Measures are required.	Less Than Significant
Impact 5.9-3: Development under the proposed project would not substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces in a manner which would: Result in a substantial erosion or siltation on- or off-site; Substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or offsite; 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; Impede or redirect flood flows.	Less Than Significant	No Mitigation Measures are required.	Less Than Significant
Impact 5.9-4: The proposed project would not increase the risk of pollutant release due to inundation in flood hazard, tsunami, or seiche zones.	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 5.9-5: The proposed project would not conflict with or obstruct the 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: Project implementation would not physically divide an established community.	Less Than Significant	No mitigation measures are required.	Less Than Significant
Impact 5.10-2: Project Implementation would conflict with applicable plans adopted for the purpose of avoiding or mitigating an environmental effect.	Potentially Significant	There are no feasible mitigation measures at the General Plan-level.	Significant and Unavoidable
5.11 NOISE			
Impact 5.11-1: Construction activities associated with buildout of the proposed project would result in temporary noise increases at sensitive receptors. The proposed project would not result in the generation of substantial 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.	Potentially Significant	N-1 Construction Noise Measures. Construction contractors shall implement the following measures for construction activities conducted in the City of Redondo Beach. Construction plans submitted to the City shall identify these measures on demolition, grading, and construction plans. The City of Redondo Beach Planning and Building Divisions shall verify that grading, demolition, and/or construction plans submitted to the City include these notations prior to issuance of demolition, grading, and/or building permits. <ul style="list-style-type: none"> During the entire active construction period, equipment and trucks used for project construction shall use the best-available noise control techniques (e.g., improved mufflers, equipment redesign, use of intake silencers, ducts, engine enclosures, and acoustically attenuating shields or shrouds), wherever feasible. Impact tools (e.g., jack hammers and hoe rams) shall be hydraulically or electrically powered wherever possible. Where the use of pneumatic tools is unavoidable, an exhaust muffler on the compressed air exhaust shall be used along with external noise jackets on the tools. Stationary equipment, such as generators and air compressors, shall be located as far as feasible from nearby noise-sensitive uses. 	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
		<ul style="list-style-type: none"> • Stockpiling shall be located as far as feasible from nearby noise-sensitive receptors. • Construction traffic shall be limited, to the extent feasible, to approved haul routes established by the City Planning, Engineering, and Building Divisions. • At least 10 days prior to the start of construction activities, a sign shall be posted at the entrance(s) to the job site, clearly visible to the public, that includes permitted construction days and hours, as well as the telephone numbers of the City's and contractor's authorized representatives that are assigned to respond in the event of a noise or vibration complaint. If the authorized contractor's representative receives a complaint, he/she shall investigate, take appropriate corrective action, and report the action to the City. • Signs shall be posted at the job site entrance(s), within the on-site construction zones, and along queueing lanes (if any) to reinforce the prohibition of unnecessary engine idling. All other equipment shall be turned off if not in use for more than 5 minutes. • During the entire active construction period and to the extent feasible, the use of noise-producing signals, including horns, whistles, alarms, and bells, shall be for safety warning purposes only. The construction manager shall use smart back-up alarms, which automatically adjust the alarm level based on the background noise level or switch off back-up alarms and replace with human spotters in compliance with all safety requirements and laws. • If construction is anticipated for prolonged periods, as required by the Community Development Director or their assigned designee, erect temporary noise barriers (at least as high as the exhaust of equipment and breaking line-of-sight between noise sources and sensitive receptors), as necessary and feasible, to maintain construction noise levels at or below the performance standard of 80 dBA Leq. Barriers shall be constructed with a solid material that has a density of at least 4 pounds per square foot with no gaps from the ground to the top of the barrier. 	

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 5.11-2: Buildout of the proposed project may expose sensitive uses to excessive levels of groundborne vibration.	Potentially Significant	N-2 Noise and Vibration Analysis. Prior to issuance of a building permit for a project requiring pile driving during construction within 135 feet of fragile structures, such as historical resources, within 100 feet of nonengineered timber and masonry buildings (e.g., most residential buildings), or within 75 feet of engineered concrete and masonry (no plaster); or a vibratory roller within 25 feet of any structure, the project applicant shall prepare a noise and vibration analysis to assess and mitigate potential noise and vibration impacts related to these activities. This noise and vibration analysis shall be conducted by a qualified and experienced acoustical consultant or engineer. The vibration levels shall not exceed Federal Transit Administration (FTA) architectural damage thresholds (e.g., 0.12 inches per second [in/sec] peak particle velocity [PPV] for fragile or historical resources, 0.2 in/sec PPV for nonengineered timber and masonry buildings, and 0.3 in/sec PPV for engineered concrete and masonry). If vibration levels would exceed these thresholds, alternative uses shall be used, such as drilling piles instead of pile driving and static rollers instead of vibratory rollers. If necessary, construction vibration monitoring shall be conducted to ensure vibration thresholds are not exceeded.	Less Than Significant
		N-3 Vibration Analysis. Prior to discretionary approval by the City of Redondo Beach for development projects subject to review under the California Environmental Quality Act (CEQA) (i.e., nonexempt projects), that utilize equipment that has the potential to result in vibration (e.g., pile drivers, jack hammers, and vibratory rollers), a vibration analysis shall be conducted to assess and mitigate potential vibration impacts. This vibration analysis shall be conducted by a qualified and experienced acoustical consultant or engineer and shall follow the latest CEQA guidelines, practices, and precedents	

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 5.11-3: The proposed project would not expose people residing or working in the project area to excessive noise levels within the vicinity of a private airstrip or an airport land use plan.	No Impact	No mitigation measures are required.	No Impact
5.12 POPULATION AND HOUSING			
Impact 5.12-1: The proposed project would directly result in population growth in the project area.	Potentially Significant	There are no feasible mitigation measures at the General Plan-level.	Significant and Unavoidable
Impact 5.12-2: Project implementation would not result in displacing people and/or housing.	Less Than Significant	No mitigation measures are required.	Less Than Significant
5.13 PUBLIC SERVICES			
FIRE PROTECTION AND EMERGENCY SERVICES			
Impact 5.13-1: The proposed project would introduce new structures and residents into the Redondo Beach Fire Department service boundaries, thereby increasing the requirement for fire protection equipment and personnel.	Less Than Significant	No mitigation measures are required.	Less Than Significant
POLICE PROTECTION			
Impact 5.13-2: The proposed project would introduce new structures, businesses, and residents into the Redondo Beach Police Department service boundaries, thereby increasing the requirement for police protection equipment and personnel.	Less Than Significant	No mitigation measures are required.	Less Than Significant
SCHOOL SERVICES			
Impact 5.13-3: The proposed project would generate new students who would impact the school enrollment capacities of area schools.	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
LIBRARY SERVICES			
Impact 5.13-4: The proposed project would generate new residents who would impact the library capabilities of the City.	Less Than Significant	No mitigation measures are required.	Less Than Significant
5.14 RECREATION			
Impact 5.14-1: The proposed project would generate additional residents that would increase the use of existing park and recreational facilities.	Less Than Significant	No mitigation measures are required.	Less Than Significant
Impact 5.14-2: Project implementation would not result in environmental impacts from new and expanded recreational facilities.	Less Than Significant	No mitigation measures are required.	Less Than Significant
5.15 TRANSPORTATION			
Impact 5.15-1: The proposed project would conflict with a program, plan, ordinance, or policy addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities.	Potentially Significant	There are no feasible mitigation measures at the General Plan-level	Significant and Unavoidable
Impact 5.15-2: The proposed project would conflict or be inconsistent with CEQA Guidelines § 15064.3, subdivision (b)	Potentially Significant	There are no feasible mitigation measures at the General Plan-level	Significant and Unavoidable
Impact 5.15-3: The proposed project would not result in a substantial increase in hazards due to a geometric design feature (Less Than Significant	No mitigation measures are required.	Less Than Significant
Impact 5.15-4: The proposed project would not result in inadequate emergency access.	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
5.16 TRIBAL CULTURAL RESOURCES			
Impact 5.16-1: The proposed project would 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).	Potentially Significant	Implement mitigation measure CUL-2 and CUL3.	Less Than Significant
5.17 UTILITIES AND SERVICE SYSTEMS			
Impact 5.17-1: Existing and/or proposed facilities would be able to accommodate project-generated wastewater infrastructure demands and not require or result in the relocation or construction of new or expanded wastewater treatment, the construction or relocation of which could cause significant environmental effects.	Less Than Significant	No mitigation measures are required.	Less Than Significant
Impact 5.17-2: Project-generated wastewater could be adequately treated by the wastewater service provider for the project.	Less Than Significant	No mitigation measures are required.	Less Than Significant
Impact 5.17-3: The proposed project would not require the relocation or construction of new or expanded water facilities the construction or relocation of which could cause significant environmental effects.	Less Than Significant	No mitigation measures are required.	Less Than Significant
Impact 5.17-4: Available water supplies are sufficient 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

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 5.17-5: Existing and/or proposed facilities would be able to accommodate development pursuant to the proposed project and not require or result in the relocation or construction of new or expanded storm water drainage, the construction or relocation of which could cause significant environmental effects.	Less Than Significant	No mitigation measures are required.	Less Than Significant
Impact 5.17-6: Existing and/or proposed facilities would be able to accommodate project-generated solid waste and the proposed project would comply with related solid waste regulations and reduction goals.	Less Than Significant	No mitigation measures are required.	Less Than Significant
Impact 5.17-7: Development pursuant to the proposed project would not require or result in the relocation or construction of new or expanded electric power, natural gas, and telecommunications facilities the construction or relocation of which could cause significant environmental effects.	Less Than Significant	No mitigation measures are required.	Less Than Significant

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. The overall purpose of this Draft Program Environmental Impact Report (DEIR) is to inform the City, responsible agencies, decision makers, and the public about the potential environmental effects resulting from full implementation of the proposed Redondo Beach Focused General Plan Update, and the associated Zoning Ordinance, Zoning Ordinance for the Coastal Zone, and Local Coastal Program amendments (proposed project) for consistency purposes. This DEIR 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.

As discussed further in Chapter 1, *Executive Summary*, Section 1.2.2 *Type and Purpose of This DEIR*, 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 on 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, as well as greater flexibility to address project-specific and cumulative environmental impacts on a comprehensive scale. If the agency finds that pursuant to Section 15162, no subsequent EIR would be required, the agency can approve the activity as being within the scope of the project covered by the program EIR, and no new environmental document would be required. Whether a later activity is within the scope of a program EIR is a factual question that the lead agency determines based on substantial evidence in the record. Factors that an agency may consider in making that determination include, but are not limited to, consistency of the later activity with the type of allowable land use, overall planned density and building intensity, geographic area analyzed for environmental impacts, and covered infrastructure, as described in the program EIR (Guidelines § 15168[c][2]).

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 Redondo Beach has the principal responsibility for approval of the Redondo Beach Focused General Plan Update, and the associated Zoning Ordinance, Zoning Ordinance for the Coastal Zone, and Local Coastal Program amendments project (proposed project). For this reason, the City of Redondo Beach is the lead agency for this project.

Specific discretionary actions to be considered by the City are described in Section 3.4, *Intended Uses of the DEIR*.

2. Introduction

This DEIR 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.)

2.2 NOTICE OF PREPARATION AND INITIAL STUDY

The City of Redondo Beach determined that an EIR would be required for this project and issued a Notice of Preparation (NOP) on June 1, 2023 (see Appendix A). Comments received during the NOP's public review period, from June 1, 2023, to June 30, 2023 are in Appendix A. The NOP process helps determine the scope of the environmental issues to be addressed in the DEIR. Seven agencies and 14 individuals responded to the NOP, as summarized below in Table 2-1.

Table 2-1 Summary of Comments on the Notice of Preparation			
Agency/Organization/Individual	Date	Comment Summary	Issue Addressed In:
Agency			
Native American Heritage Commission (NAHC)	06/02/2023	<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. 	Section 5.16, <i>Tribal Cultural Resources</i>
Department of Fish and Wildlife's Marine Region	06/06/2023	<ul style="list-style-type: none"> • Seeking confirmation that there are no updates/components to the Local Coastal Program that are below the mean high tide water level. 	Section 5.9, <i>Hydrology and Water Resources</i>
California Geological Survey (CGS)	06/19/2023	<ul style="list-style-type: none"> • Provides guidance and recommendations addressing geologic issues in the area including liquefaction hazards, tsunami hazards, and ground shaking hazards. 	Section 5.6, <i>Geology and Soils</i>
Los Angeles County Sanitation District	06/22/2023	<ul style="list-style-type: none"> • Request that any updates to the land use do not impact or limit their ability to continue to operate, maintain, or repair the critical wastewater facilities in the community. • Request that the District review developments within the City to determine whether or not sufficient sewer capacity exists. 	Section 5.9, <i>Hydrology and Water Resources</i> Section 5.17 <i>Utilities and Service Systems</i>
Southern California Association of Governments (SCAG)	06/22/2023	<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 5.10, <i>Land Use and Planning</i> Section 5.12, <i>Population and Housing</i> Section 5.15, <i>Transportation</i>

2. Introduction

Table 2-1 Summary of Comments on the Notice of Preparation

Agency/Organization/Individual	Date	Comment Summary	Issue Addressed In:
		<ul style="list-style-type: none"> • Recommends SCAG resources for developing an Environmental Justice Element. 	
Los Angeles County Metropolitan Transportation Authority (Metro)	06/26/2023	<ul style="list-style-type: none"> • Provides recommendations and resources for transit supportive planning. • Request that all updated information on existing and planned transit services and facilities are included. • Recommends analyzing potential impacts on Metro facilities within the planning area. 	Section 5.15, <i>Transportation</i>
South Coast Air Quality Management District (SCAQMD)	06/29/2023	<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. • Provides recommendations for health risk reduction strategies. 	Section 5.2, <i>Air Quality</i> Section 5.7, <i>Greenhouse Gas Emissions</i>
Individual			
Mark Nelson	06/07/2023	<ul style="list-style-type: none"> • Comments on the need for land use changes and zoning updates to undergo environmental analysis. • Comments on potential population growth. • Requests environmental analysis regarding the updates to the noise element. • States that proposed changes require further analysis. 	Section 5.10, <i>Land Use and Planning</i> Section 5.12, <i>Population and Housing</i> Section 5.11, <i>Noise</i>
Alan Israez	06/08/2023	<ul style="list-style-type: none"> • Comments on zone changes to the Beach Cities Health District (BCHD). Commenter opposes proposed project. 	Section 3, <i>Project Description</i>
Barbara Harkins	06/08/2023	<ul style="list-style-type: none"> • Comments on land use changes, specifically the addition of more senior assisted living facilities at the BCHD property. Commenter opposes proposed project. 	Section 3, <i>Project Description</i>
Edward Stall	06/08/2023	<ul style="list-style-type: none"> • Comments on population and overcrowding. 	Section 5.12, <i>Population and Housing</i>
Jeffrey Anderson	06/08/2023	<ul style="list-style-type: none"> • Comments on land use changes, specifically the addition of more senior assisted living facilities at the BCHD property. Commenter opposes proposed project. 	Section 3, <i>Project Description</i>
Mary James	06/08/2023	<ul style="list-style-type: none"> • Comments on land use changes and zoning and specifically impacts to traffic. 	Section 5.10, <i>Land Use and Planning</i> Section 5.15, <i>Transportation</i>

2. Introduction

Table 2-1 Summary of Comments on the Notice of Preparation

Agency/Organization/Individual	Date	Comment Summary	Issue Addressed In:
Michelle LaMontagne	06/08/2023	<ul style="list-style-type: none"> Comments on zoning changes to the BCHD property and expresses the need for more parkland. Commenter opposes proposed project. 	Section 3, <i>Project Description</i> Section 5.11, <i>Recreation</i>
Monica Siverts	06/08/2023	<ul style="list-style-type: none"> Comments on zoning changes to the BCHD property. Comments on traffic congestion. 	Section 3, <i>Project Description</i> Section 5.15, <i>Transportation</i>
Sheila Anderson	06/08/2023	<ul style="list-style-type: none"> Comments on the BCHD zoning updates. 	Section 3, <i>Project Description</i>
Tom McGarry	06/08/2023	<ul style="list-style-type: none"> Comments on the BCHD zoning updates and the impact it would have on scenic views. 	Section 3, <i>Project Description</i>
Rutan Tucker LLP	06/26/2023	<ul style="list-style-type: none"> Comments on proposed updates to the land use element that would affect BCHD campus. Specifically addressed concerns regarding the proposed set maximum Floor Area Ratio. 	Section 5.10, <i>Land Use and Planning</i>
Josephine Hrzina and Richard Crisa	06/30/2023	<ul style="list-style-type: none"> Comments on proposed senior assisted living at the BCHD property. Comments on the need for more parkland designations. 	Section 3, <i>Project Description</i> Section 5.11, <i>Recreation</i>
Mary Ewell	06/30/2023	<ul style="list-style-type: none"> Comments on land use changes, specifically the addition of more senior assisted living facilities at the BCHD property. 	Section 3, <i>Project Description</i>
Mary Watkins	06/30/2023	<ul style="list-style-type: none"> Comments on zone changes that increase density of residential housing units. Comments on the BCHD plans for zoning changes. 	Section 5.10, <i>Land Use and Planning</i> Section 3, <i>Project Description</i>

2.3 SCOPE OF THIS DEIR

While most of the content of the DEIR follows the CEQA guidelines, the scope is also based on comments received in response to the NOP, and comments received at the scoping meeting conducted by the City.

2.3.1 Potentially Significant Adverse Impacts

The City of Redondo Beach determined that 16 environmental factors have potentially significant impacts if the proposed project is implemented.

- Aesthetics
- Air Quality

2. Introduction

- 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

2.3.2 Unavoidable Significant Adverse Impacts

This DEIR identifies eight significant and unavoidable adverse impacts, as defined by CEQA, that would result from implementation of the proposed project. Unavoidable adverse impacts may be considered significant on a project-specific basis, cumulatively significant, and/or potentially significant. 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 DEIR to be significant and unavoidable are:

- Air Quality
- Cultural Resources
- Energy
- Greenhouse Gas Emissions
- Land Use
- Noise
- Population and Housing
- Transportation

2.4 INCORPORATION BY REFERENCE

Some documents are incorporated by reference into this DEIR, consistent with Section 15150 of the CEQA Guidelines, and they are available for review at the City of Redondo Beach located at: 415 Diamond Street, Redondo Beach, CA 90277.

2. Introduction

- City of Redondo Beach General Plan, County of Los Angeles. (1993)
https://www.redondo.org/departments/community_development/planning/general_plan_and_long-range_planning.php#outer-98
- City of Redondo Beach Local Coastal Program, County of Los Angeles. (2019)
https://www.redondo.org/departments/community_development/planning/general_plan_and_long-range_planning.php#outer-98
- City of Redondo Beach Municipal Code. <https://ecode360.com/RE4995>
- City of Redondo Beach Harbor/Civic Center Specific Plan. (2008)
<https://cms2.revize.com/revize/redondobeachca/Documents/Departments/Community%20Development/Planning/General%20Plan%20And%20Long-Range%20Planning/Harbor%20Civic%20Center%20Specific%20Plan%20Complete.pdf>
- City of Redondo Beach Local Hazard Mitigation Plan. (2020)
https://cms2.revize.com/revize/redondobeachca/Documents/Departments/Community%20Development/Planning/General%20Plan%20And%20Long-Range%20Planning/IFINAL_LHMP_wAPPENDICES_07072020.pdf
- City of Redondo Beach City Charter. <https://ecode360.com/42682065#42682065>

2.5 FINAL EIR CERTIFICATION

This DEIR is being circulated for public review for 45 days. Interested agencies and members of the public are invited to provide written comments on the DEIR to the City address shown on the title page of this document. Upon completion of the 45-day review period, the City of Redondo Beach will review all written comments received and prepare written responses for each. A Final EIR (FEIR) will incorporate the received comments, responses to the comments, the DEIR, and any changes to the DEIR that result from comments. The FEIR will be presented to the City of Redondo Beach for potential certification as the environmental document prior to acting on the project. The availability of the FEIR and the date of the public hearing(s) before the City, will be provided at least 10 days prior to the public hearing(s) for the project.

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 of potential impacts and prescribed mitigation 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 Redondo Beach General Plan Update, Zoning Ordinance, Zoning Ordinance for the Coastal Zone, and Local Coastal Program amendments will be completed as part of the FEIR, prior to consideration of the project by the City of Redondo Beach Council.

3. Project Description

3.1 PROJECT LOCATION

The City of Redondo Beach (City) is in the South Bay region of Los Angeles County. It is bordered to the north by Hermosa Beach, Manhattan Beach, Hawthorne, and El Segundo; to the east by Torrance and Lawndale; to the south by the Palos Verdes Peninsula; and to the west by the Pacific Ocean. The southwestern portion of the City stretches along approximately 2.6 miles of coastline between the border of Hermosa Beach to the north and Torrance Beach to the south. Interstate and regional access to the City is provided by Interstate 405 (I-405), which runs in a general north-south direction and passes through the northern portion of the City; State Route 107 (SR-107), a north-south highway that borders the northeastern portion of the City; and State Route 1 (SR-1), a north-south highway that bisects the southern portion of the City. The regional location of Redondo Beach is depicted in Figure 3-1, *Regional Location Map*.

The Redondo Beach General Plan Update, Zoning Ordinance Update, and Local Coastal Program Amendment (proposed project) encompasses the entire geographic area of the City, which has a total land area of approximately 3,970 acres (6.2 square miles). The City's Sphere of Influence (SOI) is contiguous with the City boundaries. As further described below, the City is developed with a variety of land uses including established residential neighborhoods, commercial corridors, industrial complexes, public facilities, and parks. The local context of the project area is depicted in Figure 3-2, *Project Area Map*.

3.2 EXISTING LAND USE SUMMARY

3.2.1 Existing Land Use Summary

Table 3-1, *Existing Land Use Summary* and Figure 3-3, *Existing Land Use Map*, show the distribution of existing land uses and the number of housing units, households, population, nonresidential square footage, and jobs in Redondo Beach. Existing conditions in Table 3-1 reflect the built environment using data provided by the City and County Assessor's office, employment statistics based on US Census Bureau data, and population estimates derived from data provided by the California Department of Finance (see Appendix B, *Buildout Methodology Memorandum*). As shown below in Table 3-1, the City currently includes a population of 70,311 residents, 30,431 residential dwelling units, and 28,638 jobs.

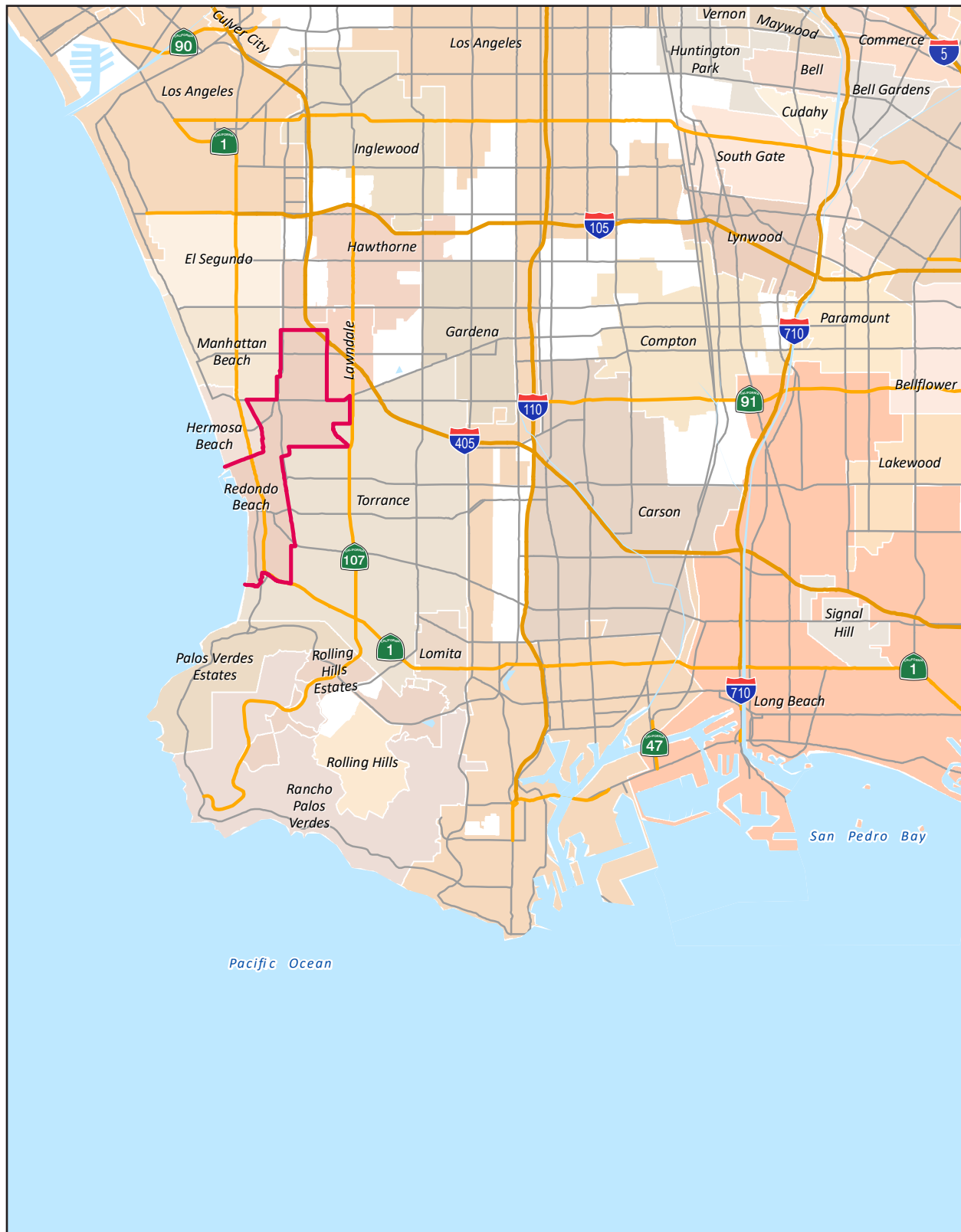
3. Project Description

Table 3-1 Existing Land Use Summary

Land Use	Acres	% of Total Acres	Dwelling Units	Building SF	Population	Employment	Students	Hotel Rooms	Hospital Beds
Vacant	11.9	0.3%	-	-	-	-	-	-	-
SFR	998.5	25.1%	8,394	-	19,390	-	-	-	-
2-3 Units	536.9	13.5%	7,406	-	17,100	-	-	-	-
4 or More Units	431.5	10.9%	14,285	-	33,004	-	-	-	-
Mixed Use Res/Com	25.0	0.6%	250	525,392	577	1,051	-	-	-
Commercial	318.7	8.0%	-	5,239,913	-	14,971	-	789	-
Industrial	263.3	6.6%	-	4,978,121	-	8,297	-	-	-
Institutional	230.2	5.8%	96	875,799	240	4,246	9,803	-	201
Parks and Open Space	154.0	3.9%	-	-	-	61	-	-	-
Utility and Open Space	30.5	0.8%	-	-	-	3	-	-	-
Utility	85.5	2.2%	-	207,052	-	9	-	-	-
Right-of-Way	885.9	22.3%	-	-	-	-	-	-	-
Grand Total	3,973	100%	30,431	11,826,277	70,311	28,638	9,803	789	201

Notes: SFR = Single Family Residence; sf = square feet
Source: See Appendix B, Buildout Methodology Memorandum

Figure 3-1 - Regional Location



City of Redondo Beach

Note: Unincorporated county areas are shown in white.
Source: Generated using ArcMap, 2022.

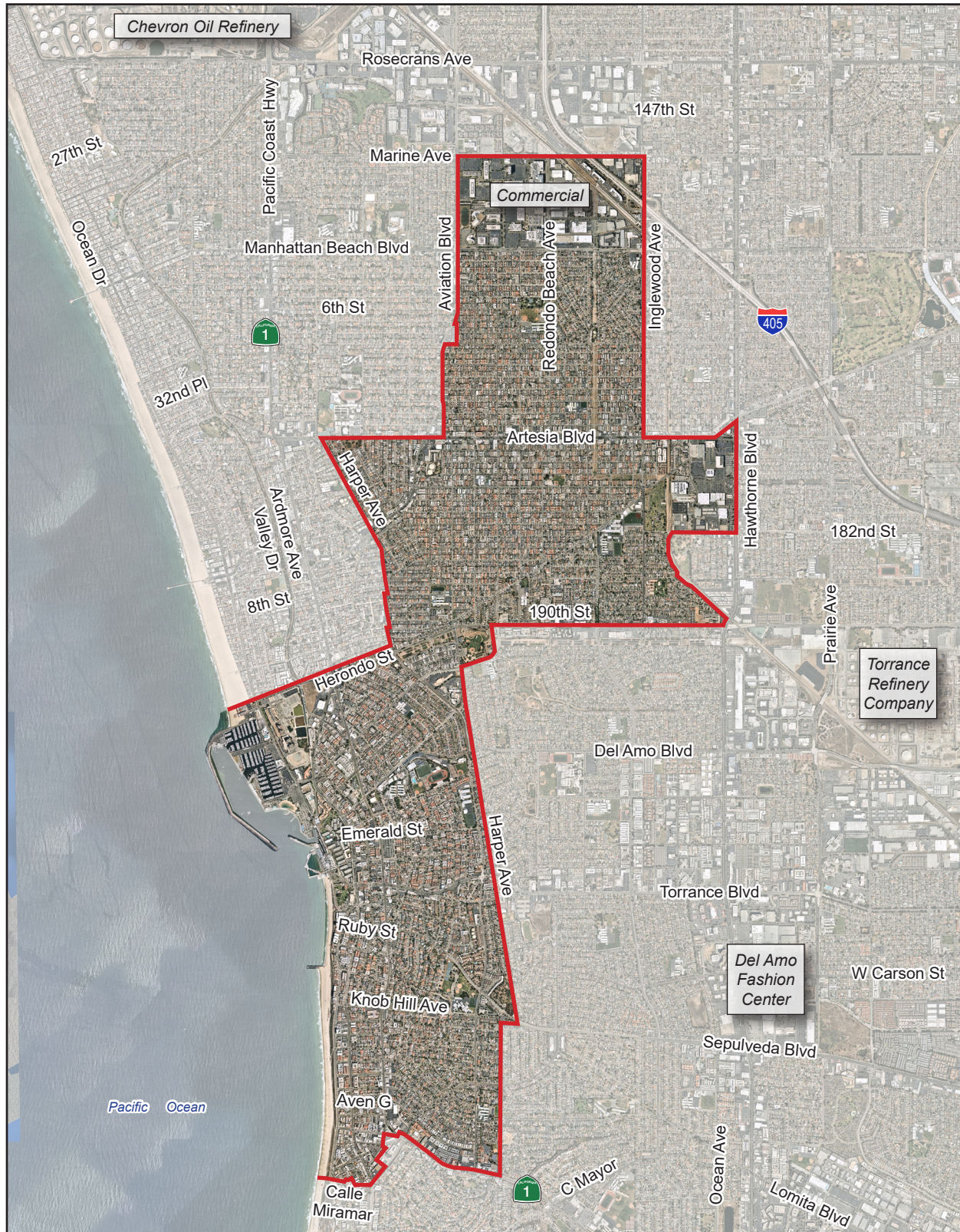
0 3
Scale (Miles)



3. Project Description

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Figure 3-2 - Project Area



— City of Redondo Beach

Note: The City boundary extends 3 miles into the Pacific Ocean, which is not shown on this exhibit.

Source: City of Redondo Beach, 2023.

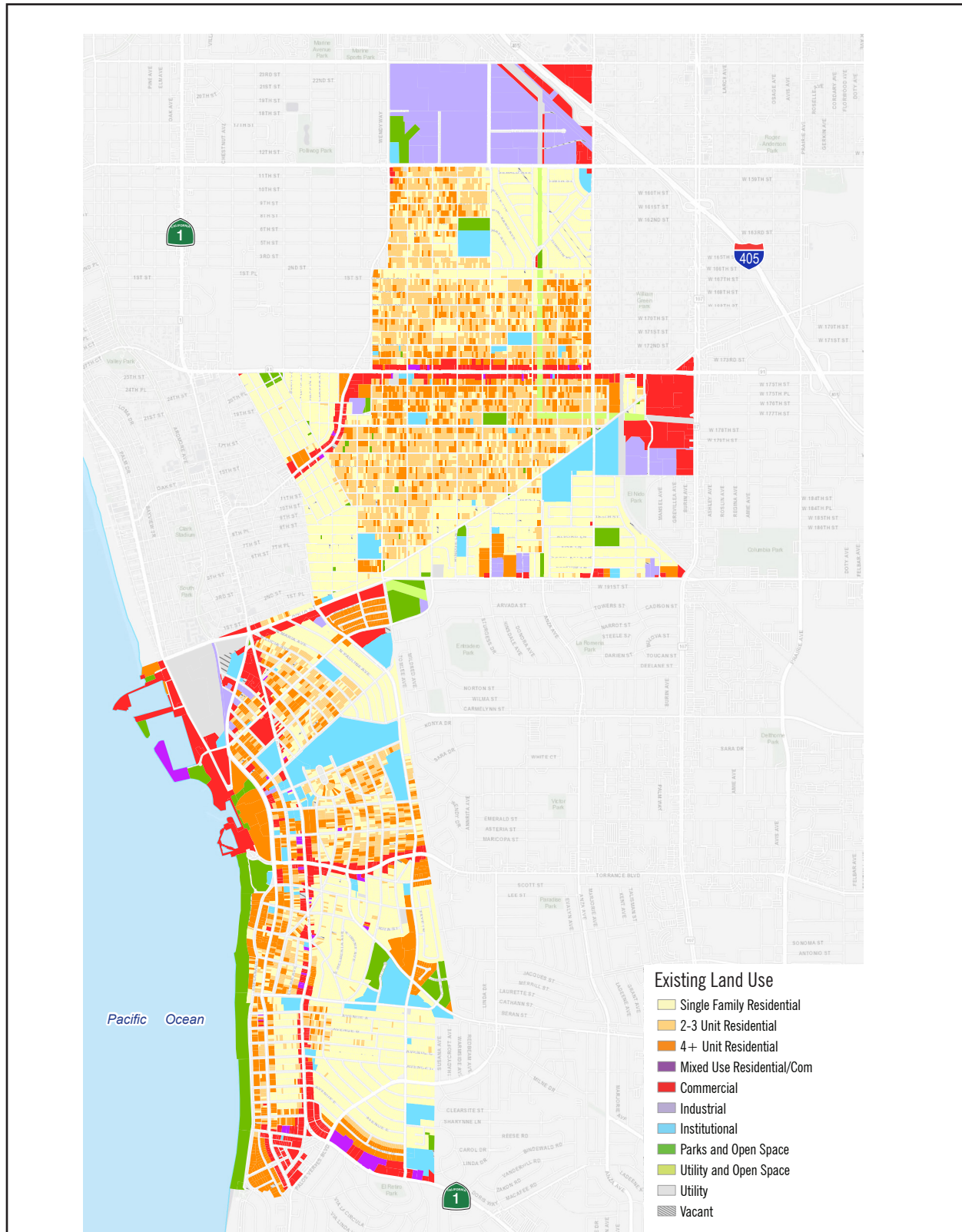
0 4,000
Scale (Feet)



3. Project Description

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Figure 3-3 - Existing Land Uses



0 3,750
Scale (Feet)



Source: City of Redondo Beach and PlaceWorks, 2023.

PlaceWorks

3. Project Description

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3. Project Description

3.3 STATEMENT OF OBJECTIVES

The City of Redondo Beach's vision and guiding principles for the proposed Focused General Plan Update prioritize quality of life, community character, health and vitality, and economic prosperity. Objectives of the Focused General Plan Update are as follows:

1. Foster development of a variety of housing options citywide that accommodates the lifestyles and affordability needs of all residents, while meeting the State-mandated Regional Housing Needs Allocation (RHNA) requirements for the City's Sixth Cycle Housing Element.
2. Reduce automobile traffic volume and congestion by promoting safe, efficient, multimodal transportation that provides alternatives to the car.
3. Ensure that the City is both a place to live and work by matching its residents to jobs and promoting a workforce/jobs balance.
4. Protect and enhance the City's existing Aerospace Industry and economic identity.
5. Support resident's health and vitality through the preservation and expansion of public open space for active and passive recreation throughout the City.
6. Create more walkable and bike friendly interconnected neighborhoods through the development of new parks, trails, and sports facilities
7. Promote creativity, innovation, and technological advances to attract businesses that are on the cutting edge of their industries.
8. Create unique destinations for residents, employers, and visitors, while maintaining existing neighborhoods and preserving public space.
9. Balance City growth in an environmentally, sustainably, economically, and fiscally responsible way.

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 §§ 65100–65700. (14 Cal. Code of Reg. § 15378[a])

3.4.1 Project Background

California state law requires each city and county to adopt a comprehensive, long-term general plan (Govt. Code § 65300). Redondo Beach's last major comprehensive General Plan adoption occurred in 1992. The City

3. Project Description

has conducted periodic updates of its general plan elements over time at the direction of the City Council in response to changing community sentiment on various topics and new legislation that has been enacted over the duration of the plan. The following are descriptions of the City's General Plan Elements accompanied by the dates they were last adopted or amended.

Land Use (1992): The Land Use Element describes objectives, policies, and programs for areas within a jurisdiction's boundaries in both narrative and graphic terms and establishes development criteria and general standards, including building intensity and population density. Land use categories are used to depict the general distribution, location, and extent of public and private uses of land.

Transportation and Circulation (2009 and 2021). The Transportation and Circulation Element includes the identification, location, and design of existing and proposed major thoroughfares, including Complete Streets strategies, transportation routes, measures to reduce vehicle miles travelled (VMT), pedestrian connections, bicycle facilities, public transit options, trails, and local public utilities and facilities. It also must be correlated with the land use element. The Transportation and Circulation Element was amended in 2021 with minor changes to address new legislation related to VMT, but the Transportation and Circulation Element has not been comprehensively updated since 2009.

Housing (2022). The Housing Element directs the City's policies, programs, and land use planning to address the needs of both existing and future residents. This includes planning and facilitating the production of new housing; the improvement and preservation of existing housing; the promotion of affordability for current households; and the affirmative furtherance of fair housing. Unlike other elements, the Housing Element must be reviewed and certified by the state. The most recent Housing Element was adopted by City Council on July 5, 2022, and certified by the California Department of Housing and Community Development for the 6th Cycle (2021-2029) on September 1, 2022.

Conservation, Recreation and Parks, and Open Space (2004). This element provides a plan for the long-term use, availability, and preservation of open space and preservation of natural resources. The element specifies plans and measures for preserving open space for natural resources, for managing the production of resources, for outdoor recreation, for climate resilience and for public health and safety. It also addresses access to open space for all residents in a manner that considers social, economic, and racial equity, correlated with environmental justice policies in the general plan.

Environmental Hazards/Natural Hazards (1992). For the Redondo Beach General Plan Update, this element will become the state-mandated safety element. This Element identifies seismic, geologic, flood, and wildfire hazards, evacuation routes, and establishes policies to protect the community from them. It also integrates climate resiliency and adaptation measures to help the community respond to the effects of climate change.

Noise (1992). The Noise Element identifies and analyzes projected noise conditions in the community, establishes noise level standards for different land uses, and must include measures to abate or mitigate potential noise levels in excess of established noise standards.

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Optional Elements. The City of Redondo Beach General Plan contains three optional elements—Senior Citizen/Childcare Services (1992), Utilities (1992), and Solid Waste Management and Recycling (1992). These existing elements are not proposed for updates as part of this effort.

Local Coastal Program. The California Coastal Act of 1976 requires all cities and counties along the State of California coast to prepare a Local Coastal Program (LCP). The LCP includes a local government's land use plan, zoning ordinances, zoning district maps, and other implementing actions applicable to the Coastal Zone. The LCP must reflect the coastal issues and concerns of its specific area, such as the City of Redondo Beach, but must also be consistent with the overall (statewide) goals, objectives, and policies of the California Coastal Act.

The LCP is comprised of the Coastal Land Use Plan (CLUP) and the Implementation Plan (IP), which includes the Zoning Ordinance for the Coastal Zone. The LCP for the City of Redondo Beach has been divided into three phases. Phase I focused on the identification of issues and was accomplished during 1977 to 1978. Phase II consists of the CLUP, which was certified by the Coastal Commission in 1981. The CLUP provides a detailed analysis of issues within the Coastal Zone regarding shoreline access, recreation, housing, sportfishing, and recreational boating. The CLUP also indicates the kinds, locations, and intensity of land and water uses; and outlines resource protection and development policies to accomplish California Coastal Act objectives. Phase III consists of implementation procedures of the CLUP through a series of amendments (IP) to the City of Redondo Beach Zoning Ordinance for the Coastal Zone certified by the Redondo Beach City Council in 2003.

Zoning Code. The current City of Redondo Beach General Plan Land Use Element was originally adopted in May 1992 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 10, of the Redondo Beach Municipal Code. The zoning ordinance consists of two main elements: 1) a map which 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, floor area ratios (FARs), parking requirements, sign design, etc.). Section 10.5 of the Municipal Code delineates the zoning ordinance for the Coastal Zone specifically and ensures compliance with the CLUP in addition to the General Plan.

3.4.2 Description of the Project

The City's General Plan represents the community's vision of its future: it also serves as the blueprint guiding the City. The City will use the goals and policies of the General Plan as a basis from which to make their land use, housing, mobility, infrastructure (Capital Improvements), and open space and parks decisions. Redondo Beach has selected the year 2050 as its planning horizon. The City is updating five of the State-required elements that make up the General Plan.

- **Land Use:** Key components of the update to this element include the policy framework, which includes the goals and policies that guide land-use decisions and help shape future development and public

3. Project Description

investment; the land use plan, including the land use map and designations; the focus areas and special policy areas discussions; and the implementation measures.

- **Open Space and Conservation:** For the Redondo Beach General Plan Update, the state-mandated open space and conservation topics are combined into one element. Key components of the update to this element include goals and policies that reconcile competing demands on open space resources, and emphasize the role parks, public spaces, recreation facilities and programs, community events, and the preservation of natural resources play in economic development, land use, sustainability, climate adaptation, infrastructure, and transportation goals.
- **Safety:** Key components of the update to this element include identifying natural and human-caused hazards and evaluating how these hazards are projected to change in the future. Goals and policies aim to minimize the effects of these hazards. For the Redondo Beach General Plan Update, the Environmental Hazards/Natural Hazards Element will become the state-mandated safety element.
- **Noise:** Key components of the update to this element include assessing the community's existing noise environment and providing goals and policies and implementation actions to proactively reduce noise and land use compatibility problems considerate of future noise contours.

Updates to these elements are accompanied by associated revisions to the City's Zoning Ordinances and Local Coastal Program (LCP) needed to make consistent and implement the updated goals and policies. The entirety of the updates to the General Plan, Zoning Ordinances, and LCP updates constitutes the "proposed project."

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 City. Below is a summary of the elements that make up the General Plan update. Each General Plan element contains at least one goal statement and related policy statements. Additionally, details for implementing policies in the General Plan are contained in the form of Implementation Actions included as an Appendix to the General Plan Update.

3.4.2.1 LAND USE ELEMENT

The Land Use Element describes policy direction and criteria for development, including building intensity and population density. Land use designations are used to depict the general distribution, location, and extent of public and private uses of land. The Land Use Element ensures the provision of a range of land uses to support the community's vision of diverse housing options, including affordable housing, and a vibrant economy and provides direction on how land uses should relate to one another to safeguard safety and compatibility.

The key components of this element are the policy framework, which includes the goals and policies that guide land-use decisions and help shape future development and public investment; the land use plan, including the land use map and designations; the focus areas and special policy areas discussions; and the implementation actions.

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Proposed Land Use Designation and Plan

The land use plan consists of three primary components: the land use designations with intensities, the land use map, and the buildout totals associated with the map. The land use designations establish the types and intensity of land uses. In this context, intensity can refer to dwelling units per acre, land coverage, floor area ratio, or some combination of development metric. The land use plan displays the pattern, distribution, and intensity of land use designations across the entire City, down to the parcel level. Table 3-2 outlines the definitions of each of the current and proposed land use designations. Figure 3-4 shows the current General Plan land uses, and Figure 3-5 depicts proposed General Plan land uses.

The City of Redondo Beach is predominantly built out with very few vacant sites available to accommodate future land use changes, requiring the City to look at very select areas to accommodate new uses, many of which may have never been considered previously. As such, changes to the plan aim to:

- Preserve established residential neighborhoods and principal commercial districts allowing for infill development and recycling of uses that are compatible with adjacent development.
- Maintain the fundamental pattern of existing land uses, preserving residential neighborhoods and commercial and industrial districts, while providing opportunities for intensification or reuse of focused areas of the City (Special Policy Areas, for example).
- Focus on reuse or repurpose of underutilized sites (transitioning retail properties), corridors, and areas adjacent to the freeway and proposed (or planned) Metro station stops such as the North Tech District, Galleria (South Bay Social District), and South Bay Marketplace.
- Target change in areas essential to satisfy the City's State-mandated obligation to demonstrate it could meet its Regional Housing Needs Allocation (RHNA) requirements for housing.

Table 3-2 Current and Proposed Land Use Designations

Land Use Designation	Current Maximum Density/Intensity	Proposed Maximum Density/Intensity	Description
Residential^{1,2}			
R-1	Up to and including 8.8 du/ac	Up to and including 8.8 du/ac	Single-family residential uses
R-1-A	Up to and including 17.5 du/ac	Up to and including 17.5 du/ac	Single-family residential uses
R-2	Up to and including 14.6 du/ac	Up to and including 14.6 du/ac	Single-family residential uses, duplexes, townhomes, condominiums, apartments
R-3	Up to and including 17.5 du/ac	Up to and including 17.5 du/ac	Single-family residential uses, duplexes, townhomes, condominiums, apartments
RMD	Up to and including 23.3 du/ac	Up to and including 23.3 du/ac	Single-family residential uses, duplexes, townhomes, condominiums, apartments
RH	Up to and including 28 du/ac	Up to and including 30 du/ac	Single-family residential uses, duplexes, townhomes, condominiums, apartments

3. Project Description

Table 3-2 Current and Proposed Land Use Designations

Land Use Designation	Current Maximum Density/Intensity	Proposed Maximum Density/Intensity	Description
Commercial			
Neighborhood Commercial (CN)	--	Max. FAR 0.50 Max FAR 1.50 for Artesia and Aviation Boulevard Special Policy Area	Provides for commercial districts with uses that complement and support adjacent residential neighborhoods. Allowed uses include retail, restaurants, personal services, office, hotel,* kenneling,* and similar uses. The intent of this designation is to provide goods and services that meet the needs of nearby residents and businesses. Buildings in the CN districts should front the street with rear, alley loaded parking where feasible. Where CN designations contain existing residential uses, they shall be allowed to remain and shall be considered conforming; however, no new residential units are permitted. Maximum FAR 0.50 (except for the Artesia and Aviation Boulevard Special Policy Area, where the Maximum FAR is 1.50). *Conditionally permitted subject to zoning code.
Coastal Commercial (CC)	Local Coastal Program (LCP)	Local Coastal Program (LCP)	Provides for coastal and recreation-oriented commercial retail and service uses.
C-1	FAR 0.35	FAR 0.35	Retail commercial, eating and drinking establishments, household goods, food sales, drugstores, building materials and supplies, professional offices, personal services, cultural facilities, and similar uses.
C-2	FAR 0.50	FAR 0.50	Same uses as C-1 and movie theaters, and overnight accommodations; except Riviera Village where no "footprint" exceeding 30,000 sq. ft. is permitted for a single use for food sales, retail goods, or other large volume uses.
C-3	FAR 0.70	FAR 0.70	Same uses as C-2.
C-4	FAR 1.00	FAR 1.00	Same uses as C-2.
C-5	a. FAR 0.70 b. FAR 0.70 c. FAR 1.00 d. FAR 1.50 e. N/A	a. FAR 0.70 b. FAR 0.70 c. FAR 1.00 d. FAR 1.50 e. N/A	a. Retail commercial, personal and business services, professional offices, household supply and furnishings, eating and drinking establishments, drug stores, entertainment, automobile related sales, car wash, and similar uses. b. Automobile and marine related repair (west side of Catalina Avenue). c. Light industrial and wholesale uses (west side of Catalina Avenue). d. Storage and self-storage (west side of Catalina Avenue). e. Boat and recreational vehicle outdoor storage (west side of Catalina Avenue).

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Table 3-2 Current and Proposed Land Use Designations

Land Use Designation	Current Maximum Density/Intensity	Proposed Maximum Density/Intensity	Description
Mixed-Use¹			
Mixed-Use Transit Center (MU-TC)		Max. FAR 1.50 ³ Up to and including 30 du/ac	Provides for an integrated mix of both community and regional serving commercial retail, service, office, entertainment, hotel and residential uses in close proximity to transit stations. Mixed-use transit center development should be of high quality and designed to be pedestrian-oriented and integrated with existing surrounding uses. This designation also allows for public uses such as libraries, parks, museums, and cultural facilities. Configurations include ground floor commercial with residential units on upper floors or stand-alone commercial, office and residential development.
Mixed-Use Low (MU-1)	<p>a. All uses permitted in C-2, except large-scale single use food sales and retail facilities "footprints" exceeding 30,000 square feet. Floor area ratio: 0.5.</p> <p>b. Residential units on the second floor and higher integrated with commercial; provided that impacts are mitigated. Floor area ratio: 1.5; provided that all density exceeding 0.7 is developed for residential units to a maximum density of 35 units per net acre.</p> <p>c. Single-family residential, duplexes, townhomes, condominiums, apartments. 35 units per net acre; minimum development site is the entire block face.</p>	<p>Commercial Only: 0.35-0.50 FAR</p> <p>Commercial and Residential together: Max. FAR 1.50³</p> <p>(all density exceeding 0.70 FAR must be residential units)</p> <p>Up to and including 30 du/ac</p>	<p>Provides for an integrated mix of commercial retail, service, office, entertainment, and residential uses. Uses can be mixed in a vertical or horizontal configuration.</p> <p>Mixed-use development should be of high quality and designed to integrate with existing surrounding uses. Configurations include ground floor commercial with residential units on upper floors or stand-alone commercial or office development.</p> <p>This designation is intended to encourage pedestrian-oriented development that has a strong emphasis on creating a safe and attractive streetscape.</p> <p>It is recommended that residential projects in this designation include an affordable component.</p> <p>Maximum FAR 1.50 and density up to and including 30 dwelling units per acre, density may increase consistent with state law for affordable units.</p>
Mixed-Use Medium Low (MU-2)	<p>a. All uses permitted in C-2, except large-scale single use food sales and retail facilities "footprints" exceeding 30,000 square feet. Floor area ratio: 0.7.</p> <p>b. Residential units. 35 units per net acre.</p> <p>c. Residential units on the second floor and</p>	<p>Commercial Only: 1.00 FAR</p> <p>Commercial and Residential together: Max. FAR 1.50³</p> <p>(all density exceeding 0.70 FAR must be residential units)</p> <p>Up to and including 35 du/ac.</p>	<p>Provides for an integrated mix of commercial retail, service, office, entertainment, and residential uses in the City's activity centers. Uses can be mixed in a vertical or horizontal configuration.</p> <p>Mixed-use development should be of high quality, designed to integrate with existing surrounding uses. Configurations include ground floor commercial or office with residential units or office uses on upper floors or standalone commercial or office development.</p> <p>This designation is intended to encourage pedestrian-oriented environments that have a strong emphasis on creating a safe</p>

3. Project Description

Table 3-2 Current and Proposed Land Use Designations

Land Use Designation	Current Maximum Density/Intensity	Proposed Maximum Density/Intensity	Description
	higher integrated with commercial; provided that impacts are mitigated. Floor area ratio: 1.5; provided that all density exceeding 0.7 is developed for residential units to a maximum density of 35 units per net acre.		and attractive streetscape. It is recommended that residential projects in this designation include an affordable component. Maximum FAR 1.50 and density up to and including 35 dwelling units per acre, density may increase consistent with state law for affordable units.
Mixed-Use (MU-3)	<p>a. All uses permitted in C-2, except large-scale single use food sales and retail facilities "footprints" exceeding 30,000 square feet. Floor area ratio: 1.0.</p> <p>b. Residential units on the second floor and higher; provided that impacts are mitigated. Floor area ratio: 1.5; provided that all density exceeding 0.7 is developed for residential units and densities exceeding 35 units per net acre are developed as affordable units.</p>	--	<p>Current mixed-use designations MU-1 and MU-2 were combined into proposed designation Mixed Use Low (MU-1).</p> <p>Current mixed-use designation MU-3 has been re-numbered in the proposed plan to MU-2.</p> <p>The proposed plan does not include an MU-3 designation.</p>
Industrial			
I-1	FAR 0.7	FAR 1.00	Light industrial, research and development, "office park" facilities, manufacture of spacecraft and associated aerospace systems, supporting commercial uses (e.g., restaurants, banks, copiers, and similar uses), educational and governmental facilities, and day care centers.
I-2	FAR 1.00	FAR 1.00	Same uses as I-1
I-3	FAR 0.7	FAR 1.00	Same uses as I-1, and building material sales, furniture stores, vehicles sales and services, maintenance and repair services, restaurants, banks, photocopies, and similar uses.
Industrial Flex (IF)	--	Max. FAR 1.00	Provides for an integrated mix of light industrial and commercial and/or office uses such as: commercial, research and development, incubator space, creative or technology-based businesses, offices, hotel, and supporting commercial uses. The overall character in this designation is intended to create a creative/tech incubator district with supporting uses.

3. Project Description

Table 3-2 Current and Proposed Land Use Designations

Land Use Designation	Current Maximum Density/Intensity	Proposed Maximum Density/Intensity	Description
Public/Institutional/Open Space			
Public/Institutional (PI)	No max development intensity All development subject to Planning Commission Design Review	Max. FAR 0.75 for all properties <i>except</i> : Max. FAR 1.25 at City Hall bounded by PCH, Broadway, Carnelian St, and Diamond St. Max. FAR 1.25 at the Annex site on Northeast Corner of PCH and Vincent St. Subject to Planning Commission Design Review.	Provides for governmental administrative and capital facilities, schools, libraries, hospitals and associated medical offices, public cultural facilities, and other public uses, ancillary parks, recreation and open spaces. Sites that are allowed to develop up to a maximum 1.25 FAR are also subject to Planning Commission Design Review (PCDR).
Public/Utility (U)	No max development intensity All development subject to Planning Commission Design Review	Max. FAR 0.10	Provides for utility uses including easements with public access for recreation and parking. Maximum FAR 0.10.
Parks and Open Space (OS)	No max development intensity All development subject to Planning Commission Design Review	Max. FAR 0.20	Provides for public open space, passive park uses, sports fields, active recreation uses, and coastal-related recreational activities as well as accompanying public facilities such as restrooms, picnic pavilions, parking facilities, and lifeguard towers. Maximum FAR 0.20.
Residential Overlay (-R) North Tech Kingsdale South Bay Marketplace South of Transit Center 190th Street FedEx	--	Min. 20 du/ac ¹ Max. 55 du/ac ¹	An overlay is a planning tool used to provide flexibility in land use designations. This designation allows uses that differ from or are in addition to, the underlying General Plan land use. This flexibility can help the City respond to State-mandated housing requirements and increase development options in different market conditions. The Residential Overlay allows residential infill projects in six areas of the City: The North Tech District, the northern portion of the Kingsdale neighborhood, the area immediately south of the City's transit center, the area south of the Galleria, several areas along 190th Street, and an area along south Pacific Coast Highway east of Palos Verdes Boulevard. The North Tech District, and the areas south of the transit center and Galleria are all located in close proximity to existing or future Metro Station stops, which provides access to existing or planned transportation alternatives. Properties with the Residential Overlay designation may be developed as the underlying land use designation (industrial, industrial flex, or commercial depending on the location) and also have the option of developing as infill residential without the need for a General Plan amendment. The Residential Overlay is intended to encourage the development of affordable housing by providing added land

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Table 3-2 Current and Proposed Land Use Designations

Land Use Designation	Current Maximum Density/Intensity	Proposed Maximum Density/Intensity	Description
			<p>use flexibility that could allow for the integration of new residential housing opportunities in close proximity to transit, job centers, and commercial service centers.</p> <p>Residential uses in the overlay area may be stand-alone projects, horizontal mixed use, or vertical mixed use.</p> <p>Residential projects must have a minimum density of 20 dwelling units per acre, and they cannot exceed the maximum density identified within each overlay area.</p>

* Notes:

¹ For properties within a residential overlay area, the minimum and maximum density allowed within the overlay shall prevail.

² Existing commercial uses within residential land use districts shall be considered legally conforming.

³ Max FAR includes both residential and commercial.

Buildout

Current General Plan Buildout

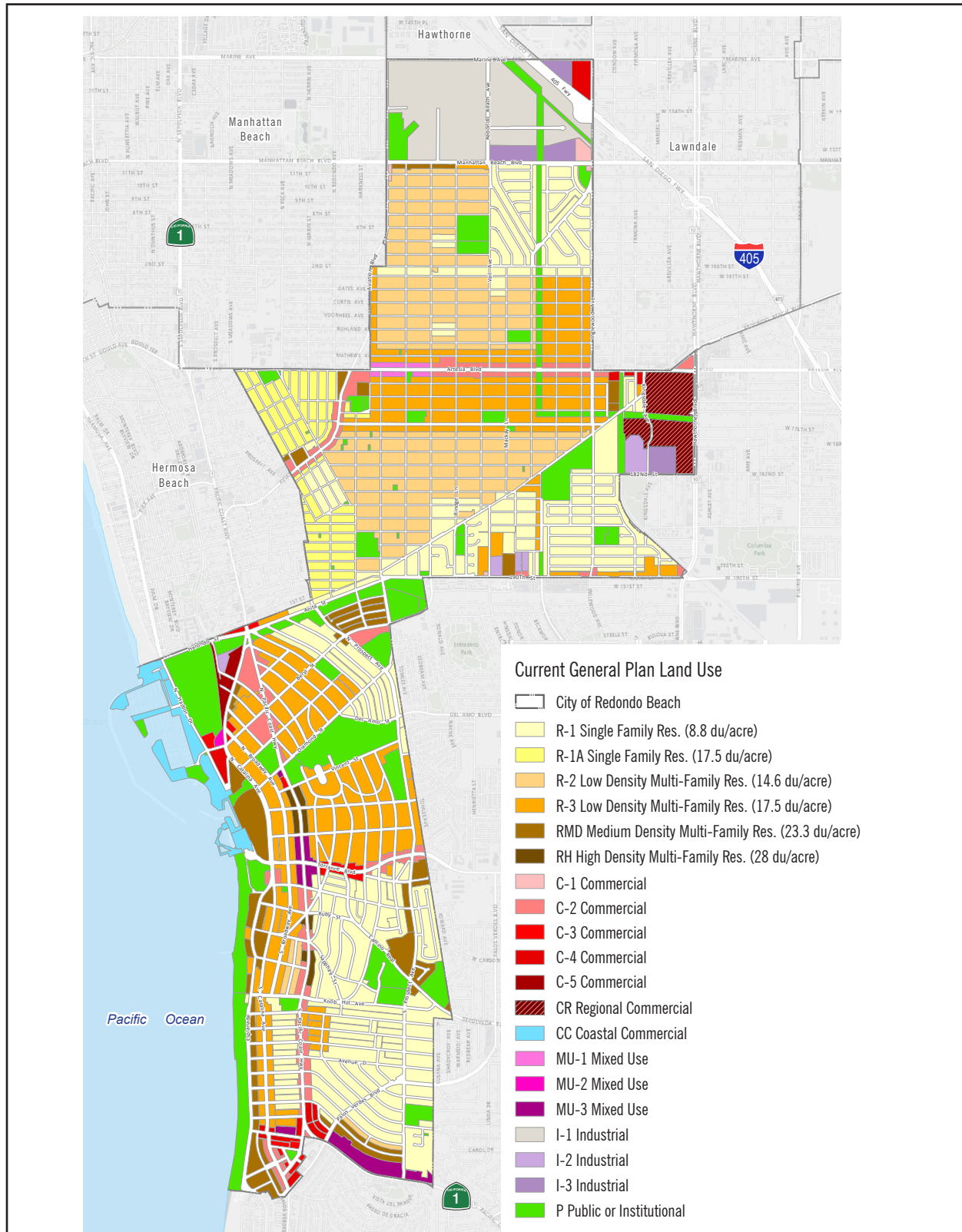
Redondo Beach's current General Plan (1992) estimates refer to the realistic development expected under its current land use plan. As depicted in Table 3-3, the current General Plan estimated a buildout that would include 32,504 residential dwelling units, a population of 75,046 residents, 16,312,887 square feet of non-residential development and 33,174 jobs.

Table 3-3 Summary of Current Land Uses

Scenario	Acres	Number of Housing Units	Total Population	Nonresidential Square Feet	Employment (Number of Jobs)
Current General Plan (1992)	3,973	32,504	75,046	16,312,887	33,174

Source: City of Redondo Beach General Plan Land Use Element, 1992

Figure 3-4 - Current Land Use Plan



0 3,750
Scale (Feet)

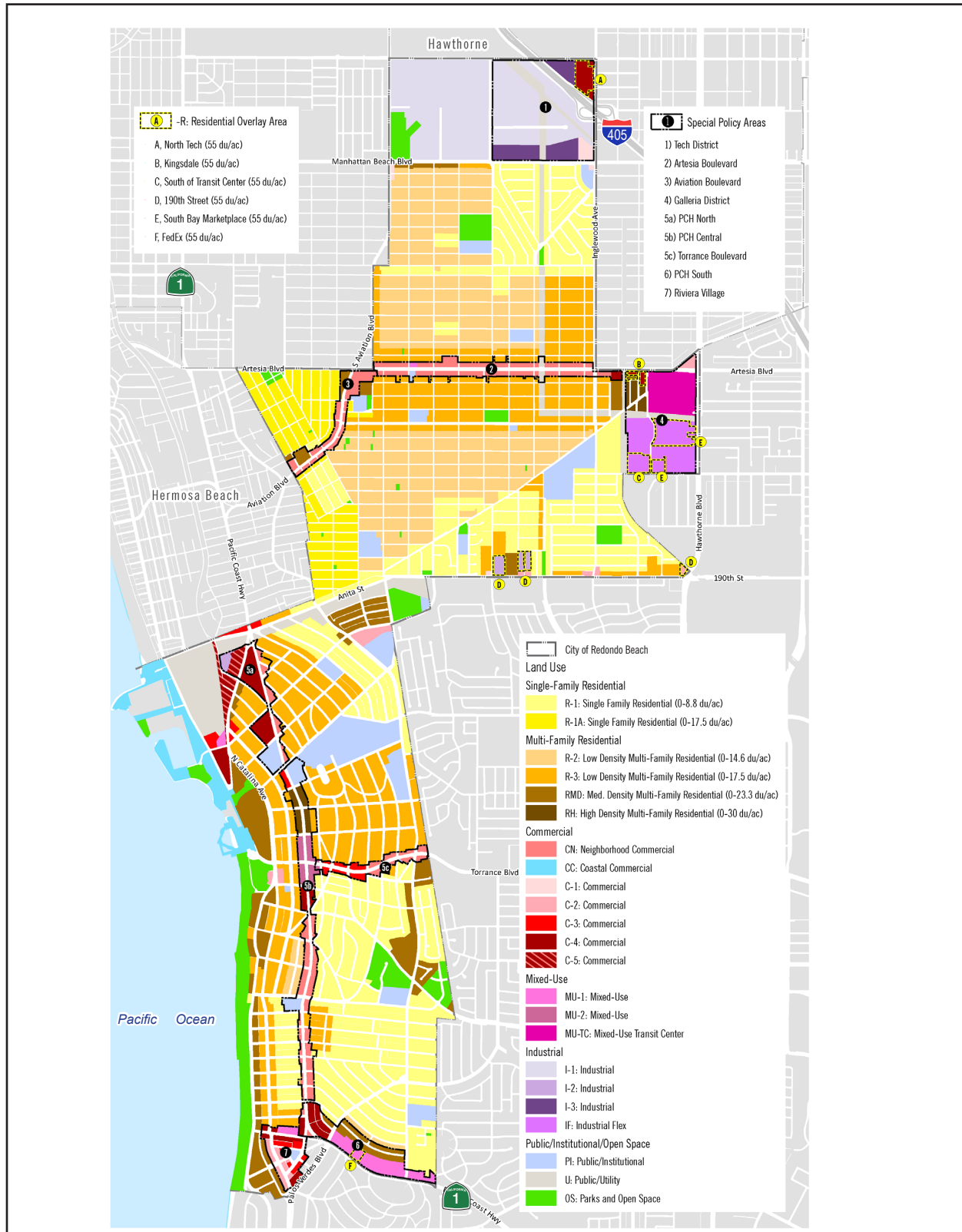


Source: City of Redondo Beach, 2023.

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Figure 3-5 - Proposed Land Use Plan



0 3,750
Scale (Feet)



Source: City of Redondo Beach and PlaceWorks, 2023.

PlaceWorks

3. Project Description

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3. Project Description

Proposed General Plan Buildout

Buildout projections represent development likely to occur based on past trends and anticipated levels of density and intensity for each land use category. Table 3-4 reflects the amount of development anticipated by the 2050 planning horizon of the proposed General Plan and compares growth to existing conditions as summarized in Table 3-1. Table 3-4 shows the potential for housing units, nonresidential building square footage, and jobs that are likely to be generated by the proposed Land Use Plan (see Figure 3-5) (See Appendix B, *Buildout Methodology Memorandum*, Table 8. *Proposed Land Use Plan Anticipated Density and Intensity*). As shown in Table 3-4, the proposed land uses would result in an increase of 4,956 residential dwelling units (16 percent), 8,667 residents (12 percent), 5,681,999 square feet of non-residential development (48 percent), and 7,989 jobs (28 percent) compared to existing conditions.

Population increases are primarily located around housing element sites and planned projects, clustered within the residential overlay areas, integrated throughout the R-2 and R-3 zones, and located within major project areas like the South Bay Galleria (South Bay Social District). In addition to the primary growth areas, small increases in population were identified in mixed-use areas that have not been built to capacity and within residential neighborhoods to account for new accessory dwelling units and to reflect historical building trends where underdeveloped existing R-2 and R-3 lots are redeveloped per current allowable densities.

The greatest gains in employment were identified in areas where the allowable floor area ratio was raised including the Artesia Boulevard and Aviation Boulevard Special Policy Areas (SPA) and areas designated as I-1 and I-3 in the land use plan. Smaller amounts of growth were anticipated in other SPAs.

Table 3-4 Summary of Existing and Proposed Land Uses

Scenario	Acres	Number of Housing Units	Total Population	Nonresidential Square Feet	Employment ⁴ (Number of Jobs)
Existing Conditions	3,973	30,431 ¹	70,311 ²	11,826,277 ³	28,638
PROPOSED GENERAL PLAN (2050)					
Single-Family Residential					
R-1: Single Family Residential	747	5,493	12,141	203,477	992
R-1A: Single Family Residential (Small Lot)	122	1,886	4,232	1,373	4
Multi-Family Residential					
R-2: Multifamily Residential	472	6,609	14,770	-	-
R-3: Multifamily Residential	543	11,148	24,969	281,241	1,028
RMD: Multifamily Residential	146	5,894	13,222	25,957	91
RH: Multifamily Residential	13	396	889	69,374	315
Mixed Use⁵					
MU-1: Mixed-Use	23	701	1,572	537,906	1,076 H
MU-2: Mixed-Use	9	321	720	278,678	557

3. Project Description

Table 3-4 Summary of Existing and Proposed Land Uses

Scenario	Acres	Number of Housing Units	Total Population	Nonresidential Square Feet	Employment ⁴ (Number of Jobs)
MU-TC: Mixed-Use Transit Center	30	700	1,571	1,293,144	2,586
Housing Element Residential Overlays⁵					
A: North Tech (C-4-R)	8	180	404	106,747	305
B: Kingsdale (C-4-R & RH-R)	2	126	283	51,876	104
C: South of Transit Center (IF-R)	6	273	613	-	-
D: 190th Street (C-2-R & I-2-R)	8	331	743	14,036	23
E: South Bay Marketplace (IF-R)	17	486	1,090	246,147	656
F: FedEx (MU-1-R)	2	80	180	-	-
Commercial					
CN: Neighborhood Commercial	33	205	460	676,891	1,934
CN: Neighborhood Commercial (Artesia & Aviation Blvd SPAs)	47	58	130	2,052,851	5,903
C-1: Commercial	6	-	-	88,349	252
C-2: Commercial	17	-	-	301,061	907
C-3: Commercial	16	1	2	395,562	1,173
C-4: Commercial	39	17	38	1,114,704	3,185
C-5: Commercial	12	-	-	292,293	835
CC: Coastal Commercial	55	229	514	256,639	700
Industrial					
I-1: Industrial	206	-	-	6,925,087	8,742
I-2: Industrial	3	-	-	114,929	192
I-3: Industrial	26	-	-	835,611	1,393
IF: Industrial Flex	29	-	-	961,596	2,747
Public / Open Space					
PI: Public/Institutional	160	253	436	170,170	851
U: Utility	131	-	-	212,577	17
OS: Parks and Open Space	157	-	-	-	59
ROW: Right of Way	886	-	-	-	-
Total	3,973	35,387¹	78,978²	17,508,276³	36,627
Potential Growth	--	4,956 (16%)	8,667 (12%)	5,681,999 (48%)	7,989 (28%)

3. Project Description

Table 3-4 Summary of Existing and Proposed Land Uses

Scenario	Acres	Number of Housing Units	Total Population	Nonresidential Square Feet	Employment ⁴ (Number of Jobs)
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Source: General Plan Land Use Buildout Methodology, See Appendix B

Notes:

- ¹ Includes dwelling units, accessory dwelling units (ADUs) and assisted living units. Commercial designations with projected units, reflect: 1) parcels where existing residential uses are projected to remain, and 2) Project Homekey at 716 S. Pacific Coast Highway.
- ² Includes people living in dwelling units, ADUs, assisted living units, and group quarters (such as memory care facilities). Dwelling units are estimated to have a 95% occupancy rate with and 2.359 persons per household (occupied dwelling unit); ADUs are estimated to have an 89% occupancy rate and 1.98 persons per household; Assisted living facilities are estimated to have a 100% occupancy and 1.25 persons per household. Beds in group quarters are estimated to have a 100% occupancy rate and 1 person per bed (see Appendix B, Buildout Methodology).
- ³ Includes square-footage of commercial uses with group quarters (such as memory care facilities). Residential designations with projected non-residential building square footage estimates, reflect parcels where existing institutional and commercial uses are projected to remain through 2050.
- ⁴ Employment projections are derived by applying an employment generation rate to the non-residential square footage based on the projected use. See Appendix B, General Plan Buildout Methodology, Table 2, for employment generation rates and Section 3.5 for a discussion of how employment was projected. Residential designations that include projected employment estimates, reflect parcels where the existing institutional and commercial uses and associated jobs are projected to remain through 2050. Where existing uses were projected to remain, the employment generation rate used was consistent with the existing use; where redevelopment was anticipated, employment was projected consistent with the proposed general plan land use category. See Section 3.4 in Appendix B, General Plan Buildout Methodology for a description of where growth or redevelopment was anticipated.
- ⁵ See Appendix B, General Plan Buildout Methodology, Section 3.1 for a description of how residential growth was projected on housing element residential overlay sites and mixed-use areas and Section 3.4 for a description of how non-residential square footage was projected on each housing element overlay site and mixed use area. Employment projections are derived from applying an employment generation rate to the non-residential square footage as discussed in note 4.

Public Institutional (PI) Land Use Designation

The PI land use designation analyzed reasonable growth by 2050 at an FAR consistent with the proposed land use designation, existing conditions and known projects with an application and/or certified EIR at the time of the release of the Notice of Preparation (NOP) (See Appendix A). Growth for Beach Cities Health District was projected consistent with the site development plan/program for phases 1 and 2, as described in the project description of the 2021 certified Final Environmental Impact Report (SCH No. SCH Number 2019060258) in the buildout methodology for the General Plan Update, including the following assumptions (Phase 1: Assisted Living: 157 units (203,700 sf); Memory Care: 50,000 sf (120 beds); PACE: 14,000 sf; Community Services: 6,270 sf; Youth Wellness Center: 9,100 sf. Phase 2: Wellness Pavilion: 37,150 sf; Aquatics Center (indoor area): 24,000 sf; Center for Health and Fitness: 20,000 sf), resulting in a FAR of 0.85. Dwelling unit estimates in the PI land use category also include 96 existing assisting living units in the Kensington Facility at 801 S. Pacific Coast Highway. For detailed buildout methodology of the PI land use designation, refer to Appendix B.

Consistency with the Housing Element

The buildout of the proposed project is consistent with other elements of the General Plan update and includes growth in the areas identified in the certified Housing Element as suitable for housing development by 2029. The proposed project would accommodate 4,956 new housing units, which would include 2,490 new required units pursuant to RHNA. Table 3-5 below shows the number of units by proposed general plan land use designation and income category identified in the Housing Element Sites Inventory (see Appendix B of the Housing Element) relative to the total housing growth studied under the buildout of the proposed project. Changes in State law (SB 166 and SB 1333) require local jurisdictions to continue to monitor its ability to accommodate its RHNA as development occurs on available sites at an intensity or income level not consistent with the assumptions used in the Housing Element. To address this requirement, the City's sites inventory for RHNA includes a 10 percent buffer for the lower income RHNA.

3. Project Description

Table 3-5 Housing Element Sites Inventory Relative to Proposed Project Growth

Proposed General Plan Land Use	Existing Housing Units (2023)	Housing Element Sites Inventory to Accommodate RHNA Requirements (2021-2029)					Total Housing Growth Projected for Proposed Project (2023-2050)	Total Housing Units Projected for Proposed Project (Existing 2023 + Growth by 2050)
		Housing Site Category	Lower	Moderate	Above Moderate	Total Capacity in Sites Inventory (by 2029)		
R-2: Multifamily Residential	5,972	Residential Recycling ⁴	-	-	358	358	637	6,609
R-3: Multifamily Residential	10,546	CREDIT (Alcast Foundry) ³	-	-	36	593	602	11,148
		Residential Recycling ⁴	4	507	30			
		Housing on Church Properties ⁴	-	20 ⁷	-			
RMD: Multifamily Residential	5,879	Residential Recycling ⁴	-	14	-	14	15	5,894
RH: Multifamily Residential	263	Residential Recycling ⁵	-	63	-	85	106	396
		Housing on Church Properties ⁴	12	6 ⁷	-			
MU-1: Mixed-Use	159	CREDIT (Legado) ³	-	-	115	241	542	701
		Mixed Use Dev (MU-1) ⁶	104	22	-			
MU-2: Mixed-Use	42	Mixed Use Dev (MU-2) ⁴	-	51	-	51	279	321
MU-TC: Mixed-Use Transit Center	-	CREDIT (South Bay Galleria) ³	30	-	270	650	700	700
		South Bay Galleria Phase 2 ⁴	70	-	280			
A: North Tech (C-4-R)	-	Residential Overlay ⁶	35	-	140	175	180	180
B: Kingsdale (C-4-R & RH-R)	13	Residential Overlay ⁶	18	-	107	125	113	126
C: South of Transit Center (IF-R)	-	Residential Overlay ⁶	273	-	-	273	273	273
D: 190th Street (C-2-R & I-2-R)	-	Residential Overlay ⁶	331	-	-	331	331	331
E: South Bay Marketplace (IF-R)	-	Residential Overlay ⁶	486	-	-	486	486	486
F: FedEx (MU-1-R)	-	Residential Overlay ⁶	80	-	-	80	80	80
CN: Neighborhood Commercial	185	CREDIT (Moonstone/Project Homekey) ³	20	-	-	20	20	205
ADUs (distributed throughout residential neighborhoods)	n/a ²	Anticipated ADUs ³	144	14	82	240	624	624
Total	30,431^{1,2}	Units Accommodated in Housing Element	1,607	697	1,418	3,722	4,956¹	35,387¹
RHNA			1,444	490	556	2,490		
RHNA with 10% No Net Loss Buffer (Lower Income)			1,589	490	556	2,635		
Buffer Provided - additional units (percent over RHNA)			163 (11%)	207 (42%)	862 (155%)	1,232 (49%)		

1. The table only itemizes land use categories where housing element sites were identified. The totals for existing units, total housing unit growth, and total projected units, however, include estimates for All Land Use Categories in the City including the following categories that are not represented in the table (R-1, R-1a, CN – Artesia and Aviation Blvd. SPAs, C-3, C-4, CC, PI)
2. Existing ADUs are considered in the total number of units, but they were not itemized.
3. Units in this category are counted as credits toward the RHNA because they are ADUs or part of an entitled, approved or under review project (see Table H-42 in the Housing Element for details)
4. Units in this category do not require land use or zoning changes (see Tables H-43 and B-1 in the Housing Element for details)
5. RH Residential Recycling include 13 units that do not land use or zoning changes (see Tables H-43 and B-1 in the Housing Element for details) and 50 units that require land use and zoning changes (see Table B-2 in the Housing Element for details)
6. Units in this category require land use and zoning changes (see Tables H-43 and B-2 in the Housing Element for details)
7. Table H-43 in the Housing Element notes that R-3 land uses accommodate 26 moderate income units on church properties while RH land uses accommodate 0 moderate income units on the same. Table B-1 in the Housing Element shows R-3 land uses accommodating 20 moderate income units on church properties while RH land uses accommodate 6 moderate income units on church properties. In all cases, church properties accommodate a total of 26 moderate income units. This table reflects the R-3/RH division detailed in Table B-1 of the Housing Element.

3. Project Description

Special Policy Areas

The Land Use element has identified seven areas of the City that warrant special policy direction due to the role they play in the City, as a gateway, corridor, district, or activity center. The purpose of identifying these areas is to create additional policy direction to preserve or enhance the special character of these areas. Table 3-6 provides a summary of the special policy areas (SPA).

Table 3-6 Summary of Special Policy Areas

Special Policy Area	Policy Direction
North Redondo Tech District (SPA-1)	A thriving jobs center of innovation that has regional transit connectivity.
Artesia Boulevard (SPA-2)	An active and revitalized corridor that serves as the “main street” of North Redondo through the thoughtful implementation of placemaking, mobility, parking, land use, and economic development strategies.
Aviation Boulevard (SPA-3)	An active and revitalized corridor that provides local-serving commercial and office uses and prioritizes improvements that generate connectivity to the surrounding neighborhoods through thoughtful implementation of placemaking, mobility, parking, land use, and economic development strategies.
Galleria/South Bay Social District (SPA-4)	A mixed-use transit node that serves as a regional draw for commercial uses and a center for new innovative jobs and high-density housing.
North PCH (SPA-5a) Central PCH (SPA-5b) Torrance Boulevard (SPA-5c)	Corridors that are neighborhood serving and provide visual gateways, connectivity, and access into the City.
South PCH (SPA-6)	Maintain the South PCH corridor as a neighborhood-serving commercial district and the primary visitor-serving hospitality location in south Redondo with safe pedestrian and bicycle access to the Riviera Village and beaches.
Riviera Village (SPA-7)	Maintain Riviera Village as a low-density, local-serving commercial district that is identifiable as a distinct “village-like” environment characterized by a high level of pedestrian activity.

North Redondo Tech District (SPA-1). The North Redondo Tech District is envisioned as a transit-oriented, employment-generating industrial center of innovation in a campus like atmosphere that also incorporates supportive retail and hospitality uses adjacent to the freeway. On the north side of the freeway, south of Marine Ave., approximately 8.03 acres of the commercial area also allows for the possibility of new residential uses because it is also designated a Residential Overlay area, giving the property owner the option of incorporating high density and affordable housing within the existing commercial center. The Green Line Transit Station at Marine Avenue (at the northern edge of this SPA) provides a connection to a growing regional light rail network that is planned to be extended further south adjacent to the Galleria/South Bay Social District and onto a terminus near Torrance City Hall.

Artesia Boulevard (SPA-2): The Artesia Corridor will be the “Main Street” of North Redondo, providing an identifiable, safe, attractive, and inviting place to serve surrounding residents’ and visitors’ unique needs, while also fostering prosperous small businesses. The emphasis of future revitalization efforts will be to reorient the nature of the corridor from its current commuter orientation to uses that integrate with and support the surrounding residential neighborhoods. As the primary corridor that serves North Redondo, the uses in this

3. Project Description

area are predominantly commercial. Existing residential uses may remain, but no new residential or mixed-use (residential over retail) development will be permitted along the corridor. Artesia Boulevard corridor allows up to 1.50 FAR within the Artesia and Aviation Corridors Area Plan (AACAP). Preferred uses along Artesia Boulevard are restaurants with outdoor dining and office. Prioritization of uses on Artesia Boulevard is envisioned as:

- **West End: Aviation Boulevard to SCE Easement.** A mix of retail and office with an emphasis on retail (should be priority) and preferred uses of restaurant with outdoor dining and professional offices.
- **East End: SCE Easement toward Galleria/South Bay Social District.** Office uses will be strongly encouraged and prioritized in this segment to help transition auto-oriented uses from the Galleria to pedestrian-oriented uses along Artesia.

Aviation Boulevard (SPA-3). Aviation Boulevard includes a mix of unique and varied small businesses that provide service, office, retail, and restaurant uses. It is connected to the Artesia Corridor (separated by a neighborhood commercial shopping center at the intersection of Aviation and Artesia Boulevards) and contains two medium density multifamily (RMD) areas fronting the corridor: one at the corner of Artesia Boulevard and the other between Goodman and Stanford Avenues.

As part of the AACAP, it was determined that the character of Aviation Blvd should remain as a primarily small-scale, neighborhood-serving commercial district and that the multifamily residential was also an appropriate mix of uses for the area. As future development and revitalization occurs, the adopted AACAP will provide more detailed guidance to visually improve and activate the corridor and to link uses to the surrounding residential areas, similar to Artesia Boulevard.

Galleria/South Bay Social District (SPA-4). The Galleria/South Bay Social District Special Policy Area is envisioned as a transit-oriented center of commerce and creativity with a focus on regional commercial and residential uses on the Galleria/South Bay Social District site, industrial flex uses south of the existing Galleria Mall, and higher-density housing throughout in areas identified with a Residential Overlay designation. The Industrial Flex area is envisioned as an integrated mix of light industrial and commercial and/or office uses such as: commercial, research and development, incubator space, creative or technology-based businesses, offices, hotel, and supporting commercial uses.

A planned extension southward of the Green Line from Manhattan Beach Boulevard is anticipated to include a future Transit Station either within or adjacent to this SPA, which will provide a connection ultimately planned to extend further south with a terminus near Torrance City Hall. The area west of the existing Galleria Mall allows for a limited amount of high density residential, with more limited commercial uses fronting Artesia Blvd. Approximately 10.72 acres of the Industrial Flex area south of the existing Galleria Mall is also designated as a Residential Overlay Area, allowing for the option of developing the properties with residential uses including affordable housing.

North PCH (SPA-5a). Pacific Coast Highway (PCH) North will foster a mix of office and neighborhood commercial uses on both sides of PCH in support of the adjacent residential neighborhoods.

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PCH Central (SPA-5b). PCH Central is the Spine of South Redondo, projecting “Beach Town Vibes” with lower-profile buildings, identifiable, safe, attractive, and inviting places to serve residents’ and visitors’ unique needs, while also fostering prosperous small businesses.

Torrance Blvd (SPA-5c). Torrance Boulevard provides an eastern gateway into the City and serves as the entryway to the City’s pier and waterfront. A mix of smaller-scale, neighborhood-serving commercial uses are proposed at the eastern end of this corridor, with larger-scale, medical office and a mix of general commercial uses approaching Pacific Coast Hwy. Doing this will help to maintain the lower-scale commercial adjacent to the residential uses near Torrance Blvd in the eastern area (reflecting the existing scale of commercial) and allow for increases in commercial development where the larger medical offices exist, approaching the higher density residential and more intense commercial uses near PCH.

South PCH (SPA-6). PCH South is the southern gateway into the City and the entryway into the Riviera Village. PCH South projects a more urban version of the City’s “Beach Town Vibes” with higher-profile buildings, and attractive visitor serving hotels, restaurants, offices, and adjacent higher density residential that combine into identifiable, safe, attractive, and inviting places to serve residents’ and visitors’ unique needs, while also fostering prosperous small businesses.

Riviera Village (SP-7). Riviera Village has long been one of Redondo Beach’s most neighborhood-oriented and walkable mixed-use districts. Its pedestrian orientation, collection of small shops, restaurants and offices and low-rise buildings with sidewalk frontage all serve to create an active village character. At its core, Riviera Village has a small town “main street” feel with a continuous line of shops fronting sidewalks and diagonal on-street parking. As the activity center of south Redondo Beach, the intent is to preserve and enhance the mix of community-serving uses, scale of development and overall character of Riviera Village to ensure it will be an appealing local gathering space in the future.

3.4.2.2 OPEN SPACE AND CONSERVATION ELEMENT

The combined Open Space and Conservation Element sets goals for Redondo Beach parks, public spaces, recreational facilities and programs, community events, and the conservation of natural resources. New General Plan policies aim to expand the types, locations, and amount of parks, open spaces, and public spaces available for use throughout the City, ensure that facilities meet the needs of residents of all ages and abilities, promote revitalization of the harbor, preserve and protect public viewpoints, and protect and expand the City’s natural resources, to support the City’s guiding principle of ensuring a high quality of life, both in areas of future change and established Redondo Beach neighborhoods.

In addition to protecting existing resources, there are several opportunities to reclaim and restore natural resources that were once present in the City but have been compromised or degraded by development. Reestablishing lost and diminished habitats is critical to reducing the impacts of global warming, fortifying the City against sea level rise, improving the sustainability of the City’s resources, and ensuring the preservation of the City’s native species.

3. Project Description

3.4.2.3 SAFETY ELEMENT

The Safety Element identifies potential natural and human-created hazards that could affect the City's residents, businesses, visitors, and services. The Safety element is divided into six sections that address required and supplementary issues, as identified in California Government Code Section 65302(g). The six sections include: emergency preparedness, response, and recovery; geologic and seismic hazards; flooding and sea level rise; hazardous materials; fire hazards; and additional climate change hazards. The safety element includes ten primary goals, with associated policies and implementation actions, that aim to minimize the effects of these hazards.

3.4.2.4 NOISE ELEMENT

The Noise Element identifies and assesses the community's existing noise environment and provides updated guidance and standards to proactively reduce noise and land use compatibility problems according to projected noise contours and noise measurements. The Element addresses key noise and vibration issues that include general community noise concerns, land use and noise compatibility standards, and stationary and mobile noise sources. The goals and policies in this Element provide the framework to achieve and maintain acceptable noise levels associated with various land uses and activities to support the existing regulations standards mitigating noise impacts.

3.4.2.5 ZONING ORDINANCE AND ZONING ORDINANCE FOR THE COASTAL ZONE UPDATES

Updates to the City's Zoning Ordinance and Zoning Ordinance for the Coastal Zone will include modifications for consistency with the proposed General Plan, recently adopted Housing Element, and in the context of State laws such as Senate Bills 35 and 330. Updates to the zoning ordinance are discussed below.

Zoning Ordinance Updates

The amendments to the Zoning Ordinance will codify the community's vision as established in the Focused General Plan Update process, facilitate the implementation of key General Plan concepts related to land use, and implement required Zoning Map changes and programs pursuant to the City's existing, Certified Housing Element. Table 3-7 summarizes the proposed amendments to the City's Zoning Map to align with the General Plan Update. Table 3-8 summarizes the Zoning Ordinance updates that are procedural, administrative, or required to formally align the City's Municipal Code with state laws that are already in effect, followed by a summary of the required amendments to the Zoning Ordinance text. Figure 3-6 depicts the existing zoning designations, and Figure 3-7 and Figure 3-8 show the proposed zoning designations for north and south Redondo Beach, respectively.

3. Project Description

Table 3-7 Summary of Zoning Map, Regulations and Standards Updates

Zone Update	Description and General Location of Map Changes	Requirement for Housing Element
Map Updates	Amendments to the zoning map align zoning designations on all properties with the land use map changes identified in the Focused General Plan Update.	Many of the map updates implement Housing Element Program 8
New Affordable Housing Overlay Zone	<p>The new affordable housing overlay (AHO) zone implements the residential overlay areas identified in the Land Use and Housing Elements including the following sites: North Tech, South of Transit Center, South Bay Marketplace, Kingsdale, 190th Street and FedEx.</p> <p>The AHO establishes a minimum density of 20 du/ac and a maximum of 55 du/ac, and requires that the minimum density established by the AHO prevail over any minimum density standards of the underlying zone.</p> <p>The AHO provides options to cluster development to incentivize housing production and allow for the preservation of existing uses.</p> <p>The AHO also allows for 100 percent residential projects as well as mixed use with residential and non-residential uses provided 50 percent or more of the total floor area for the proposed project is for residential uses.</p> <p>The AHO also provides additional incentives for projects that include at least 20 percent of units affordable to lower income households including an administrative design review process that is exempt from discretionary review, and a reduction in the amount of public open space a project must provide.</p>	Required to implement Housing Element Program 8
New Industrial Flex Overlay Zone	The new Industrial Flex Overlay zone provides standards allowing for an integrated mix of light industrial and commercial and/or office uses that contribute to the creation of a mixed-use transit node, serving as a regional draw for commercial uses and a center for new innovative jobs and high-density housing, as described in the Focused General Plan Update.	
Updates to Residential High (RH) zones	<p>Increase the allowable density in all Residential High (RH) zones from 28 du/ac to 30 du/ac.</p> <p>In the RH-3 zone establish a minimum density of 20 du/ac for all sites identified on Table B-2 of the Housing Element.</p>	Required to implement Housing Element Program 8 and 9
Updates to Regional Commercial (CR) zone	<p>The allowable density will decrease from 35 du/ac to 30 du/ac consistent with the MU-TC land use category identified in the Focused General Plan Update.</p> <p>This map change is located on the Galleria Mall project site, and is not anticipated to impact the entitled project or the number of affordable units planned as part of the entitled project.</p>	
Rename Mixed Use 2 zone	The Proposed General Plan eliminates the existing Mixed Use 2 (MU-2) land use category by combining it with the MU-1 land use category. To reflect this change the MU-2 zoning district will be renamed as MU-1a and the maximum density will be reduced from 35 to 30 du/acre, consistent with the General Plan.	
Eliminate Mixed Use 3b zone	The proposed General Plan eliminates all instances of MU-3b. This category will be removed	

3. Project Description

Table 3-7 Summary of Zoning Map, Regulations and Standards Updates

Zone Update	Description and General Location of Map Changes	Requirement for Housing Element
Updates to Mixed Use 3a and 3c zones	<p>The proposed General Plan redesignates several existing MU-3 areas as MU-1, and reduces the allowable density from 35 to 30 du/ac.</p> <p>These areas will be implemented by the MU-3a and MU-3c zones, which will be updated to reflect the change in density.</p> <p>This change was anticipated in the housing element and sites located in the MU-3a zone were identified on Table B-2 in anticipation of this zoning change to reduce the maximum density.</p> <p>A provision will also be added to the MU-3a zone to establish a minimum density of 20 du/ac for all sites identified on Table B-2 of the Housing Element.</p>	Changes to MU-3a Required to implement Housing Element Programs 8 and 9
Updates to C-2 and C-2-PD zones	<p>Within the Artesia and Aviation Corridors the allowable FAR will be adjusted from .60 FAR to 1.50 FAR.</p> <p>Additional uses, including kenneling, will be conditionally permitted in C-2 and C-2-PD zones, as stated in the Commercial Neighborhood (CN) Land Use Category identified in the General Plan Update.</p>	
Set FAR in I-1 and IC-1 zones to 1.0 FAR	The FAR in all I-1 and IC-1 zones will be set at 1.0 FAR.	
Public FARs will be revised as required to match General Plan Land Uses	<p>The FAR for P-PRO will be reduced to 0.20 FAR</p> <p>The FAR for P-RVP will be reduced to 0.75 FAR</p>	
Minimum Density for Housing Element Sites	New requirements for a minimum density of 20 dwelling units per acre for all sites identified in Table B-2 of the Housing Element that are used to satisfy low or very low income requirements as part of the City's Regional Housing Needs Allocation (RHNA). (these are described under the applicable zones above).	Required to implement Housing Element Program 8 and 9
Permitted Uses	<p>Specifically allow employee housing, supportive housing, and transitional housing as a residential use, subject to the same standards as other residential uses, in all districts where residential uses are allowed.</p> <p>Establish Special Use Regulations for supportive housing.</p>	Required to implement Housing Element Program 13
Permitted Uses	<p>Specifically allow low barrier navigation centers as permitted uses in all mixed-use zones and industrial or commercial zones where the Affordable Housing Overlay is applied.</p> <p>Establish Special Use Regulations for low barrier navigation centers.</p>	Required to implement Housing Element Program 13
Permitted Uses	<p>Conditionally allow Single Room Occupancy (SRO) housing in all C-4 zones.</p> <p>Establish Special Use Regulations for SROs.</p>	
Non-conforming uses	Provisions to allow for existing uses that may become non-conforming and existing non-conforming uses to remain and be rebuilt with the same number of units and square footage in specific instances.	

3. Project Description

Table 3-7 Summary of Zoning Map, Regulations and Standards Updates

Zone Update	Description and General Location of Map Changes	Requirement for Housing Element
Adjustments to Parking Requirements	<p>Parking standards for multi-family residential development will be changed from 2 spaces for each unit to 1 space for each studio/0-bedroom unit, 1.5 spaces for each 1-bedroom unit, and 2 spaces for each unit with 2 or more bedrooms.</p> <p>Parking requirements for Emergency Shelters will be established based on staffing levels only by changing the standard from one space for each 250 square feet of gross floor area, to one parking space per employee on site at the same time.</p> <p>Parking will not be required for permanent supportive housing within ½ mile of a major public transit stop.</p>	Required to implement Housing Element Program 13

Table 3-8 Administrative and Procedural Zoning Ordinance Updates to Align with State Laws

Zone Update	Description	Requirement for Housing Element
Administrative permitting of more types of housing and by-right approval for qualifying projects	<p>Increase the maximum size of multiple-family housing projects that are permitted administratively in multi-family zones from 3 units on a lot to 15 units.</p> <p>All projects identified as a reused site in Table B-1 or listed on Table B-2 of the Housing Element that provide capacity for units affordable to lower income households (including both low and very low categories) and provide at least 20 percent of units affordable to lower income households shall be permitted by right, exempt from discretionary review, subject to administrative design review and shall be approved if found compliant with objective standards.</p>	Required to implement Housing Element Programs 9 and 13
Definitions	<p>Updates to definitions and new definitions for several terms. The following terms have been added or updated to comply with State law: Employee housing; Family; Household;; Household, lower income; Low barrier navigation center; Residential care facility, limited; Single room occupancy (SRO) housing; Supportive housing; Target population; Transitional housing.</p> <p>The following terms have been added or updated to clarify the intent of other changes in the Zoning Ordinance: Affordable housing overlay (AHO) project; Affordable housing overlay (AHO) site; Floor area, gross; Mixed-use, horizontal; Mixed-use, vertical.</p>	Required to implement Housing Element Program 13
Density Bonus Update	Updates to the density bonus ordinance to align with State law.	Required to implement Housing Element Program 13
New Article to Address Replacement Housing	New requirements to provide replacement housing units consistent with State laws .	Required to implement Housing Element Program 10
Reasonable accommodation requirements	New regulations to implement reasonable accommodation requirements consistent with the Certified Housing Element.	Required to implement Housing Element Program 13

3. Project Description

Local Coastal Program

To implement the changes proposed by the Focused General Plan Update and the proposed Zoning Ordinance Update within the coastal zone, the City must also amend portions of both the Coastal Land Use Plan (CLUP) and Implementation Plan (IP) components of its Local Coastal Program (LCP).

Proposed changes to the CLUP include updates to the Land Use Map consistent with the Land Use Map in the Focused General Plan Update. Proposed changes to the IP will include updates to the Zoning Map within the Coastal Zone to implement the Focused General Plan Update and updates to the Zoning Ordinance for the Coastal Zone that largely mirror the changes described in the tables 3-7 and 3-8, above.

3.5 INTENDED USES OF THIS EIR

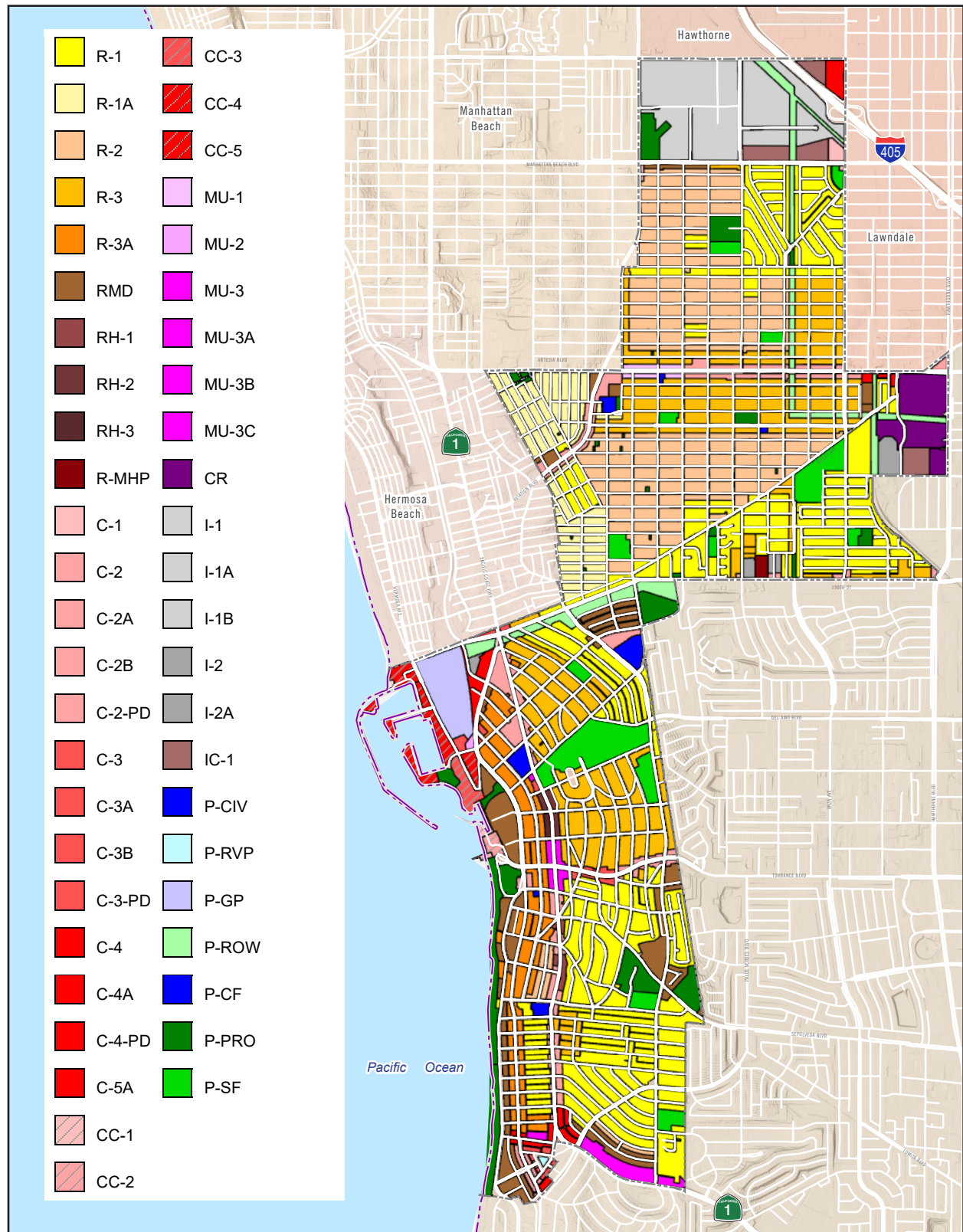
3.5.1 Project Approvals

This is a program EIR that examines the potential environmental impacts of the proposed project. This DEIR also addresses various actions by the City and others to adopt and implement the General Plan. It is the intent of the DEIR to evaluate the environmental impacts of the proposed project, thereby enabling the City of Redondo Beach, other responsible agencies, and interested parties to make informed decisions with respect to the requested entitlements. The anticipated approvals required for this project are included in Table 3-9, *Project Approvals Needed*.

Table 3-9 Project Approvals Needed

Lead Agency	Action
City of Redondo Beach City Council	<ul style="list-style-type: none">• Certification of the Program EIR• Adoption of the Redondo Beach General Plan Update• Adoption of the Findings of Fact and Statement of Overriding Considerations• Adoption of the Mitigation Monitoring Program• Adoption of any ordinances, guidelines, programs, actions, or other mechanisms that implement the Redondo Beach General Plan Update

Figure 3-6 - Existing Zoning



----- City of Redondo Beach

0 3,750
Scale (Feet)



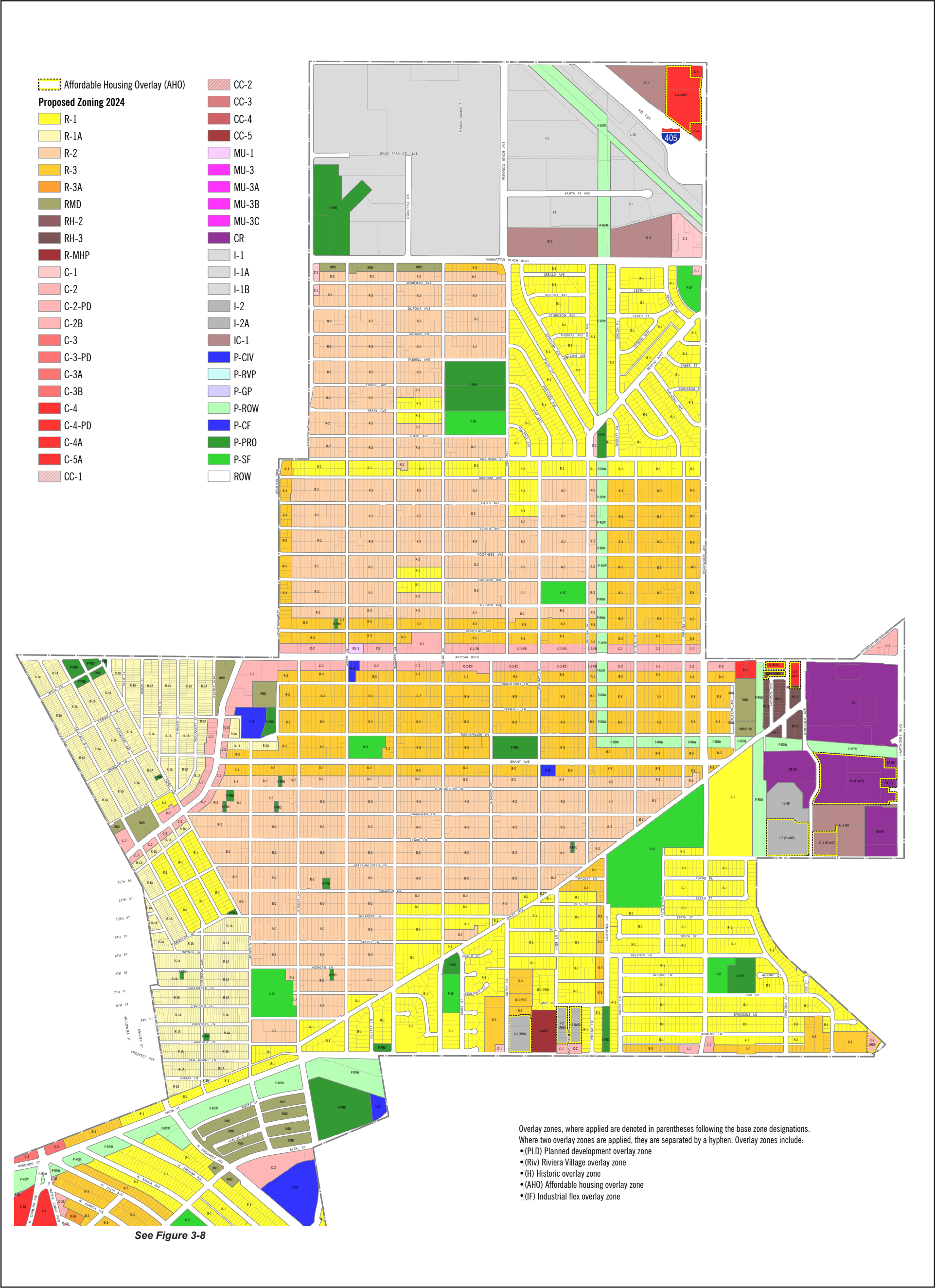
Source: City of Redondo Beach, 2023.

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3. Project Description

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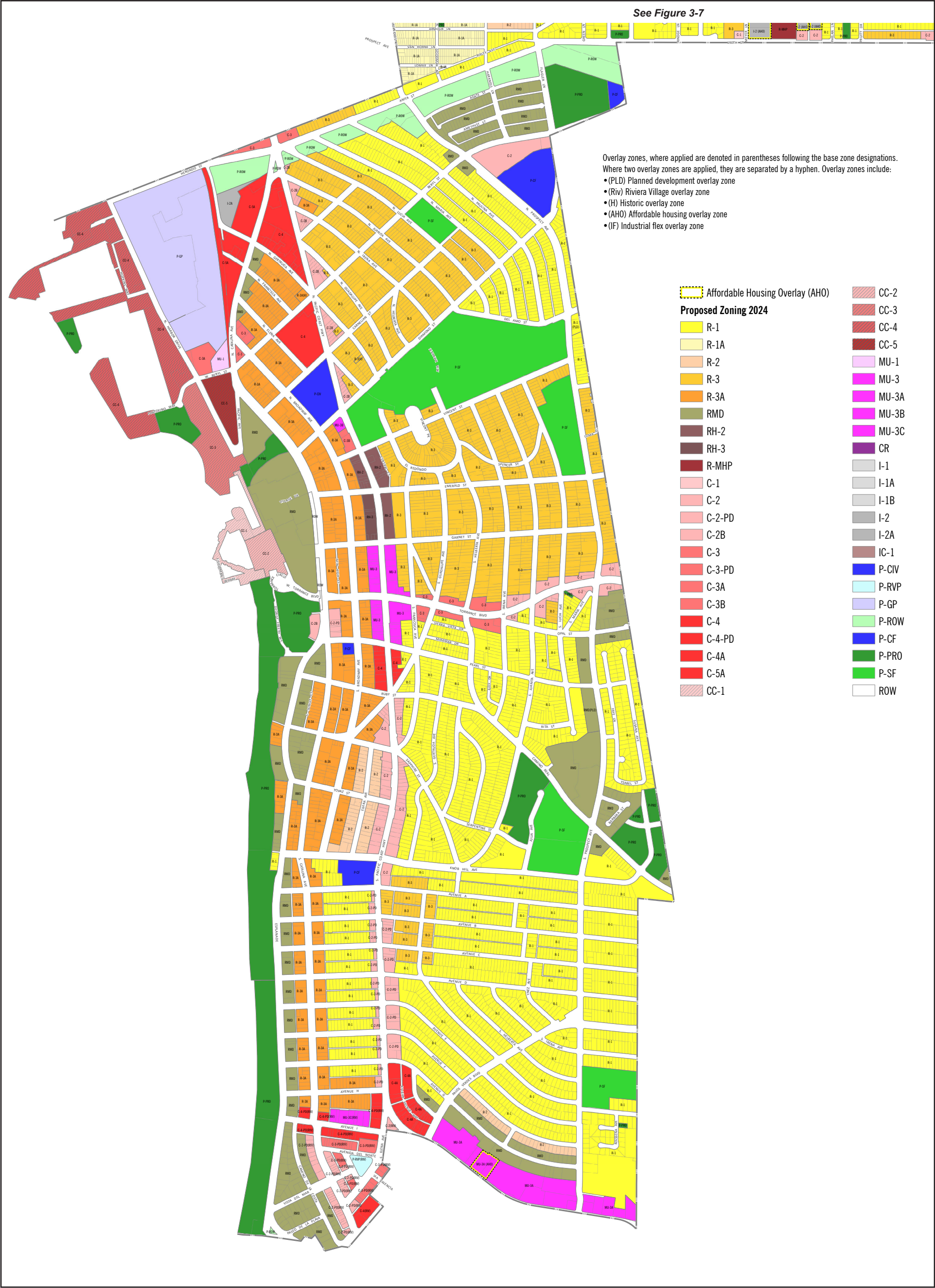
Figure 3-7 - Proposed Zoning Map North Redondo Beach



3. Project Description

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Figure 3-8 - Proposed Zoning Map South Redondo Beach



3. Project Description

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3. Project Description

3.5.2 Program EIR

This DEIR 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 on 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, as well as 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 an additional CEQA document 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]). If the agency finds that pursuant to Section 15162, no subsequent EIR would be required, the agency can approve the activity as being within the scope of the project covered by the program EIR, and no new environmental document would be required. Whether a later activity is within the scope of a program EIR is a factual question that the lead agency determines based on substantial evidence in the record. Factors that an agency may consider in making that determination include, but are not limited to, consistency of the later activity with the type of allowable land use, overall planned density and building intensity, geographic area analyzed for environmental impacts, and covered infrastructure, as described in the program EIR (Guidelines § 15168[c][2]). 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.
- 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])

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 City of Redondo Beach is a coastal city that lies in the South Bay region of Los Angeles County, California. It is bounded to the north by the cities of Hermosa Beach, Manhattan Beach, and El Segundo, to the east by Torrance and Lawndale, to the south by the Palos Verdes Peninsula, and to the west by the Pacific Ocean. Los Angeles County comprises approximately 4,751 square miles—4,058 square miles is land and 693 square miles is water—stretching approximately 70 miles along the coast.

The natural setting of Los Angeles County provides a combination of mountains, hills, flatlands, and shorelines. The Los Angeles River, Rio Hondo, Ballona Creek, the San Gabriel River, and the Santa Clara River flow in Los Angeles County, and the primary mountain ranges are the Santa Monica Mountains and the San Gabriel Mountains. The western extent of the Mojave Desert begins in the Antelope Valley, in the northeastern part of the County. Los Angeles County is divided west-to-east by the San Gabriel Mountains, which are contained mostly within the Angeles National Forest.

4.2.2 Regional Planning Considerations

4.2.2.1 SOUTHERN CALIFORNIA ASSOCIATION OF GOVERNMENTS

The Southern California Association of Governments (SCAG) is a council of governments representing Imperial, Los Angeles, Orange, Riverside, San Bernardino, and Ventura counties. SCAG is the federally recognized metropolitan planning organization for this region, which encompasses over 380,000 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.

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The 2024-2050 Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS) was adopted in April 2024. Major themes in the 2024 RTP/SCS include:

- Integrating strategies for land use and transportation.
- Striving for sustainability.
- Protecting and preserving existing transportation infrastructure.
- Increasing capacity through improved system management.
- Providing more transportation choices.
- Leveraging technology.
- Responding to demographic and housing market changes.
- Supporting commerce, economic growth, and opportunity.
- Promoting the links between public health, environmental protection, and economic opportunity.
- Incorporating the principles of social equity and environmental justice into the plan.

The RTP/SCS outlines a development pattern for the region that, when integrated with the transportation network and other transportation measures and policies, would reduce GHG emissions from transportation (excluding goods movement). The RTP/SCS is meant to provide growth strategies that will achieve the regional GHG emissions reduction targets identified by the California Air Resources Board (CARB). However, the RTP/SCS does not require that local general plans, specific plans, or zoning be consistent with the SCS; instead, it provides incentives to government and developers for consistency.

4.2.2.2 SOUTH COAST AIR BASIN AIR QUALITY MANAGEMENT PLAN

The City of Redondo Beach lies in the southern portion of the South Coast Air Basin (SoCAB), which is managed by the South Coast Air Quality Management District (AQMD). Pollutants emitted into the ambient air by stationary and mobile sources are regulated by federal and state law, and standards are detailed in the SoCAB Air Quality Management Plan (AQMP). Air pollutants for which ambient air quality standards (AAQS) have been developed are known as criteria air pollutants, including ozone (O_3), volatile organic compounds (VOC), nitrogen oxides (NO_x), sulfur dioxide, coarse inhalable particulate matter (PM_{10}), 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 O_3 , through chemical and photochemical reactions in the atmosphere. Air basins are classified as attainment/nonattainment areas for particular pollutants depending on whether they meet AAQS for that pollutant. Based on the SoCAB AQMP, the SoCAB is designated nonattainment for O_3 , $PM_{2.5}$, and lead (Los Angeles County only) under the California and National AAQS and nonattainment for NO_2 under the California AAQS.

4.2.2.3 GREENHOUSE GAS EMISSIONS REDUCTION LEGISLATION

Current State of California guidance and goals for reductions in GHG emissions are generally embodied in a number of State regulations. Executive Order S-03-05, signed June 1, 2005, set the following GHG reduction goals for the State of California:

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

Assembly Bill (AB) 32, the Global Warming Solutions Act (2006), was passed by the State legislature on August 31, 2006, to place the state on a course toward reducing its contribution of GHG emissions. AB 32 established a legislative target for the year 2020 goal outlined in Executive Order S-03-05. The California Air Resources Board (CARB) prepared its first Scoping Plan in 2008 that outlined the State's Plan for achieving the 2020 targets of AB 32.

In 2008, SB 375 was adopted to connect passenger-vehicle GHG emissions reduction targets for the transportation sector to local land use decisions that affect travel behavior. Its intent is to reduce GHG emissions from light-duty trucks and automobiles by aligning regional long-range transportation plans, investments, and housing allocations to local land use planning to reduce vehicle miles traveled (VMT) and vehicle trips.

In September 2016, Governor Brown signed Senate Bill (SB) 32, making the Executive Order B-15-30 goal for year 2030 of a 40 percent reduction below 1990 levels by 2030 into a statewide-mandated legislative target. CARB issued an update to its Scoping Plan in 2017, with programs for meeting the SB 32 reduction target.

On August 31, 2022, the California Legislature passed AB 1279, which requires California to achieve net-zero GHG emissions no later than 2045 and to achieve and maintain negative GHG emissions thereafter. Additionally, AB 1279 also establishes a GHG emissions reduction goal of 85 percent below 1990 levels by 2045. CARB will be required to update the scoping plan to identify and recommend measures to achieve the net-zero and GHG emissions-reduction goals.

4.2.2.4 SENATE BILL 743

On September 27, 2013, SB 743 was signed into law and started a process that has fundamentally changed transportation impact analysis for CEQA compliance. With the adoption of SB 375, the state signaled its commitment to encourage land use and transportation planning decisions and investments that reduce VMT and contribute to the reduction of GHG emissions, as required by the California Warming Solutions Act of 2006 (AB 32).

SB 743 generally eliminates auto delay, level of service, and other similar measures of vehicular capacity or traffic congestion as the basis for determining significant impacts under CEQA. Pursuant to the 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]).

Pursuant to SB 743, the Natural Resources Agency adopted revisions to the CEQA Guidelines to implement SB 743 on December 28, 2018. Under the new guidelines, VMT-related metric(s) that evaluate the significance of transportation-related impacts under CEQA for development projects, land use plans, and transportation infrastructure projects, were required beginning July 1, 2020. The legislation does not preclude the application of local general plan policies, zoning codes, conditions of approval, or any other planning requirements for

4. Environmental Setting

evaluation of level of service, but these metrics can no longer be the basis for determining transportation impacts under CEQA.

4.3 LOCAL ENVIRONMENTAL SETTING

4.3.1 Location and Land Use

The City of Redondo Beach (City) encompasses 3,970 acres (6.2 square miles). The City is bordered to the north by Hermosa Beach, Manhattan Beach, Hawthorne, and El Segundo; to the east by Torrance and Lawndale; to the south by the Palos Verdes peninsula; and to the west by the Pacific Ocean. The southwestern portion of the City stretches along approximately 2.6 miles of coastline between the border of Hermosa Beach to the north and Torrance Beach to the south. Interstate 405 (I-405), which runs north-south, passes through the northern portion of the City; State Route 107 (SR-107), which runs north-south, borders the northeastern portion of the City; and State Route 1 (SR-1), which also runs north-south, bisects the southern portion of the City.

The City is developed with a variety of land uses, including established residential neighborhoods, commercial corridors, public facilities, and parks.

- **Residential.** Residential uses are grouped into single-family units; and single-family residential, duplexes, townhomes, condominiums, and apartments.
- **Commercial.** This designation includes a range of nonresidential uses primarily oriented to commerce. This includes general commercial, light industrial and wholesale, office, regional-serving commercial and ancillary, day care uses and coastal- and recreation-oriented commercial uses.
- **Mixed-Use.** This includes a mix of uses grouped within a development (residential, office, commercial, retail, etc.)
- **Industrial.** These land uses include light industrial, research and development, aerospace, supporting commercial (e.g., restaurants, banks, copiers, and similar uses), office park, and manufacturing.
- **Public.** This designation includes governmental administrative and capital facilities, parks, schools, libraries, hospitals and associated medical offices/uses, public cultural facilities, public open space, and conservation areas, utility easements, and other public uses.

Table 3-1, Existing Land Use Summary and Figure 3-3, *Existing Land Use Map*, in Chapter 3, *Project Description*, show the distribution of existing land uses and the number of housing units, households, population, nonresidential square footage, and jobs in Redondo Beach. Figure 3-4 shows the current General Plan land uses, and Figure 3-5 depicts proposed General Plan land uses. The City of Redondo Beach is predominantly built out with very few vacant sites available to accommodate future land use changes requiring the City to look at very select areas to accommodate new uses.

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4.4 ASSUMPTIONS REGARDING CUMULATIVE IMPACTS

Section 15130 of the CEQA Guidelines states that cumulative impacts shall be discussed when the 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 project alone. Section 15355 of the CEQA Guidelines defines cumulative impacts as "...two or more individual effects which, when considered together, as considerable or which compound or increase other environmental impacts." Cumulative impacts represent the changes caused by the incremental impact of a project when added to the proposed or committed projects in the vicinity.

The CEQA Guidelines (Section 15130[b][1]) state that the information used in an analysis of cumulative impacts should come from one of two sources:

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

Depending on the environmental topic, the cumulative impact analysis may use either method 1 or 2. The cumulative impacts analyses in this Program DEIR use method 2. Consistent with Section 15130(b)(1)(B) of the CEQA Guidelines, this DEIR analyzes the environmental impacts of future development in accordance with the buildout assumptions of the proposed land use plan (See Appendix B, Buildout Methodology, Table 8. *Proposed Land Use Plan Anticipated Density and Intensity*). As a result, this DEIR addresses the cumulative impacts of development in the City of Redondo Beach. Cumulative impacts that have the potential to extend beyond the City boundaries (e.g., traffic, air quality, noise) have been addressed through cumulative growth in the City and region. As discussed below, regional growth outside Redondo Beach is accounted for in the traffic, air quality, and noise impacts. The growth projections of the City and of the surrounding area are used for the cumulative impact analyses of this DEIR. Refer to Chapter 5, *Environmental Analysis*, for a discussion of the cumulative impacts associated with development and growth in the City and region, and Chapter 7, *Impacts Found Not to Be Significant*, for a discussion of impacts not found to be significant, for each environmental resource topic. A summary of the extent of cumulative impacts by environmental topic is as follows:

- **Aesthetics.** Coterminous with the City of Redondo Beach boundary.
- **Air Quality.** Based on the regional boundaries of the South Coast Air Basin.
- **Biological Resources.** Coterminous with the City of Redondo Beach boundary but considers regional habitat loss in southern California based on the range of the protected species.
- **Cultural Resources.** Coterminous with the City of Redondo Beach boundary.
- **Energy.** Based on energy use within the City of Redondo Beach boundary.
- **Geology and Soils.** Within the City of Redondo Beach boundary.

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- **Greenhouse Gas Emissions.** Worldwide impacts based on the emissions sectors in the Scoping Plan in California (boundary).
- **Hazards and Hazardous Materials.** Within the City of Redondo Beach boundary.
- **Hydrology and Water Quality.** Hydrology and water quality impacts would be within the West Basin Municipal Water District, and the flood impacts would be within the City of Redondo Beach boundary.
- **Land Use and Planning.** Within the City of Redondo Beach boundary but considers regional land use planning based on SCAG.
- **Noise.** Within the City Redondo Beach boundary, but also considers regional transportation improvements and regional growth projections identified by SCAG.
- **Population and Housing.** Within the City of Redondo Beach boundary.
- **Public Services.** Within the service area boundaries of Redondo Beach Fire Department, Redondo Beach Police Department, Redondo Beach Unified School District, and Redondo Beach Public Library.
- **Recreation.** Within the City of Redondo Beach boundary.
- **Transportation.** Within the City of Redondo Beach boundary and the South Bay Cities Council of Governments (SBCCOG) Region, but also considers regional transportation improvements and regional growth projections identified by SCAG.
- **Tribal Cultural Resources.** Within the City of Redondo Beach boundary.
- **Utilities and Service Systems.** Impacts would be within the service areas of Athena Services Waste Hauler, California Water Service–Hermosa-Redondo District, Metropolitan Water District of Southern California, Southern California Edison, and SoCalGas.
- **Wildfire.** Within the service area boundary of the Redondo Beach Fire Department.

5. Environmental Analysis

This chapter examines the regulatory and environmental setting of the proposed project, describes applicable policies of the Redondo Beach Focused General Plan Update, Zoning Ordinance Updates, and Local Coastal Program Amendments (proposed project), analyzes its effects and the significance of its impacts, and recommends mitigation measures to reduce or avoid impacts where necessary. This chapter has a separate section for each environmental issue area that was determined to need further study in the DEIR. This scope was determined in the Notice of Preparation (NOP), which was published June 1, 2023 (see Appendix A), and through public and agency comments received during the NOP comment period from June 1, 2023, to June 30, 2023 (see Appendix A). As described in the NOP the City determined that three environmental categories were found to have impacts that are less than significant: Agriculture and Forestry, Mineral Resources, and Wildfire. The rest of the categories were found to have at least one potentially significant impact and have been evaluated in the EIR. 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

Sections 5.1 through 5.17 provide a detailed discussion of the environmental setting, impacts associated with the proposed project, and mitigation measures designed to reduce significant impacts where required and when feasible. The residual impacts following the implementation of any mitigation measure are also discussed.

5. Environmental Analysis

Organization of Environmental Analysis

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

- Environmental Setting
 - Regulatory Background
 - Existing Conditions
- Thresholds of Significance
- Proposed General Plan Goals and Policies
- Environmental Impacts
 - Methodology
 - Impact Analysis
- Cumulative Impacts
- Level of Significance Before Mitigation
- Mitigation Measures
- Level 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 Program EIR

The level of significance is identified for each impact in this Draft Program Environmental Impact Report (DEIR). 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.

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5.1 AESTHETICS

This section of the Draft Program Environmental Impact Report (Draft EIR) discusses the potential impacts to the visual character of the City of Redondo Beach from implementation of the Redondo Beach Focused General Plan, Zoning Ordinance Updates, and Local Coastal Program Amendment (proposed project), including scenic vistas, scenic resources, consistency with policies and programs related to visual resources, and light and glare.

5.1.1 Environmental Setting

5.1.1.1 REGULATORY BACKGROUND

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, that constitute extensive additions not covered by the International Building Code that have been adopted to address particular California concerns.

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.

Local

City of Redondo Beach General Plan

The current General Plan's Recreation and Parks Element includes several goals and policies that address aesthetics, scenic resources, and the visual environment of recreational areas and facilities within the Coastal Zone and other parts of the City within the Coastal Zone. The current General Plan's Land Use Element also includes design and development goals and policies that aim to convey the visual character of development of various land uses and streetscapes within the City.

City of Redondo Beach Municipal Code

The City of Redondo Beach Municipal Code, Title 10, Planning and Zoning Code, identifies the types of permitted land uses on all parcels throughout the various assigned districts. The Planning and Zoning Code identifies applicable use regulations, criteria for site development, performance standards including lighting regulations, and design regulations. These criteria, standards, and regulations include specifications for lot size,

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setbacks, open space, density, height, lighting, landscaped areas, fencing, building design, and parking for each of the zoning districts.

Landscaping Regulations

Section 10.7, Landscaping Regulations, of the Planning and Zoning Code establishes standards for installation of landscaping in order to enhance the aesthetic appearance of properties within the City, improve compatibility between land uses, effect a functional and attractive design, and preserve the character of existing neighborhoods, among others. These guidelines and landscaping standards are for development projects for which a landscape plan is required.

Tree Protection and Preservation

Section 5.11 of the Sanitation and Health Code establishes tree protection and preservation for trees located on City owned properties. The City defines trees as an aesthetic resource that help define character and provide many social, economic, and environmental benefits. The protection of trees preserves scenic beauty, prevents soil erosion, provides shade and wind protection and serves as a natural buffer between land uses. Guidelines and policies are set forth to protect the removal of mature trees, maintain and mitigate hazards and overall enforcement of tree protection.

Environmental Review Pursuant to CEQA

Title 10, Chapter 3, Environmental Review Pursuant to CEQA, of the Redondo Beach Municipal Code establishes the specific procedures necessary to implement CEQA. Article 2, Evaluation of Significant Effects, establishes criteria for determining significant effects and provides guidance in making an evaluation whether or not a particular project may have a substantial adverse effect on the environment. Pursuant to the Municipal Code, if there are inconsistencies between the provisions contained in Title 10, Chapter 3, and the State's CEQA Guidelines, the State's CEQA Guidelines shall control. As established in Section 10-3.202, significant effects may be due to primary consequences immediately related to the project or may be due to secondary consequences related more to the primary consequences than the project itself. As established in Section 10-3.203(b), with respect to aesthetics, a project will normally have a significant effect on the environment if it will have a substantial, demonstrable negative aesthetic effect.

City of Redondo Beach Objective Residential Standards

The Objective Residential Standards (standards) (adopted August 2023) addresses topics that were not included in the former Residential Design Guidelines. One important goal of these standards is to provide a straightforward criteria that reflect the community's interest in maintaining neighborhood character and ensure new or renovated residential buildings are compatible with existing development. In 2017, the State of California adopted a series of housing bills to address the housing shortage across the state. The bills encourage housing affordability and streamlined processes for residential projects. Objective design and development standards allow cities to review the design of new residential housing projects ministerially.

Guidelines are also set to support architectural design that is compatible with an established "character" of the surrounding existing neighborhood. Unlike standards, these guidelines are not enforceable but are intended to encourage developers and homeowners to consider options for their home additions or new developments that

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reflect an established identified neighborhood defining design feature or elements. The standards and guidelines support six goals; streamline the planning review process for residential projects, encourage housing that fits its surroundings, capture opportunities for new or updated housing in single-family and multi-family neighborhoods, define design priorities for the R-1A, maintain the general scale of neighborhoods and the character of those that retain a prevailing architectural style that unifies them and provide a summary of accessory dwelling unit requirements.

The standards apply to all new residential projects in the single-family and multiple-family residential zones. The standards and design guidelines include, but are not limited to, provisions reducing paved surfaces; reducing the potential impacts of building height, mezzanines, and roof decks; encouraging high quality design; and reducing the impacts of garages on the street frontage.

City of Redondo Beach Coastal Land use Plan

The California Coastal Commission first certified the City of Redondo Beach Coastal Land Use Plan (LUP) on June 18, 1981, and was last amended in 2019. The LUP contains land use policies and designations that identify land uses and intensities to guide future development in the City's Local Coastal Zone. The LUP policies are designed to protect coastal access and coastal resources and to ensure that development is carried out in a manner consistent with the Coastal Act.

Specific Plans

Specific plans allow for flexibility in design and customized development standards tailored to specific needs and conditions. As specified by the California Government Code, a specific plan must be consistent with the General Plan and must respond to all the required General Plan topics to the extent that they apply to the area in question. The following are existing and proposed specific plans in the City:

- Harbor/Civic Center Specific Plan 2008 adopted

5.1.1.2 EXISTING CONDITIONS

Visual Character

The City of Redondo Beach is an urban coastal city that enjoys a variety of visual resources with the Pacific Ocean bordering the southwest portion of the City and the bluffs of the Palos Verdes Peninsula located to the south. The City's beaches, harbor, and pier in particular are the most notable visual landmarks of the City and are all public resources. Redondo Beach is surrounded by developed municipalities to the north, south, and east, including the cities of Hermosa Beach, Manhattan Beach, El Segundo, Torrance, Lawndale, Palos Verdes Estates and Rancho Palos Verdes. The City is primarily built out; the intensity and scale of the City's urbanization is evident when viewing the City from a distance. The City's primary arterial corridors are SR-1, which runs generally north-south and crosses the southwestern part of the City, and I-405, a north-south freeway that passes through the northeastern corner of the City. Approximately 2.4 miles of the southwestern portion of the City borders the Pacific Ocean. The beach area consists of approximately 1.4 linear miles of uninterrupted expanse of sand south of the Municipal Pier which varies in width according to season and tidal conditions. About two-thirds of this portion of the City's coastline is open to direct public view from the

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Esplanade and Veterans Park, which varies in elevation above the beach along its length, offering unique vantage points for viewing the beach and ocean and activities taking place on them.

Visual Landmarks

A landmark can be any prominent 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. Like the beaches, the Municipal Pier is one of the most identifiable landmarks in the City. Located between the marina and the County beaches to the south, the Pier is a unique public space that provides benches and overlooks to scenic resources. The King Harbor area and related commercial recreation facilities occupy approximately 48 acres of land, deck, and water area north of the beach. King Harbor is formed by a complex of marinas, fishing piers, restaurants, hotels, and retail shops. To many local residents and nonresidents, King Harbor is the predominant “image” of the City of Redondo Beach. The boardwalk is primarily a pathway for bikers, walkers, and joggers that connects the Pier to King Harbor. The seawall extends from the boardwalk to the north, connecting the Pier, boardwalk, and coastal plazas to Seaside Lagoon, one of the City’s regional parks.

Scenic Vistas and Corridors

A scenic vista is generally considered a viewpoint that provides expansive views of a highly valued landscape for the benefit of the general public. Panoramic views are usually associated with vantage points over a section of urban or natural area that provides a geographic orientation not commonly available. Because of the hilly topography of the southern portion of the City and the inland location of the northern portion of the City, the beach and ocean can only be viewed from a limited geographic area of the community. The Esplanade is a City-owned multimodal seaside trail that parallels the County beach from Veterans Park to the City’s southern boundary. This amenity provides pedestrian access between the community and the beaches. The Esplanade provides viewing access to the City’s coastal bluffs and bluff habitat areas.

Light and Glare

Sources of light and glare in the City include buildings (interior and exterior), security, sign illumination, and parking-area lighting. Other sources of nighttime light and glare include streetlights and vehicular traffic along roadways. Because the City is adjacent to urbanized cities, including Hermosa Beach, Manhattan Beach, and El Segundo to the north; Torrance and Lawndale to the east; and Torrance, Palos Verdes Estates, and Rancho Palos Verdes to the south, ambient light in the community is impacted by the adjacent land uses. However, Redondo Beach is guarded from excessive light spillover by the bluffs of the Palos Verdes Peninsula to the south, allowing for clear day and nighttime views. Similarly, to the north and east of the City are communities that include vacant land and natural open space, allowing for clear day and nighttime views.

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5.1.2 Thresholds of Significance

Appendix G of the CEQA Guidelines states that, “except as provided in Public Resources Code Section 21099,” a project would normally have a significant effect on the environment if the project would:

- AE-1 Have a substantial adverse effect on a scenic vista.
- AE-2 Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway.
- AE-3 In nonurbanized 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.

5.1.3 Proposed General Plan Goals and Policies

Land Use Element

Goal LU-1 Balance: A sustainable community with a range of land uses that meet the diverse needs of Redondo Beach residents, offer a variety of employment, commercial, recreational, and housing opportunities that make it possible for people of all ages and abilities to live, work, recreate, and maintain a high quality of life in Redondo Beach.

- **Policy LU-1.1 Balanced Land Use Pattern.** Preserve existing residential neighborhoods, while balancing development trends and state mandates, and provide for enhancement of focused planning areas to improve community activity and identity.
- **Policy LU-1.11 Creation And Distribution of Parkland.** Promote the creation of new open space and community serving amenities throughout Redondo Beach to achieve minimum parkland standards and to keep pace with the increase in multi-unit housing development. This policy includes specific prioritization of opportunities at the current power plant site and powerline right of ways. Additionally, the City will prioritize opportunities for parkland expansion in park-deficient areas.
- **Policy LU-1.12 Coastal Community.** Provide land uses which reflect and capitalize on the City's location along the Southern California coastline. Accommodate coastal-related recreation and commercial uses which serve the needs of residents and visitors and are attractive and compatible with adjacent residential neighborhoods and commercial districts.

Goal LU-2 Identity: A dynamic, progressive containing self-sufficient, health-oriented, neighborhoods and commercial districts that foster a positive sense of identity and belonging among residents, visitors, and businesses.

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- **Policy LU-2.1 Beach Culture.** Ensure that new development and reuse projects protect existing Redondo Beach culture and identity and preserve and recognize unique neighborhoods and areas as the building blocks and character defining elements of the community.
- **Policy LU-2.2 Design Quality.** Establish the expectation that new projects will exhibit a high level of design quality that is sensitive to and compatible with its adjacent neighborhoods and results in public spaces, outdoor dining, streetscapes, and developments that are attractive, safe, functional, distinct, and respectful of the architectural history of Redondo.
- **Policy LU-2.3 Context-sensitive Development.** Design new projects to be compatible with adjacent residential structures and other areas designated for other categories of use provided that no substantial adverse impacts will occur.
- **Policy LU-2.4 City Image.** Encourage land uses, development projects (public and private), and public art installations that promote the City's image, identity, and history as a cultural, governmental, and business-friendly regional center.
- **Policy LU-2.5 Unique gateways.** Celebrate the unique gateways to Redondo Beach by enhancing them with landscape treatments, signage, art, or specialized roadway treatments.
- **Policy LU-2.6 Unique architectural design.** Encourage the use of unique architectural features, facades, and outdoor spaces within Special Policy Areas to create distinctive districts in Redondo Beach.

Goal LU-3 Compatibility: Preserve and improve the character and integrity of existing neighborhoods and districts.

- **Policy LU-3.2 Context-Aware and Appropriate Building Design.** We require appropriate building and site design that complements existing development and provides appropriate transitions and connections between adjacent uses to ensure compatibility of scale, maintain an appropriate level of privacy for each use, and minimize potential conflicts. For mixed-use (commercial and residential) require structures be designed to mitigate potential conflicts between the commercial and residential uses and provide adequate amenities for residential occupants.
- **Policy LU-3.5 Quality Design.** Ensure new single and multi-family residential projects are consistent with the provisions outlined in City's Objective Residential Standards and non-residential development along Artesia and Aviation Boulevards is consistent with the design guidance and policies within the AACAP.
- **Policy LU-3.8 Corridor Connectivity.** Recognize corridors as important cross-town thoroughfares that connect Redondo Beach, serve as transitions between neighborhoods, provide opportunities for local/neighborhood-serving retail and balance the needs of multiple transportation modes. Consider mid-block pass through between parking areas within the corridors and between the corridors and adjacent residential neighborhoods. Specifically target power line and transportation rights of way as pedestrian and

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bicycle corridors to connect amenities across the City and in nearby communities. Work with neighboring communities to integrate and connect these pedestrian and bicycle corridors across city boundaries.

Goal LU-4 Health and Vitality: A vibrant community that supports the healthy and active lifestyles of residents and visitors.

- **Policy LU-4.3 Coastal Amenities.** Promote and enhance the City's coastal amenities such as its beaches, King Harbor and the Redondo Beach Pier that serve as landmarks and distinguishing features unique to the City and also provide coastal access and coastal recreational opportunities for the community at large.

Goal LU-5 Environmental Sustainability: An environmentally aware community that utilizes tools, strategies and approaches that protect and minimizes the impacts to the City's environmental resources.

- **Policy LU-5.7 Preserve and Expand Native Habitat and Encourage Use of Native Plants for Landscaping.** Continue to support the expansion of native bluff habitat along the Esplanade. Continue to support reestablishment of native habitat in Wilderness Park. Continue to pursue wetlands and native habitat restoration at the power plant site and the adjacent powerline corridor. Ensure connectivity of native habitat, particularly habitat for the endangered El Segundo blue butterfly, with Torrance and Hermosa Beach. Redefine city plant and tree palettes to prioritize native plants. Apply the strategies and approaches to fund and incentivize expansion of native habitat and plants throughout the City on both public and private property.

Goal LU-7 Historic Preservation: Historic buildings, streets. Landscapes and neighborhoods as well as the story of Redondo Beach's people, businesses

- **Policy LU-7.2 Protect designated landmarks and districts.** Continue to use the Certificate of Appropriateness process for reviewing applications to demolish or alter designated landmarks and for projects within designated historic districts and in proximity to landmark properties.

Open Space and Conservation Element

Goals OS-1 Quantity, Location, and Access: A comprehensive, accessible, and well-balanced network of high-quality parks, public spaces, and recreational facilities that enhances the livability, wellness, and connectivity of the community.

- **Policy OS-1.9 Urban Greening.** Improve access routes to parks and recreational facilities through urban greening programs that enhance the City's urban forest, provide shade, and incorporate best practices for sustainable landscaping emphasizing drought tolerant native plants and conservation.
- **Policy OS-1.10 Regional Trails.** Coordinate with neighboring jurisdictions and other agencies to connect new and existing parks and public spaces to other desirable destinations beyond City boundaries via pedestrian, bicycle, and other urban trails that are part of the larger regional trail network, including the Manhattan and Hermosa Beach Greenbelt and the Strand bicycle and pedestrian connections, creating a greenbelt to the sea.

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Goal OS-3 Prominent Public Viewpoints: Prominent public viewpoints and scenic vistas are preserved, maintained and enhanced for public enjoyment.

- **Policy OS-3.2 Building and Site Design.** Massing, height, and orientation of new development that could impact a prominent public viewpoint should be sited and designed so it does not obstruct the identified prominent public viewpoint.
- **Policy OS-3.5 Light Pollution.** Preserve skyward nighttime views and lessen glare by requiring outdoor fixtures on public and private property be fully-shielded, located only where necessary, designed to provide the correct amount of light, and use long-wavelength fixtures minimizing lighting level.

5.1.4 Environmental Impacts

5.1.4.1 METHODOLOGY

The evaluation of aesthetics and aesthetic impacts is highly subjective, yet it must objectively identify the visual features of the existing environment and their importance. The characterization of aesthetics involves establishing existing visual character, including resources and scenic vistas unique to the project area. Visual resources are determined by identifying existing landforms (e.g., topography and grading), views (e.g., scenic resources such as natural features or urban characteristics), viewing points/locations, and existing light and glare (e.g., nighttime illumination). Changes to the existing aesthetic environment that would result from implementation of the proposed project are identified and qualitatively evaluated based on the proposed modifications to the existing setting and the viewer's sensitivity. It should be noted, however, that there are no locally designated or defined standards or methodologies for the assessment of aesthetic impacts. The evaluation of aesthetic impacts is evaluated in part by the following scenic vistas within the project area:

- **Ocean views** which border the southwest portion of the City and the bluffs of the Palos Verdes Peninsula located to the south, can be seen from vantage points throughout the City due to its hilly topography.
- **Beach views** border the southwest portion of the City and can be seen along the Municipal Pier that is a unique public space that provides benches and pathways that overlook the beaches. The Esplanade is a City-owned multimodal seaside trail that parallels the County beach from Veterans Park to the City's southern boundary. This amenity provides pedestrian access between the community and the beaches. The Esplanade provides viewing access to the City's coastal bluffs and bluff habitat areas.

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5.1.4.2 IMPACT ANALYSIS

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

Impact 5.1-1: The proposed project would not alter the visual appearance or damage scenic vistas of the City of Redondo Beach. [Thresholds AE-1]

Because of the hilly topography of the southern portion of the City and the inland location of the northern portion of the City, the beach and ocean can only be viewed from a limited geographic area of the community. Future development facilitated by the proposed project could alter the appearance of the existing conditions as changes under the proposed project would be primarily to existing buildings and the reuse of properties. Future development facilitated by the proposed project would not occur in protected open space areas, including beaches and coastal bluffs, and thus would not affect scenic vistas from associated vantage points. Development would primarily be located around housing element sites and planned projects, clustered within the residential overlay areas, integrated throughout the R-2 and R-3 zones, and located within major project areas like the South Bay Galleria (South Bay Social District), areas where the allowable floor area ratio was raised including the Artesia Boulevard and Aviation Boulevard Special Policy Areas (SPA) and areas designated as I-1 and I-3 in the proposed land use plan. Regulatory compliance with development standards under the City's Municipal Code, such as height and setback requirements, as well as the City's commercial and residential design standards and guidelines, would guide future development characteristics and ensure consistency and compatibility. Development standards and design guidelines would ensure that the visual appearance and existing scenic vistas in the City are not significantly adversely affected. The proposed General Plan update includes policies that would protect scenic resources, such as Policy LU-5.7, which calls for the preservation of open space that contains scenic value, and Policy LU-2.1, which aims to protect Redondo Beach culture preserving visual character and scenic value.

Therefore, the proposed project would not substantially impact the visual appearance or scenic resources in the City, and impacts would be less than significant.

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

Impact 5.1-2: The proposed project would not alter scenic resources within a state scenic highway. [Threshold AE-2]

There are no scenic highways within or near the City of Redondo Beach (Caltrans 2019). No eligible scenic highways run through the City limits. The nearest eligible scenic highway is along a segment of Highway 1 located approximately 10 miles north. Future development would not interfere with scenic resources within a state highway. The City's primary arterial corridors are SR-1, which runs generally north-south and crosses the southwestern part of the City, and I-405, a north-south freeway that passes through the northeast tip of the City. Additionally, SR-95 (Artesia Boulevard) which runs east-west through the northern region of the City and serves as north Redondo's major commercial corridor, is also not a scenic highway.

Therefore, impacts to scenic resources within a state scenic highway would be less than significant.

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Level of Significance Before Mitigation: Impact 5.1-2 would be less than significant.

Impact 5.1-3: Buildout in accordance with the proposed land use plan would alter the existing visual appearance of the City but would not substantially degrade its existing visual character or quality and would not conflict with applicable zoning and other regulations governing scenic quality. [Threshold AE-3]

The proposed project is a regulatory document that sets the framework for future growth and development in the City and does not directly result in development. The City of Redondo Beach is predominantly built out with very few vacant sites available to accommodate future land use changes, requiring the City to look at very select areas to accommodate new uses. As discussed in Chapter 3, *Project Description*, Table 3-6, *Summary of Special Policy Areas*, seven special policy areas have been identified in the Land Use Element that warrant special policy direction due to the role they play in the City. Policies targeted to these areas ensure the preservation and enhancement of the special character of these areas. Land use changes to these areas would occur where development currently exists and primarily focuses on the reuse or repurpose of underutilized sites. Changes to these special policy areas would not occur in protected areas such as the beaches. As discussed in Chapter 3, *Project Description* The amendments to the Zoning Ordinance will codify the community's vision as established in the Focused General Plan Update process, facilitate the implementation of key General Plan concepts related to land use, and implement required Zoning Map changes and programs pursuant to the City's existing, Certified Housing Element as discussed in Chapter 3, *Project Description*. Table 3-7, *Summary of Zoning Map, Regulations and Standards Updates*, in Chapter 3, *Project Description*, summarizes the proposed amendments to the City's Zoning Map to align with the General Plan Update. Table 3-8 *Administrative and Procedural Zoning Ordinance Updates to Align with State Laws*, summarizes the Zoning Ordinance updates that are procedural, administrative, or required to formally align the City's Municipal Code with state laws that are already in effect followed by a summary of the required amendments to the Zoning Ordinance text. Furthermore, to implement the changes proposed by the Focused General Plan Update and the proposed Zoning Ordinance Update within the coastal zone, the City must also amend portions of both the Coastal Land Use Plan (LUP) and Implementation Plan (IP) of its Local Coastal Program (LCP). Proposed changes to the LUP include updates to the Coastal Land Use Map consistent with the Land Use Map in the Focused General Plan Update. Proposed changes to the IP will include updates to the Zoning Map within the Coastal Zone to implement the Focused General Plan Update and updates to the Zoning Ordinance for the Coastal Zone that largely mirror the changes described in the tables 3-7 and 3-8, above.

Because the City is predominantly built out, redevelopment of sites would have the potential to alter the visual appearance of the City, but the design standards and Objective Residential Standards set by the City will ensure redevelopment would remain consistent with community expectations and would not substantially degrade the City's visual character or quality.

The proposed General Plan policies would ensure that future development would preserve and enhance the City of Redondo Beach's visual character and quality, such as, Policy LU-2.2 which aims to establish that any new projects are consistent and compatible with existing design quality, Policy LU-3.5 which ensures new projects are consistent with provisions and design policies outlined by the City, and Goal OS-3, would ensure that prominent public viewpoints and scenic vistas are preserved, maintained and enhanced for public

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enjoyment. Updates to the Zoning Code and LCP would involve land-use changes that would be consistent with the General Plan Update.

Moreover, any future development under the proposed General Plan would be required to comply with existing City regulations that maintain the City's character such as the City's development standards and commercial and residential design standards and guidelines. The development standards and design standards and guidelines would ensure that development under the proposed project would continue to be maintained and be compatible with the City's visual character. As such, impacts would be less than significant.

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

Impact 5.1-4: The proposed project would not generate substantial additional light and glare. [Threshold AE-4]

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

Sources of light in the City include building lighting (interior and exterior), security lighting, sign illumination, and parking area lighting. These sources of light and glare are mostly associated with the residential, commercial, and industrial uses in the City. Other sources of nighttime light and glare include streetlights, vehicular traffic along surrounding roadways, and ambient lighting from surrounding communities.

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 or vacant areas into residential or commercial uses would introduce new sources of light from windows, porches, security, parking areas, and landscaping. However, since the City is predominantly built out, new development would largely occur within areas where development already exists. In addition, future development and redevelopment projects in the City would be required to comply with City Municipal Code Section 10-2.912, which requires that outdoor lighting be designed to not adversely impact surrounding uses but also provide a sufficient level of illumination. The Objective Residential Standards also set standards regarding lighting. These standards ensure that adequate site lighting is provided while minimizing spill light and glare into surrounding properties. Policy OS-3.5 would also ensure that glare impacts would be reduced by requiring outdoor fixtures be fully shielded to prevent lighting up the sky rather than the ground. 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.

5.1.5 Cumulative Impacts

Cumulative aesthetic impacts are based on potential changes to visual quality in the City and surrounding area. Future development and redevelopment proposed under the proposed General Plan would remain consistent

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with the City's design standards. New sources of light and glare, as well as an overall increase in lighting levels, would be introduced with new development and redevelopment in the City. However, adherence to the proposed General Plan Goals and Policies, Zoning Code, and existing codes and regulations listed above would prevent the occurrence of any significant impacts related to aesthetics, visual character, or light and glare. Impacts of the proposed project on aesthetics are considered less than cumulatively considerable.

5.1.6 Level of Significance Before Mitigation

Upon implementation of regulatory requirements, and goals and policies from the proposed project, the following impacts would be less than significant: 5.1-1, 5.1-2, 5.1-3, and 5.1-4.

5.1.7 Mitigation Measures

No mitigation measures are required.

5.1.8 Level of Significance After Mitigation

All impacts would be less than significant.

5.1.9 References

California Department of Transportation (Caltrans). 2019. Scenic Highways: California State Scenic Highway. Accessed February 1, 2024. <https://dot.ca.gov/programs/design/lap-landscape-architecture-and-community-livability/lap-liv-i-scenic-highways>.

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5.2 AIR QUALITY

This section of the Draft Program Environmental Impact Report (DEIR) evaluates the potential impacts to air quality in a local and regional context from the updates to the General Plan, Zoning Ordinance, and Local Coastal Program (LCP) (proposed project). This evaluation is based on the methodology recommended by the South Coast Air Quality Management District (South Coast AQMD). Criteria air pollutant emissions modeling for the General Plan Update is included in Appendix C of this DEIR. Transportation-sector impacts are based on trip generation and vehicle miles traveled (VMT), as provided by Fehr & Peers (see Appendix C). Cumulative impacts related to air quality are based on the regional boundaries of the South Coast Air Basin (SoCAB).

5.2.1 Environmental Setting

5.2.1.1 AIR POLLUTANTS OF CONCERN

Criteria Air Pollutants

The pollutants emitted into the ambient air by stationary and mobile sources are categorized as primary and/or secondary pollutants. Primary air pollutants are emitted directly from sources. Carbon monoxide (CO), volatile organic compounds (VOC), nitrogen oxides (NO_x), sulfur dioxide (SO₂), coarse inhalable particulate matter (PM₁₀), fine inhalable particulate matter (PM_{2.5}), and lead (Pb) are primary air pollutants. Of these, CO, SO₂, nitrogen dioxide (NO₂), PM₁₀, and PM_{2.5} are “criteria air pollutants,” which means that ambient air quality standards (AAQS) have been established for them. VOC and NO_x are criteria pollutant precursors that form secondary criteria air pollutants through chemical and photochemical reactions in the atmosphere. Ozone (O₃) and NO₂ are the principal secondary pollutants.

Each of the primary and secondary criteria air pollutants and its known health effects are described below.

Carbon Monoxide (CO) is a colorless, odorless, toxic gas produced by incomplete combustion of carbon substances, such as gasoline or diesel fuel. CO is a primary criteria air pollutant. CO concentrations tend to be the highest during winter mornings with little to no wind, when surface-based inversions trap the pollutant at ground levels. Because CO is emitted directly from internal combustion, engines and motor vehicles operating at slow speeds are the primary source of CO in the SoCAB. The highest ambient CO concentrations are generally found near traffic-congested corridors and intersections. The primary adverse health effect associated with CO is interference with normal oxygen transfer to the blood, which may result in tissue oxygen deprivation (South Coast AQMD 2005, USEPA 2023a). The SoCAB is designated as being in attainment under the California AAQS and attainment (serious maintenance) under the National AAQS (CARB 2024a).

Nitrogen Oxides (NO_x) are a byproduct of fuel combustion and contribute to the formation of O₃, PM₁₀, and PM_{2.5}. The two major forms of NO_x are nitric oxide (NO) and nitrogen dioxide (NO₂). The principal form of NO₂ produced by combustion is NO, but NO reacts with oxygen to form NO₂, creating the mixture of NO and NO₂ commonly called NO_x. NO₂ acts as an acute irritant and, in equal concentrations, is more injurious than NO. At atmospheric concentrations, however, NO₂ is only potentially irritating. NO₂ absorbs blue light; the result is a brownish-red cast to the atmosphere and reduced visibility. NO₂ exposure concentrations near roadways are of particular concern for susceptible individuals, including asthmatics,

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children, and the elderly. Current scientific evidence links short-term NO₂ exposures, ranging from 30 minutes to 24 hours, with adverse respiratory effects, including airway inflammation in healthy people and increased respiratory symptoms in people with asthma. Also, studies show a connection between elevated short-term NO₂ concentrations and increased visits to emergency departments and hospital admissions for respiratory issues, especially asthma (South Coast AQMD 2005; USEPA 2023a). On February 21, 2019, the California Air Resources Board (CARB) approved the separation of the area that runs along the State Route 60 corridor through portions of Riverside, San Bernardino, and Los Angeles counties from the remainder of the SoCAB for state nonattainment designation purposes. The board designated this corridor as nonattainment. The remainder of the SoCAB is designated in attainment (maintenance) under the National AAQS and attainment under the California AAQS (CARB 2024a).

Sulfur Dioxide (SO₂) is a colorless, pungent, irritating gas formed by the combustion of sulfurous fossil fuels. It enters the atmosphere as a result of burning high-sulfur-content fuel oils and coal and chemical processes at plants and refineries. Gasoline and natural gas have very low sulfur content and do not release significant quantities of SO₂. When sulfur dioxide forms sulfates (SO₄) in the atmosphere, together these pollutants are referred to as sulfur oxides (SO_x). Thus, SO₂ is both a primary and secondary criteria air pollutant. At sufficiently high concentrations, SO₂ may irritate the upper respiratory tract. Current scientific evidence links short-term exposures to SO₂, ranging from 5 minutes to 24 hours, with an array of adverse respiratory effects, including bronchoconstriction and increased asthma symptoms. These effects are particularly adverse for asthmatics at elevated ventilation rates (e.g., while exercising or playing) at lower concentrations and when combined with particulates, SO₂ may do greater harm by injuring lung tissue. Studies also show a connection between short-term exposure and increased visits to emergency facilities and hospital admissions for respiratory illnesses, particularly in at-risk populations such as children, the elderly, and asthmatics (South Coast AQMD 2005; US EPA 2023a). The SoCAB is designated as attainment under the California and National AAQS (CARB 2024a).

Suspended Particulate Matter (PM₁₀ and PM_{2.5}) consists of finely divided solids or liquids such as soot, dust, aerosols, fumes, and mists. Two forms of fine particulates are now recognized and regulated. Inhalable coarse particles, or PM₁₀, include the particulate matter with an aerodynamic diameter of 10 microns (i.e., 10 millionths of a meter or 0.0004 inch) or less. Inhalable fine particles, or PM_{2.5}, have an aerodynamic diameter of 2.5 microns (i.e., 2.5 millionths of a meter or 0.0001 inch) or less. Particulate discharge into the atmosphere results primarily from industrial, agricultural, construction, and transportation activities. However, wind action on arid landscapes also contributes substantially to local particulate loading (i.e., fugitive dust). Both PM₁₀ and PM_{2.5} may adversely affect the human respiratory system, especially in people who are naturally sensitive or susceptible to breathing problems (South Coast AQMD 2005).

The US Environmental Protection Agency's (EPA) scientific review concluded that PM_{2.5}, which penetrates deeply into the lungs, is more likely than PM₁₀ to contribute to health effects and at concentrations that extend well below those allowed by the current PM₁₀ standards. These health effects include premature death and increased hospital admissions and emergency room visits (primarily the elderly and individuals with cardiopulmonary disease); increased respiratory symptoms and disease (children and individuals with cardiopulmonary disease such as asthma); decreased lung functions (particularly in children and individuals with asthma); and alterations in lung tissue and structure and in respiratory tract defense mechanisms (South Coast

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AQMD 2005). There has been emerging evidence that ultrafine particulates, which are even smaller particulates with an aerodynamic diameter of <0.1 microns or less (i.e., ≤ 0.0001 millimeter) have human health implications because their toxic components may initiate or facilitate biological processes that may lead to adverse effects to the heart, lungs, and other organs (South Coast AQMD 2013). However, the EPA and CARB have not adopted AAQS to regulate these particulates. Diesel particulate matter is classified by CARB as a carcinogen (CARB 2024d). Particulate matter can also cause environmental effects such as visibility impairment, environmental damage, and aesthetic damage (South Coast AQMD 2005; USEPA 2023a). The SoCAB is a nonattainment area for $PM_{2.5}$ under California and National AAQS and a nonattainment area for PM_{10} under the California AAQS (CARB 2024a).

Ozone (O_3) is a key ingredient of “smog” and is a gas that is formed when VOCs and NO_x , both by-products of internal combustion engine exhaust, undergo photochemical reactions in sunlight. O_3 is a secondary criteria air pollutant. O_3 concentrations are generally highest during the summer months when direct sunlight, light winds, and warm temperatures create favorable conditions for its formation. O_3 poses a health threat to those who already suffer from respiratory diseases as well as to healthy people. Breathing O_3 can trigger a variety of health problems, including chest pain, coughing, throat irritation, and congestion. It can worsen bronchitis, emphysema, and asthma. Ground-level O_3 also can reduce lung function and inflame the linings of the lungs. Repeated exposure may permanently scar lung tissue. O_3 also affects sensitive vegetation and ecosystems, including forests, parks, wildlife refuges, and wilderness areas. In particular, O_3 harms sensitive vegetation during the growing season (South Coast AQMD 2005; USEPA 2023a). The SoCAB is designated extreme nonattainment under the California AAQS (1-hour and 8-hour) and National AAQS (8-hour) (CARB 2024a).

Volatile Organic Compounds (VOC) are composed primarily of hydrogen and carbon atoms. Internal combustion associated with motor vehicle usage is the major source of VOCs. Other sources include evaporative emissions from paints and solvents, asphalt paving, and household consumer products such as aerosols (South Coast AQMD 2005). There are no AAQS for VOCs. However, because they contribute to the formation of O_3 , South Coast AQMD has established a significance threshold.

Lead (Pb) is a metal found naturally in the environment as well as in manufactured products. Once taken into the body, lead distributes throughout the body in the blood and accumulates in the bones. Depending on the level of exposure, lead can adversely affect the nervous system, kidney function, immune system, reproductive and developmental systems, and the cardiovascular system. Lead exposure also affects the oxygen-carrying capacity of the blood. The effects of lead most commonly encountered in current populations are neurological effects in children and cardiovascular effects in adults (e.g., high blood pressure and heart disease). Infants and young children are especially sensitive to even low levels of lead, which may contribute to behavioral problems, learning deficits, and lowered IQ (South Coast AQMD 2005; USEPA 2023a). The major sources of lead emissions have historically been mobile and industrial sources. As a result of the EPA’s regulatory efforts to remove lead from gasoline, emissions of lead from the transportation sector dramatically declined by 95 percent between 1980 and 1999, and levels of lead in the air decreased by 94 percent between 1980 and 1999.

Today, the highest levels of lead in air are usually found near lead smelters. The major sources of lead emissions today are ore and metals processing and piston-engine aircraft operating on leaded aviation gasoline. However, in 2008 the EPA and CARB adopted stricter lead standards, and special monitoring sites immediately downwind

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of lead sources recorded very localized violations of the new state and federal standards.¹ As a result of these violations, the Los Angeles County portion of the SoCAB is designated nonattainment under the National AAQS for lead (South Coast AQMD 2012; CARB 2024a). There are no lead-emitting sources associated with this project, and therefore, lead is not a pollutant of concern for the proposed project.

Table 5.2-1, *Criteria Air Pollutant Health Effects Summary*, summarizes the potential health effects associated with the criteria air pollutants.

Table 5.2-1 Criteria Air Pollutant Health Effects Summary

Pollutant	Health Effects	Examples of Sources
Carbon Monoxide (CO)	<ul style="list-style-type: none"> Chest pain in heart patients Headaches, nausea Reduced mental alertness Death at very high levels 	Any source that burns fuel such as cars, trucks, construction and farming equipment, and residential heaters and stoves
Ozone (O ₃)	<ul style="list-style-type: none"> Cough, chest tightness Difficulty taking a deep breath Worsened asthma symptoms Lung inflammation 	Atmospheric reaction of organic gases with nitrogen oxides in sunlight
Nitrogen Dioxide (NO ₂)	<ul style="list-style-type: none"> Increased response to allergens Aggravation of respiratory illness 	Same as carbon monoxide sources
Particulate Matter (PM ₁₀ and PM _{2.5})	<ul style="list-style-type: none"> Hospitalizations for worsened heart diseases Emergency room visits for asthma Premature death 	Cars and trucks (particularly diesels) Fireplaces and woodstoves Windblown dust from agriculture and construction
Sulfur Dioxide (SO ₂)	<ul style="list-style-type: none"> Aggravation of respiratory disease (e.g., asthma and emphysema) Reduced lung function 	Combustion of sulfur-containing fossil fuels, smelting of sulfur-bearing metal ores, and industrial processes
Lead (Pb)	<ul style="list-style-type: none"> Behavioral and learning disabilities in children Nervous system impairment 	Contaminated soil

Source: CARB 2024b.

Toxic Air Contaminants

People exposed to toxic air contaminants (TAC) at sufficient concentrations and durations may have an increased chance of getting cancer or experiencing other serious health effects. These health effects can include damage to the immune system as well as neurological, reproductive (e.g., reduced fertility), developmental, respiratory, and other health problems (USEPA 2023b). By the last update to the TAC list in December 1999, CARB had designated 244 compounds as TACs (CARB 1999). Additionally, CARB has implemented control measures for a number of compounds that pose high risks and show potential for effective control. There are no air quality standards for TACs. Instead, TAC impacts are evaluated by calculating the health risks associated

¹ Source-oriented monitors record concentrations of lead at lead-related industrial facilities in the SoCAB, which include Exide Technologies in the City of Commerce; Quemetco, Inc., in the City of Industry; Trojan Battery Company in Santa Fe Springs; and Exide Technologies in Vernon. Monitoring conducted between 2004 through 2007 showed that the Trojan Battery Company and Exide Technologies exceed the federal standards (South Coast AQMD 2012).

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with a given exposure. The majority of the estimated health risks from TACs can be attributed to relatively few compounds, the most relevant to the proposed project being particulate matter from diesel-fueled engines.

Diesel Particulate Matter

In 1998, CARB identified diesel particulate matter (DPM) as a TAC. Previously, the individual chemical compounds in diesel exhaust were considered TACs. Almost all diesel exhaust particles are 10 microns or less in diameter. Because of their extremely small size, these particles can be inhaled and eventually trapped in the bronchial and alveolar regions of the lungs. Long-term (chronic) inhalation of DPM is likely a lung cancer risk. Short-term (i.e., acute) exposure can cause irritation and inflammatory symptoms and may exacerbate existing allergies and asthma symptoms (USEPA 2002).

Community Risk

To reduce exposure to TACs, CARB developed and approved the *Air Quality and Land Use Handbook: A Community Health Perspective* (2005) to provide guidance regarding the siting of sensitive land uses in the vicinity of freeways, distribution centers, rail yards, ports, refineries, chrome-plating facilities, dry cleaners, and gasoline-dispensing facilities. This guidance document was developed to assess compatibility and associated health risks when siting sensitive receptors near existing pollution sources. CARB's recommendations were based on a compilation of studies that evaluated data on the adverse health effects from proximity to air pollution sources. The key observation in these studies was that proximity substantially increases exposure and the potential for adverse health effects. Three carcinogenic TACs constitute the majority of the known health risks from motor vehicle traffic—DPM from trucks and benzene and 1,3 butadiene from passenger vehicles. CARB recommendations are based on data that show that localized air pollution exposures can be reduced by as much as 80 percent by following CARB minimum distance separations.

In 2017, CARB provided a supplemental technical advisory to the handbook for near-roadway air pollution exposure, "Strategies to Reduce Air Pollution Exposure Near High-Volume Roadways" (CARB 2017). Strategies include practices and technologies that reduce traffic emissions, increase dispersion of traffic pollution (or the dilution of pollution in the air), or remove pollution from the air.

5.2.1.1 REGULATORY BACKGROUND

Ambient air quality standards 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 TACs. The proposed project is in the SoCAB and is subject to the rules and regulations imposed by the South Coast AQMD, the California AAQS adopted by CARB, and National AAQS adopted by the 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 and State

AAQS 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 TACs. The City of Redondo Beach is in the SoCAB and is subject to the rules and regulations imposed by the South Coast AQMD as well as the California AAQS adopted by CARB and National AAQS adopted by the EPA.

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Ambient Air Quality Standards

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

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

Both California and the federal government have established health-based AAQS for seven air pollutants. As shown in Table 5.2-2, *Ambient Air Quality Standards for Criteria Pollutants*, these pollutants are ozone (O₃), nitrogen dioxide (NO₂), carbon monoxide (CO), sulfur dioxide (SO₂), coarse inhalable particulate matter (PM₁₀), fine inhalable particulate matter (PM_{2.5}), and lead (Pb). In addition, the state has set standards for sulfates, hydrogen sulfide, vinyl chloride, and visibility-reducing particles. These standards are designed to protect the health and welfare of the populace with a reasonable margin of safety.

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Table 5.2-2 Ambient Air Quality Standards for Criteria Air Pollutants

Pollutant	Averaging Time	California Standard ¹	Federal Primary Standard ²	Major Pollutant Sources
Ozone (O ₃) ³	1 hour	0.09 ppm	*	Motor vehicles, paints, coatings, and solvents.
	8 hours	0.070 ppm	0.070 ppm	
Carbon Monoxide (CO)	1 hour	20 ppm	35 ppm	Internal combustion engines, primarily gasoline-powered motor vehicles.
	8 hours	9.0 ppm	9 ppm	
Nitrogen Dioxide (NO ₂)	Annual Arithmetic Mean	0.030 ppm	0.053 ppm	Motor vehicles, petroleum-refining operations, industrial sources, aircraft, ships, and railroads.
	1 hour	0.18 ppm	0.100 ppm	
Sulfur Dioxide (SO ₂)	Annual Arithmetic Mean	*	0.030 ppm	Fuel combustion, chemical plants, sulfur recovery plants, and metal processing.
	1 hour	0.25 ppm	0.075 ppm	
	24 hours	0.04 ppm	0.14 ppm	
Respirable Coarse Particulate Matter (PM ₁₀)	Annual Arithmetic Mean	20 µg/m ³	*	Dust and fume-producing construction, industrial, and agricultural operations, combustion, atmospheric photochemical reactions, and natural activities (e.g., wind-raised dust and ocean sprays).
	24 hours	50 µg/m ³	150 µg/m ³	
Respirable Fine Particulate Matter (PM _{2.5}) ⁴	Annual Arithmetic Mean	12 µg/m ³	9 µg/m ³	Dust and fume-producing construction, industrial, and agricultural operations, combustion, atmospheric photochemical reactions, and natural activities (e.g., wind-raised dust and ocean sprays).
	24 hours	*	35 µg/m ³	
Lead (Pb)	30-Day Average	1.5 µg/m ³	*	Present source: lead smelters, battery manufacturing & recycling facilities. Past source: combustion of leaded gasoline.
	Calendar Quarter	*	1.5 µg/m ³	
	Rolling 3-Month Average	*	0.15 µg/m ³	
Sulfates (SO ₄) ⁵	24 hours	25 µg/m ³	*	Industrial processes.
Visibility Reducing Particles	8 hours	ExCo = 0.23/km visibility of 10≥ miles	*	Visibility-reducing particles consist of suspended particulate matter, which is a complex mixture of tiny particles that consists of dry solid fragments, solid cores with liquid coatings, and small droplets of liquid. These particles vary greatly in shape, size and chemical composition, and can be made up of many different materials such as metals, soot, soil, dust, and salt.

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Table 5.2-2 Ambient Air Quality Standards for Criteria Air Pollutants

Pollutant	Averaging Time	California Standard ¹	Federal Primary Standard ²	Major Pollutant Sources
Hydrogen Sulfide	1 hour	0.03 ppm	*	Hydrogen sulfide (H ₂ S) is a colorless gas with the odor of rotten eggs. It is formed during bacterial decomposition of sulfur-containing organic substances. Also, it can be present in sewer gas and some natural gas, and can be emitted as the result of geothermal energy exploitation.
Vinyl Chloride	24 hours	0.01 ppm	*	Vinyl chloride (chloroethene), a chlorinated hydrocarbon, is a colorless gas with a mild, sweet odor. Most vinyl chloride is used to make polyvinyl chloride (PVC) plastic and vinyl products. Vinyl chloride has been detected near landfills, sewage plants, and hazardous waste sites, due to microbial breakdown of chlorinated solvents.

Source: CARB 2016.

Notes: ppm: parts per million; µg/m³: micrograms per cubic meter

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

¹ California standards for O₃, CO (except 8-hour Lake Tahoe), SO₂ (1 and 24 hour), NO₂, and particulate matter (PM₁₀, PM_{2.5}, and visibility reducing particles), are values that are not to be exceeded. All others are not to be equaled or exceeded. California ambient air quality standards are listed in the Table of Standards in Section 70200 of Title 17 of the California Code of Regulations.

² National standards (other than O₃, PM, and those based on annual arithmetic mean) are not to be exceeded more than once a year. The O₃ standard is attained when the fourth highest 8-hour concentration measured at each site in a year, averaged over three years, is equal to or less than the standard. For PM₁₀, the 24-hour standard is attained when the expected number of days per calendar year with a 24-hour average concentration above 150 µg/m³ is equal to or less than one. For PM_{2.5}, the 24-hour standard is attained when 98 percent of the daily concentrations, averaged over three years, are equal to or less than the standard.

³ On October 1, 2015, the national 8-hour ozone primary and secondary standards were lowered from 0.075 to 0.070 ppm.

⁴ On February 7, 2024, the national annual PM_{2.5} primary standard was lowered from 12 µg/m³ down to 9 µg/m³ (USEPA 2024). The national annual PM_{2.5} primary standard was previously lowered from 15 µg/m³ to 12.0 µg/m³ on December 14, 2012. The existing national 24-hour PM_{2.5} standards (primary and secondary) were retained at 35 µg/m³, as was the annual secondary standard of 15 µg/m³. The existing 24-hour PM₁₀ standards (primary and secondary) of 150 µg/m³ also were retained. The form of the annual primary and secondary standards is the annual mean, averaged over 3 years.

⁵ On June 2, 2010, a new 1-hour SO₂ standard was established and the existing 24-hour and annual primary standards were revoked. The 1-hour national standard is in units of parts per billion (ppb). California standards are in units of parts per million (ppm). To directly compare the 1-hour national standard to the California standard the units can be converted to ppm. In this case, the national standard of 75 ppb is identical to 0.075 ppm.

California has also adopted a host of other regulations that reduce criteria pollutant emissions:

- **Assembly Bill (AB) 1493: Pavley Fuel Efficiency Standards.** Pavley I is a clean-car standard that reduces greenhouse gas emissions from new passenger vehicles (light-duty auto to medium-duty vehicles) from 2009 through 2016. In January 2012, CARB approved the Advanced Clean Cars program (formerly known as Pavley II) for model years 2017 through 2025.
- **Senate Bill (SB) 1078 and SB 107: Renewables Portfolio Standards.** A major component of California's Renewable Energy Program is the renewables portfolio standard established under SB 1078 (Sher) and SB 107 (Simitian). Under the renewables portfolio standard, certain retail sellers of electricity were required to increase the amount of renewable energy each year by at least 1 percent to reach at least 20 percent by December 30, 2010.

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- **Heavy-Duty (Tractor-Trailer) Greenhouse Gas Regulation.** The tractors and trailers subject to this regulation must either use EPA SmartWay-certified tractors and trailers or retrofit their existing fleet with SmartWay-verified technologies. The regulation applies primarily to owners of 53-foot or longer box-type trailers, including both dry-van and refrigerated-van trailers, and owners of the heavy-duty tractors that pull them on California highways. These owners are responsible for replacing or retrofitting their affected vehicles with compliant aerodynamic technologies and low rolling resistance tires. Sleeper cab tractors model year 2011 and later must be SmartWay certified. All other tractors must use SmartWay-verified low-rolling-resistance tires. There are also requirements for trailers to have low-rolling-resistance tires and aerodynamic devices.
- **California Code of Regulations (CCR), Title 20: Appliance Energy Efficiency Standards.** The 2006 Appliance Efficiency Regulations (20 CCR §§ 1601–1608) were adopted by the California Energy Commission on October 11, 2006, and approved by the California Office of Administrative Law on December 14, 2006. The regulations include standards for both federally regulated appliances and non-federally regulated appliances.
- **24 CCR, Part 6: Building and Energy Efficiency Standards.** Energy conservation standards for new residential and nonresidential buildings adopted by the California Energy Resources Conservation and Development Commission (now the California Energy Commission) in June 1977.
- **24 CCR, Part 11: Green Building Standards Code.** Establishes planning and design standards for sustainable site development, energy efficiency (in excess of the California Energy Code requirements), water conservation, material conservation, and internal air contaminants.²

Tanner Air Toxics Act and Air Toxics Hot Spot Information and Assessment Act

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

California regulates TACs primarily through Assembly Bill (AB) 1807 (Tanner Air Toxics Act) and AB 2588 (Air Toxics “Hot Spot” Information and Assessment Act of 1987). The Tanner Air Toxics Act sets forth a formal procedure for CARB to designate substances as TACs. Once a TAC is identified, CARB adopts an “airborne toxics control measure” for sources that emit designated TACs. If there is a safe threshold for a substance (i.e., a point below which there is no toxic effect), the control measure must reduce exposure to below that threshold. If there is no safe threshold, the measure must incorporate toxics best available control

² The green building standards became mandatory in the 2010 edition of the code.

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technology to minimize emissions. To date, CARB has established formal control measures for 11 TACs that are identified as having no safe threshold.

Under AB 2588, TAC emissions from individual facilities are quantified and prioritized by the air quality management district or air pollution control district. High-priority facilities are required to perform a health risk assessment, and if specific thresholds are exceeded, are required to communicate the results to the public through notices and public meetings.

CARB has promulgated the following specific rules to limit TAC emissions:

- **13 CCR Chapter 10 § 2485: Airborne Toxic Control Measure to Limit Diesel-Fueled Commercial Motor Vehicle Idling.** Generally, restricts on-road diesel-powered commercial motor vehicles with a gross vehicle weight rating of greater than 10,000 pounds from idling more than five minutes.
- **13 CCR Chapter 10 § 2480: Airborne Toxic Control Measure to Limit School Bus Idling and Idling at Schools.** Generally, restricts a school bus or transit bus from idling for more than five minutes when within 100 feet of a school.
- **13 CCR § 2477 and Article 8: Airborne Toxic Control Measure for In-Use Diesel-Fueled Transport Refrigeration Units (TRU) and TRU Generator Sets and Facilities Where TRUs Operate.** Regulations established to control emissions associated with diesel-powered TRUs.

Regional

The state is divided into air pollution control districts/air quality management districts. These agencies are county or regional governing authorities that have primary responsibility for controlling air pollution from stationary sources. CARB and local air districts are also responsible for developing clean air plans to demonstrate how and when California will attain AAQS established under both the federal and California Clean Air Acts. For the areas in California that have not attained air quality standards, CARB works with air districts to develop and implement state and local attainment plans. In general, attainment plans contain a discussion of ambient air quality data and trends; a baseline emissions inventory; future year projections of emissions, which account for growth projections and already adopted control measures; a comprehensive control strategy of additional measures needed to reach attainment; an attainment demonstration, which generally involves complex modeling; and contingency measures. Plans may also include interim milestones for progress toward attainment. The SoCAB is managed by the South Coast AQMD.

Air Quality Management Planning

The South Coast AQMD is the agency responsible for improving air quality in the SoCAB and ensuring that the National and California AAQS are attained and maintained. South Coast AQMD is responsible for preparing the air quality management plan (AQMP) for the SoCAB in coordination with the Southern California Association of Governments (SCAG). Since 1979, a number of AQMPs have been prepared.

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2022 AQMP

South Coast AQMD adopted the 2022 AQMP on December 2, 2022, as an update to the 2017 AQMP. On October 1, 2015, the EPA strengthened the National AAQS for ground-level ozone, lowering the primary and secondary ozone standard levels to 70 parts per billion (ppb) (2015 Ozone National AAQS.). The SoCAB is currently classified as an “extreme” nonattainment for the 2015 Ozone National AAQS. Meeting the 2015 federal ozone standard requires reducing NO_x emissions, the key pollutant that creates ozone, by 67 percent more than is required by adopted rules and regulations in 2037. The only way to achieve the required NO_x reductions is through extensive use of zero emission (ZE) technologies across all stationary and mobile sources. South Coast AQMD’s primary authority is over stationary sources which account for approximately 20 percent of NO_x emissions. The overwhelming majority of NO_x emissions are from heavy-duty trucks, ships, and other State and federally regulated mobile sources that are mostly beyond the South Coast AQMD’s control. The region will not meet the standard absent significant federal action. In addition to federal action, the 2022 AQMP requires substantial reliance on future deployment of advanced technologies to meet the standard. The control strategy for the 2022 AQMP includes aggressive new regulations and the development of incentive programs to support early deployment of advanced technologies. The two key areas for incentive programs are (1) promoting widespread deployment of available ZE and low-NO_x technologies and (2) developing new ZE and ultra-low NO_x technologies for use in cases where the technology is not currently available. South Coast AQMD is prioritizing distribution of incentive funding in Environmental Justice (EJ) areas and seeking opportunities to focus benefits on the most disadvantaged communities (South Coast AQMD 2022).

South Coast AQMD PM_{2.5} Redesignation Request and Maintenance Plan

In 1997, the EPA adopted the 24-hour fine PM_{2.5} standard of 65 micrograms per cubic meter (µg/m³). In 2006, this standard was lowered to a more health-protective level of 35 µg/m³. The SoCAB is designated nonattainment for both the 65 and 35 µg/m³ 24-hour PM_{2.5} standards (24-hour PM_{2.5} standards). In 2020, monitored data demonstrated that the SoCAB attained both 24-hour PM_{2.5} standards. The South Coast AQMD has developed the “2021 Redesignation Request and Maintenance Plan” for the 1997 and 2006 24-hour PM_{2.5} Standards for the SoCAB PM_{2.5} Redesignation Request and Maintenance Plan, demonstrating that the SoCAB has met the requirements to be redesignated to attainment for the 24-hour PM_{2.5} standards (South Coast AQMD 2021a).

AB 617: Community Air Protection Program

AB 617 (C. Garcia, Chapter 136, Statutes of 2017) requires local air districts to monitor and implement air pollution control strategies that reduce localized air pollution in communities that bear the greatest burdens. In response to AB 617, CARB has established the Community Air Protection Program.

Air districts are required to host workshops to help identify disadvantaged communities that are disproportionately affected by poor air quality. Once the criteria for identifying the highest priority locations have been identified and the communities have been selected, new community monitoring systems would be installed to track and monitor community-specific air pollution goals. In 2018 CARB prepared an air monitoring plan (Community Air Protection Blueprint) that evaluates the availability and effectiveness of air monitoring technologies and existing community air monitoring networks. Under AB 617, the Blueprint is required to be updated every five years.

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Under AB 617, CARB is also required to prepare a statewide strategy to reduce TACs and criteria pollutants in impacted communities; provide a statewide clearinghouse for best available retrofit control technology; adopt new rules requiring the latest best available retrofit control technology for all criteria pollutants for which an area has not achieved attainment of California AAQS; and provide uniform, statewide reporting of emissions inventories. Air districts are required to adopt a community emissions reduction program to achieve reductions for the communities impacted by air pollution that CARB identifies.

Lead Implementation Plan

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

South Coast AQMD Rules and Regulations

All projects are subject to South Coast AQMD rules and regulations in effect at the time of activity, including:

- **Rule 401, Visible Emissions.** This rule is intended to prevent the discharge of pollutant emissions from an emissions source that results in visible emissions. Specifically, the rule prohibits the discharge of any air contaminant into the atmosphere by a person from any single source of emission for a period or periods aggregating more than three minutes in any one hour that is as dark as or darker than designated No. 1 on the Ringelmann Chart, as published by the US Bureau of Mines.
- **Rule 402, Nuisance.** This rule is intended to prevent the discharge of pollutant emissions from an emissions source that results in a public nuisance. Specifically, this rule prohibits any person from discharging quantities of air contaminants or other material from any source such that it would result in an injury, detriment, nuisance, or annoyance to any considerable number of persons or to the public. Additionally, the discharge of air contaminants would also be prohibited where it would endanger the comfort, repose, health, or safety of any number of persons or the public, or that 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 is intended to reduce the amount of particulate matter entrained in the ambient air as a result of anthropogenic (human-made) fugitive dust sources by requiring actions to prevent, reduce, or mitigate fugitive dust emissions. Rule 403 applies to any activity or human-made condition capable of generating fugitive dust and requires best available control measures to be applied to earth-moving and grading activities.

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- **Rule 445, Wood Burning Devices.** In general, the rule prohibits new developments from the installation of wood-burning devices. This rule is intended to reduce the emission of particulate matter from wood-burning devices and applies to manufacturers and sellers of wood-burning devices, commercial sellers of firewood, and property owners and tenants that operate a wood-burning device.
- **Rule 1113, Architectural Coatings.** This rule serves to limit the VOCs content of architectural coatings used on projects in the South Coast AQMD. Any person who supplies, sells, offers for sale, or manufactures any architectural coating for use on projects in the South Coast AQMD must comply with the current VOC standards set in this rule.
- **Rule 1403, Asbestos Emissions from Demolition/Renovation Activities.** The purpose of this rule is to specify work practice requirements to limit asbestos emissions from building demolition and renovation activities, including the removal and associated disturbance of asbestos-containing materials (ACM). The requirements for demolition and renovation activities include asbestos surveying, notification, ACM removal procedures and time schedules, ACM handling and clean-up procedures, and storage, disposal, and landfiling requirements for asbestos-containing waste materials. All operators are required to maintain records, including waste shipment records, and are required to use appropriate warning labels, signs, and markings.
- **Rule 2305, Warehouse Actions and Investments to Reduce Emissions (WAIRE) Program.** Rule 2305 applies to both the operators and owners of warehouses greater than or equal to 100,000 square feet in size, although most requirements apply to warehouse operators. Under Rule 2305, warehouse operations over 100,000 square feet are required to earn a specified number of WAIRE points using any combination of items from the WAIRE menu, implementation of a custom WAIRE plan, or payment of a mitigation fee. The amount of points every warehouse operator must earn annually depends on the number of truck trips to their warehouse during the 12-month compliance period. The WAIRE menu includes acquisition of or visits from near-zero-emissions and ZE on-road trucks, acquiring or using ZE yard trucks, installing or using ZE charging/fueling infrastructure, installing or using solar panels, or installing particulate filters for nearby sensitive land uses. Alternatively, an operator may choose to apply for a site-specific custom WAIRE plan that incorporates actions that are not on the WAIRE menu.

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Local

City of Redondo Beach General Plan

Utilities Element

The Redondo Beach General Plan includes the Utilities Element which describes the sewer, storm drainage, and water infrastructure in the city and contains goals, objectives, policies, and implementation programs that guide the City's management of these utilities. The Goal, Objective and Policy of the Utilities Element that are applicable to air quality impacts are listed below.

Goal 6D. Provide an adequate, safe, and orderly supply of electrical energy to support the various existing and future land uses and development intensities in the city. The services shall be provided and system operated in an ecologically-sensitive manner.

Objective 6.4 Work actively with the Southern California Edison Company (or any future purveyor of electricity to city) to ensure that adequate electrical facilities and capacities are available to meet the average daily and peak electrical energy needs of existing and future development in the city.

- **Policy 6.4.8.** Work with the Southern California Edison Company to ensure that their facilities and operations are provided in a manner that is compatible with adjacent and surrounding uses in the community. Continue to pursue and implement, where feasible, a program of mitigation measures to lessen the severity and occurrence of the impacts of these facilities relative to noise, air quality, etc.

Circulation Element

The Redondo Beach General Plan Transportation and Circulation Element provides goals and policies for transportation development. Relevant goals and policies of the Element related to air quality impacts include:

Goal: Coordinate land use and transportation.

Goal 6: Redondo Beach favors development that purposefully integrates itself with surrounding transportation facilities.

- **P1.** Support transit-oriented development that reduces current automobile trips.
- **P4.** Encourage mixed-use development that incentivizes residents to support nearby land uses by minimizing travel distances.

Goal: Pursue Transportation Demand Management (TDM).

G12: Encourage all employers to pursue successful TDM measures already demonstrated in South California.

- **P17.** Provide incentives for employer-based vanpools.

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- **P21.** Work with adjacent cities to coordinate incentives for carpools, vanpools, and other measures for Redondo Beach residents.

Goal: Pursue bicycle and pedestrian priorities

G13: Link existing and proposed facilities.

- **P23.** Focus on access at transit stations, the waterfront, South Bay Galleria, Artesia Boulevard, Riviera Village, Pacific Coast Highway retail zones, and school zones.

Goal: Pursue transit priorities

G16: Provide reliable, safe fixed-route transit.

- **P32.** Create multi-modal transit hubs.

City of Redondo Beach Municipal Code

The City of Redondo Beach Municipal Code, Title 4 Public Welfare, Morals, and Conduct, Chapter 4, Air Pollution, establishes policies to mitigate discharge of any smoke, dust, soot, or fumes within the city. Title 5 Sanitation and Health, Chapter 11, Tree Protection and Preservation, enforces tree protection to preserve the scenic beauty, prevent soil erosion, provide shade, and wind protection, serve as a natural buffer between adjacent land uses, and counteract air pollution. Title 10 Planning and Zoning, Chapter 2 Zoning and Land Use, Article 11, Transportation Demand Management Program, establishes requirements for new applicable developments to provide facilities and/or programs that encourage and accommodate the use of ridesharing, transit, and pedestrian and bicycle commuting as alternatives to single-occupant motor vehicle trips. A reduction in vehicle miles traveled can be expected to assist in reducing traffic congestion, air pollution, and energy consumption impacts. Title 4 Public Welfare, Morals, and Conduct, Chapter 10, Nuisances, protects the inhabitants of the city against all forms of nuisances, including noxious odors.

Title 10, Chapter 3, Environmental Review Pursuant to CEQA, of the Redondo Beach Municipal Code establishes the specific procedures necessary to implement CEQA. Article 2, Evaluation of Significant Effects, establishes criteria for determining significant effects and provides guidance in making an evaluation whether or not a particular project may have a substantial adverse effect on the environment. Pursuant to the Municipal Code, if there are inconsistencies between the provisions contained in Title 10, Chapter 3, and the State's CEQA Guidelines, the State's CEQA Guidelines shall control. As established in Section 10-3.202, significant effects may be due to primary consequences immediately related to the project or may be due to secondary consequences related more to the primary consequences than the project itself. As established in Section 10-3.203(x), with respect to air quality, a project will normally have a significant effect on the environment if it will violate any ambient air quality standard, contribute substantially to an existing or projected air quality violation, or expose sensitive receptors to substantial pollutant concentration;

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5.2.1.2 EXISTING CONDITIONS

South Coast Air Basin Meteorology

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

Temperature and Precipitation

The annual average temperature varies little throughout the SoCAB, ranging from the low to middle 60s in degrees Fahrenheit (°F). With a more pronounced oceanic influence, coastal areas show less variability in annual minimum and maximum temperatures than inland areas. In contrast to a very steady pattern of temperature, rainfall is seasonally and annually highly variable. Almost all rain falls from November to April.

Humidity

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

Wind

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

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

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

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Inversions

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

SoCAB Nonattainment Areas

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

- ***Unclassified.*** A pollutant is designated unclassified if the data are incomplete and do not support a designation of attainment or nonattainment.
- ***Attainment.*** A pollutant is in attainment if the AAQS for that pollutant was not violated at any site in the area during a three-year period.
- ***Nonattainment.*** A pollutant is in nonattainment if there was at least one violation of an AAQS for that pollutant in the area during a three-year period.
- ***Nonattainment/Transitional.*** A subcategory of the nonattainment designation. An area is designated nonattainment/transitional to signify that the area is close to attaining the AAQS for that pollutant.

The attainment status for the SoCAB is shown in Table 5.2-3, *Attainment Status of Criteria Air Pollutants in the South Coast Air Basin*.

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Table 5.2-3 Attainment Status of Criteria Air Pollutants in the South Coast Air Basin

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

Source: CARB 2024a.

¹ The SoCAB is pending a resignation request from nonattainment to attainment for the 24-hour federal PM_{2.5} standards. The 2021 PM_{2.5} Redesignation Request and Maintenance Plan demonstrates that the South Coast meets the requirements of the CAA to allow the EPA to redesignate the SoCAB to attainment for the 65 µg/m³ and 35 µg/m³ 24-hour PM_{2.5} standards. CARB will submit the 2021 PM_{2.5} Redesignation Request to the US EPA as a revision to the California SIP (CARB 2021).

² In 2010, the Los Angeles portion of the SoCAB was designated nonattainment for lead under the new 2008 federal AAQS as a result of large industrial emitters. Remaining areas for lead in the SoCAB are unclassified. However, lead concentrations in this nonattainment area have been below the level of the federal standard since December 2011 (South Coast AQMD 2012). CARB's SIP revision was submitted to the EPA for approval.

Existing Ambient Air Quality

Existing levels of ambient air quality and historical trends and projections in the vicinity of the project site are best documented by measurements taken by the South Coast AQMD. The city is located within Source Receptor Area (SRA) 3: Southwest Los Angeles County Coastal^{3,4} and the Los Angeles-Westchester Parkway Monitoring Station best represent the ambient air quality in the city. Data from this station includes O₃, NO₂, and PM₁₀, and data for PM_{2.5} was supplemented from the Compton-700 North Bullis Road Monitoring Station. As shown in Table 5.2-4, *Ambient Air Quality Monitoring Summary*, the data show rare violations of the state and federal O₃, state PM₁₀, and frequent violations of the federal PM_{2.5} standards in the last five years.

³ Locations of the SRAs and monitoring stations are shown here: <http://www.aqmd.gov/docs/default-source/default-document-library/map-of-monitoring-areas.pdf>.

⁴ South Coast AQMD Rule 701 defines an SRA as: “A source area is that area in which contaminants are discharged and a receptor area is that area in which the contaminants accumulate and are measured. Any of the areas can be a source area, a receptor area, or both a source and receptor area.” There are 37 SRAs within the South Coast AQMD’s jurisdiction.

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Table 5.2-4 Ambient Air Quality Monitoring Summary

Pollutant/Standard	Number of Days Thresholds Were Exceeded and Maximum Levels ^{1,2}				
	2018	2019	2020	2021	2022
Ozone (O₃)					
State 1-Hour ≥ 0.09 ppm (days exceed threshold)	0	0	1	0	*
State/Federal 8-hour ≥ 0.070 ppm (days exceed threshold)	0	0	2	0	*
Max. 1-Hour Conc. (ppm)	0.074	0.082	0.117	0.059	*
Max. 8-Hour Conc. (ppm)	0.065	0.067	0.074	0.049	*
Nitrogen Dioxide (NO₂)					
State 1-Hour ≥ 0.18 ppm (days exceed threshold)	0	0	0	0	0
Max. 1-Hour Conc. (ppm)	0.0596	0.0566	0.0597	0.0628	*
Coarse Particulates (PM₁₀)					
State 24-Hour > 50 $\mu\text{g}/\text{m}^3$ (days exceed threshold)	0	2	1	0	*
Federal 24-Hour > 150 $\mu\text{g}/\text{m}^3$ (days exceed threshold)	0	0	0	0	0
Max. 24-Hour Conc. ($\mu\text{g}/\text{m}^3$)	45.3	62.1	55.6	33.3	*
Fine Particulates (PM_{2.5})					
Federal 24-Hour > 35 $\mu\text{g}/\text{m}^3$ (days exceed threshold)	2	1	19	12	6
Max. 24-Hour Conc. ($\mu\text{g}/\text{m}^3$)	49.4	39.5	67.5	102.1	52.8

Source: CARB 2024c.

Notes: ppm = parts per million; ppb = parts per billion; $\mu\text{g}/\text{m}^3$ = micrograms per cubic meter; * = Data not available

¹ Data for O₃, NO₂, and PM₁₀ obtained from the Los Angeles-Westchester Parkway Monitoring Station.

² Data for PM_{2.5} obtained from the Compton-700 North Bullis Road Monitoring Station.

Multiple Air Toxics Exposure Study V

The Multiple Air Toxics Exposure Study (MATES) is a monitoring and evaluation study on existing ambient concentrations of TACs and the potential health risks from air toxics in the SoCAB. In April 2021, South Coast AQMD released the latest update to the MATES study, MATES V. The first MATES analysis began in 1986 but was limited because of the technology available at the time. Conducted in 1998, MATES II was the first MATES iteration to include a comprehensive monitoring program, an air toxics emissions inventory, and a modeling component. MATES III was conducted in 2004 to 2006, with MATES IV following in 2012 to 2013.

MATES V uses measurements taken during 2018 and 2019, with a comprehensive modeling analysis and emissions inventory based on 2018 data. The previous MATES studies quantified the cancer risks based on the inhalation pathway only. MATES V includes information on the chronic noncancer risks from inhalation and non-inhalation pathways for the first time. Cancer risks and chronic noncancer risks from MATES II through IV measurements have been re-examined using current Office of Environmental Health Hazards Assessment and California Environmental Protection Agency risk assessment methodologies and modern statistical methods to examine the trends over time.

Figure 5.2-1, *South Coast AQMD MATES V Cancer Risk*, shows the results of the inhalation cancer risk from the MATES V study. The potential cancer risk is expressed as the incremental number of potential cancer cases that could be developed per million people, assuming that the population is exposed to the substance at a constant annual average concentration over a presumed 70-year lifetime.

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The MATES V study showed that cancer risk in the SoCAB decreased to 454 in a million from 997 in a million in the MATES IV study. Overall, air toxics cancer risk in the SoCAB decreased by 54 percent since 2012 when MATES IV was conducted. MATES V showed the highest risk locations near the Los Angeles International Airport and the Ports of Long Beach and Los Angeles. DPM continues to be the major contributor to air toxics cancer risk (approximately 72 percent of the total cancer risk). Goods movement and transportation corridors have the highest cancer risk. Transportation sources account for 88 percent of carcinogenic air toxics emissions, and the remainder is from stationary sources, which include large industrial operations such as refineries and power plants as well as smaller businesses such as gas stations and chrome-plating facilities (South Coast AQMD 2021b).

Existing Emissions

The city consists of residential, commercial, mixed residential and commercial, industrial, and public use. These uses currently generate criteria air pollutant emissions from natural gas use for energy, heating, and cooking; vehicle trips associated with each land use; and area sources such as landscaping equipment and consumer cleaning products.⁵ Table 5.2-5, *City of Redondo Beach Criteria Air Pollutant Emissions Inventory*, shows the average daily emissions inventory currently associated with the existing land uses in the city.

Table 5.2-5 City of Redondo Beach Criteria Air Pollutant Emissions Inventory

Sector	Existing Criteria Air Pollutant Emissions (pounds per day)					
	VOC	NO _x	CO	SO ₂	PM ₁₀	PM _{2.5}
Transportation ¹	69	482	3,322	11	79	30
Energy ²	16	286	150	2	23	23
Area –Off-Road Equipment ³	308	220	6,756	0	9	7
Area – Consumer Products ⁴	1,100	—	—	—	—	—
Total	1,493	987	10,229	14	112	60

¹ EMFAC2021 Version 1.0.2. Based on daily VMT provided by Fehr & Peers (see Appendix C).

² Based on natural gas use provided by SoCalGas.

³ OFFROAD2021 V.1.0.5 web database was used to estimate criteria air pollutant emissions from lawn and garden, light commercial and construction equipment in the city.

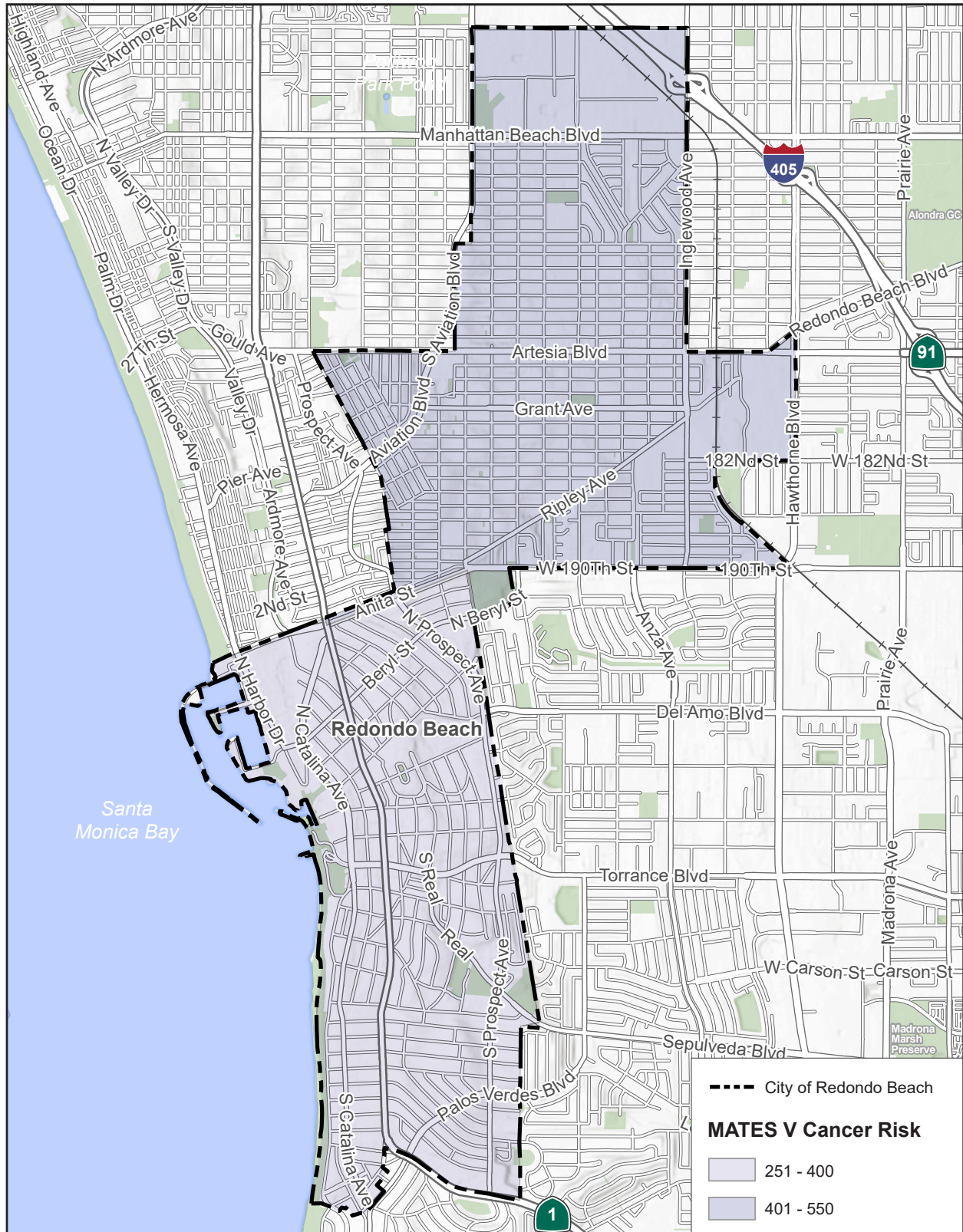
⁴ Based on CalEEMod 2022 User's Guide methodology to calculate VOC emissions from use of household consumer cleaning products.

Permitted Sources of Emissions

South Coast AQMD regulates stationary sources of emissions through source-specific rules that have been adopted to reduce criteria air pollutant emissions and TACs. South Coast AQMD maintains the Facility Information Detail (FIND) database of permitted facilities 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. Figure 5.2-2, *South Coast AQMD Permitted Facilities*, identifies permitted sources of emissions in Redondo Beach that are regulated directly by South Coast AQMD. Permitted sources of emissions are generally clustered at major intersections of commercial corridors and in industrial areas of the City.

⁵ Emissions from permitted sources are excluded from the existing emissions inventory because the reductions associated with the smaller permitted facilities and the Industrial sector are regulated separately by South Coast AQMD and are not under the jurisdiction of the City of Redondo Beach.

Figure 5.2-1 - South Coast AQMD MATES V Cancer Risk



Source: SCAQMD 2019.

0 0.5
Scale (Miles)



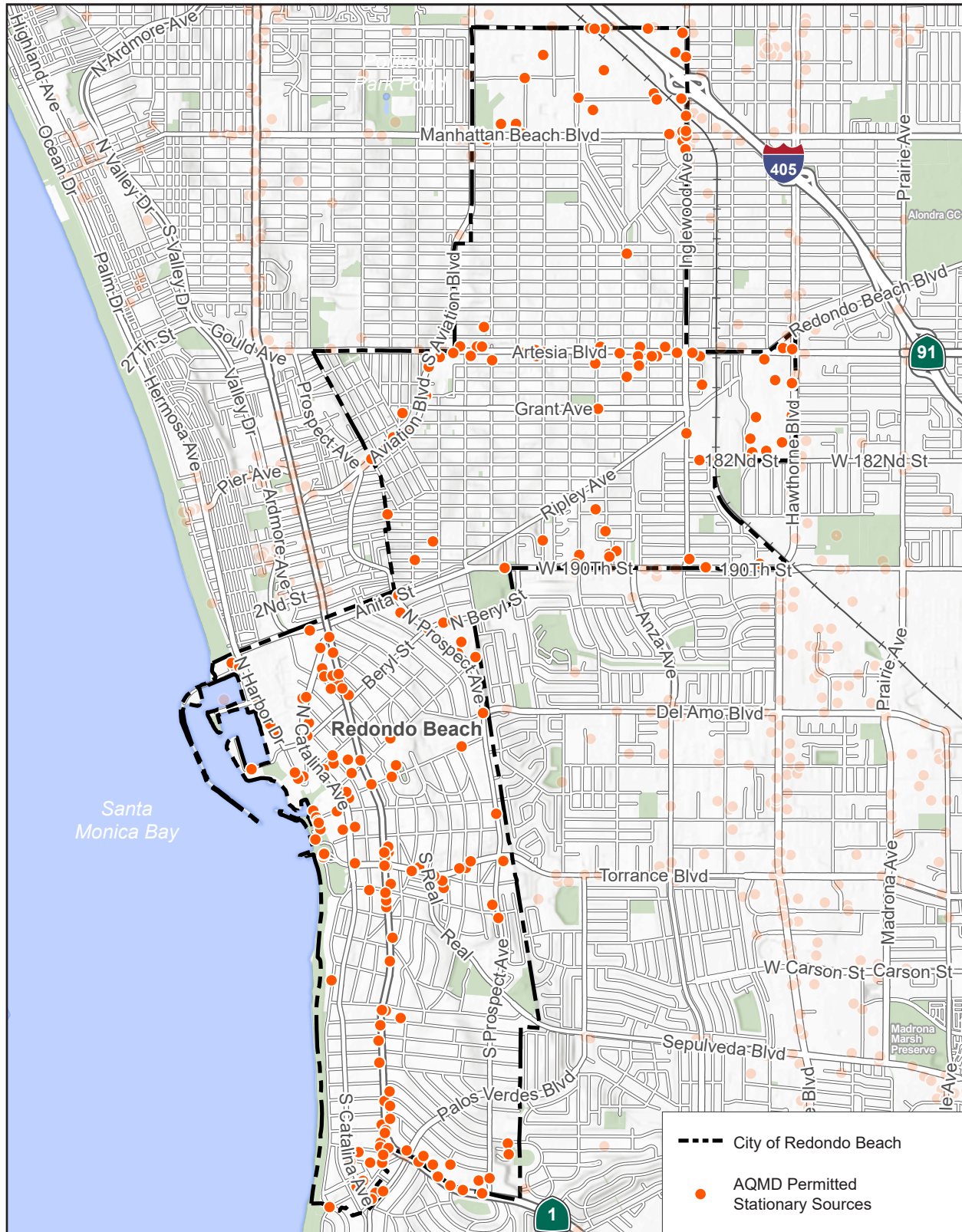
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Figure 5.2-2 - South Coast AQMD Permitted Facilities



Source: SCAQMD 2019.

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Sensitive Receptors

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

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

Placement of New Sensitive Receptors

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

CARB's recommendations on the siting of new sensitive land uses are identified in Table 5.2-6, *CARB Recommendations for Siting New Sensitive Land Uses*. They were based on a compilation of recent studies that evaluated data on the adverse health effects ensuing from proximity to air pollution sources. The key observation in these studies is that proximity to air pollution sources substantially increases both exposure and the potential for adverse health effects. There are three carcinogenic TACs that constitute the majority of the known health risks from motor vehicle traffic: DPM from trucks and benzene and 1,3-butadiene from passenger vehicles.

Table 5.2-6 CARB Recommendations for Siting New Sensitive Land Uses

Source/Category	Advisory Recommendations
Freeways and High-Traffic Roads	Avoid siting new sensitive land uses within 500 feet of a freeway, urban roads with 100,000 vehicles per day, or rural roads with 50,000 vehicles per day.
Distribution Centers	Avoid siting new sensitive land uses within 1,000 feet of a distribution center (that accommodates more than 100 trucks per day, more than 40 trucks with operating transport refrigeration units [TRUs] per day, or where TRU unit operations exceed 300 hours per week). Take into account the configuration of existing distribution centers and avoid locating residences and other sensitive land uses near entry and exit points.
Rail Yards	Avoid siting new sensitive land uses within 1,000 feet of a major service and maintenance rail yard. Within one mile of a rail yard, consider possible siting limitations and mitigation approaches.

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Table 5.2-6 CARB Recommendations for Siting New Sensitive Land Uses

Source/Category	Advisory Recommendations
Ports	Avoid siting of new sensitive land uses immediately downwind of ports in the most heavily impacted zones. Consult local air districts or CARB on the status of pending analyses of health risks.
Refineries	Avoid siting new sensitive land uses immediately downwind of petroleum refineries. Consult with local air districts and other local agencies to determine an appropriate separation.
Chrome Platers	Avoid siting new sensitive land uses within 1,000 feet of a chrome plater.
Dry Cleaners Using Perchloroethylene	Avoid siting new sensitive land uses within 300 feet of any dry-cleaning operation. For operations with two or more machines, provide 500 feet. For operations with three or more machines, consult with the local air district. Do not site new sensitive land uses in the same building with perchloroethylene dry cleaning operations.
Gasoline Dispensing Facilities	Avoid siting new sensitive land uses within 300 feet of a large gas station (defined as a facility with a throughput of 3.6 million gallons per year or greater). A 50-foot separation is recommended for typical gas dispensing facilities.

Source: CARB 2005.

Environmental Justice Communities

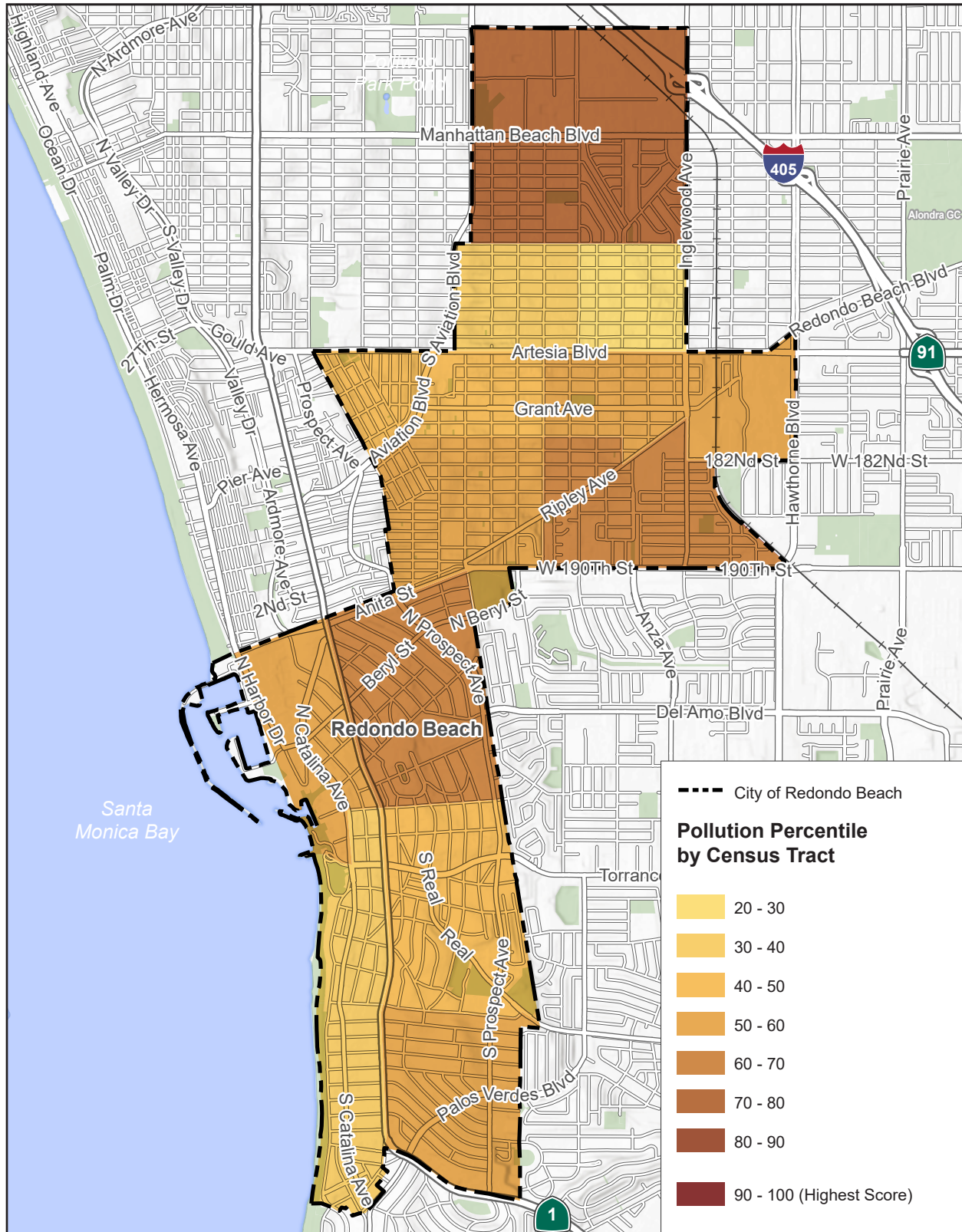
The South Coast AQMD region has the worst levels of ground-level ozone (smog) and among the highest levels of PM_{2.5} in the nation. The air pollution levels in the region exceed both National and California AAQS for both these air pollutants. The health impacts associated with the high levels of air pollution cause respiratory and cardiovascular disease, exacerbate asthma, and can lead to premature death. EJ communities experience the brunt of the health effects from air pollution. In the 2022 AQMP, EJ communities are defined as census tracts in the top 25 percent in the California Office of Environmental Health Hazard Assessment's California Communities Environmental Health Screening Tool. Approximately 37 percent of the SoCAB residents live in EJ communities (South Coast AQMD 2022).

CalEnviroScreen Air Quality Indicators

CalEnviroScreen (CES) is a mapping tool that helps identify the California communities that are most affected by sources of pollution and where people are especially vulnerable to pollution's effects. People in EJ areas identified by CES Version 4.0 (CES4) may be disproportionately affected by and vulnerable to poor air quality. CES's "pollution burden" map identifies communities that are exposed to pollution from human activities, such as air pollution (ozone, PM_{2.5}, DPM), water pollution (drinking water contaminants), hazardous materials (pesticide use, children's lead exposure, toxic releases), and traffic density.

Figure 5.2-3, *CES4 Indicator: Pollution Burden*, shows the pollution burden percentile for Redondo Beach by census tract. Figure 5.2-4, *CES4 Indicator: Diesel Particulate Matter*, shows the DPM percentile for Redondo Beach by census tract. Figure 5.2-5, *CES4 Indicator: PM_{2.5}*, shows the PM_{2.5} percentile for Redondo Beach by census tract. The CES pollution burden scope considers the disproportionate effect of pollution on EJ communities because the score weighs socioeconomic factors (e.g., educational attainment, poverty) and sensitivity of the population (e.g., asthma rates, cardiovascular disease).

Figure 5.2-3 - CES4 Indicator – Pollution Burden

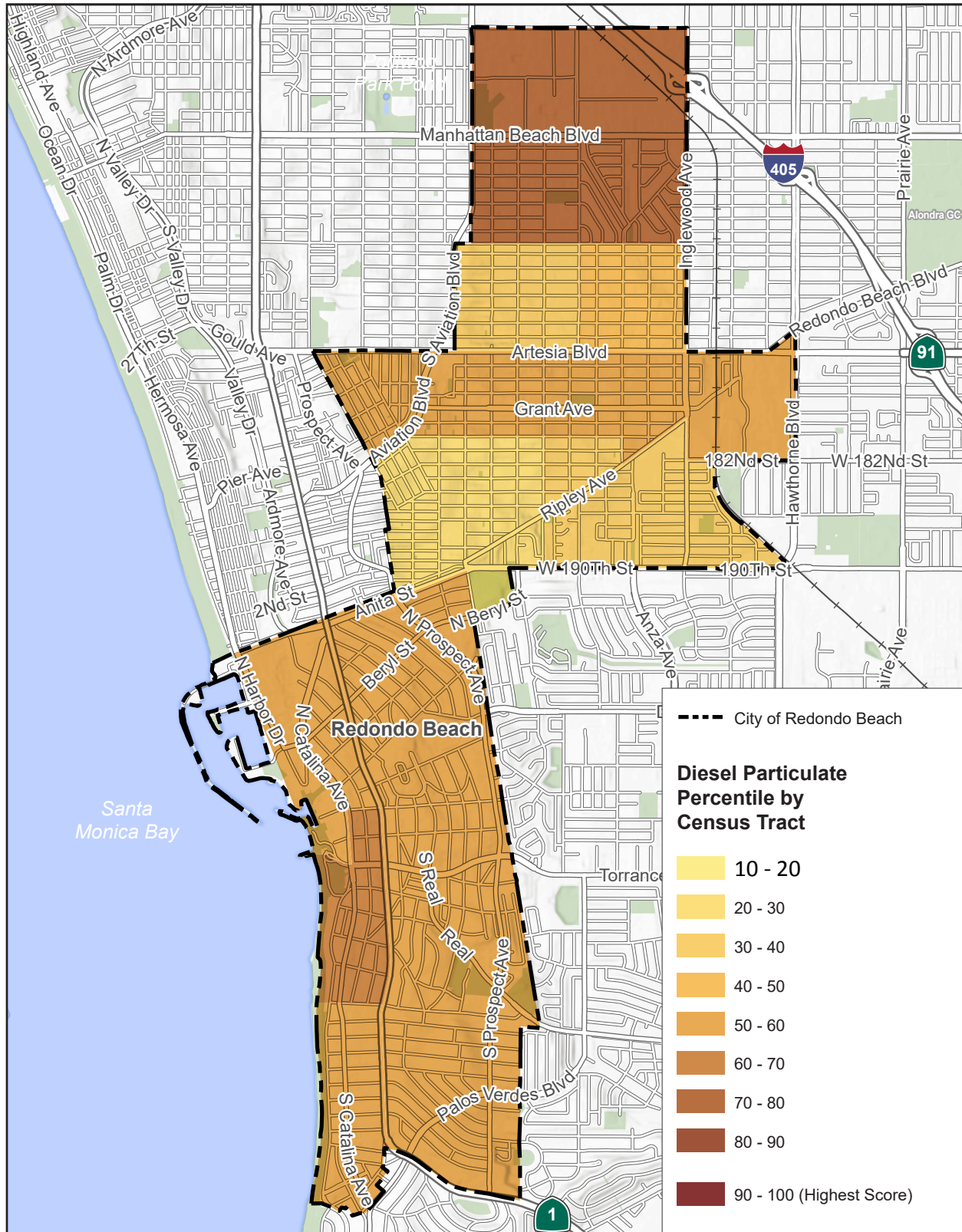


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Figure 5.2-4 - CES4 Indicator – Diesel Particulate Matter



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Though the causes of asthma are poorly understood, it is well established that exposure to traffic and outdoor air pollutants can trigger asthma attacks. Children, the elderly, and low-income Californians suffer disproportionately from asthma. Figure 5.2-6, *CES4 Indicator: Asthma*, shows the asthma percentile for Redondo Beach by census tract.

5.2.2 Thresholds of Significance

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

- AQ-1 Conflict with or obstruct implementation of the applicable air quality plan.
- AQ-2 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.
- AQ-4 Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people.

5.2.2.1 SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT THRESHOLDS

The analysis of the project's air quality impacts follows the guidance and methodologies recommended in South Coast AQMD's *CEQA Air Quality Handbook* (Handbook) and the significance thresholds on South Coast AQMD's website (South Coast AQMD 1993, 2019). CEQA allows the significance criteria established by the applicable air quality management or air pollution control district to be used to assess impacts of a project on air quality. South Coast AQMD has established regional thresholds of significance. In addition to the regional thresholds, projects are subject to the AAQS.

Regional Significance Thresholds

South Coast AQMD has adopted regional construction and operational emissions thresholds to determine a project's cumulative impact on air quality in the SoCAB, as shown in Table 5.2-7, *South Coast AQMD Significance Thresholds*. The table lists thresholds that are applicable for all projects uniformly, regardless of size or scope. There is growing evidence that although ultrafine particulate matter contributes a very small portion of the overall atmospheric mass concentration, it represents a greater proportion of the health risk from PM. However, the EPA and CARB have not adopted AAQS to regulate ultrafine particulate matter; therefore, South Coast AQMD has not developed thresholds for them.

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Table 5.2-7 South Coast AQMD Significance Thresholds

Air Pollutant	Construction Phase	Operational Phase
Reactive Organic Gases (ROG)	75 lbs/day	55 lbs/day
Carbon Monoxide (CO)	550 lbs/day	550 lbs/day
Nitrogen Oxides (NO _x)	100 lbs/day	55 lbs/day
Sulfur Oxides (SO _x)	150 lbs/day	150 lbs/day
Particulates (PM ₁₀)	150 lbs/day	150 lbs/day

Source: South Coast AQMD 2023.

In addition to the daily thresholds listed above, projects are also subject to the ambient air quality standards. These are addressed through an analysis of localized CO impacts. The California 1 hour and 8 hour CO standards are:

- 1 hour = 20 parts per million
- 8 hour = 9 parts per million

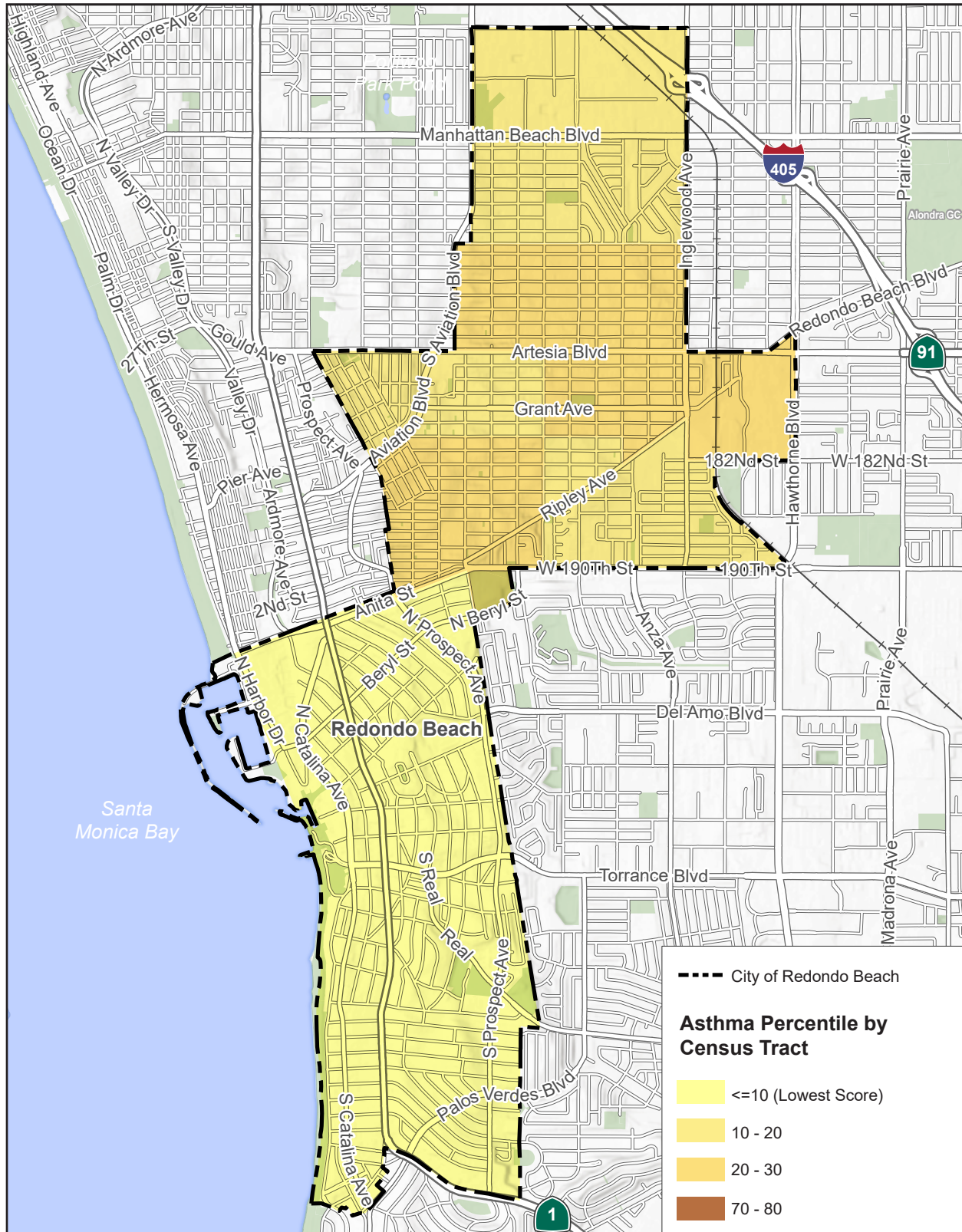
The significance of localized project impacts depends on whether ambient CO levels in the vicinity of the project are above or below state and federal CO standards. If ambient levels are below the standards, a project is considered to have significant impacts if project emissions result in an exceedance of one or more of these standards. If ambient levels already exceed a state or federal standard, then project emissions are considered significant if they increase ambient concentrations by a measurable amount. The South Coast AQMD defines a measurable amount as 1.0 ppm or more for the 1-hour CO concentration or 0.45 ppm or more for the 8-hour CO concentration.

Health Outcomes Associated with the Regional Significance Thresholds

Projects that exceed the regional significance threshold contribute to the nonattainment designation of the SoCAB. The attainment designations are based on the AAQS, which are set at levels of exposure that are determined to not result in adverse health effects. Exposure to fine particulate pollution and ozone causes a myriad of health impacts, particularly to the respiratory and cardiovascular systems.

- Increases cancer risk (PM_{2.5}, TACs)
- Aggravates respiratory disease (O₃, PM_{2.5})
- Increases bronchitis (O₃, PM_{2.5})
- Causes chest discomfort, throat irritation, and increased effort to take a deep breath (O₃)
- Reduces resistance to infections and increases fatigue (O₃)
- Reduces lung growth in children (PM_{2.5})
- Contributes to heart disease and heart attacks (PM_{2.5})
- Contributes to premature death (O₃, PM_{2.5})
- Contributes to lower birth weight in newborns (PM_{2.5}) (South Coast AQMD 2015a)

Figure 5.2-6 - CES4 Indicator – Asthma



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Exposure to fine particulates and ozone aggravates asthma attacks and can amplify other lung ailments such as emphysema and chronic obstructive pulmonary disease. Exposure to current levels of PM_{2.5} is responsible for an estimated 4,300 cardiopulmonary-related deaths per year in the SoCAB. In addition, University of Southern California scientists, in a landmark children's health study, found that lung growth improved as air pollution declined for children aged 11 to 15 in five communities in the SoCAB (South Coast AQMD 2015b).

South Coast AQMD is the primary agency responsible for ensuring the health and welfare of sensitive individuals exposed to elevated concentrations of air pollutants in the SoCAB and has established thresholds that would be protective of these individuals. To achieve the health-based standards established by the EPA, South Coast AQMD prepares an AQMP that details regional programs to attain the AAQS.

Mass emissions in Table 5.2-7 are not correlated with concentrations of air pollutants but contribute to the cumulative air quality impacts in the SoCAB. The thresholds are based on the trigger levels for the federal New Source Review Program, which was created to ensure projects are consistent with attainment of health-based federal AAQS. Regional emissions from a single project do not single-handedly trigger a regional health impact, and it is speculative to identify how many more individuals in the air basin would be affected by the health effects listed above. Projects that do not exceed the South Coast AQMD regional significance thresholds in Table 5.2-7 would not violate any air quality standards or contribute substantially to an existing or projected air quality violation.

If projects exceed the emissions in Table 5.2-7, emissions would cumulatively contribute to the nonattainment status and would contribute to elevating the associated health effects. Known health effects related to ozone include worsening of bronchitis, asthma, and emphysema and a decrease in lung function. Health effects associated with particulate matter 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. However, for projects that exceed the emissions in Table 5.2-7, it is speculative to determine how this would affect the number of days the region is in nonattainment—since mass emissions are not correlated with concentrations of emissions—or how many additional individuals in the air basin would be affected.

South Coast AQMD has not provided methodology to assess the specific correlation between mass emissions generated and the effect on health that is needed to address the issue raised in *Sierra Club v. County of Fresno* (2018) 6 Cal.5th 502, Case No. S21978 (known as “Friant Ranch”). 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. Because of the complexities of predicting ground-level ozone concentrations in relation to the National AAQS and California AAQS, it is not possible to link health risks to the magnitude of emissions exceeding the significance thresholds. However, if a project in the SoCAB exceeds the regional significance thresholds, the project could contribute to an increase in health effects in the basin until the attainment standard is met in the SoCAB.

Localized Significance Thresholds

South Coast AQMD identifies localized significance thresholds (LST), shown in Table 5.2-8, *South Coast AQMD Localized Significance Thresholds*. Emissions of NO₂, CO, PM₁₀, and PM_{2.5} generated at a project site could expose

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sensitive receptors to substantial concentrations of criteria air pollutants. Off-site mobile-source emissions are not included in the LST analysis. A project would generate a significant impact if it generates emissions that would violate the AAQS when added to the local background concentrations.

Table 5.2-8 South Coast AQMD Localized Significance Thresholds

Air Pollutant (Relevant AAQS)	Concentration
1-Hour CO Standard (CAAQS)	20 ppm
8-Hour CO Standard (CAAQS)	9.0 ppm
1-Hour NO ₂ Standard (CAAQS)	0.18 ppm
Annual NO ₂ Standard (CAAQS)	0.03 ppm
24-Hour PM ₁₀ Standard – Construction (South Coast AQMD) ¹	10.4 µg/m ³
24-Hour PM _{2.5} Standard – Construction (South Coast AQMD) ¹	10.4 µg/m ³
24-Hour PM ₁₀ Standard – Operation (South Coast AQMD) ¹	2.5 µg/m ³
24-Hour PM _{2.5} Standard – Operation (South Coast AQMD) ¹	2.5 µg/m ³
Annual Average PM ₁₀ Standard (South Coast AQMD) ¹	1.0 µg/m ³

Source: South Coast AQMD 2023.

ppm: parts per million; µg/m³: micrograms per cubic meter

¹ Threshold is based on South Coast AQMD Rule 403. Since the SoCAB is in nonattainment for PM₁₀ and PM_{2.5}, the threshold is established as an allowable change in concentration. Therefore, background concentration is irrelevant.

CO Hotspots

Areas of vehicle congestion have the potential to create pockets of CO called hotspots. These pockets have the potential to exceed the State one-hour standard of 20 parts per million (ppm) or the eight-hour standard of 9 ppm. Because CO is produced in greatest quantities from vehicle combustion and does not readily disperse into the atmosphere, adherence to ambient air quality standards is typically demonstrated through an analysis of localized CO concentrations. Hotspots are typically produced at intersections, where traffic congestion is highest because vehicles queue for longer periods and are subject to reduced speeds. With the turnover of older vehicles and introduction of cleaner fuels as well as implementation of control technology at industrial facilities, CO concentrations in the SoCAB and the state have steadily declined.

In 2007, the SoCAB was designated in attainment for CO under both the California AAQS and National AAQS. The CO hotspot analysis conducted for the attainment by South Coast AQMD did not predict a violation of CO standards at the busiest intersections in Los Angeles during the peak morning and afternoon periods.⁶ As identified in South Coast AQMD's 2003 AQMP and the 1992 Federal Attainment Plan for Carbon Monoxide, peak carbon monoxide concentrations in the SoCAB in the years before redesignation were a result of unusual meteorological and topographical conditions and not of congestion at a particular intersection. Under existing and future vehicle emission rates, a project would have to increase traffic volumes at a single intersection to

⁶ The four intersections were: Long Beach Boulevard and Imperial Highway; Wilshire Boulevard and Veteran Avenue; Sunset Boulevard and Highland Avenue; and La Cienega Boulevard and Century Boulevard. The busiest intersection evaluated (Wilshire and Veteran) had a daily traffic volume of approximately 100,000 vehicles per day with LOS E in the morning peak hour and LOS F in the evening peak hour.

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more than 44,000 vehicles per hour—or 24,000 vehicles per hour where vertical and/or horizontal air does not mix—in order to generate a significant CO impact (BAAQMD 2023).⁷

Health Risk Thresholds

Whenever a project would require use of chemical compounds that have been identified in South Coast AQMD Rule 1401, placed on CARB's air toxics list pursuant to AB 1807, or placed on the EPA's National Emissions Standards for Hazardous Air Pollutants, a health risk assessment is required by the South Coast AQMD. Table 5.2-9, *South Coast AQMD Incremental Risk Thresholds for TACs*, lists the TAC incremental risk thresholds for operation of a project. The purpose of this environmental evaluation is to identify the significant effects of the proposed project on the environment, not the significant effects of the environment on the proposed project. See *California Building Industry Association v. Bay Area Air Quality Management District* (2015) 62 Cal.4th 369 (Case No. S213478). CEQA does not require an analysis of the environmental effects of attracting development and people to an area. However, the environmental document must analyze the impacts of environmental hazards on future users when a project exacerbates an existing environmental hazard or condition. Residential, commercial, and office uses do not use substantial quantities of TACs and typically do not exacerbate existing hazards, so these thresholds are typically applied to new industrial projects.

Table 5.2-9 South Coast AQMD Incremental Risk Thresholds for TACs

Maximum Incremental Cancer Risk	≥ 10 in 1 million
Hazard Index (project increment)	≥ 1.0
Cancer Burden in areas ≥ 1 in 1 million	> 0.5 excess cancer cases
Source: South Coast AQMD 2023.	

5.2.3 General Plan Update Policies

Land Use Element

Goal LU-2 Identity: A dynamic, progressive city containing self-sufficient, health-oriented, neighborhoods and commercial districts that foster a positive sense of identity and belonging among residents, visitors, and businesses.

- **Policy LU-2.7. Streetscape enhancements.** Facilitate streetscape improvements, add pedestrian amenities that attract new uses, and revitalize the corridors.

⁷ The CO hotspot analysis refers to the modeling conducted by the Bay Area Air Quality Management District for its CEQA Guidelines because it is based on newer data and considers the improvement in mobile-source CO emissions. Although meteorological conditions in the Bay Area differ from those in the Southern California region, the modeling conducted by BAAQMD demonstrates that the net increase in peak hour traffic volumes at an intersection in a single hour would need to be substantial. This finding is consistent with the CO hotspot analysis South Coast AQMD prepared as part of its 2003 AQMP to provide support in seeking CO attainment for the SoCAB. Based on the analysis prepared by South Coast AQMD, no CO hotspots were predicted for the SoCAB. As noted in the preceding footnote, the analysis included some of Los Angeles' busiest intersections, with daily traffic volumes of 100,000 or more peak hour vehicle trips operating at LOS E and F.

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- **Policy LU-2.8. Pedestrian access.** For new development, encourage pedestrian access and create strong building entries that are primarily oriented to the street.

Goal LU-3 Compatibility: Preserve and improve the character and integrity of existing neighborhoods and districts.

- **Policy LU-3.2. Context-Aware and Appropriate Building Design.** We require appropriate building and site design that complements existing development and provides appropriate transitions and connections between adjacent uses to ensure compatibility of scale, maintain an appropriate level of privacy for each use, and minimize potential conflicts. For mixed-use (commercial and residential) require structures be designed to mitigate potential conflicts between the commercial and residential uses and provide adequate amenities for residential occupants.
- **Policy LU-3.4. Industrial Impacts.** Mitigate the impacts that industrial and other non-residential uses which use, store, produce, or transport toxics, generate unacceptable levels of noise, air emissions, or contribute other pollutants have on the surrounding community.
- **Policy LU-3.7. Access to Transit.** Support the location of transit stations and enhanced stops near the Galleria (along Hawthorne Boulevard) and North Tech District to facilitate and take advantage of transit service, reduce vehicle trips and allow residents without private vehicles to access services.
- **Policy LU-3.8. Corridor Connectivity.** Recognize corridors as important cross-town thoroughfares that connect Redondo Beach, serve as transitions between neighborhoods, provide opportunities for local/neighborhood-serving retail and balance the needs of multiple transportation modes. Consider mid-block pass through between parking areas within the corridors and between the corridors and adjacent residential neighborhoods. Specifically target power line and transportation rights of way as pedestrian and bicycle corridors to connect amenities across the city and in nearby communities. Work with neighboring communities to integrate and connect these pedestrian and bicycle corridors across city boundaries.
- **Policy LU-3.10. Utility Corridors.** Develop plans and programs for the reuse of infrastructure and utility properties and easements as they are currently managed and should they no longer be required for their currently intended primary use and operations. In particular, the City shall target these corridors to provide active and passive uses and recreational amenities including bicycle and pedestrian paths to create connectivity to city-wide amenities and amenities located in neighboring cities.

Goal LU-4 Health and Vitality: A vibrant community that supports the healthy and active lifestyles of residents and visitors.

- **Policy LU-4.6. Connectivity.** Facilitate bicycling and pedestrian linkages to parks, beaches, tourist destinations, recreational amenities, open spaces and parks, and commercial destinations via the City's street, pedestrian, bicycle, and transit networks in a way that is visually appealing and safe to encourage local residents and visitors to minimize the use of automobiles. Focus on expanding connectivity through the addition of pedestrian and bike paths on public utility and transportation rights of way. Create

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additional mid-block connections (pass throughs) from adjacent residential neighborhoods into commercial corridors and create connections between adjacent commercial businesses.

Goal L LU-5 Environmental Sustainability: An environmentally aware community that utilizes tools, strategies and approaches that protect and minimizes the impacts to the City's environmental resources.

- **Policy LU-5.1. Environmental Sustainability.** Ensure that new development is sensitive to the City's stewardship of the environment. Provide measures to minimize the impacts of future development on air quality, runoff, water use, trash generation (and its impacts on the ocean), noise, and traffic (including things such as exhaust generated from underperforming intersections).
- **Policy LU-5.5. Reduce Air Pollution.** Require the siting of new industrial and sensitive land uses to follow buffer distances, to the extent feasible, recommended in the California Air Resource Board's *Air Quality and Land Use Handbook*.
- **Policy LU5.7. Preserve and Expand Native Habitat and Encourage Use of Native Plants for Landscaping.** Continue to support the expansion of native bluff habitat along the waterfront. Continue to support reestablishment of native habitat in Wilderness Park. Continue to pursue wetlands and native habitat restoration at the power plant site and the adjacent powerline corridor. Ensure connectivity of native habitat, particularly habitat for the endangered El Segundo blue butterfly, with Torrance and Hermosa Beach. Redefine city plant and tree palettes to prioritize native plants. Apply the strategies and approaches to fund and incentivize expansion of native habitat and plants throughout the city on both public and private property.

Goal LU-6 Economic Sustainability: A financially healthy city with a balanced mix of land uses and special funding and financing districts that increase resources to invest in public facilities and services.

- **Policy LU-6.22. Home Based Businesses.** Encourage and incentivize the creation of new home-based businesses to support job creation in the City and to help reduces commuter trips in and out of the City.

Open Space and Conservation Element

Goal OS-1 Quantity, Location, and Access: A comprehensive, accessible, and well-balanced network of high-quality parks, public spaces, and recreational facilities that enhances the livability, wellness, and connectivity of the community.

- **Policy OS-1.8. Access.** Provide safe, convenient, and enjoyable routes for residents of all ages, abilities, and income to access the City's open spaces and recreational facilities on foot, bike, and public transit. Provide appropriate bicycle and vehicular parking for all parks, coastal open spaces, and public spaces.
- **Policy OS-1.10. Regional Trails.** Coordinate with neighboring jurisdictions and other agencies to connect new and existing parks and public spaces to other desirable destinations beyond City boundaries via pedestrian, bicycle, and other urban trails that are part of the larger regional trail network, including the

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Manhattan and Hermosa Beach Greenbelt and the Strand bicycle and pedestrian connections, creating a greenbelt to the sea.

Goal OS-8 Biological Resources: An Enhanced ecosystem comprised of a thriving urban forest, protected habitats for biological resources, especially native, sensitive and special status wildlife species, to foster the well-being of the community and offer a reprieve from the built environment.

- **Policy OS-8.4. Urban Forest.** Expand the City's urban forest in a consistent, coordinated, and environmentally conscious manner. Prioritize native trees and associated companion species and habitats. Maximize and maintain tree canopy on public lands and open spaces.

Safety Element

Goal S-10 Additional Climate Change Hazards: A resilient community able to adapt to climate change hazards.

- **Policy S-10.1. Financing Energy Efficient Programs for Economically Disadvantaged Households and Businesses.** Extend the City's funding and financing programs to support energy efficiency and renewable energy improvements for economically disadvantaged households and businesses.
- **Policy S-10.4. Energy Efficient City-owned Facilities.** Pursue that City-owned facilities and operations are energy efficient, and rely on renewable and resilient energy sources, including battery storage systems.
- **Policy S-10.6. Integration of Sustainability Features in New Development and Existing Properties.** Encourage new developments and existing property owners to incorporate sustainable, energy-efficient, and environmentally regenerative features into their facilities, landscapes, and structures to reduce energy demands and improve on-site resilience. Support financing efforts to increase the communities funding of these features.
- **Policy S-10.11. Use of Existing Natural Features.** Where feasible, encourage the use of existing natural features and ecosystem processes, or the restoration of, when considering alternatives and adaptation projects through the conservation, preservation, or sustainable management of open space. This includes, but is not limited to, the conservation, preservation, or sustainable management of any form of aquatic or terrestrial vegetated open space, such as parks, rain gardens, and urban tree canopies. It also includes systems and practices that use or mimic natural processes, such as permeable pavements, bioswales, and other engineered systems, such as levees that are combined with restored natural systems, to provide clean water, conserve ecosystem values and functions, and provide a wide array of benefits to people and wildlife.

5.2.4 Environmental Impacts

5.2.4.1 METHODOLOGY

The air quality evaluation was prepared in accordance with the requirements of CEQA to determine if significant air quality impacts are likely to occur in conjunction with future development that would be accommodated by the General Plan Update. The published South Coast AQMD's CEQA Air Quality

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Handbook and its updates on the South Coast AQMD website are intended to provide local governments with guidance for analyzing and mitigating project-specific air quality impacts. It provides standards, methodologies, and procedures for conducting air quality analyses in EIRs that were used in this analysis. The following is a summary by sector of the assumptions used for the City's criteria air pollutant emissions inventory and forecast included in Appendix C.

- **Building Energy.** Emissions associated with natural gas use for residential and nonresidential land uses in the City were modeled based on data provided by the Southern California Gas Company (SoCalGas) for years 2020 through 2022. Existing natural gas emissions are based on the four-year average (2020-2023) to account for fluctuations in energy use.⁸ Forecasts are adjusted for increases in population for natural gas use and non-residential square footage for non-residential natural gas use in the City.
- **Transportation.** Transportation emissions forecasts were modeled using emissions data from CARB's EMFAC2021 V1.0.3 web database. Model runs were based on daily per-capita vehicle miles traveled (VMT) data provided by Fehr & Peers and calendar year 2023 (existing) and 2050 emission rates (see Appendix C). The VMT is based on the origin-destination method using the Southern California Association of Governments' Regional Transportation Model and includes the full trip length for land uses in the City and a 50 percent reduction in the trip length for external-internal/internal-external trips based on the recommendations of CARB's Regional Targets Advisory Committee under SB 375. Consistent with CARB's methodology within the Climate Change Scoping Plan Measure Documentation Supplement, daily VMT was multiplied by 347 days per year to account for reduced traffic on weekends and holidays to determine annual emissions (CARB 2008).
- **Off-Road Equipment.** OFFROAD is a database of equipment use and associated emissions for each county compiled by CARB. Off-road equipment in the City is based on year 2023 emission rates for Los Angeles County obtained from CARB's OFFROAD V1.0.5 web database. OFFROAD was used to estimate criteria air pollutant emissions from lawn and garden, light commercial, and construction equipment in the City. In order to determine the percentage of emissions attributable to the City, light commercial equipment is estimated based on employment for Redondo Beach as a percentage of Los Angeles County and forecast based on the change in employment in the City. Construction equipment use is estimated based on building permit data for Redondo Beach and Los Angeles County from data compiled by the US Census and assumes that construction emissions for the forecast year would be similar to historical levels. Lawn and garden equipment is based on the percentage of population in Redondo Beach compared to Los Angeles County and forecast based on the change in population in the City.
- **Area Sources.** Area sources are based on CalEEMod defaults for emissions generated from use of consumer products and cleaning supplies (CAPCOA 2022).

⁸ Interpolated Year 2023 natural gas usage based on previous years 2020 to 2022.

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Impacts of the Environment on a Project

In 2016, the California Legislature passed Senate Bill 1000 (SB 1000), Planning for Healthy Communities Act, to incorporate environmental justice into the local land use planning process. SB 1000 requires local governments to address pollution and other hazards that disproportionately impact low-income communities and communities of color in their jurisdictions. SB 1000 mandates that general plans address environmental justice but does not require CEQA analyses to address EJ issues. The General Plan Update addresses air quality and health risk impacts of implementing the General Plan Update to sensitive land uses.

Buildout of the proposed land use plan under the General Plan Update could result in siting sensitive uses (e.g., residential) near sources of emissions (e.g., freeways, industrial uses, etc.). Developing new sensitive land uses near sources of emissions could expose persons that inhabit these sensitive land uses to potential air quality-related impacts. However, the purpose of this environmental evaluation is to identify the significant effects of the proposed project on the environment, not the significant effects of the environment on the proposed project. *California Building Industry Association v. Bay Area Air Quality Management District* (2015) 62 Cal.4th 369 (Case No. S213478). Thus, CEQA does not require analysis of the potential environmental effects from siting sensitive receptors near existing sources, and this type of analysis is not provided in Section 5.2.4. However, the General Plan Update includes policies that would require design features to minimize air quality impacts (Policy LU-3.2 and Policy LU-5.1) and to mitigate impacts from industrial/ nonresidential uses on surrounding communities (Policy LU-3.4 and Policy LU-5.5).

5.2.4.2 IMPACT ANALYSIS

The applicable thresholds are identified in brackets after the impact statement.

Impact 5.2-1: Buildout of the proposed project and associated emissions would exceed the assumptions of the South Coast AQMD's AQMP. [Threshold AQ-1]

The South Coast AQMD is directly responsible for reducing emissions from area, stationary, and mobile sources in the SoCAB to achieve the National and California AAQS and has responded to this requirement by preparing an AQMP. The South Coast AQMD Governing Board adopted the 2022 AQMP, which is a regional and multiagency effort (South Coast AQMD, CARB, SCAG, and EPA).

A consistency determination with the AQMP plays an important role in local agency project review by linking local planning and individual projects to the AQMP. It fulfills the CEQA goal of informing decision makers of the environmental efforts of the project under consideration early enough to ensure that air quality concerns are fully addressed. It also provides the local agency with ongoing information as to whether they are contributing to the clean air goals in the AQMP.

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 South Coast AQMD'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 the General Plan Update to the existing conditions. The table shows that the General Plan Update would result in more VMT because of an increase in population and employment. This leads to an increase in VMT per service population compared to the existing and current General Plan conditions. As a result, the General Plan Update would provide a less efficient land use that would increase VMT per resident and employee. Additionally, as shown in Table 5.2-10, the General Plan Update would also result in an increase in VMT per service population compared to the current General Plan. It is presumed that the land use designations of the current General Plan either directly or indirectly contributed to any SCAG projections used in the latest AQMP emissions inventory. Updates to the Zoning Ordinance would reflect new land use designations and densities specified by the Focused General Plan Update. Updates to the LCP would include revisions to the Coastal Land Use Plan and Implementation Plan. These modifications would not involve land-use changes that would cause a greater increase in population and employment growth than what is considered under the Focused General Plan Update. Since the Focused General Plan Update would lead to an increase in VMT per service population compared to existing conditions and the current General Plan, implementation of the proposed project would not be consistent with the AQMP under the first criterion.

Table 5.2-10 Comparison of Population and Employment Forecast

Scenario	Existing	Current General Plan	General Plan Update	Change from Existing		Change from the Current General Plan	
				Change	%	Change	%
Population	70,311	75,046	78,978	8,667	12%	3,932	6%
Employment	28,638	33,174	36,627	7,989	28%	3,453	12%
Service Population (SP) ¹	98,949	108,220	115,605	16,656	17%	7,385	7%
Daily VMT ²	1,398,064	1,395,544	1,664,444	266,380	19%	268,899	19%
VMT/SP	14.13	12.90	14.40	0.3	2%	1.5	12%

¹ Service population (SP) consists of the aggregate of total employees and population within the study area.

² Source: Fehr & Peers (see Appendix C).

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Criterion 2

The SoCAB is designated nonattainment for O₃ and PM_{2.5} under the California and National AAQS,⁹ nonattainment for PM₁₀ under the California AAQS, and nonattainment for lead (Los Angeles County only) under the National AAQS (CARB 2024a). Because the General Plan Update involves long-term growth associated with buildout of the City, cumulative emissions generated from operation of individual development projects would exceed the South Coast AQMD regional and localized thresholds (see 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 the General Plan Update could contribute to an increase in frequency or severity of air quality violations and delay attainment of the AAQS or interim emission reductions in the AQMP, and emissions generated from buildout would result in a significant air quality impact.

Updates to the Zoning Ordinance and LCP would not involve land-use changes that would cause a greater increase in frequency or severity of air quality violations and delay attainment of the AAQS or interim emission reductions in the AQMP. However, as identified in Impact 5.2-3, the General Plan Update would result in a substantial increase in VOC, NO_x, and CO compared to existing conditions. Therefore, implementation of the proposed project would not be consistent with the AQMP under the second criterion.

Summary

New growth would be focused in areas of the City where services exist and in proximity to existing major transit centers, which may contribute to reducing VMT per service population. However, as shown in Table 5.2-10, buildout of the proposed project would increase VMT per service population and would not be consistent with the AQMP under the first criterion. In addition, air pollutant emissions associated with buildout of the proposed project would cumulatively contribute to the nonattainment designations in the SoCAB. Therefore, the proposed project would be inconsistent with the AQMP.

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

Impact 5.2-2: Construction activities associated with future development that would be accommodated under the proposed project could generate short-term emissions in exceedance of the South Coast AQMD's threshold criteria. [Threshold AQ-2 and AQ-3]

Construction activities under the General Plan Update would also temporarily increase PM₁₀, PM_{2.5}, VOC, NO_x, SO_x, and CO regional emissions in the SoCAB. The primary source of NO_x, CO, and SO_x emissions is the operation of construction equipment. The primary sources of particulate matter (PM₁₀ and PM_{2.5}) emissions are activities that disturb the soil, such as grading and excavation, road construction, and building demolition and construction. The primary sources of VOC emissions are the application of architectural coating and off-gas emissions associated with asphalt paving. A discussion of health impacts associated with

⁹ The SoCAB is pending a redesignation request from nonattainment to attainment for the 24-hour federal PM_{2.5} standards. The 2021 PM_{2.5} Redesignation Request and Maintenance Plan demonstrates that the South Coast meets the requirements of the CAA to allow the EPA to redesignate the SoCAB to attainment for the 65 µg/m³ and 35 µg/m³ 24-hour PM_{2.5} standards. CARB will submit the 2021 PM_{2.5} Redesignation Request to the EPA as a revision to the California SIP (CARB 2021).

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air pollutant emissions generated by construction activities is included under “Air Pollutants of Concern” in Section 5.2.1, *Environmental Setting*.

Construction activities associated with the General Plan Update would occur over the buildout horizon of the plan, causing short-term emissions of criteria air pollutants. However, information regarding specific development projects, soil types, and the locations of receptors would be needed in order to quantify the level of impact associated with construction activity. Due to the scale of development activity associated with buildout of the General Plan Update, the projects cumulative emissions would likely exceed the South Coast AQMD regional significance thresholds. In accordance with the South Coast AQMD methodology, emissions that exceed the regional significance thresholds would cumulatively contribute to the nonattainment designations of the SoCAB.

Air quality emissions related to construction must be addressed on a project-by-project basis. For the General Plan Update, which is a broad-based policy plan, it is not possible to determine whether the scale and phasing of individual projects would exceed the South Coast AQMD's short-term regional or localized construction emissions thresholds. In addition to regulatory measures—e.g., South Coast AQMD Rule 403 for fugitive dust control, Rule 1113 for architectural coatings, and CARB's Airborne Toxic Control Measures—mitigation imposed at the project level may include extension of construction schedules and/or use of special equipment.

While individual projects under the General Plan Update may not exceed the South Coast AQMD regional significance thresholds, the likely scale and extent of the combined construction activities associated with the future development project under the General Plan Update would likely exceed the relevant South Coast AQMD thresholds. Updates to the Zoning Ordinance and LCP would not involve land-use changes that would result in the generation of construction-related criteria air pollutant emissions greater than the General Plan Update. Overall, construction-related regional air quality impacts of developments that would be accommodated by the proposed project would be potentially significant.

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

Impact 5.2-3: Implementation of the proposed project would generate additional, long-term emissions in exceedance of South Coast AQMD's threshold criteria and cumulatively contribute to the South Coast Air Basin's nonattainment designations. [Threshold AQ-2]

The General Plan Update guides growth and development in the City by designating allowed land uses by parcel and through implementation of its goals and policies. New development would increase air pollutant emissions in the City and contribute to the overall emissions in the SoCAB. A discussion of health impacts associated with air pollutant emissions generated by operational activities is included under “Air Pollutants of Concern” in Section 5.2.1, *Environmental Setting*. The General Plan Update sets up the framework for growth and development, but does not directly result in development. Before development can occur, it must be analyzed for conformance with the general plan, zoning requirements, and other applicable local and State requirements; comply with the requirements of CEQA; and obtain all necessary clearances and permits.

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Criteria Air Pollutant Emissions Forecast

The emissions forecast for Redondo Beach is shown in Table 5.2-11, *City of Redondo Beach Regional Criteria Air Pollutant Emissions Forecast*. As shown in the table, buildout of the General Plan Update would continue to result in an increase in long-term emissions that exceed the daily South Coast AQMD thresholds for VOC, NO_x, and CO. Emissions of SO₂, PM₁₀, and PM_{2.5} would slightly increase compared to the existing land uses in the City in 2050, but would not exceed the South Coast AQMD thresholds.

Table 5.2-11 City of Redondo Beach Regional Criteria Air Pollutant Emissions Forecast

Sector	Criteria Air Pollutant Emissions (pounds per day)					
	VOC	NO _x	CO	SO ₂	PM ₁₀	PM _{2.5}
Existing – 2050 Emission Rates						
Transportation	23	162	1,592	8	72	25
Energy	16	286	150	2	23	23
Area: Offroad Equipment	308	220	6,756	<1	9	7
Area: Consumer Products	1,100	—	—	—	—	—
Existing Total	1,447	668	8,499	10	105	55
General Plan Update						
Transportation	28	228	1,863	10	93	32
Energy	20	354	192	2	28	28
Area: Offroad Equipment	338	240	7,487	<1	10	7
Area: Consumer Products	1,340	—	—	—	—	—
General Plan Update Total	1,726	822	9,542	13	131	68
Change						
Transportation	5	66	270	2	20	7
Energy	4	68	43	<1	5	5
Area: Offroad Equipment	30	20	730	<1	1	<1
Area: Consumer Products	240	—	—	—	—	—
Total	279	154	1,044	2	26	13
South Coast AQMD Regional Significance Threshold	55	55	550	150	150	55
Significant?	Yes	Yes	Yes	No	No	No

Sources. See Appendix C.

The increase in VOC emissions compared to the existing land uses is a result of the increase in residential uses, which results in an increase in consumer product use in the City. Emissions of VOC that exceed the South Coast AQMD regional significance thresholds would contribute to the O₃ nonattainment designation of the

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SoCAB. The increase in NO_x and CO emissions is a result of the increase in mobile source and off-road equipment emissions within the City and are precursors to the formation of O₃. In addition, NO_x is a precursor to the formation of particulate matter (PM₁₀ and PM_{2.5}). Therefore, emissions of NO_x that exceed South Coast AQMD's regional significance thresholds would cumulatively contribute to the O₃ and particulate matter (PM₁₀ and PM_{2.5}) nonattainment designations of the SoCAB.

Furthermore, the General Plan Update includes policies that would contribute to reducing operational emissions associated with development projects. Policies S-10.1, S-10.4, and S-10.6 would reduce GHG emissions and energy demand to provide air quality co-benefits. Policies LU-3.7, LU-3.10, LU-4.6, and LU-6.22 would help reduce VMT and vehicle congestion to further improve air quality. Despite the policies in the General Plan Update, the General Plan Update would exceed the South Coast AQMD regional significance thresholds and would significantly contribute to the nonattainment designation of the SoCAB. Updates to the Zoning Ordinance and LCP would not involve major land-use changes that would cause a greater increase in criteria air pollutant emissions than what is considered under the Focused General Plan Update. However, since the Focused General Plan Update would exceed the South Coast AQMD regional significance thresholds, implementation of the proposed project would significantly contribute to the nonattainment designations of the SoCAB and result in a potentially significant impact.

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

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

Development and operation of new land uses accommodated under the proposed land use plan could generate new sources of localized criteria air pollutant and TACs in the City from area/stationary sources and mobile sources.

CO Hotspots

Areas of vehicle congestion have the potential to create pockets of CO called hotspots. In 2007, the SoCAB was designated in attainment for CO under both the California AAQS and National AAQS. The CO hotspot analysis conducted for the attainment by South Coast AQMD did not predict a violation of CO standards at the busiest intersections in Los Angeles during the peak morning and afternoon periods.¹⁰ As identified in South Coast AQMD's 2003 AQMP and the 1992 Federal Attainment Plan for Carbon Monoxide (1992 CO Plan), peak carbon monoxide concentrations in the SoCAB in previous years, prior to redesignation, were a result of unusual meteorological and topographical conditions and not of congestion at a particular intersection (South Coast AQMD 1992; South Coast AQMD 2003).

Under existing and future vehicle emission rates, a project would have to increase traffic volumes at a single intersection to more than 44,000 vehicles per hour—or 24,000 vehicles per hour where vertical and/or

¹⁰ The four intersections were: Long Beach Boulevard and Imperial Highway; Wilshire Boulevard and Veteran Avenue; Sunset Boulevard and Highland Avenue; and La Cienega Boulevard and Century Boulevard. The busiest intersection evaluated (Wilshire and Veteran) had a daily traffic volume of approximately 100,000 vehicles per day with LOS E in the morning peak hour and LOS F in the evening peak hour.

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horizontal air does not mix—in order to generate a significant CO impact (BAAQMD 2023). Implementation of the General Plan Update under horizon year conditions would not result in hourly traffic increases of this magnitude. According to traffic volume data provided by Fehr & Peers, the intersection that would experience the greatest traffic volumes in the forecast year would be Artesia Boulevard east of Rindge Lane, with an estimated 31,800 average daily trips (ADT). The peak hour trips at this intersection would be even fewer than the estimated average daily trips. As an industry standard, the ADT are divided by 10 to identify the estimated peak hour traffic volumes at this intersection. Based on adjusting the ADT to identify the peak hour volumes, the intersection at Artesia Boulevard east of Rindge Lane would experience an estimated 3,180 peak hour vehicle trips. Thus, implementation of the General Plan Update would not produce the volume of traffic required to generate a CO hotspot. Updates to the Zoning Ordinance and LCP would not involve major land-use changes that would produce a greater CO hotspot impact compared to buildout of the Focused General Plan Update. As such, the proposed project would result in a less than significant CO hotspots impact.

Localized Significance Thresholds

Implementation of the General Plan Update could expose sensitive receptors to elevated pollutant concentrations during construction activities if it would cause or contribute significantly to elevating those levels. Unlike mass of emissions shown in Table 5.2-11, described in pounds per day, localized concentrations refer to an amount of pollutant in a volume of air (ppm or $\mu\text{g}/\text{m}^3$) and can be correlated to potential health effects. LSTs are the amount of project-related emissions at which localized concentrations (ppm or $\mu\text{g}/\text{m}^3$) would exceed the ambient air quality standards for criteria air pollutants for which the SoCAB is designated a nonattainment area.

Construction LSTs

Buildout of the General Plan Update would occur over the buildout horizon of the plan via several smaller projects, each with its own construction time frame and equipment. Because an LST analysis can only be conducted at a project-level, quantification of LSTs is not applicable for the program-level environmental analysis of the General Plan Update. Because potential development and redevelopment could occur close to existing sensitive receptors, future development projects that would be accommodated by the General Plan Update have the potential to expose sensitive receptors to substantial pollutant concentrations. Updates to the Zoning Ordinance and LCP would not involve major land-use changes that would expose sensitive receptors to substantial pollutant concentrations greater than what is considered under buildout of the Focused General Plan Update. Construction equipment exhaust combined with fugitive particulate matter emissions has the potential to expose sensitive receptors to substantial concentrations of criteria air pollutant emissions and result in potentially significant impacts.

Operation LSTs

The types of land uses that could generate substantial amounts of stationary source emissions include industrial land uses, which is an accommodated land use under the General Plan Update (see Table 3-1, *Existing Land Use Summary*, and Table 3-4, *Summary of Existing and Proposed Land Uses*). Implementation of the General Plan Update policies could contribute to reducing criteria air pollutant emissions to nearby sensitive receptors. Policies LU-5.7, and OS-8.4 would encourage expansion of urban forests and buffer distances to reduce air

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quality impacts in the City. Policy LU-3.4 and LU-5.5 would ensure proposed industrial and other non-residential development would be compatible with surrounding land uses to reduce environmental effects on sensitive receptors. Policy LU-5.1 would ensure new development would be compatible with existing development to minimize the impacts of future development on air quality in the City. The aforementioned policies of the General Plan Update would contribute to minimizing localized operation-related emissions from individual land use development projects accommodated in the General Plan Update to the extent possible.

However, per the LST methodology, information regarding specific development projects and the locations of receptors would be needed in order to quantify the levels of localized operation and construction-related impacts associated with future development projects. Thus, because the General Plan Update is a broad-based policy plan and does not itself propose specific development projects, it is not possible to calculate individual project-related operation emissions at this time. Updates to the Zoning Ordinance and LCP would not involve major land-use changes that would generate greater localized operation impacts than what is considered under the Focused General Plan Update.

Overall, because of the likely scale of future development and the inclusion of industrial uses that would be accommodated by the General Plan Update, some development projects could likely exceed the LSTs. Therefore, localized operation-related air quality impacts associated with implementation of the proposed project are considered potentially significant impacts.

Health Risk: Toxic Air Contaminants

The allowed development under the General Plan Update could elevate concentrations of TACs (i.e., DPM) in the vicinity of sensitive land uses during temporary construction activities that would use off-road equipment operating on-site, and at different levels depending on the type of activity (for example, limited to none during installation of utilities, and more during grading activities). Operation of the development allowed under the General Plan Update would also generate DPM emissions from diesel truck activity (truck maneuvering and idling), TRUs, and diesel-fueled off-road equipment (i.e., forklifts and yard trucks) in proximity to nearby sensitive receptors.

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 South Coast AQMD. As mentioned before, Policy LU-3.4, LU-5.1, and LU-5.5 would ensure development to be compatible with surrounding land uses to reduce environmental effects on sensitive receptors. Updates to the Zoning Ordinance and LCP would not involve industrial land-use changes (greater than what is considered under the Focused General Plan Update) that would have the potential to release TACs, therefore no impacts would occur. Moreover, emissions of TACs would be controlled by South Coast AQMD through permitting and would be subject to further study and health risk assessment prior to the issuance of any necessary air quality permits under South Coast AQMD Rule 1401, which would ensure less than significant impacts.

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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. The General Plan Update could result in a net increase of 3,859,102 square feet of industrial land use in Industrial I-1, Industrial I-3, and Industrial Flex zones (refer to Figure 3-6). Though stationary sources associated with the General Plan Update would be required to comply with South Coast AQMD Rule 1401, truck idling does not fall under the purview of the air district. However, Policy LU-3.4 calls for mitigating potential air quality impacts associated with industrial and other nonresidential land uses. Policy LU-5.5 would require new industrial and sensitive land uses to implement buffer distances as recommended by CARB. Overall, these policies would contribute to minimizing health risk impacts to the surrounding sensitive receptors. However, until specific future development projects are proposed, the associated emissions and concentrations cannot be determined or modeled. Thus, health risk impacts from development of industrial land uses associated with the General Plan Update are considered potentially significant. Updates to the Zoning Ordinance and LCP would not involve industrial land-use changes greater than what is considered under the Focused General Plan Update therefore no additional impacts would occur.

Environmental Justice (EJ)

South Coast AQMD is taking steps to address localized impacts and exposures in EJ communities, which are disproportionately impacted by various types of pollution and experience health, social, and economic inequalities. These inequities can also make residents of EJ communities more vulnerable to the effects of environmental pollution. These communities are often located near multiple air pollution sources, including mobile sources and commercial and industrial facilities (South Coast AQMD 2022). The most critical air pollutant affecting health in the SoCAB is PM_{2.5}, which includes DPM. Although there are no identified EJ communities in the City, Policies LU-3.2, LU-3.4, LU-5.1, and LU-5.5 in the Land Use Element would ensure development to be compatible with surrounding land uses to reduce environmental effects on sensitive receptors.

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

Impact 5.2-5: 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]

Growth within the City under the General Plan Update could generate new sources of odors. Nuisance odors from land uses in the SoCAB are regulated under South Coast AQMD Rule 402, *Nuisance*, which 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. The provisions of this rule shall not apply to odors emanating from agricultural operations necessary for the growing of crops or the raising of fowl or animals.

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Industrial Land Uses

Compost facilities, landfills, solid-waste transfer stations, fiberglass manufacturing facilities, paint/coating operations (e.g., auto body shops), asphalt batch manufacturing plants, chemical manufacturing, and food manufacturing facilities are typical sources of odors from industrial land uses. Industrial land uses are required to comply with South Coast AQMD Rule 402. As identified above, the General Plan Update could result in a net increase of 3,859,102 square feet in new industrial/warehousing in the City. Industrial land uses are required to comply with South Coast AQMD Rule 402 and future environmental review, which would ensure that sensitive land uses are not exposed to objectionable odors. Updates to the Zoning Ordinance and LCP would not involve industrial land-use changes greater than what is considered under the Focused General Plan Update, therefore no additional impacts would occur. Overall, impacts from potential odors generated from industrial land uses associated with the proposed project are considered less than significant.

Residential and Other Retail/Commercial Land Uses

Residential and other nonresidential, nonindustrial land uses that would be accommodated by the proposed project could result in the generation of odors such as exhaust from landscaping equipment and from cooking/restaurants. Buildout of the General Plan Update would result in a net increase of commercial (1.8 million square feet) land uses (see Table 3-1, *Existing Land Use Summary*, and Table 3-4, *Summary of Existing and Proposed Land Uses*). However, unlike industrial land uses, these are not considered likely potential generators of odor that could affect a substantial number of people. Nuisance odors are regulated under South Coast AQMD Rule 402, which requires abatement of any nuisance generating a verified odor complaint. Therefore, impacts from potential odors generated from residential and other nonresidential land uses associated with the proposed project are considered less than significant.

Construction

During construction activities of development projects that would be accommodated by the proposed project, construction equipment exhaust and application of asphalt and architectural coatings would temporarily generate odors. Any construction-related odor emissions would be temporary and intermittent. Noxious odors would be confined to the immediate vicinity of the construction equipment in use. By the time such emissions reached any sensitive receptor sites, they would be diluted to well below any level of air quality concern. Short-term construction-related odors are expected to cease upon the drying or hardening of odor-producing materials. Therefore, impacts associated with construction-generated odors are considered less than significant.

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

5.2.5 Cumulative Impacts

The cumulative setting for air quality is the SoCAB. In accordance with the South Coast AQMD methodology, any project that produces a significant project-level regional air quality impact in an area that is in nonattainment, contributes to the cumulative impact. Cumulative projects include new development and general growth within the SoCAB. The SoCAB is nonattainment for O₃, PM₁₀, and PM_{2.5}. Due to the extent of the area potentially impacted from cumulative project emissions, South Coast AQMD considers a project cumulatively significant

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when project-related emissions exceed the regional emissions thresholds. As identified in Impact 5.2-2 (construction) and Impact 5.2-3 (operation), implementation of the proposed project would cumulatively contribute to the nonattainment designations of the air basins, and cumulative impacts are significant.

Construction

The SoCAB is designated nonattainment for O₃, PM_{2.5}, PM₁₀, and lead (SoCAB: Los Angeles County only) under the California and/or National AAQS. Construction of cumulative projects would further degrade the regional and local air quality. Air quality would be temporarily impacted during construction activities and use of off-road equipment could elevate concentrations of TACs in the vicinity of sensitive land uses. Implementation of mitigation measures for related projects would reduce cumulative impacts. However, project-related construction emissions could still potentially exceed the South Coast AQMD significance thresholds on a project and cumulative basis. Consequently, the proposed project's contribution to cumulative air quality impacts would be cumulatively considerable and would therefore be significant.

Operation

For operational air quality emissions, any project that does not exceed or can be mitigated to less than the daily regional threshold values are not considered by South Coast AQMD to be a substantial source of air pollution and does not add significantly to a cumulative impact. Operation of development allowed under the General Plan Update could result in emissions in excess of the South Coast AQMD regional emissions thresholds for long-term operation. Additionally, the net increase in industrial land use development under General Plan Update would generate TACs that would contribute to elevated levels of risk in the air basin. Therefore, the proposed project's air pollutant emissions would be cumulatively considerable and therefore significant.

5.2.6 Level of Significance Before Mitigation

Upon implementation of regulatory requirements, cited goals, and policies, some impacts would be less than significant: 5.2-5.

Without mitigation, these impacts would be **potentially significant**:

- **Impact 5.2-1** The additional population growth forecast for proposed project and the associated emissions would not be consistent with the assumptions of the South Coast AQMD's AQMP.
- **Impact 5.2-2** Construction activities associated with future development that would be accommodated under the proposed project could generate short-term emissions in exceedance of the South Coast AQMD's threshold criteria.
- **Impact 5.2-3** Implementation of the proposed project would generate additional, long-term emissions in exceedance of South Coast AQMD's threshold criteria and cumulatively contribute to the South Coast Air Basin's nonattainment designations.

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- **Impact 5.2-4** Operation of industrial and warehousing land uses accommodated under the proposed project could expose sensitive receptors to substantial criteria air pollutant and toxic air contaminant concentrations.

5.2.7 Mitigation Measures

Impact 5.2-1

AQ-1 Prior to discretionary approval by the City of Redondo Beach for development projects subject to CEQA (California Environmental Quality Act) review (i.e., nonexempt projects), project applicants shall prepare and submit a technical assessment evaluating potential project construction-related air quality impacts to the City of Redondo Beach Planning Division for review and approval. The evaluation shall be prepared in conformance with South Coast Air Quality Management District (South Coast AQMD) methodology for assessing air quality impacts. If construction-related criteria air pollutants are determined to have the potential to exceed the South Coast AQMD-adopted thresholds of significance, the City of Redondo Beach Building & Safety Division shall require feasible mitigation measures to reduce air quality emissions. Potential measures shall be incorporated as conditions of approval for a project and may include, but are not limited to the following:

- Require fugitive dust control measures that exceed South Coast Air Quality Management District's Rule 403, such as:
 - Requiring use of nontoxic soil stabilizers to reduce wind erosion.
 - Applying water every four hours to active soil disturbing activities.
 - Tarping and/or maintaining a minimum of 24 inches of freeboard on trucks hauling dirt, sand, soil, or other loose materials.
- Using construction equipment rated by the United States Environmental Protection Agency as having Tier 4 interim or higher exhaust emission limits.
- Ensuring construction equipment is properly serviced and maintained to the manufacturer's standards.
- Limiting nonessential idling of construction equipment to no more than five consecutive minutes.
- Using Super-Compliant VOC paints for coating of architectural surfaces whenever possible. A list of Super-Compliant architectural coating manufacturers can be found on the South Coast Air Quality Management District's website at: <https://www.aqmd.gov/home/rules-compliance/compliance/vocs/architectural-coatings/super-compliant-coatings>.

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These identified measures shall be incorporated into all appropriate construction documents (e.g., construction management plans) submitted to the City and shall be verified by the City's Planning Division.

AQ-2

Prior to discretionary approval by the City of Redondo Beach for development projects subject to CEQA (California Environmental Quality Act) review (i.e., nonexempt projects), project applicants shall prepare and submit a technical assessment evaluating potential project operation-phase-related air quality impacts to the City of Redondo Beach Planning Division for review and approval. The evaluation shall be prepared in conformance with South Coast Air Quality Management District (South Coast AQMD) methodology in assessing air quality impacts. If operation-related air pollutants are determined to have the potential to exceed the South Coast AQMD-adopted thresholds of significance, the City of Redondo Beach Planning Division shall require that applicants for new development projects incorporate mitigation measures to reduce air pollutant emissions during operational activities. The identified measures shall be included as part of the conditions of approval. Possible mitigation measures to reduce long-term emissions could include, but are not limited to the following:

- For site-specific development that requires refrigerated vehicles, the construction documents shall demonstrate an adequate number of electrical service connections at loading docks for plug-in of the anticipated number of refrigerated trailers to reduce idling time and emissions.
- Applicants for manufacturing and light industrial uses shall consider energy storage and combined heat and power in appropriate applications to optimize renewable energy generation systems and avoid peak energy use.
- Site-specific developments with truck delivery and loading areas and truck parking spaces shall include signage as a reminder to limit idling of vehicles while parked for loading/unloading in accordance with California Air Resources Board Rule 2845 (13 CCR Chapter 10 § 2485).
- Provide changing/shower facilities as specified in the Nonresidential Voluntary Measures of CALGreen.
- Provide bicycle parking facilities per the Nonresidential Voluntary Measures and Residential Voluntary Measures of CALGreen.
- Provide facilities to support electric charging stations per the Nonresidential Voluntary Measures and Residential Voluntary Measures of CALGreen.
- Applicant-provided appliances shall be Energy Star-certified appliances or appliances of equivalent energy efficiency (e.g., dishwashers, refrigerators, clothes washers, and dryers). Installation of Energy Star-certified or equivalent appliances shall be verified by the City during plan check.

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Impact 5.2-2

Implementation of Mitigation Measure AQ-1.

Impact 5.2-3

Implementation of Mitigation Measure AQ-2.

Impact 5.2-4

Criteria Air Pollutants

Implementation of Mitigation Measures AQ-1 and AQ-2.

Toxic Air Contaminants

AQ-3 **Industrial and Warehouse Development Health Risk Assessments.** Prior to discretionary approval by the City of Redondo Beach, project applicants for new industrial or warehousing development projects that 1) have the potential to generate 100 or more diesel truck trips per day or have 40 or more trucks with operating diesel-powered transport refrigeration units, and 2) are within 1,000 feet of a sensitive land use (e.g., residential, schools, hospitals, nursing homes), as measured from the property line of the project to the property line of the nearest sensitive use, shall submit a health risk assessment (HRA) to the City of Redondo Beach Planning Division for review and approval. The HRA shall be prepared in accordance with policies and procedures of the state Office of Environmental Health Hazard Assessment and the South Coast AQMD. If the HRA shows that the incremental cancer risk and/or noncancer hazard index exceeds the respective threshold, as established by the South Coast AQMD at the time a project is considered, the project applicant will be required to identify best available control technologies for toxics (T-BACTs) and appropriate enforcement mechanisms and demonstrate that they are capable of reducing potential cancer and noncancer risks to an acceptable level. T-BACTs may include but are not limited to restricting idling on-site or electrifying warehousing docks to reduce diesel particulate matter, or requiring use of newer equipment and/or vehicles. T-BACTs identified in the HRA shall be identified as mitigation measures in the environmental document and/or incorporated into the site plan.

5.2.8 Level of Significance After Mitigation

Impact 5.2-1

The proposed project would be inconsistent with the South Coast AQMD AQMP because buildout under the General Plan Update would increase VMT per service population and cumulatively contribute to the nonattainment designations of the SoCAB. Incorporation of Mitigation Measures AQ-1 and AQ-2 into future development projects for the operation phase would reduce criteria air pollutant emissions associated with buildout of the General Plan Update. Additionally, Land Use Policy LU-3.7, LU-3.10, and LU-4.6 in the General

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Plan Update would promote increased capacity for alternative transportation modes. However, Impact 5.2-1 would remain ***significant and unavoidable***.

Impact 5.2-2

Buildout in accordance with the General Plan Update would generate short-term emissions that would exceed South Coast AQMD's regional significance thresholds and cumulatively contribute to the nonattainment designations of the SoCAB. Mitigation Measure AQ-1 and the policies of the General Plan Update would reduce construction-related air pollutant emissions to the extent feasible. However, individual projects accommodated under the proposed project may exceed the South Coast AQMD regional significance thresholds. Furthermore, there is a potential for multiple development projects accommodated under the General Plan Update to be constructed at one time, resulting in significant construction-related emissions and significant cumulative impacts. Therefore, construction-related regional air quality impacts of developments that would be accommodated by the proposed project under Impact 5.2-2 would remain ***significant and unavoidable***.

Impact 5.2-3

Buildout in accordance with the General Plan Update would generate long-term emissions that would exceed South Coast AQMD's regional significance thresholds and cumulatively contribute to the nonattainment designations of the SoCAB. Mitigation Measure AQ-2, in addition to the goals and policies of the General Plan Update, would reduce air pollutant emissions to the extent feasible. The policies covering topics such as integration of neighboring communities with pedestrian and bicycle corridors, promotion of transit-oriented development or home-based businesses, and requirement of buffer distances to protect sensitive land uses would all help reduce criteria air pollutants within the City.

As shown in Table 5.2-12, *City of Redondo Beach Regional Criteria Air Pollutant Emissions Forecast Compared to Existing Conditions*, compared to existing baseline year conditions, the majority of criteria air pollutant emissions are projected to decrease from current levels despite growth associated with the General Plan Update. However, Impact 5.2-3 would remain ***significant and unavoidable*** due to the increase in VOCs from residential development consumer product use associated with the General Plan Update.

Table 5.2-12 City of Redondo Beach Regional Criteria Air Pollutant Emissions Forecast Compared to Existing Conditions

Sector	Criteria Air Pollutant Emissions (pounds per day)					
	VOC	NO _x	CO	SO ₂	PM ₁₀	PM _{2.5}
Existing – 2023 Emission Rates						
Transportation ¹	69	482	3,322	11	79	30
Energy ²	16	286	150	2	23	23
Area–Offroad Equipment ³	308	220	6,756	<1	9	7
Area–Consumer Products ⁴	1,100	—	—	—	—	—
Existing Total	1,493	987	10,229	14	112	60

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Table 5.2-12 City of Redondo Beach Regional Criteria Air Pollutant Emissions Forecast Compared to Existing Conditions

Sector	Criteria Air Pollutant Emissions (pounds per day)					
	VOC	NO _x	CO	SO ₂	PM ₁₀	PM _{2.5}
General Plan Update						
Transportation ¹	28	228	1,863	10	93	32
Energy ²	20	354	192	2	28	28
Area–Offroad Equipment ³	338	240	7,487	<1	10	7
Area–Consumer Products ⁴	1,340	—	—	—	—	—
General Plan Update Total	1,726	822	9,542	13	131	68
Change						
Transportation ¹	-42	-253	-1,460	-1	13	2
Energy ²	4	68	43	<1	5	5
Area–Offroad Equipment ³	30	20	730	<1	1	<1
Area–Consumer Products ⁴	240	—	—	—	—	—
Total	232	-165	-686	-1	19	8
South Coast AQMD Regional Significance Threshold	55	55	550	150	150	55
Significant?	Yes	No	No	No	No	No

Sources. See Appendix C.

Contributing to the nonattainment status would also contribute to elevating health effects associated to these criteria air pollutants. Known health effects related to ozone include worsening of bronchitis, asthma, and emphysema and a decrease in lung function. Health effects associated with particulate matter 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 for this broad-based policy plan to determine how exceeding the regional thresholds would affect the number of days the region is in nonattainment since mass emissions are not correlated with concentrations of emissions, or how many additional individuals in the air basin would be affected by the health effects cited above. This DEIR 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 the proposed project or meaningfully correlate how regional criteria air pollutant emissions above the South Coast AQMD 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 as model parameters as the quantity of TAC emissions. The white paper in Appendix C “We Can Model Regional Emissions, But Are the Results

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Meaningful for CEQA” describe several of the challenges of quantifying local effects—particularly health risks—for large-scale, regional projects, and these are applicable to both criteria air pollutants and TACs. Similarly, the two amicus briefs filed by the air districts on the Friant Ranch case (see Appendix C) describe two positions regarding CEQA requirements, modeling feasibility, variables, and reliability of results for determining specific health risks associated with criteria air pollutants. The discussions also include the distinction between criteria air pollutant emissions and TACs with respect to health risks. Additionally, the South Coast AQMD’s Significance Thresholds and Monitoring demonstrate the infeasibility based on the current guidance/methodologies. 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 air quality standards, the South Coast AQMD 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 South Coast AQMD 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” (South Coast AQMD 1993). The numerical emission indicators are based on the recognition that the air basin is a distinct geographic area with a critical air pollution problem for which ambient air quality standards 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 ambient air quality standard. 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 ambient air quality standards and exposure levels.

South Coast AQMD 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 a General Plan Update’s mass emissions.¹¹ For criteria air pollutants, exceedance of the regional significance thresholds cannot be used to correlate a project to quantifiable health impacts unless emissions are sufficiently high to use a regional model. South Coast AQMD has not provided methodology to assess the specific correlation between mass emissions generated and their effect on health (see Appendix C: San Joaquin Valley Air Pollution Control District’s amicus brief, and South Coast AQMD’s amicus brief).

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 particulate matter (PM) and ozone can occur far from sources as a result of regional transport due to wind and topography (e.g., low-level jet stream). Photochemical modeling depends

¹¹ 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. Consistent with the expert opinions submitted to the court in Friant Ranch by the San Joaquin Valley Air Pollution Control District (SJVAPCD) and South Coast AQMD, 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 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 South Coast AQMD region.

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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 ozone concentrations in relation to the National and California AAQS, 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 standards. 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 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 location of emissions sources and quantity of emissions are not known. However, because cumulative development within the City would exceed the regional significance thresholds, the proposed project could contribute to an increase in health effects in the basin until the attainment standards are met in the SoCAB.

Impact 5.3-4

Criteria Air Pollutants

Mitigation Measures AQ-1 and AQ-2 (applied for Impacts 5.3-2 and 5.3-3, respectively) would reduce the regional construction and operation emissions associated with buildout of the General Plan Update and therefore 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 close to project-related construction activities and large emitters of on-site operation-related criteria air pollutant emissions, construction and operation emissions generated by individual development projects have the potential to exceed SCAQMD’s LSTs. Impact 5.3-5, in regard to the General Plan Update, would remain ***significant and unavoidable***.

Toxic Air Contaminants

Buildout of the proposed project could result in new sources of criteria air pollutant emissions and/or TACs near existing or planned sensitive receptors. Review of development projects by South Coast AQMD for permitted sources of air toxics (e.g., industrial facilities, dry cleaners, and gasoline dispensing facilities) would ensure that health risks are minimized. Mitigation Measure AQ-3, would require HRAs for applicable industrial development projects to ensure that T-BACTs are utilized to reduce potential cancer and noncancer risks to an acceptable level. Individual development projects would be required to achieve the incremental risk thresholds established by South Coast AQMD, and TACs would be less than significant.

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However, the net increase in industrial land uses allowed under the General Plan Update would generate TACs that could contribute to elevated levels in the air basin. While individual projects would achieve the project-level risk threshold of 10 per million, they would nonetheless contribute to higher levels of cancer risk in the SoCAB; and therefore, result in a cumulatively considerable impact. Therefore, the proposed project's cumulative contribution to health risk is considered *significant and unavoidable*.

5.2.9 References

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5.3 BIOLOGICAL RESOURCES

This section of the Draft Program Environmental Impact Report (DEIR) evaluates the potential impacts to biological resources from the updates to the General Plan, Zoning Ordinance, and Local Coastal Program (LCP) (proposed project).

5.3.1 Environmental Setting

5.3.1.1 REGULATORY BACKGROUND

Federal and State Regulations

Endangered Species Act

The Federal Endangered Species Act (FESA) of 1973, as amended, protects and conserves any species of plant or animal that is endangered or threatened with extinction, as well as the habitats where these species are found. “Take” of endangered species is prohibited under Section 9 of the FESA. “Take” means to “harass, harm, pursue, hunt, wound, kill, trap, capture, collect, or attempt to engage in any such conduct.” Section 7 of the FESA requires federal agencies to consult with the U.S. Fish and Wildlife Service (USFWS) on proposed federal actions that may affect any endangered, threatened, or proposed (for listing) species or critical habitat that may support the species. Section 4(a) of the FESA requires that critical habitat be designated by the USFWS “to the maximum extent prudent and determinable, at the time a species is determined to be endangered or threatened.” This provides guidance for planners/managers and biologists by indicating locations of suitable habitat and where preservation of a particular species has high priority. Section 10 of the FESA provides the regulatory mechanism for incidental take of a listed species by private interests and nonfederal government agencies during lawful activities. Habitat conservation plans for the impacted species must be developed in support of incidental take permits to minimize impacts to the species and formulate viable mitigation measures.

Migratory Bird Treaty Act

The Migratory Bird Treaty Act of 1918 (MBTA) affirms and implements the United States’ commitment to four international conventions—with Canada, Japan, Mexico, and Russia—to protect shared migratory bird resources. The MBTA governs the take, killing, possession, transportation, and importation of migratory birds, their eggs, parts, and nests. It prohibits the take, possession, import, export, transport, sale, purchase, barter, or offering of these items, except under a valid permit or as permitted in the implementing regulations. USFWS administers permits to take migratory birds in accordance with the MBTA.

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Clean Water Act, Section 404

The United States Army Corps of Engineers (USACE) regulates discharge of dredged or fill material into “waters of the United States.”¹ Any filling or dredging within waters of the United States requires a permit, which entails assessment of potential adverse impacts to USACE wetlands and jurisdictional waters and any mitigation measures that the USACE requires. Section 7 consultation with USFWS may be required for impacts to a federally listed species. If cultural resources may be present, Section 106 review may also be required. When a Section 404 permit is required, a Section 401 Water Quality Certification is also required from the Regional Water Quality Control Board (RWQCB).

Clean Water Act, Section 401 and 402

Section 401(a)(1) of the CWA specifies that any applicant for a federal license or permit to conduct any activity that may result in any discharge into navigable waters shall provide the federal permitting agency with a certification, issued by the state in which the discharge originates, that any such discharge will comply with the applicable provisions of the CWA. In California, the applicable RWQCB must certify that the project will comply with water quality standards. Permits requiring Section 401 certification include USACE Section 404 permits and National Pollutant Discharge Elimination System permits issued by the US Environmental Protection Agency under Section 402 of the CWA. Such permits are issued by the applicable RWQCB. The City of Redondo Beach is in the jurisdiction of the Santa Ana RWQCB (Region 8).

Native Plant Protection Act

The Native Plant Protection Act (NPPA) and implementing regulations in the California Fish and Game Code Section 1900 et seq. designate rare and endangered plants and provide specific California Coastal Act protection measures for identified populations. The NPPA was enacted to “preserve, protect, and enhance endangered or rare native plants of this state.” The NPPA defines a plant as endangered when its prospects of survival and reproduction are in immediate jeopardy from one or more causes. A rare plant is defined as a plant species that, though not presently threatened with extinction, occurs in such small numbers throughout its range that it may become endangered if its present environment worsens. The NPPA prohibits the take or sale of rare and endangered plants in California. However, the law includes broad exemptions to the prohibition of take, including removal of endangered or rare plants from a building site, road, or right-of-way.

California Fish and Game Code, Section 1600

Section 1600 of the California Fish and Game Code requires a project proponent to notify the California Department of Fish and Wildlife (CDFW) of any proposed alteration of streambeds, rivers, and lakes. The intent is to protect habitats that are important to fish and wildlife. CDFW may review and place conditions on

¹ “Waters of the United States,” as applied to the jurisdictional limits of the USACE under the Clean Water Act, includes all waters that are currently used, were used in the past, or may be susceptible to use in interstate or foreign commerce, including all waters that are subject to the tide; all interstate waters, including interstate wetlands; and all other waters, such as intrastate lakes, rivers, streams (including intermittent streams), mudflats, sandflats, wetlands, sloughs, prairie potholes, wet meadows, playa lakes, or natural ponds whose use, degradation, or destruction could affect interstate or foreign commerce; water impoundments; tributaries of waters; territorial seas; and wetlands adjacent to waters. The terminology used by Section 404 of the Clean Water Act includes “navigable waters,” which is defined at Section 502(7) of the act as “waters of the United States, including the territorial seas.”

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the project as part of a Streambed Alteration Agreement that addresses potentially significant adverse impacts within CDFW's jurisdictional limits.

California Endangered Species Act

The California Endangered Species Act (CESA) generally parallels the main provisions of the FESA and is administered by the CDFW. Its intent is to prohibit take and protect state-listed endangered and threatened species of fish, wildlife, and plants. Unlike its federal counterpart, CESA also applies the take prohibitions to species petitioned for listing (state candidates). Candidate species may be afforded temporary protection as though they were already listed as threatened or endangered at the discretion of the Fish and Game Commission. Unlike the FESA, CESA does not include listing provisions for invertebrate species. Under certain conditions, CESA has provisions for take through a 2081 permit or memorandum of understanding (MOU). In addition, some sensitive mammals and birds are protected by the state as "fully protected species." California "species of special concern" are species designated as vulnerable to extinction due to declining population levels, limited ranges, and/or continuing threats. This list is primarily a working document for the CDFW's California Natural Diversity Database (CNDDDB), which maintains a record of known and recorded occurrences of sensitive species. Informally listed taxa are not protected per se, but warrant consideration in the preparation of biological resources assessments.

California Coastal Act

The California Coastal Act (CCA) recognizes California ports, harbors, and coastline beaches as primary economic and coastal resources and as essential elements of the national maritime industry. Decisions to undertake specific development projects, where feasible, are to be based on consideration of alternative locations and designs to minimize any adverse environmental impacts. The CCA is implemented by the California Coastal Commission (CCC). The City of Redondo Beach also administers the CCA through the application of the its Local Coastal Program, CLUP, and Coastal Land Use Plan Implementing Ordinance (Zoning Ordinance for the Coastal Zone), all of which have been certified by the CCC.

Regional

Beach Bluffs Restoration Project Master Plan

The Beach Bluffs Restoration Project Master Plan implements the goals of the Beach Bluffs Restoration Project, including enhancing the natural ecology of the coastal bluffs along the Santa Monica Bay through restoration, improving recreational opportunities, promoting aesthetic improvements, and educating the public about the bluffs, their history, and their ecology. Specifically for habitat restoration, the objective of the Master Plan is to increase the ecological values of the bluffs and dunes, such that the restored areas 1) contribute to the recovery of the El Segundo blue butterfly, 2) provide habitat for unique and rare plants of the El Segundo dunes, 3) increase biological connectivity between remnant populations of dune species, and 4) support more diverse bird, reptile, and arthropod communities.

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Santa Monica Bay National Estuary Program: Action Plan for the Comprehensive Conservation and Management Plan

The Action Plan is one component of the Santa Monica Bay National Estuary Program's Comprehensive Conservation and Management Plan with the goal of providing a long-term framework for action in the Santa Monica Bay and its watersheds. High-level priorities and goals include improving water quality, conserving and rehabilitating natural resources, and protecting the Bay's benefits and values to people.

Santa Monica Bay Restoration Commission Bay Restoration Plan 2013 Update

This document is intended to help restore and enhance Santa Monica Bay through actions and partnerships that improve water quality, conserve and rehabilitate natural resources, and protect the Bay's benefits and values. Furthermore, it specifies the priority issues that must be addressed to protect and restore the Bay and its watershed, as well as the goals, objectives, and milestones required.

Local

Redondo Beach Local Coastal Program

The California Coastal Act, originally enacted by the State Legislature in 1976, requires all cities and counties along the State of California coast to prepare a Local Coastal Program. The LCP, as defined by the California Coastal Act, includes a local government's land use plan, zoning ordinances, zoning maps, and other implementing actions or policies applicable to the Coastal Zone. The City's LCP reflects the coastal issues and concerns specific to Redondo Beach, many of which relate to parks, open spaces, conservation, and other topics. Redondo Beach's LCP is also consistent with the State-wide goals, objectives, and policies of the California Coastal Act. The City's LCP inclusive of its land use plan, zoning ordinance for the coastal zone and associated zoning maps has been certified by the CCC.

Harbor/Civic Center Specific Plan

The Harbor/Civic Center Specific Plan supplements the General Plan and Local Coastal Program as a policy and planning document for the 355.4 acres around the Pier, Harbor, and Civic Center within the Specific Plan boundaries. The Specific Plan expands on the Local Coastal Program as well as General Plan goals and policies specific to the project area and contains detailed provisions related to parks, open spaces, and natural resources within its boundaries.

Beach Bluffs Restoration Project Master Plan

The Beach Bluffs Restoration Project is a resident-initiated effort to restore the natural diversity of the remnant dunes and bluffs along the Santa Monica Bay between Ballona Creek and the Palos Verdes Peninsula. This Master Plan prioritizes the sites that could be restored and describes actions for education and community involvement. The plan includes an assessment of the erosion risk for the bluffs and proposes remediated measures to protect the natural landforms. The goals of the Master Plan include increasing the ecological value of the beach bluffs by restoring the native vegetation, increasing recreational value by providing stewardship

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opportunities for restored bluffs, and providing a public education program about the beach bluffs and their coastal environment.

Redondo Beach Parkway Trees Master List

The City maintains a master list of climate-appropriate trees and vegetation to be used for City projects and other plantings on public land.

Redondo Beach Municipal Code

Coastal Land Use Plan Implementing Ordinance

Section 10-5.1900 (Landscaping Regulations) of the Coastal Land Use Plan Implementing Ordinance (Coastal Zoning), within the Redondo Beach Municipal Code, contains tree trimming and tree removal requirements for trees in the coastal zone (Harbor/Pier Area). This includes prohibiting trimming or disturbance of trees that have been used for breeding and nesting by bird species listed pursuant to the Federal or California Endangered Species Acts, California bird species of special concern, and wading birds (herons or egrets) within the previous five years, as determined by a qualified biologist, unless a health a safety danger exists, and prohibiting tree trimming and removal during the breeding and nesting season (January through September) unless a tree is determined to be a danger to public health and safety. Any breeding or nesting tree that must be removed shall be replaced at a 1:1 ratio.

Environmental Review Pursuant to CEQA

Title 10, Chapter 3, Environmental Review Pursuant to CEQA, of the Redondo Beach Municipal Code establishes the specific procedures necessary to implement CEQA. Article 2, Evaluation of Significant Effects, establishes criteria for determining significant effects and provides guidance in making an evaluation whether or not a particular project may have a substantial adverse effect on the environment. Pursuant to the Municipal Code, if there are inconsistencies between the provisions contained in Title 10, Chapter 3, and the State's CEQA Guidelines, the State's CEQA Guidelines shall control. As established in Section 10-3.202, significant effects may be due to primary consequences immediately related to the project or may be due to secondary consequences related more to the primary consequences than the project itself. As established in Section 10-3.203, with respect to biological resources, a project will normally have a significant effect on the environment if it will (c) substantially affect a rare or endangered species of animal or plant or the habitat of the species; (d) interfere substantially with the movement of any resident or migratory fish or wildlife species; and/or (t) substantially diminish habitat for fish, wildlife or plants.

Landscaping Regulations

Sections 10-2.1900 and 10-5.1900 of the Zoning Ordinance and Zoning Ordinance for the Coastal Zone within the Redondo Beach Municipal Code, contain provisions requiring landscaping in all zoning setback areas and within parking lots. Allowable plant types recommend drought-tolerant species listed in the City of Redondo Beach List of Recommended Tress and Water Conserving Plants maintained by the City's Public Works Department. Additionally, the State's Model Water Efficient Landscape Ordinance (MWELO) is adopted by reference and applies to new landscaping projects within the City.

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5.3.1.2 EXISTING CONDITIONS

Redondo Beach is a developed city characterized almost entirely with buildings, parking lots, paved roads, sidewalks, and other urban development. There is very little native terrestrial vegetation in the area. Most large groupings of mature trees, shrubbery, and other low-growing vegetation are found in parks and other small, isolated open spaces. Most of the vegetation in Redondo Beach consists of commercial and residential landscaping. This vegetation provides limited habitat for urban-dwelling rodents and feral and domesticated mammals. However, street trees and other landscaped trees throughout the City provide potential nesting and roosting sites for resident and migratory birds. Several small (i.e., less than 6 acres) wetlands identified in the National Wetlands Inventory are in Redondo Beach (USFWS 2020).

Redondo Beach is home to critical habitat and wildlife resources. The coastal bluffs, parks, marine habitats, and certain urban areas support a variety of plants and animals common to the urban landscape as well as several marine species. Three important habitat areas are in or adjacent to the City: the coastal bluffs, the harbor area adjacent to Hermosa Beach, and Hopkins Wilderness Park.

Two critical habitat areas include the coastal bluffs and the harbor areas adjacent to Hermosa Beach, which contain features essential to the conservation of an endangered or threatened species. These critical habitat areas are designated with a land-use category that precludes development and requires the preservation of open space. The Hopkins Wilderness Park is an 11-acre site in the southern portion of the City that the City intends to preserve for habitat rehabilitation. Rehabilitation efforts include reestablishing and reintroducing native plants and animals.

- **The Coastal Bluffs (Critical Habitat).** The steep incline separating the City's Esplanade from the Beaches below forms a rare habitat where reintroduced coast buckwheat plants are capable of supporting the El Segundo blue butterfly. The El Segundo blue butterfly is a federally endangered species.
- **The Harbor Area Adjacent to Hermosa Beach (Critical Habitat).** Twenty-seven acres of Hermosa Beach's beachfront is designated a critical habitat for the western snowy plover. While the habitat area does not extend into Redondo Beach, the western snowy plover is a federally endangered species and a California species of special concern.
- **Hopkins Wilderness Park (Area of Habitat Rehabilitation).** Built in 1977, Wilderness Park is a wooded open space with 11 acres of trails, ponds, and habitat for native plants and species to thrive. After much of the park was damaged in a fire, it has been the focus of numerous restoration efforts that are reintroducing native plants that support local animal and insect species.

In addition to the City's natural habitats, Redondo Beach is home to a robust and growing urban forest comprising all the trees that grow within the City (including both public and privately owned trees). Most of the City's urban forest is in parks, open spaces, within street parkways, and on private residential properties.

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Special Status Species

Special-status species are plants and animals that are legally protected under the CESA or FESA or other regulations, and species that are considered by the scientific community to be sufficiently rare to qualify for such listing. Special-status plants and animals are species in the following categories:

- Listed, proposed for listing, or candidates for future listing as threatened or endangered under the FESA.
- Listed or candidates for future listing as threatened or endangered under the CESA.
- Meet the definitions of endangered or rare under Section 15380 of the CEQA Guidelines.
- Identified as a Species of Special Concern (SSC) by the CDFW.
- Plants considered by California Native Plant Society (CNPS) to be “rare, threatened, or endangered in California” (California Rare Plant Rank [CRPR] 1 and 2).
- Plants listed by CNPS as species about which more information is needed to determine their status (CRPR 3) and plants of limited distribution (CRPR 4).
- Plants listed as rare under the California Native Plant Protection Act.
- Are fully protected in California in accordance with the California Fish and Game Code, Sections 3511 (birds), 4700 (mammals), 5050 (amphibians and reptiles), and 5515 (fishes).

The sections below discuss the available information regarding special-status plants, wildlife, and fish known to occur or with potential to occur in the City of Redondo Beach.

Special-Status Plants and Wildlife

The California Natural Diversity Database (CNDDDB) is an inventory of the status and locations of rare plants and wildlife in California, maintained by CDFW. The CNDDDB organizes regional data by 7.5-minute quadrangle maps. Federal- and state-listed species are known to occur in the Inglewood quadrangle map, Redondo Beach quadrangle map, Torrance quadrangle map, and Venice quadrangle map. These special status species are listed in Table 5.3-1, *Sensitive Plant Species Potentially Present in City and Vicinity*, and Table 5.3-2, *Sensitive Animal Species Potentially Present in City and Vicinity*.

As shown in Table 5.3-1, a total of 55 special-status plants are known to occur or have the potential to occur in the City. Of these 55 special-status species, 9 federally and/or State-listed plant species are known to occur in the City. As shown in Table 5.3-2, a total of 102 special-status wildlife species are known to occur or have the potential to occur in the City. Of those, 12 birds, 3 fish, 3 mammals, 2 insects, and a crustacean species are listed or considered federal- and/or State-listed wildlife species known to occur in the City.

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Table 5.3-1 Sensitive Plant Species Potentially Present in City and Vicinity

Scientific Name	Common Name	Federal/State Status	California Rare Plant Rank
<i>Eryngium aristulatum</i> var. <i>parishii</i>	San Diego button-celery	Endangered/Endangered	1B.1
<i>Dithyrea maritima</i>	beach spectaclepod	None/Threatened	1B.1
<i>Erysimum insulare</i>	island wallflower	None/None	1B.3
<i>Erysimum suffrutescens</i>	suffrutescent wallflower	None/None	4.2
<i>Chenopodium littoreum</i>	coastal goosefoot	None/None	1B.2
<i>Centromadia parryi</i> ssp. <i>australis</i>	Southern tarplant	None/None	1B.1
<i>Chaenactis glabriuscula</i> var. <i>orcuttiana</i>	Orcutt's pincushion	None/None	1B.1
<i>Centromadia pungens</i> ssp. <i>laevis</i>	smooth tarplant	None/None	1B.1
<i>Deinandra paniculata</i>	paniculate tarplant	None/None	4.2
<i>Isocoma menziesii</i> var. <i>decumbens</i>	decumbent goldenbush	None/None	1B.2
<i>Aphanisma blitoides</i>	aphanisma	None/None	1B.1
<i>Atriplex coulteri</i>	Coulter's saltbush	None/None	1B.2
<i>Atriplex pacifica</i>	south coast saltscale	None/None	1B.2
<i>Atriplex parishii</i>	Parish's brittle-scale	None/None	1B.1
<i>Atriplex serenana</i> var. <i>davidsonii</i>	Davidson's saltscale	None/None	1B.2
<i>Suaeda esteroa</i>	estuary seablite	None/None	1B.2
<i>Suaeda taxifolia</i>	woolly seablite	None/None	4.2
<i>Dichondra occidentalis</i>	western dichondra	None/None	4.2
<i>Astragalus pycnostachyus</i> var. <i>lanosissimus</i>	Ventura Marsh milk-vetch	Endangered/Endangered	1B.1
<i>Phacelia ramosissima</i> var. <i>australitoralis</i>	south coast branching phacelia	None/None	3.2
<i>Calystegia peirsonii</i>	Peirson's morning-glory	None/None	4.2
<i>Convolvulus simulans</i>	small-flowered morning-glory	None/None	4.2
<i>Dudleya vires</i> ssp. <i>insularis</i>	island green dudleya	None/None	1B.2
<i>Phacelia stellaris</i>	Brands star phacelia	None/None	1B.1
<i>Juglans californica</i>	southern California black walnut	None/None	4.2
<i>Juncus acutus</i> ssp. <i>leopoldii</i>	southwestern spiny rush	None/None	4.2
<i>Calochortus catalinae</i>	Catalina mariposa-lily	None/None	4.2
<i>Nama stenocarpa</i>	mud nama	None/None	2B.2
<i>Chloropyron maritimum</i> ssp. <i>maritimum</i>	salt marsh birds-beak	Endangered/Endangered	1B.2
<i>Cistanthe maritima</i>	seaside cistanthe	None/None	4.2
<i>Horkelia cuneata</i> var. <i>puberula</i>	mesa horkelia	None/None	1B.1
<i>Potentilla multijuga</i>	Ballona cinquefoil	None/None	1A
<i>Lycium brevipes</i> var. <i>hassei</i>	Santa Catalina Island desert-thorn	None/None	3.1
<i>Lycium californicum</i>	California box-thorn	None/None	4.2
<i>Lasthenia glabrata</i> ssp. <i>coulteri</i>	Coulter's goldfields	None/None	1B.1
<i>Pentachaeta lyonii</i>	Lyons pentachaeta	Endangered/Endangered	1B.1
<i>Symphotrichum defoliatum</i>	San Bernardino aster	None/None	1B.2
<i>Astragalus tener</i> var. <i>titi</i>	coastal dunes milk-vetch	Endangered/Endangered	1B.1
<i>Sidalcea neomexicana</i>	salt spring checkerbloom	None/None	2B.2
<i>Abronia maritima</i>	red sand-verbena	None/None	4.2
<i>Camissoniopsis lewisii</i>	lewis evening-primrose	None/None	3
<i>Hordeum intercedens</i>	vernal barley	None/None	3.2
<i>Orcuttia californica</i>	California Orcutt grass	Endangered/Endangered	1B.1

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Table 5.3-1 Sensitive Plant Species Potentially Present in City and Vicinity

Scientific Name	Common Name	Federal/State Status	California Rare Plant Rank
<i>Chorizanthe parryi</i> var. <i>fernandina</i>	San Fernando Valley spineflower	None/Endangered	1B.1
<i>Navarretia fossalis</i>	spreading navarretia	Threatened/None	1B.1
<i>Navarretia prostrata</i>	prostrate vernal pool navarretia	None/None	1B.2

Source: California Natural Diversity Database, 2023, Inglewood, Redondo Beach, Torrance, Venice quadrangles.

California Rare Plant Rank

- 1A: Plants presumed extinct in California and rare/extinct elsewhere
 1B.1: Plants rare, threatened, or endangered in California and elsewhere; seriously threatened in California
 1B.2: Plants rare, threatened, or endangered in California and elsewhere; fairly threatened in California
 1B.3: Plants rare, threatened, or endangered in California and elsewhere; not very threatened in California
 2A: Plants presumed extirpated in California, but more common elsewhere
 2B.1: Plants rare, threatened, or endangered in California, but more common elsewhere; seriously threatened in California
 2B.2: Plants rare, threatened, or endangered in California, but more common elsewhere; fairly threatened in California
 2B.3: Plants rare, threatened, or endangered in California, but more common elsewhere; not very threatened in California
 3.1: Plants about which we need more information; seriously threatened in California
 3.2: Plants about which we need more information; fairly threatened in California
 3.3: Plants about which we need more information; not very threatened in California
 4.1: Plants of limited distribution; seriously threatened in California
 4.2: Plants of limited distribution; fairly threatened in California
 4.3: Plants of limited distribution; not very threatened in California

Federal Status

- Endangered: The classification provided to an animal or plant in danger of extinction within the foreseeable future throughout all or a significant portion of its range.
 Threatened: The classification provided to an animal or plant which is likely to become an Endangered species within the foreseeable future throughout all or a significant portion of its range.
 Proposed Endangered: The classification provided to an animal or plant that is proposed for federal listing as Endangered in the Federal Register under Section 4 of the Endangered Species Act.
 Proposed Threatened: The classification provided to an animal or plant that is proposed for federal listing as Threatened in the Federal Register under Section 4 of the Endangered Species Act.
 Candidate: The classification provided to an animal or plant that has been studied by the United States Fish and Wildlife Service, and the Service has concluded that it should be proposed for addition to the Federal Endangered and Threatened species list.
 None: The plant or animal has no federal status.
 Delisted: The plant or animal was previously listed as Endangered or Threatened, but is no longer listed on the Federal Endangered and Threatened species list.

State Status

- Endangered: The classification provided to a native species or subspecies of a bird, mammal, fish, amphibian, reptile, or plant which is in serious danger of becoming extinct throughout all, or a significant portion, of its range due to one or more causes, including loss of habitat, change in habitat, overexploitation, predation, competition, or disease.
 Threatened: The classification provided to a native species or subspecies of a bird, mammal, fish, amphibian, reptile, or plant that, although not presently threatened with extinction, is likely to become an endangered species in the foreseeable future in the absence of special protection and management efforts.
 Rare: The classification provided to a native plant species, subspecies, or variety when, although not presently threatened with extinction, it is in such small numbers throughout its range that it may become endangered if its present environment worsens. This designation stems from the Native Plant Protection Act of 1977.
 None: The plant or animal has no state status.
 Delisted: The plant or animal was previously listed as Endangered, Threatened or Rare but is no longer listed by the State of California.
 Candidate Endangered: The classification provided to a native species or subspecies of a bird, mammal, fish, amphibian, reptile, or plant that the Fish and Game Commission has formally noticed as being under review by the Department of Fish and Wildlife for addition to the list of endangered species, or a species for which the commission has published a notice of proposed regulation to add the species to the list of endangered species.
 Candidate Threatened: The classification provided to a native species or subspecies of a bird, mammal, fish, amphibian, reptile, or plant that the Fish and Game Commission has formally noticed as being under review by the Department of Fish and Wildlife for addition to the list of threatened species, or a species for which the commission has published a notice of proposed regulation to add the species to the list of threatened species.

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Table 5.3-2 Sensitive Animal Species Potentially Present in City and Vicinity

Scientific Name	Common Name	Federal/State Status	California Department of Fish and Wildlife Status
FISH			
<i>Oncorhynchus mykiss irideus pop. 10</i>	steelhead - southern California DPS	Endangered/Candidate Endangered	-
<i>Siphateles bicolor mohavensis</i>	Mohave tui chub	Endangered/Endangered	FP
<i>Eucyclogobius newberryi</i>	tidewater goby	Endangered/None	-
AMPHIBIANS			
<i>Spea hammondi</i>	western spadefoot	None/None	SSC
INSECTS			
<i>Bombus crotchii</i>	Crotch bumble bee	None/Candidate Endangered	-
<i>Bombus pensylvanicus</i>	American bumble bee	None/None	-
<i>Danaus plexippus plexippus pop. 1</i>	monarch - California overwintering population	Candidate/None	-
<i>Brennania belkini</i>	Belkins dune tabanid fly	None/None	-
<i>Cicindela hirticollis grvida</i>	sandy beach tiger beetle	None/None	-
<i>Cicindela senilis frosti</i>	senile tiger beetle	None/None	-
<i>Eugnosta busckana</i>	Buscks gallmoth	None/None	-
<i>Onychobaris langei</i>	Langes El Segundo Dune weevil	None/None	-
<i>Trigonoscuta dorothea dorothea</i>	Dorothys El Segundo Dune weevil	None/None	-
<i>Panoquina errans</i>	wandering (=saltmarsh) skipper	None/None	-
<i>Euphilotes battoides allyni</i>	El Segundo blue butterfly	Endangered/None	-
<i>Rhaphiomidas terminatus terminatus</i>	El Segundo flower-loving fly	None/None	-
<i>Coelus globosus</i>	globose dune beetle	None/None	-
<i>Pelochrista hennei</i>	Hennes eucosman moth	None/None	-
<i>Trigonoscuta stantoni</i>	Santa Cruz Island shore weevil	None/None	-
<i>Glaucopsyche lygdamus palosverdesensis</i>	Palos Verdes blue butterfly	Endangered/None	-
<i>Cicindela latesignata</i>	western beach tiger beetle	None/None	-
<i>Habroscelimorpha gabbii</i>	western tidal-flat tiger beetle	None/None	-
REPTILES			
<i>Anniella stebbinsi</i>	Southern California legless lizard	None/None	SSC
<i>Phrynosoma blainvillii</i>	coast horned lizard	None/None	SSC
<i>Diadophis punctatus modestus</i>	San Bernardino ringneck snake	None/None	-
<i>Emys marmorata</i>	western pond turtle	None/None	SSC
<i>Thamnophis hammondi</i>	two-striped gartersnake	None/None	SSC
<i>Thamnophis sirtalis pop. 1</i>	south coast gartersnake	None/None	SSC
BIRDS			
<i>Nycticorax nycticorax</i>	black-crowned night heron	None/None	-
<i>Agelaius tricolor</i>	tricolored blackbird	None/Threatened	SSC
<i>Setophaga petechia</i>	yellow warbler	None/None	SSC
<i>Ammodramus savannarum</i>	grasshopper sparrow	None/None	SSC
<i>Spizella breweri</i>	Brewers sparrow	None/None	-
<i>Polioptila californica californica</i>	coastal California gnatcatcher	Threatened/None	SSC

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Table 5.3-2 Sensitive Animal Species Potentially Present in City and Vicinity

Scientific Name	Common Name	Federal/State Status	California Department of Fish and Wildlife Status
<i>Athene cunicularia</i>	burrowing owl	None/None	SSC ¹
<i>Empidonax traillii extimus</i>	southwestern willow flycatcher	Endangered/Endangered	-
<i>Vireo bellii pusillus</i>	least Bells vireo	Endangered/Endangered	-
<i>Accipiter cooperii</i>	Coopers hawk	None/None	WL
<i>Aquila chrysaetos</i>	golden eagle	None/None	FP WL
<i>Buteo regalis</i>	ferruginous hawk	None/None	WL
<i>Circus hudsonius</i>	northern harrier	None/None	SSC
<i>Elanus leucurus</i>	white-tailed kite	None/None	FP
<i>Eremophila alpestris actia</i>	California horned lark	None/None	WL
<i>Aythya americana</i>	redhead	None/None	SSC
<i>Branta bernicla</i>	brant	None/None	SSC
<i>Chaetura vauxi</i>	Vauxs swift	None/None	SSC
<i>Ardea alba</i>	great egret	None/None	-
<i>Ardea herodias</i>	great blue heron	None/None	-
<i>Botaurus lentiginosus</i>	American bittern	None/None	-
<i>Egretta thula</i>	snowy egret	None/None	-
<i>Ixobrychus exilis</i>	least bittern	None/None	SSC
<i>Charadrius nivosus nivosus</i>	western snowy plover	Threatened/None	SSC
<i>Mycteria americana</i>	wood stork	None/None	SSC
<i>Falco columbarius</i>	merlin	None/None	WL
<i>Falco peregrinus anatum</i>	American peregrine falcon	Delisted/Delisted	FP
<i>Antigone canadensis tabida</i>	greater sandhill crane	None/Endangered	FP
<i>Xanthocephalus xanthocephalus</i>	yellow-headed blackbird	None/None	SSC
<i>Icteria virens</i>	yellow-breasted chat	None/None	SSC
<i>Lanius ludovicianus</i>	loggerhead shrike	None/None	SSC
<i>Chlidonias niger</i>	black tern	None/None	SSC
<i>Hydroprogne caspia</i>	Caspian tern	None/None	-
<i>Larus californicus</i>	California gull	None/None	WL
<i>Sternula antillarum browni</i>	California least tern	Endangered/Endangered	FP
<i>Thalasseus elegans</i>	elegant tern	None/None	WL
<i>Pandion haliaetus</i>	osprey	None/None	WL
<i>Passerculus sandwichensis beldingi</i>	Beldings savannah sparrow	None/Endangered	-
<i>Passerculus sandwichensis rostratus</i>	large-billed savannah sparrow	None/None	SSC
<i>Pelecanus occidentalis californicus</i>	California brown pelican	Delisted/Delisted	FP
<i>Nannopterum auritum</i>	double-crested cormorant	None/None	WL
<i>Coturnicops noveboracensis</i>	yellow rail	None/None	SSC
<i>Laterallus jamaicensis coturniculus</i>	California black rail	None/Threatened	FP
<i>Rallus obsoletus levipes</i>	light-footed Ridgways rail	Endangered/Endangered	FP
<i>Numenius americanus</i>	long-billed curlew	None/None	WL
<i>Plegadis chihi</i>	white-faced ibis	None/None	WL
<i>Cistothorus palustris clarkae</i>	Clarks marsh wren	None/None	SSC
<i>Accipiter striatus</i>	sharp-shinned hawk	None/None	WL
<i>Gavia immer</i>	common loon	None/None	SSC

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Table 5.3-2 Sensitive Animal Species Potentially Present in City and Vicinity

Scientific Name	Common Name	Federal/State Status	California Department of Fish and Wildlife Status
<i>Aimophila ruficeps canescens</i>	southern California rufous-crowned sparrow	None/None	WL
<i>Sphyrapicus ruber</i>	red-breasted sapsucker	None/None	-
<i>Calypte costae</i>	Costas hummingbird	None/None	-
<i>Selasphorus rufus</i>	rufous hummingbird	None/None	-
<i>Campylorhynchus brunneicapillus sandiegensis</i>	coastal cactus wren	None/None	SSC
<i>Contopus cooperi</i>	olive-sided flycatcher	None/None	SSC
<i>Empidonax traillii</i>	willow flycatcher	None/Endangered	-
<i>Dendrocygna bicolor</i>	fulvous whistling-duck	None/None	SSC
<i>Charadrius montanus</i>	mountain plover	None/None	SSC
<i>Coccyzus americanus occidentalis</i>	western yellow-billed cuckoo	Threatened/Endangered	-
<i>Pyrocephalus rubinus</i>	vermillion flycatcher	None/None	SSC
CRUSTACEANS			
<i>Streptocephalus woottoni</i>	Riverside	Endangered/None	-
MAMMALS			
<i>Microtus californicus stephensi</i>	south coast marsh vole	None/None	SSC
<i>Eumops perotis californicus</i>	western mastiff bat	None/None	SSC
<i>Nyctinomops femorosaccus</i>	pocketed free-tailed bat	None/None	SSC
<i>Taxidea taxus</i>	American badger	None/None	SSC
<i>Lasionycteris noctivagans</i>	silver-haired bat	None/None	-
<i>Perognathus longimembris pacificus</i>	Pacific pocket mouse	Endangered/None	SSC
<i>Lepus californicus bennettii</i>	San Diego black-tailed jackrabbit	None/None	-
<i>Enhydra lutris nereis</i>	southern sea otter	Threatened/None	FP
<i>Sorex ornatus salicornicus</i>	southern California saltmarsh shrew	None/None	SSC
<i>Neotoma lepida intermedia</i>	San Diego desert woodrat	None/None	SSC
MOLLUSKS			
<i>Helminthoglypta traskii traskii</i>	Trask shoulderband	None/None	-
<i>Tryonia imitator</i>	mimic tryonia (=California brackishwater snail)	None/None	-
<i>Glyptostoma gabrielense</i>	San Gabriel chestnut	None/None	-

Source: California Natural Diversity Database, 2023, Inglewood, Redondo Beach, Torrance, Venice quadrangles.

California Department of Fish and Wildlife Status

FP (Fully Protected): This classification was the State of California's initial effort to identify and provide additional protection to those animals that were rare or faced possible extinction. Lists were created for fish, amphibians and reptiles, birds and mammals. Most of the species on these lists have subsequently been listed under the state and/or federal endangered species acts.

SSC (Species of Special Concern): It is the goal and responsibility of the Department of Fish and Wildlife to maintain viable populations of all native species. To this end, the Department has designated certain vertebrate species as "Species of Special Concern" because declining population levels, limited ranges, and/or continuing threats have made them vulnerable to extinction. The goal of designating species as "Species of Special Concern" is to halt or reverse their decline by calling attention to their plight and addressing the issues of concern early enough to secure their long-term viability.

WL (Watch List): The Department of Fish and Wildlife maintains a list consisting of taxa that were previously designated as "Species of Special Concern" but no longer merit that status, or which do not yet meet SSC criteria, but for which there is concern and a need for additional information to clarify status.

Federal Status

Endangered: The classification provided to an animal or plant in danger of extinction within the foreseeable future throughout all or a significant portion of its range.

Threatened: The classification provided to an animal or plant which is likely to become an Endangered species within the foreseeable future throughout all or a significant portion of its range.

Proposed Endangered: The classification provided to an animal or plant that is proposed for federal listing as Endangered in the Federal Register under Section 4 of the Endangered Species Act.

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Table 5.3-2 Sensitive Animal Species Potentially Present in City and Vicinity

Scientific Name	Common Name	Federal/State Status	California Department of Fish and Wildlife Status
<p><i>Proposed Threatened:</i> The classification provided to an animal or plant that is proposed for federal listing as Threatened in the Federal Register under Section 4 of the Endangered Species Act.</p> <p><i>Candidate:</i> The classification provided to an animal or plant that has been studied by the United States Fish and Wildlife Service, and the Service has concluded that it should be proposed for addition to the Federal Endangered and Threatened species list.</p> <p><i>None:</i> The plant or animal has no federal status.</p> <p><i>Delisted:</i> The plant or animal was previously listed as Endangered or Threatened, but is no longer listed on the Federal Endangered and Threatened species list.</p> <p>State Status</p> <p><i>Endangered:</i> The classification provided to a native species or subspecies of a bird, mammal, fish, amphibian, reptile, or plant which is in serious danger of becoming extinct throughout all, or a significant portion, of its range due to one or more causes, including loss of habitat, change in habitat, overexploitation, predation, competition, or disease.</p> <p><i>Threatened:</i> The classification provided to a native species or subspecies of a bird, mammal, fish, amphibian, reptile, or plant that, although not presently threatened with extinction, is likely to become an endangered species in the foreseeable future in the absence of special protection and management efforts.</p> <p><i>Rare:</i> The classification provided to a native plant species, subspecies, or variety when, although not presently threatened with extinction, it is in such small numbers throughout its range that it may become endangered if its present environment worsens. This designation stems from the Native Plant Protection Act of 1977.</p> <p><i>None:</i> The plant or animal has no state status.</p> <p><i>Delisted:</i> The plant or animal was previously listed as Endangered, Threatened or Rare but is no longer listed by the State of California.</p> <p><i>Candidate Endangered:</i> The classification provided to a native species or subspecies of a bird, mammal, fish, amphibian, reptile, or plant that the Fish and Game Commission has formally noticed as being under review by the Department of Fish and Wildlife for addition to the list of endangered species, or a species for which the commission has published a notice of proposed regulation to add the species to the list of endangered species.</p> <p><i>Candidate Threatened:</i> The classification provided to a native species or subspecies of a bird, mammal, fish, amphibian, reptile, or plant that the Fish and Game Commission has formally noticed as being under review by the Department of Fish and Wildlife for addition to the list of threatened species, or a species for which the commission has published a notice of proposed regulation to add the species to the list of threatened species.</p> <p>¹ On March 5, 2024, the Center for Biological Diversity and several other groups submitted a petition to the California Fish and Game Commission to list the western burrowing owl (<i>Athene cunicularia hypugaea</i>) as endangered or threatened pursuant to the California Endangered Species Act. The petition identifies five separate populations (or evolutionarily significant units) of burrowing owls and petitions to list three as endangered and two as threatened.</p>			

Significant Ecological Areas

A Significant Ecological Area (SEA) designation is given to land in Los Angeles County that contains irreplaceable biological resources. Individual SEAs include undisturbed or lightly disturbed habitat supporting valuable and threatened species, linkages, and corridors to promote species movement, and are sized to support sustainable populations of its component species.

Los Angeles County Significant Ecological Areas

Redondo Beach is near the Pacific Ocean as well as four SEAs—the Madrona Marsh Preserve, El Segundo Dunes, Ballona Wetlands, and Santa Monica Mountains—that serve as larger blocks of native habitat that support special status species and, in some cases, riparian habitat or other sensitive natural communities. However, none of these SEAs are within the City. The Madrona Marsh is approximately 2 miles from Redondo Beach in the City of Torrance to the east, while the Santa Monica Mountains SEA is approximately 20 miles from Redondo Beach to the northwest.

Wildlife Corridors

Wildlife corridors are linear features that connect large patches of natural open space and provide avenues for dispersal or migration. Wildlife corridors contribute to population viability by ensuring continual exchange of genes between populations, providing access to adjacent habitat areas for foraging and mating, and providing

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routes for recolonization of habitat after local extirpation or ecological catastrophes such as fires. Habitat linkages are smaller patches of habitat that join larger blocks of habitat and generally reduce the adverse effects of habitat fragmentation associated with surrounding development. Habitat linkages may be represented by continuous patches of habitat or by nearby habitat “islands” that function as steppingstones for dispersal and movement, particularly for birds and flying insects. Given the extent of surrounding development, and the distances between larger blocks of habitat (including SEAs), there are no designated regional habitat linkages between the SEAs. Additionally, there are no terrestrial wildlife corridors traversing the City of Redondo Beach. The Pacific Flyway is a major north-south route of travel for migratory birds in America, extending along the Western American coast from Alaska to the Patagonia region in South America. Migratory birds travel some or all of this distance annually to follow food sources, head to breeding grounds, or travel to suitable overwintering sites. Along the Pacific Flyway, there are many key “rest stops” or temporary habitat areas where some bird species gather to feed and recuperate. For example, the Ballona Wetlands are one of many rest stops along the Pacific Flyway. Some species may remain in these rest stops for the entire season, but most stay a few days before moving on. Redondo Beach is located along the Pacific Flyway and may host migratory birds using street trees or other landscaped trees or shrubs as rest stops. The monarch butterfly (*Danaus plexippus*) also migrates along the Pacific Flyway and roosts in locations along the Pacific coastline, typically where eucalyptus trees (*Eucalyptus* spp.) and occasionally pine trees (*Pinus* spp.) are located. However, there are no known roosting sites for migratory species or monarch butterflies within Redondo Beach.

5.3.2 Thresholds of Significance

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

- B-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.
- B-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 Wildlife or U.S. Fish and Wildlife Service.
- B-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.
- B-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.
- B-5 Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance.

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- B-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.

5.3.3 General Plan Update Goals and Policies

Land Use Element

Goal LU-5 Environmental Sustainability: An environmentally aware community that utilizes tools, strategies and approaches that protect and minimizes the impacts to the City's environmental resources.

- **Policy LU-5.1: Environmental Sustainability.** Ensure that new development is sensitive to the City's stewardship of the environment. Provide measures to minimize the impacts of future development on air quality, runoff, water use, trash generation (and its impacts on the ocean), noise, and traffic (including things such as exhaust generated from underperforming intersections).
- **Policy LU-5.7: Preserve and Expand Native Habitat and Encourage Use of Native Plants for Landscaping.** Continue to support the expansion of native bluff habitat along the waterfront. Continue to support reestablishment of native habitat in Wilderness Park. Continue to pursue wetlands and native habitat restoration at the power plant site and the adjacent powerline corridor. Ensure connectivity of native habitat, particularly habitat for the endangered El Segundo blue butterfly, with Torrance and Hermosa Beach. Redefine city plant and tree palettes to prioritize native plants. Apply the strategies and approaches to fund and incentivize expansion of native habitat and plants throughout the City on both public and private property.

Open Space & Conservation Element

Goal OS-1 Quantity, Location, and Access: A comprehensive, accessible, and well-balanced network of high-quality parks, public spaces, and recreational facilities that enhances the livability, wellness, and connectivity of the community.

- **Policy OS-1.9: Urban Greening.** Improve access routes to parks and recreational facilities through urban greening programs that enhance the City's urban forest, provide shade, and incorporate best practices for sustainable landscaping emphasizing drought tolerant native plants and conservation.

Goal OS-2 High-Quality Open Spaces And Recreational Facilities: Parks, public spaces, and recreational facilities that are highly utilized by residents and visitors of all ages, abilities, and incomes and are well-maintained, safe, and meet the long and-short term needs of the Redondo Beach Community.

- **Policy OS-2.10: Conservation.** Preserve and enhance unique and valuable community resources as part of the planning and development of parks, public spaces, and recreation areas. Such resources include significant scenic and visual landmarks; cultural/historic resources; and natural resources such as coastal resources, wildlife habitats, and native vegetation.

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Goal OS-8 Biological Resources. An enhanced ecosystem comprised of a thriving urban forest, protected habitats for biological resources, especially native, sensitive, and special status wildlife species, to foster the well-being of the community and offer a reprieve from the built environment.

- **Policy OS-8.1: Protect and Expand Critical Habitats.** Coordinate with the neighboring cities, Los Angeles County, regional agencies, and environmental and conservation communities/groups to ensure critical habitat areas are preserved, expanded and connected when feasible, and protected from natural and manmade threats, including potential impacts from development on adjacent sites.
- **Policy OS-8.2: Re-Introduce Native Species.** Coordinate with conservation groups and non-profit organizations to reestablish habitat areas with native plants and animals in areas of habitat rehabilitation; consider the feasibility of establishing, maintaining, and preserving new habitat areas in other parts of the City.
- **Policy OS-8.4: Urban Forest.** Expand the City's urban forest in a consistent, coordinated, and environmentally conscious manner. Prioritize native trees and associated companion species and habitats. Maximize and maintain tree canopy on public lands and open spaces.
- **Policy OS-8.5: Continue Current Restoration Efforts.** Support continuation and expansion of current habitat restoration efforts on the Coastal Bluffs and at Wilderness Park.
- **Policy OS-8.6: Re-introduce native habitats.** Work with the property owners of the powerplant property and utility rights-of-way adjacent to Herondo Avenue, the Coastal Commission, the Coastal Conservancy, and other agencies to reestablish wetlands surrounded by native habitat on the powerplant property and native habitat on the utility right of way next to Herondo Avenue.

5.3.4 Environmental Impacts

5.3.4.1 METHODOLOGY

The CNDDB, which is an inventory of the status and locations of rare plants and animals in California, was used to identify sensitive plant and animal species in the City of Redondo Beach. The United States Fish and Wildlife Services' National Wetlands Inventory: Wetlands Mapper was used to identify wetlands and riparian habitats in the City.

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5.3.4.2 IMPACT ASSESSMENT

The applicable thresholds are identified in brackets after the impact statement.

Impact 5.3-1: The proposed project would not have a substantial adverse effect, either directly or through habitat modifications, on species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations by the California Department of Fish and Wildlife or United States Fish and Wildlife Service. [Threshold B-1]

Future development in accordance with the proposed project could potentially impact special-status species.

Plants

A search of the CNDDDB database queries identified a total of 46 special-status plant species as occurring in the City of Redondo Beach. Artificial and unvegetated biological communities, barren and or urban areas in the City are unlikely to support special-status plants. However, construction activities within habitat communities could potentially result in significant impacts on special-status plants. As shown in Table 5.3-1, *Sensitive Plant Species Potentially Present in City and Vicinity*, there are nine federally and/or State-listed plant species known to occur in the City.

Wildlife

As shown in Table 5.3-2, *Sensitive Animal Species Potentially Present in City and Vicinity*, a total of 102 special-status wildlife species known to occur or have the potential to occur in the City (i.e., 60 birds, 18 insects, 10 mammals, six reptiles three fish, 3 mollusks, one amphibian, and one crustacean). Of those, 12 birds, 3 fish, 2 mammals, 2 insects, and a crustacean species are listed or considered federal- and/or State-listed wildlife species known to occur in the City. Development within or near habitat for special-status wildlife species could result in adverse impacts on these species.

Fish

Impacts on fish from construction-related disturbances include increased sedimentation and turbidity, release of contaminants into surrounding water bodies, noise disturbance, and change in fish habitat. A change in fish habitat could result from the removal of terrestrial vegetation from streambanks, removal of riparian trees and aquatic vegetation, or rip-rapping² banks for erosion control. Increases in sedimentation and turbidity have been shown to affect fish physiology, behavior, and habitat. Stress responses are generally higher with increasing turbidity and decreasing particle size. Migrating adult salmonids have been reported to avoid high waterways with silt loads or cease migration when such loads are unavoidable (Cordone and Kelley 1961).

Future construction activities may also involve the storage, use, or discharge of toxic and other harmful substances near water bodies or in areas that drain to these water bodies. Heavy construction equipment often use petroleum products, such as fuels, lubricants, hydraulic fluids, and coolants, all of which may be toxic to

² Rip-rap banks are composed of rock or other materials that resist erosion by dissipating the energy of flowing water or waves.

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fish and other aquatic organisms. An accidental spill or inadvertent discharge of these materials could affect the water quality of the river or water body and thereby affect fish or fish habitat.

Impact Significance Determination

The proposed project is a regulatory document that sets the framework for future growth and development in the City and does not directly result in development. Before any development or redevelopment activities would occur in the City, all such activities would be required to be analyzed for conformance with the General Plan, zoning requirements, and other applicable local, state, and federal requirements. Therefore, adoption of the proposed project in itself would not lead to the direct development or redevelopment of a specific project. Future development facilitated by the proposed project could impact special-status species. However, the General Plan Update contains several policies in the Land Use Element and the Open Space Element and Conservation Element that would preserve and enhance areas that may provide habitat for special-status species, including the following:

- **Policy LU-5.7: Preserve and Expand Native Habitat and Encourage Use of Native Plants for Landscaping.** Continue to support the expansion of native bluff habitat along the waterfront. Continue to support reestablishment of native habitat in Wilderness Park. Continue to pursue wetlands and native habitat restoration at the power plant site and the adjacent powerline corridor. Ensure connectivity of native habitat, particularly habitat for the endangered El Segundo blue butterfly, with Torrance and Hermosa Beach. Redefine city plant and tree palettes to prioritize native plants. Apply the strategies and approaches to fund and incentivize expansion of native habitat and plants throughout the City on both public and private property.
- **Policy OS-2.10: Conservation.** Preserve and enhance unique and valuable community resources as part of the planning and development of parks, public spaces, and recreation areas. Such resources include significant scenic and visual landmarks; cultural/historic resources; and natural resources such as coastal resources, wildlife habitats, and native vegetation.
- **Policy OS-8.1: Protect and Expand Critical Habitats.** Coordinate with the neighboring cities, Los Angeles County, regional agencies, and environmental and conservation communities/groups to ensure critical habitat areas are preserved, expanded and connected when feasible, and protected from natural and manmade threats, including potential impacts from development on adjacent sites.
- **Policy OS-8.2: Re-Introduce Native Species.** Coordinate with conservation groups and non-profit organizations to reestablish habitat areas with native plants and animals in areas of habitat rehabilitation; consider the feasibility of establishing, maintaining, and preserving new habitat areas in other parts of the City.
- **Policy OS-8.5: Continue Current Restoration Efforts.** Support continuation and expansion of current habitat restoration efforts on the Coastal Bluffs and at Wilderness Park.

Updates to the Zoning Ordinance and LCP would involve land-use changes that would be consistent with the General Plan Update.

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Compliance with FESA and CESA would require agencies to consult with the USFWS or CDFW on proposed actions that may affect any endangered, threatened, or proposed (for listing) species or critical habitat that may support the species. The MBTA implements international treaties between the U.S. and other nations devised to protect migratory birds, and any of 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 future development within the City would be required to comply with the MBTA. Section 1600 of the California Fish and Game Code would require future projects to notify CDFW of any proposed alteration of streambeds, rivers, and lakes with the intention of protecting habitats that are important to fish and wildlife. The NPPA prohibits the take of rare and endangered plants, including special-status plant species and compliance with the NPPA would ensure that endangered or rare native plants are protected.

The goals and policies in the Land Use and Open Space and Conservation Elements of the proposed project and compliance with the policies and regulations under the FESA, MBTA, CESA, California Fish and Game Code, CWA, and NPPA would ensure impacts to special-status species associated with new development allowed under the proposed project are less than significant.

Level of Significance Before Mitigation: Impact 5.3-1 would be less than significant.

Impact 5.3-2: The proposed project would not adversely impact sensitive natural communities, including wetlands and riparian habitat. [Threshold B-2 and B-3]

Sensitive natural communities are those that are ranked as critically imperiled, imperiled, or vulnerable, per the State ranking system. According to a CNDDB search, three sensitive natural vegetation communities were recorded within or near the City: Southern Coastal Salt Marsh, Southern Dune Scrub, and Southern Coastal Bluff Scrub.

While the City is mostly urbanized, it does contain open space areas that may be suitable for sensitive natural communities such as wetlands and riparian habitats. These habitats may support special-status plant and animal species and are known to be highly productive and diverse ecosystems. The City contains riparian communities adjacent to wetlands and near King Harbor Marina. Implementation of the proposed project would increase development in the City, which could indirectly impact sensitive natural communities with an overall increase in the City's population (resident and work).

Future development in accordance with the proposed project could impact waters and wetlands jurisdictional to the CCC, CDFW, USACE, and Los Angeles RWQCB. Waters of the United States are jurisdictional to the USACE; waters of the State are jurisdictional to the Los Angeles RWQCB and the CDFW; and wetlands meeting certain criteria are jurisdictional to the CCC, USACE and/or the CDFW.

Updates to the Zoning Ordinance and LCP would involve land-use changes that would be consistent with the General Plan Update. Construction projects in the City would also have the potential to affect riparian habitats by spreading or introducing invasive plant species to currently uninfected areas. Invasive species spread aggressively and crowd out native species, potentially altering the species composition of natural communities. A predominance of invasive species reduces the overall habitat quality for native plants and wildlife. However, the Land Use and Open Space and Conservation Elements of the General Plan Update include several policies

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that would mitigate potential impacts on natural communities such as riparian habitat and wetlands, including the following:

- **Policy LU-5.7: Preserve and Expand Native Habitat and Encourage Use of Native Plants for Landscaping.** Continue to support the expansion of native bluff habitat along the waterfront. Continue to support reestablishment of native habitat in Wilderness Park. Continue to pursue wetlands and native habitat restoration at the power plant site and the adjacent powerline corridor. Ensure connectivity of native habitat, particularly habitat for the endangered El Segundo blue butterfly, with Torrance and Hermosa Beach. Redefine City plant and tree palettes to prioritize native plants. Apply the strategies and approaches to fund and incentivize expansion of native habitat and plants throughout the City on both public and private property.
- **Policy OS-8.2: Re-Introduce Native Species.** Coordinate with conservation groups and non-profit organizations to reestablish habitat areas with native plants and animals in areas of habitat rehabilitation; consider the feasibility of establishing, maintaining, and preserving new habitat areas in other parts of the City.
- **Policy OS-8.5: Continue Current Restoration Efforts.** Support continuation and expansion of current habitat restoration efforts on the Coastal Bluffs and at Wilderness Park.
- **Policy OS-8.6: Re-introduce native habitats.** Work with the property owners of the powerplant property and utility rights-of-way adjacent to Herondo Avenue, the Coastal Commission, the Coastal Conservancy, and other agencies to reestablish wetlands surrounded by native habitat on the powerplant property and native habitat on the utility right of way next to Herondo Avenue.

If the USACE determines that waters of the United States are present, a Section 404 permit from the USACE for placement of fill within waters of the United States and a Section 401 water quality certification from the RWQCB would be required. Placement of fill materials into waters of the United States would require compensation to ensure no net loss of aquatic resources. Additionally, disturbance or alteration of streams, lakes, or non-federally protected (non-jurisdictional) wetlands would require a permit, which would include conditions to protect these sensitive natural communities. A Section 1602 streambed alteration agreement would be needed from the CDFW prior to initiation of project construction activities within the City that would divert, obstruct, or change the natural flow of a river, stream, or lake or that would use material from a streambed. Non-jurisdictional wetlands include wetland features that are not hydrologically connected to navigable waters in rivers and are not under USACE jurisdiction. These wetlands would still be considered waters of the State and would be regulated according to waste discharge requirements that would be issued by the RWQCB.

Implementation of the General Plan Update goals and policies, with conditions associated with streambed alteration agreements and waste discharge requirements, would ensure that impacts on riparian corridors and other sensitive natural communities are less than significant.

Level of Significance Before Mitigation: Impact 5.3-2 would be less than significant.

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Impact 5.3-3: The proposed project would not interfere with the movement of wildlife species, or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites. [Threshold B-4]

The City of Redondo Beach is built out with urban land uses, and there is little native habitat available for wildlife movement remaining in the City. Thus, there are no major or regional officially designated wildlife corridors passing through the City. Furthermore, the City of Redondo Beach does not contain natural waterways that would allow for the movement of a native resident or migratory fish. Additionally, parks, the bluffs, and open space areas within and adjacent to the City could provide terrestrial connectivity.

The City lies within the Pacific Flyway, a bird migration route extending from the Arctic to South America. Two categories of birds use the Flyway: waterfowl, such as ducks and geese; and shorebirds (or waders) such as sandpipers, avocets, stilts, and plovers. Developed land uses in the City contain ornamental landscaping including trees and shrubs. Such vegetation may be used by migrating birds protected by the MBTA. The MBTA implements international treaties between the U.S. and other nations devised to protect migratory birds, and any of 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 future development within the City would be required to comply with the MBTA.

Updates to the Zoning Ordinance and LCP would involve land-use changes that would be consistent with the General Plan Update. The Land Use and Open Space and Conservation Elements of the General Plan Update contain goals and policies that address potential impacts to native resident or migratory fish or wildlife species and corridors, such as Policy LU-5.7, which ensures connectivity of habitat with Torrance and Hermosa Beach and applies strategies and approaches to fund and incentivize expansion of native habitat and plants throughout the City on both public and private property. Policy OS-8.1 directs the City to coordinate with the neighboring cities, Los Angeles County, regional agencies, and environmental and conservation communities/groups to ensure critical habitat areas are preserved, expanded, and connected.

The proposed General Plan Update goals and policies, in combination with other federal and State policies and regulations, would ensure impacts to migratory species are less than significant.

Level of Significance Before Mitigation: Impact 5.3-3 would be less than significant.

Impact 5.3-4: The proposed project would not conflict with any local policies or ordinances protecting biological resources nor with the provisions of an adopted habitat conservation plan, natural community conservation plan, or other approved local, regional, or State habitat conservation plan. [Thresholds B-5 and B-6]

The General Plan Update would not conflict with any local policies or ordinances protecting biological resources. The Beach Bluffs Restoration Project Master Plan aims to restore the natural diversity of the remnant dunes and bluffs along the Santa Monica Bay between Ballona Creek and the Palos Verdes Peninsula. This Master Plan prioritizes sites that could be restored and describes actions for education and community involvement. Furthermore, the goals of the Master Plan increase the ecological value of the beach bluffs by restoring the native vegetation, increase recreational value by providing stewardship opportunities for restored

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bluffs, and provide a public education program about the beach bluffs and their coastal environment. The City of Redondo Beach Municipal Code includes Title 10 Planning and Zoning, Chapter 5, Coastal Land Use Plan Implementing Ordinance, which prohibits trimming or disturbance of trees that have been used for breeding and nesting by bird species listed pursuant to the FESA, California bird species of special concern, and wading birds (herons or egrets) within the previous five years. The General Plan Update would be required to comply with all applicable policies and plans pertaining to biological resources, and would not conflict with such policies and ordinances.

Additionally, Policy OS-8.4, Urban Forest, seeks to expand the City's urban forest in a consistent, coordinated, and environmentally conscious manner and prioritize native trees and associated companion species and habitats. Updates to the Zoning Ordinance and LCP would involve land-use changes that would be consistent with the General Plan Update. Therefore, the proposed project would not conflict with any local policies or ordinances protecting biological resources. No impact would occur in this regard.

Level of Significance Before Mitigation: Impact 5.3-4- would have no impact.

5.3.5 Cumulative Impacts

The area considered for cumulative impacts on biological resources is the City as well as the southern California region depending on a species' range. The City of Redondo Beach contains a total of 46 special-status plant species and 102 special-status wildlife species known to occur or have the potential to occur in the City. Sensitive natural vegetation communities in Redondo Beach and surrounding area include Southern Coastal Salt Marsh, Southern Dune Scrub, and Southern Coastal Bluff Scrub. Future development would be required to comply with the policies and regulations under the FESA, MBTA, CESA, California Fish and Game Code, CWA, California Coastal Commission (Coastal Commission jurisdictional wetlands), and NPPA and to mitigate impacts to special-status species and sensitive habitats to the degree feasible. Furthermore, the City of Redondo Beach is built out with urban land uses, and there are no major or regional officially designated wildlife corridors passing through the City. The City lies within the Pacific Flyway, which could be used by waterfowl, such as ducks and geese; and shorebirds (or waders). However, all future development within the City would be required to comply with the MBTA.

Furthermore, the General Plan Update contains extensive goals and policies that mitigate impacts to lands that support sensitive biological resources, including special-status species, sensitive natural communities, federally protected and California Coastal Commission jurisdictional wetlands, and wildlife and fish movement corridors, to a less-than-significant level and that additionally minimize the effects of development on biological resources in general. As such, cumulative impacts are expected to be less than significant, and project impacts would not be cumulatively considerable.

5.3.6 Level of Significance Before Mitigation

Upon implementation of regulatory requirements, and goals and policies from the proposed project, the following impacts would be less than significant: 5.3-1, 5.3-2, 5.3-3, and 5.3-4,

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5.3.7 Mitigation Measures

No mitigation measures are required.

5.3.8 Level of Significance After Mitigation

All impacts would be less than significant.

5.3.9 References

Cordone, A. J., and D. W. Kelley. 1961. "The Influences of Inorganic Sediment on the Aquatic Life of Streams." *Cal. Fish and Game* 47:189–228.

U.S. Fish and Wildlife Service (USFWS). 2020. National Wetland Inventory.
<http://www.fws.gov/wetlands/data/mapper.html>.

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5.4 CULTURAL RESOURCES

Cultural resources comprise archaeological and historical resources. Tribal cultural resources are discussed in Section 5.16, *Tribal Cultural Resources*, of this Draft Program Environmental Impact Report (DEIR). This section of the DEIR evaluates the potential for implementation of the General Plan, Zoning Ordinance, and Local Coastal Program (LCP) (proposed project) impacts to cultural resources in the City of Redondo Beach. The analysis in this section is based in part on the following information:

- *Cultural and Paleontological Resources Assessment for the City of Redondo Beach General Plan Update Project*, Cogstone, June 2024

A copy of this study is provided in Appendix C of this Draft EIR.

5.4.1 Environmental Setting

5.4.1.1 REGULATORY BACKGROUND

Federal Regulations

National Historic Preservation Act

The National Historic Preservation Act of 1966 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 act 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) is the nation's official list of buildings, structures, objects, sites, and districts worthy of preservation because of their significance in American history, architecture, archeology, engineering, and culture. The NRHP recognizes resources of local, state, and national significance which have been documented and evaluated according to uniform standards and criteria.

Authorized under the National Historic Preservation Act, the NRHP is part of a national program to coordinate and support public and private efforts to identify, evaluate, and protect historic and archeological resources. The NRHP is administered by the National Park Service, which is part of the US Department of the Interior.

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

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

To retain historic integrity, a property will always possess several and often most of the aspects of integrity—location, design, setting, materials, workmanship, feeling, and association.

Archaeological Resources Protection Act

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

State Regulations

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 and 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.

California Register of Historical Resources

The State Historical Resources Commission has designed this program for use by state and local agencies, private groups, and citizens to identify, evaluate, register, and protect California's historical resources. The California Register of Historic Resources (CRHR) is the authoritative guide to the state's significant historical and archaeological resources.

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The CRHR program encourages public recognition and protection of resources of architectural, historical, archaeological, and cultural significance; identifies historical resources for State and local planning purposes; determines eligibility for State historic preservation grant funding; and affords certain protections under CEQA.

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

- Is associated with events that have made a significant contribution to the broad patterns of local or regional history or the cultural heritage of California or the United States.
- Is associated with the lives of persons important to local, California, or national history.
- Embodies the distinctive characteristics of a type, period, region, or method of construction; represents the work of a master; or possesses high artistic values.
- Has yielded, or has the potential to yield, information important to the prehistory or history of the local area, California or the nation.

In addition to having significance, resources must have integrity for the period of significance. The period of significance is the date or span of time within which significant events transpired or significant individuals made their important contributions. Integrity is the authenticity of a historical resource's physical identity as evidenced by the survival of characteristics or historic fabric that existed during the resource's period of significance. Alterations to a resource or changes in its use over time may change its historical, cultural, or architectural significance. Resources must retain enough of their historic character or appearance to be recognizable as historical resources and to convey the reasons for their significance. A resource that has lost its historic character or appearance may still have sufficient integrity for the CRHR if, under Criterion 4, it maintains the potential to yield significant scientific or historical information or specific data.

California Historical Landmarks

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

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

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California Points of Historical Interest

California Points of Historical Interest are sites, buildings, features, or events that are of local (city or county) significance and have anthropological, cultural, military, political, architectural, economic, scientific or technical, religious, experimental, or other value. Points of Historical Interest designated after December 1997 and recommended by the State Historical Resources Commission are also listed in the CRHR. No historical resource may be designated as both a landmark and a point. If a point is subsequently granted as a landmark, the point designation is retired.

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

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

California Historic Building Code

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

California Health and Safety Code

California Health and Safety Code Section 7050.5 requires that if human remains are discovered on the project site, disturbance of the site shall halt and 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. If the coroner determines that the remains are not subject to his or her authority and recognizes or has reason to believe the human remains are those of Native American, he or she shall contact, by telephone within 24 hours, the Native American Heritage Commission.

Mills Act

Under the Mills Act, California Government Code Sections 50280 et seq., a city or county may contract with the owner of any qualified historical property to restrict the use of the property. The owner continues to preserve the property, and the State reduces property taxes. The City participates in the Mills Act program and currently has 110 active contracts with several more contracts pending.

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Local Regulations

City of Redondo Beach Municipal Code

Title 10, Chapter 4, Historic Resources Preservation, of the Redondo Beach Municipal Code provides regulations to protect cultural and historical resources within the City limits. The following ordinances provide for the identification, protection, enhancement, and use of historic landmarks.

Article 2. Landmark and Historic District Designation Criteria

- **Section 10-4.201, Designation criteria.** A historic resource may be designated a landmark, and an area may be designated a historic district, if it meets one or more of the following criteria:
 - a) It exemplifies or reflects special elements of the City's cultural, social, economic, political, aesthetic, engineering, or architectural history; or
 - b) It is identified with persons or events significant in local, state or national history; or
 - c) It embodies distinctive characteristics of a style, type, period, or method of construction, or is a valuable example of the use of indigenous materials or craftsmanship; or
 - d) It is representative of the notable work of a builder, designer, or architect; or
 - e) Its unique location or singular physical characteristic(s) represents an established and familiar visual feature or landmarks of a neighborhood, community, or the City.

Article 3. Designation of Landmarks and Historic Districts

- **Section 10-4.302, Minimum eligibility requirements, landmark.** A historic resource must be at least 50 years old to be eligible for consideration as a landmark, with the exception that a historic resource at least 30 years old may be eligible if the Preservation Commission determines that the resource is very exceptional or that it is threatened by demolition, removal, relocation, or inappropriate alteration.
- **Section 10-4.304, Minimum eligibility requirements, historic district.** To be eligible for consideration as a historic district, at least 75 percent of the buildings in the proposed district (excluding accessory buildings) must be at least 50 years old or otherwise meet the requirement of Section 10-4.302. In addition, no more than 25 percent of the buildings in the proposed district (excluding accessory buildings) can be noncontributing unless the Preservation Commission determines them to be essential to the geographic integrity of the district. The Preservation Commission shall make determinations identifying any noncontributing buildings within a historic district as part of the review process.
- **Section 10-4.312, Use of California Historical Building Code.** All repairs, alterations, restorations, or changes in use of existing buildings and structures designated as landmarks or included as part of a historic district, or otherwise considered a historic resource under state law, may conform to the standards of the California Historical Building Code as an alternative to complying with building standards in Title 9 of the municipal code, notwithstanding the fact that such buildings may be nonconforming.

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- **Section 10-4.314, Adaptive reuse.** A Historic Overlay Zone (H) may be created pursuant to Section 10-2.1400-1420 of the zoning ordinance and Section 5.1400-1420 of the coastal plan implementing ordinance. An H zone may contain development standards, uses (including adaptive re-uses), and other provisions that are unique to the zone.

Article 4. Certificate of Appropriateness Required

- **Section 10-4.401, Actions requiring certificate of appropriateness.**
 - a) For landmarks or properties within a historic district, no person shall alter, restore, demolish, remove, or relocate an exterior improvement or architectural feature that is either a contributing characteristic of the resource or visible from any public right-of-way; or alter, restore, place, erect, remove, or relocate any permanent sign visible from a public right-of-way; or alter, restore, place, erect, remove, or relocate any interior characteristic that was identified as contributing during the designation without being granted a certificate of appropriateness, except as provided under Article 7 of this chapter. Approval of such work shall be required even if no other permits or entitlements are required by the City.
 - b) For potential historic resources, no person shall demolish, remove, or relocate any exterior improvement or architectural feature that is either a contributing characteristic of the resource or visible from any public right-of-way without being granted a certificate of appropriateness, except as provided under Article 7 of this chapter. Approval of such work shall be required even if no other permits or entitlements are required by the City.
 - c) Minor alterations. The Commission may, by resolution, adopt a list of those types of alterations that are subject to approval of a certificate of appropriateness that are deemed to be “minor” in nature. The Commission may modify the list of minor alterations from time to time by resolution as circumstances warrant. Applications for certificates of appropriateness involving only minor alterations shall be reviewed pursuant to procedures in Section 10-4.402(e).
- **Section 10-4.403, Criteria for approval of certificates of appropriateness for other than demolition or removal.** The Minor Alterations Subcommittee, Commission, or the City Council upon appeal, shall issue certificate appropriateness only when it determines that the project conforms to the prescriptive standards adopted by the Commission, that the project will not detrimentally alter, destroy or adversely affect any exterior improvement or exterior architectural feature, and that the project retains the essential elements that make the resource significant.
- **Section 10-4.404, Certificate of appropriateness for removal or demolition.** Discretionary review of demolition permits. The demolition of a historic landmark, buildings in a historic district, or potential historic resource as described by this chapter is considered a discretionary permit and subject to the California Environmental Quality Act (CEQA) and Permit Streamlining Act. Therefore, a demolition permit shall not be issued pursuant to Title 9, Chapter 17, until the requirements of Article 4 herein have been met.

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Title 10, Chapter 3, Environmental Review Pursuant to CEQA, of the Redondo Beach Municipal Code establishes the specific procedures necessary to implement CEQA. Article 2, Evaluation of Significant Effects, establishes criteria for determining significant effects and provides guidance in making an evaluation whether or not a particular project may have a substantial adverse effect on the environment. Pursuant to the Municipal Code, if there are inconsistencies between the provisions contained in Title 10, Chapter 3, and the State's CEQA Guidelines, the State's CEQA Guidelines shall control. As established in Section 10-3.202, significant effects may be due to primary consequences immediately related to the project or may be due to secondary consequences related more to the primary consequences than the project itself. As established in Section 10-3.203(j), with respect to cultural resources, a project will normally have a significant effect on the environment if it will disrupt or adversely affect a prehistoric or historic archaeological site or a property of historic or cultural significance to a community or ethnic or social group; or a paleontological site except as a part of a scientific study.

City of Redondo Beach Historic Preservation Plan

The purpose of the City's Preservation Plan is to provide a proactive means of planning for the continued protection of the City's character and heritage (Redondo Beach 1998). Goals include teaching and informing citizens of Redondo Beach about the City's history as reflected in the built environment, increase the community's awareness of preservation issues, provide a guideline for growth and development, create a plan for the continued identification and designation of historic properties, develop new incentives for preservation, strengthen the support for preservation policies, and promote Redondo Beach as a City sensitive to the preservation of historical resources for the future. This plan also addresses the need for continued cooperation between City departments, community heritage organizations, and the public to ensure that the preservation goals and objectives are carried out.

5.4.1.2 EXISTING CONDITIONS

The City's existing historic buildings reflect a variety of architectural styles and document its patterns of growth and development. The California Historical Resources Information System search from the South Central Coastal Information Center (SCCIC) indicates that 71 previous studies have been completed within the City, and 36 cultural resources have been recorded, which includes 4 prehistoric archaeological sites, 1 historical archeological site, 30 historical built environments and 1 multi component site. Lists of previous cultural resources studies and previously recorded cultural resources in the City are provided in Appendix D, Table D-1 and Appendix E, Table E-1, respectively, of the Cultural and Paleontological Resources Assessment (See Appendix C).

Historic Setting

City of Redondo Beach

Rancho San Pedro was the first Spanish land grant in California; its 75,000 acres encompassed the entirety of what is now Santa Monica Bay, including what is now Redondo Beach. Though the City's first industry ultimately failed in the early 1880s (Pacific Salt Works), the arrival of the Santa Fe Railroad drastically shaped the fortunes of Redondo Beach with an influx of people and capital. To design the new townsite, the

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Redondo Beach Company hired the renowned civil engineer William Hammond Hall. Most famously known as the first State Engineer of California, Hall organized the town into a grid street plan while integrating a tiered system into the coastline's geography. In addition to its success as a trading hub, Redondo Beach was a preferred tourist destination. In the 1950s and 1960s, industry and the City's overall population continued to grow. As part of this expansion, Redondo Beach attracted various aerospace companies.

Historic Built Environment

The vast majority of the developed land in Redondo Beach was first developed prior to 1973,, meaning it may contain buildings or structures that are 50 years of age or older. Most of the significant buildings have been recorded in the southern half of the City within approximately one mile of the beach.

As shown in Figure 5.4-1, and described in Table 5.4-1, there are five NRHP-listed historic built-environment resources and one California Historic Landmark within the City. The four individually listed buildings consist of the Redondo Beach Public Library (1930), the Woman's Club of Redondo Beach (1922), Sweetser House (1921), and the Diamond Apartments (1913). The fifth NHRP-listed resource is the Redondo Beach Original Townsite Historic District (1906–1924). The historic landmark is the Old Salt Lake (1941).

Maps showing the location and density of significant historic built-environment resources (national, State, or local level) are found in Appendix L of the Cultural and Paleontological Resources Assessment (See Appendix C).

Archeological Resources

The underlying geology of the City is mapped as Pleistocene (2.58 million years ago – 11,700 years ago) sedimentary deposits; middle to late Pleistocene (774,000 – 11,700 years ago) old eolian deposits and old alluvium, undivided; and late Holocene (less than 4,200 years ago) unconsolidated shelf sediments, eolian deposits, beach deposits, and artificial fill. The Late to Middle Pleistocene sediments found in the far northeast corner of the City predate documented human populations in the area and are considered to have low sensitivity for archaeological sites. All but one of the prehistoric archaeological sites and multicomponent archaeological sites are in the southern part of the City near the beach. Historic-aged archaeological sites are found in most of the City but are concentrated in the south. The area in the southern half of the City within one-half mile of the beach is considered highly sensitive for buried historic-aged and prehistoric archaeological deposits. Because this area of the City has sediments capable of preserving archaeological resources, most resources are concentrated near the coast. All other areas of the City except the northeast corner are considered to have low to moderate sensitivity for buried historic-aged and prehistoric archaeological deposits.

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Table 5.4-1 Redondo Beach Historic Resources

Name	ID	Location	Description
Redondo Beach Public Library	81000158	309 Esplanade Street	This one-story library was built in 1930 and is an exemplary representation of the Spanish Colonial Revival style with Dutch Colonial Revival features. One of the unique aspects of the library is its location in a park overlooking the Pacific Ocean. The library is one of the last remaining significant public/commercial buildings still remaining from its period of construction. This historic resource was entered into the National Register in 1981 under Criterion C, architectural significance (Strojny 1980).
Woman's Club of Redondo Beach	84000900	400 S. Broadway	Built in 1922, this one-story wood-framed building is considered an excellent example of a Vernacular-style bungalow. The history of the building is significant for its continuous association with the welfare and development of the community of Redondo Beach. This historic resource was added in the National Register in 1984 under Criterion A, event-social history, and Criterion C, architectural significance (Loranger 1983).
Sweetser House	85001984	417 E. Beryl Street	Built in 1921, the two-story, single-family residence is an excellent example of the American Colonial Revival style, a type of architecture that is uncommon in this area of Southern California. During the early years of Redondo Beach's development, fine homes such as the Sweetser House boosted the town's appearance, encouraging residential and commercial growth. This historic resource was added in the National Register in 1985 under Criterion A, event-community planning and development, and Criterion C, architecture (McAvoy and Johnson Research Associates 1984).
Redondo Beach Original Townsite Historic District	88000970	North Gertruda Avenue, Carnelian Street, North Guadalupe Avenue, and Diamond Street.	The Redondo Beach Original Townsite Historic District consists of one- and two-story residential building (both single family and multifamily residences) and associated ancillary buildings (garages and sheds). Architectural styles include a variety of Craftsman bungalows, Spanish Mission revival, and Neo-Classical/Colonial Revival styles. The integrity of the district, per the 1988 NRHP District record, is moderately high. Within the boundaries of the historic district are 49 contributing buildings and 19 noncontributing buildings. The majority of homes were built in 1906 to 1914 in close proximity to the Pacific Electric rail lines in what is now downtown Redondo Beach. The district represents the highest concentration of intact historic buildings in the City. This historic district was added in the National Register in 1988 under Criterion A, event-exploration/settlement, and Criterion C, architectural significance (Dyan 1987).
Diamond Apartments	92000260	321 Diamond Street	This two-story Classical Revival style multifamily residence was built in 1913. While the Diamond Apartments are not an exemplary representation of an architectural style, they are considered a rare surviving example of the early commercial life of Redondo Beach. It is the second oldest commercial building in the City and retains the highest level of integrity of its contemporaries. This historic resource was entered into the National Register in 1992 under Criterion A, event-commerce (Dyan 1991).
Old Salt Lake	373	Historical Marker is at the East corner of Harbor Drive and Yacht Club Way	The Old Salt Lake was used by the local Native American tribes and early California settlers to harvest salt, an extremely important and valuable commodity. This site was designated on September 6, 1941.

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5.4.2 Thresholds of Significance

CEQA Guidelines Section 15064.5 provides direction on determining significance of impacts to archaeological and historical resources. Generally, a resource shall be considered “historically significant” if the resource meets the criteria for listing on the California Register of Historical Resources:

- Is associated with events that have made a significant contribution to the broad patterns of California’s history and cultural heritage;
- Is associated with the lives of persons important in our past;
- 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
- Has yielded, or may be likely to yield, information important in prehistory or history. (PRC § 5024.1; 14 CCR § 4852)

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

A project would normally have a significant effect on the environment if the project would:

- C-1 Cause a substantial adverse change in the significance of a historical resource.
- C-2 Cause a substantial adverse change in the significance of an archaeological resource.
- C-3 Disturb any human remains, including those interred outside of dedicated cemeteries.

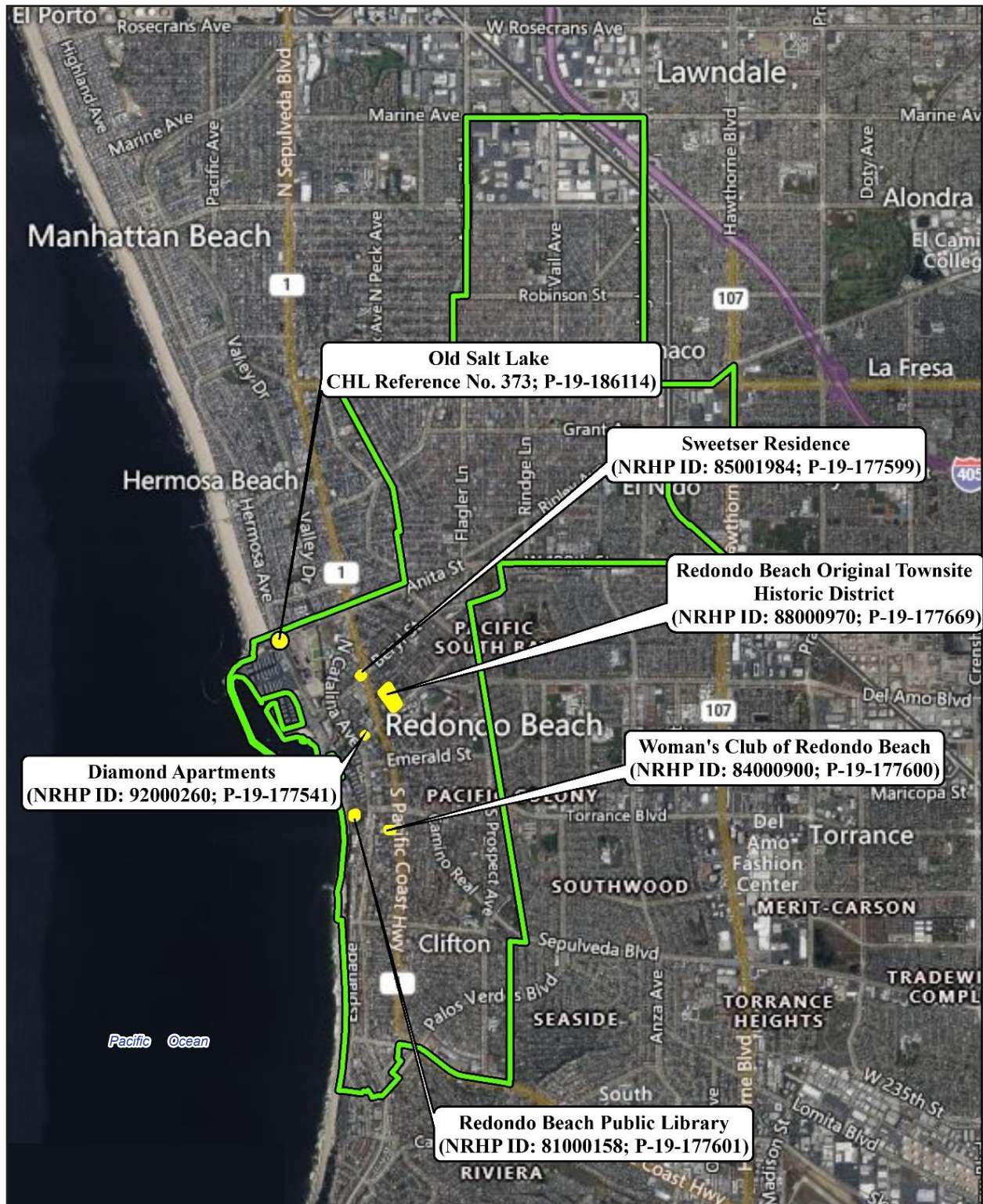
5.4.3 Proposed General Plan Goals and Policies

Land Use Element

Goal LU-4 Health and Vitality: A vibrant community that supports the healthy and active lifestyles of residents and visitors.

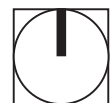
- **Policy LU -4.3: Coastal Amenities.** Promote and enhance the City’s coastal amenities such as its beaches, King Harbor and the Redondo Beach Pier that serve as landmarks and distinguishing features unique to the City and also provide coastal access and coastal recreational opportunities for the community at large.
- **Policy LU-4.4: New Open Space and Parkland Opportunities.** Preserve, invest in, and expand open space and parkland opportunities for active and passive recreational public and private open spaces. Work with future developments along commercial corridors and other nonresidential developments to create useable public open spaces to enhance the commercial neighborhood experience for residents and visitors alike.

Figure 5.4-1 - Redondo Beach NRHP–Listed and California Historic Landmarks Map



City of Redondo Beach

0 1
Scale (Miles)



Source: Cogstone, 2024.

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Goal LU-7 Historic Preservation: Historic buildings, streets, landscapes and neighborhoods, as well as the story of Redondo Beach's people, businesses, and social and community organizations, are preserved and serve as a point of civic pride and identity for the community.

- **Policy LU-7.1: Historic landmarks and districts.** Encourage the voluntary designation of potentially historic resources as landmarks or historic districts.
- **Policy LU-7.2: Protect designated landmarks and districts.** Continue to use the Certificate of Appropriateness process for reviewing applications to demolish or alter designated landmarks and for projects within designated historic districts and in proximity to landmark properties.
- **Policy LU-7.3: Public and institutional facilities.** Consider the designation of potentially historic public or institutional resources under threat of demolition or deterioration.
- **Policy LU-7.4: Adaptive reuse and sustainable development.** Promote historic preservation as sustainable development and encourage adaptive reuse of historic or older properties.
- **Policy LU-7.5: Historic resources as cultural tourism.** Promote historic places and cultural tourism as an economic development strategy.
- **Policy LU-7.6: History and cultural heritage.** Support and encourage efforts to document and share the cultural heritage and history of Redondo Beach.
- **Policy LU-7.7: Culturally inclusive planning.** Ensure that historic preservation planning is culturally inclusive and reflective of the unique background and diversity of neighborhoods in the City.
- **Policy LU-7.8: Incentives and technical assistance.** Provide assistance to owners of potentially eligible and designated historic properties with tools and incentives to maintain historic resources. Consider providing restoration assistance to owners of historic sites and/or structures in return for agreements or deed restrictions prohibiting their destruction or alteration inconsistent with their historic character. Continue to provide Mills Act Agreements to owners of historic sites to maintain, rehabilitate, and preserve the character defining features of historic properties.
- **Policy LU-7.9: Salvage architectural features or materials.** Encourage the preservation or reuse of historic architectural features on site or within the community.

Open Space and Conservation Element

Goal OS-2 High-Quality Open Spaces and Recreational Facilities: Parks, public spaces, and recreational facilities that are highly utilized by residents and visitors of all ages, abilities, and incomes and are well-maintained, safe, and meet the long and-short term needs of the Redondo Beach Community.

- **Policy OS-2.10: Conservation.** Preserve and enhance unique and valuable community resources as part of the planning and development of parks, public spaces, and recreation areas. Such resources include

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significant scenic and visual landmarks; cultural/historic resources; and natural resources such as coastal resources, wildlife habitats, and native vegetation.

5.4.4 Environmental Impacts

5.4.4.1 METHODOLOGY

A records search of the California Historical Resources Information System from the SCCIC at Cal State Fullerton was requested on August 18, 2023, and included the entire City. In addition to the SCCIC records search, a variety of sources were consulted in September 2023 to obtain information regarding the cultural context of the City, including the NRHP, CRHR, Built Environment Resource Directory (BERD), California Historical Landmarks, and California Points of Historical Interest.

In addition to the SCCIC and BERD record search results, locally significant properties are found on the City of Redondo Beach Historic Resources Register. The City also conducted historic resources inventories in 1986, 1996, and 2003. Properties rated A or B in these inventories are considered locally significant and are listed in Appendix H and shown in Appendix L of the Cultural and Paleontological Resources Assessment (See Appendix C).

5.4.4.2 IMPACT ASSESSMENT

The applicable thresholds are identified in brackets after the impact statement.

Impact 5.4-1: Future development facilitated by the proposed project could impact or cause substantial adverse change in the significance of an identified or potentially eligible historic resource. [Threshold C-1]

The proposed project is a regulatory document that sets the framework for future growth and development in the City and does not directly result in development. Updates to the Zoning Ordinance and LCP would involve land-use changes that would be consistent with the General Plan Update. Before any development or redevelopment activities would occur in the City, all such activities would be required to be analyzed for conformance with the General Plan, zoning requirements, and other applicable local, state, and federal requirements and obtain all necessary clearances and permits. Therefore, adoption of the proposed project in itself would not lead to demolition or material alteration of any historic resource.

The proposed project includes policies that would minimize impacts to historic resources, such as LU-7.1, LU-7.2, LU-4.3, LU-4.4, and OS-2.10. However, identified historic structures and sites that are potentially eligible for future historic resources listing may be vulnerable to development activities accompanying infill, redevelopment, or revitalization that would be accommodated by the proposed project. For instance, the placement of new buildings adjacent to a historic resource may result in indirect impacts to access, visibility, and visual context, and renovations or modifications to historic resources may deteriorate or destroy the characteristics that make those resources important or unique. In addition, other buildings or structures that could meet the NRHP criteria upon reaching 50 years of age might be impacted by development or redevelopment activity that would be accommodated by the proposed project. Although Title 10, Chapter 4,

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Historic Resources Preservation, of the Redondo Beach Municipal Code provides regulations to protect cultural and historical resources within the City limits, impacts to historic resources are considered potentially significant.

Level of Significance Before Mitigation: Impact 5.4-1 would be potentially significant.

Impact 5.4-2: Future development facilitated by the proposed project could impact or cause substantial adverse changes in the significance of known and/or unknown archaeological resources. [Threshold C-2]

Archaeological sites are protected by a wide variety of state policies and regulations enumerated under the PRC. Cultural resources are also recognized as nonrenewable and therefore receive protection under the PRC and CEQA. Per Section 21083.2 of CEQA, the lead agency is required to determine whether a development project may have a significant effect on archaeological resources. If the lead agency determines that the project may have a significant effect on unique archaeological resources, the project-level CEQA document being prepared for the development project is required to address the issue of those resources.

The proposed project is a regulatory document that sets the framework for future growth and development in the City and does not directly result in development. Before any development or redevelopment activities would occur in the City, all such activities would be required to be analyzed for conformance with the General Plan, zoning requirements, and other applicable local, state, and federal requirements and obtain all necessary clearances and permits. Updates to the Zoning Ordinance and LCP would involve land-use changes that would be consistent with the General Plan Update. Therefore, adoption of the proposed project in itself would not lead to the disturbance of archaeological resources.

Although the proposed project includes policies that would minimize impacts to archaeological resources, such as OS-2.10, long-term implementation of the proposed project could allow development (e.g., infill development, redevelopment, and revitalization/restoration), including grading, of unknown sensitive areas. Grading and construction activities of undeveloped areas or redevelopment that requires more intensive soil excavation than in the past could potentially cause the disturbance of archaeological resources. Therefore, future development could potentially unearth previously unknown/unrecorded archaeological resources, and impacts could be potentially significant.

Level of Significance Before Mitigation: Impact 5.4-2 would be potentially significant.

Impact 5.4-3: Future development facilitated by the proposed project could potentially disturb human remains, including those interred outside of dedicated cemeteries. [Threshold C-3]

Soil-disturbing activities associated with future development in accordance with the proposed project could result in the discovery of human remains. California Health and Safety Code, Section 7050.5; CEQA Section 15064.5; and PRC 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

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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 PRC. 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 are those of a Native American, he or she shall contact the Native American Heritage Commission by telephone within 24 hours. Subsequently, the Native American Heritage Commission shall identify the "most likely descendant." The most likely descendant shall then make recommendations and engage in consultation concerning the treatment of the remains as provided in PRC Section 5097.98. Although soil-disturbing activities associated with development in accordance with the proposed project could result in the discovery of human remains, compliance with existing law would ensure that significant impacts to human remains would not occur.

Level of Significance Before Mitigation: Impact 5.4-3 would be less than significant.

5.4.5 Cumulative Impacts

The context for the analysis of impacts to historic and archaeological resources, and human remains is generally site specific rather than cumulative in nature, because each project site has a different set of geologic and historic considerations that would be subject to further assessments depending on existing site conditions, location, and sensitivity to cultural resources. Future development and redevelopment pursuant to the proposed project and other development projects in the surrounding area would involve grading and excavation activities on individual sites, which could uncover cultural resources. Compliance with local, state, and federal regulations and implementation of mitigation would reduce impacts to cultural resources and human remain, respectively, as a result of new development or redevelopment projects. However, federal, state, and local regulations that provide protection for historical resources may not always be feasible. For these reasons, future development facilitated by the proposed project could potentially result in a significant cumulative impact on historic resources.

5.4.6 Level of Significance Before Mitigation

Upon implementation of regulatory requirements, and project goals and policies, the following impacts would be less than significant: 5.4-3.

Without mitigation, these impacts would be **potentially significant**:

- **Impact 5.4-1** Implementation of the proposed project could impact historical resources.
- **Impact 5.4-2** Implementation of the proposed project could impact archaeological resources.

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5.4.7 Mitigation Measures

Impact 5.4-1

CUL-1 **Historical Resources Assessment.** For discretionary projects that involve construction activities that may adversely impact potentially eligible historical resources (i.e., structures 45 years or older), a historical resources assessment shall be performed by an architectural historian or a historian who meets the Secretary of the Interior's Professionally Qualified Standards (PQS) in architectural history or history. The assessment shall include a records search to determine if 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 (NRHP), California Register of Historic Resources (CRHR), or local register of historic resources. Following the records search, the qualified historian or architectural historian shall conduct a reconnaissance-level and/or intensive-level 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 assessment shall provide the historic context, methods, results, and recommendations for appropriate findings. The assessment shall be provided to the Director of the Community Development Department for concurrence as to the appropriate mitigation for historic resources.

Impact 5.4-2

CUL-2 **Cultural Resources Assessment.** For discretionary projects that involve ground-disturbing activities during construction in areas where no previous ground disturbance or excavation has occurred, or ground-disturbing activities that would occur in native soil, a site-specific cultural resources study shall be completed prior to project approval. The study shall include records searches of the California Historical Resources Information System and 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.

If the records search identifies a sensitivity for archaeological resources, an archaeological resources assessment shall be performed under the supervision of an archaeologist that meets the Secretary of the Interior's PQS in either prehistoric or historic archaeology. If the archaeological assessment indicates the area to be of medium sensitivity for archaeological resources, an archaeologist who meets the PQS shall be retained on an on-call basis.

If the archaeological assessment indicated the area to be highly sensitive for archaeological resources, a qualified archaeologist shall monitor all ground-disturbing construction and pre-construction activities.

CUL-3 **All Projects.** If cultural resources are discovered during ground-disturbing activities, all ground-disturbing activities within 50 feet of the find shall be halted until a meeting is

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convened between the developer, archaeologist, tribal representatives, and the Director of the Community Development Department, or their assigned designee. At the meeting, the significance of the discoveries shall be discussed and after consultation with the tribal representatives, developer, and archaeologist, a decision shall be made, with the concurrence of the Director of the Community Development Department, as to the appropriate mitigation (documentation, recovery, avoidance, etc.) for the cultural resources.

5.4.8 Level of Significance After Mitigation

Impact 5.4-1

Mitigation Measures CUL-1, which requires evaluation of historic resources for projects, would reduce potential impacts associated with historic resources. However, if a proposed project would result in the demolition or significant alteration of a historical resource, it cannot be mitigated to a less than significant level. As a result, project impacts on historic resources as a result of future development, and cumulative development, in accordance with the proposed project are ***significant and unavoidable***.

Impact 5.4-2

Policies incorporated into the proposed project and Mitigation Measures CUL-2 and CUL-3 would require specific measures to identify, protect, and preserve cultural resources such as conducting site-specific archeological resources studies, monitoring earth-disturbing activities, and evaluating and recovering cultural resources found during construction activities. Mitigation Measures CUL-2 and CUL-3 would reduce potential impacts associated with archaeological resources to a level that is less than significant by avoiding or recovering the archaeological resource(s). Therefore, no significant adverse impacts relating to archaeological resources have been identified.

5.4.9 References

Redondo Beach, City of. 1998, September 28. City of Redondo Beach Historic Preservation Plan.

Cogstone. 2024, June. *Cultural and Paleontological Resources Assessment for the City of Redondo Beach General Plan Update Project*. DEIR Appendix D.

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5.5 ENERGY

This section of the Program Draft Environmental Impact Report (EIR) evaluates the energy implications of the Focused General Plan Update, Zoning Ordinance and Local Coastal Program (LCP) (proposed project) in a local and regional context. The analysis in this section is based on the existing electricity and natural gas uses in the City of Redondo Beach provided by reports from Southern California Edison (SCE), Southern California Gas Company (SoCalGas), and the Clean Power Alliance (CPA) (Appendix C). In addition, this section qualitatively analyzes transportation energy by evaluating daily vehicle miles traveled from the data provided by Fehr & Peers (see Appendix C).

5.5.1 Environmental Setting

Federal, state, and local laws, regulations, plans, or guidelines related to energy that are potentially applicable to the proposed project are summarized herein.

5.5.1.1 REGULATORY BACKGROUND

Federal

Federal Energy Policy and Conservation Act

The Energy Policy and Conservation Act of 1975 was established in response to the 1973 oil crisis. The Act created the Strategic Petroleum Reserve, established vehicle fuel economy standards, and prohibited the export of U.S. crude oil (with a few limited exceptions). It also created Corporate Average Fuel Economy (CAFE) standards for passenger cars starting in model year 1978. The CAFE Standards are updated periodically to account for changes in vehicle technologies, driver behavior, and/or driving conditions.

The federal government issued new CAFE standards in 2012 for model years 2017 to 2025 that required a fleet average of 54.5 miles per gallon (mpg) for model year 2025. However, on March 30, 2020, the US Environmental Protection Agency (EPA) finalized an updated CAFE and greenhouse gas (GHG) emissions standards for passenger cars and light trucks and established new standards covering model years 2021 through 2026, known as the Safer Affordable Fuel Efficient (SAFE) Vehicles Final Rule for Model Years 2021–2026. Under SAFE, the fuel economy standards would increase 1.5 percent per year compared to the 5 percent per year under the CAFE standards established in 2012. Overall, SAFE required a fleet average of 40.4 miles per gallon (mpg) for model year 2026 vehicles (85 Federal Register 24174 [April 30, 2020]).

On December 21, 2021, under direction of Executive Order (EO) 13990 issued by President Biden, the National Highway Traffic Safety Administration repealed SAFE Vehicles Rule Part One, which had preempted state and local laws related to fuel economy standards. In addition, the National Highway Traffic Safety Administration finalized new fuel standards in response to EO 13990. Fuel efficiency under the standards will increase 8 percent annually for model years 2024 to 2025 and 10 percent annually for model year 2026. Overall, the new CAFE standards require a fleet average of 49 mpg for passenger vehicles and light trucks for model year 2026, which would be a 10 mpg increase relative to model year 2021 (87 Federal Register 25710 [May 2, 2022]).

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On July 28, 2023, the National Highway Traffic Safety Administration proposed new CAFE standards for passenger cars and light trucks built in model years 2027-2032, and new fuel efficiency standards for heavy-duty pickup trucks and vans built in model years 2027-2035. If finalized, the proposal would require an industry fleet-wide average of approximately 58 miles per gallon for passenger cars and light trucks in model year 2032, by increasing fuel economy by 2 percent year over year for passenger cars and by 4 percent year over year for light trucks. For heavy-duty pickup trucks and vans, the proposal would increase fuel efficiency by 10 percent year over year (NHTSA 2023).

Energy Independence and Security Act of 2007

The Energy Independence and Security Act of 2007 (Public Law 110-140) seeks to provide the nation with greater energy independence and security by increasing the production of clean renewable fuels; improving vehicle fuel economy; and increasing the efficiency of products, buildings, and vehicles. It also seeks to improve the energy performance of the federal government. The Act sets increased corporate average fuel economy standards; the renewable fuel standard; appliance energy-efficiency standards; building energy-efficiency standards; and accelerated research and development tasks on renewable energy sources (e.g., solar energy, geothermal energy, and marine and hydrokinetic renewable energy technologies), carbon capture, and sequestration (USEPA 2023).

Energy Policy Act of 2005

Passed by Congress in July 2005, the Energy Policy Act includes a comprehensive set of provisions to address energy issues. This Act includes tax incentives for 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.

National Energy Policy

Established in 2001 by the National Energy Policy Development Group, the National Energy 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.

Natural Gas Pipeline Safety Act of 1968

The Natural Gas Pipeline Safety Act of 1968 authorizes the United States Department of Transportation 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. The Pipeline and Hazardous Materials Safety Administration within the Department of Transportation develops and enforces regulations for the safe, reliable, and environmentally sound operation of the nation's 2.6-million-mile pipeline transportation system.

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State

California Energy Commission

The California Energy Commission (CEC) was created in 1974 under the Warren-Alquist Act as the State's principal energy planning organization 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.
- 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.

California Public Utilities Commission

In September 2008, the California Public Utilities Commission (CPUC) adopted the Long-Term Energy Efficiency Strategic Plan, which provides a framework for energy efficiency in California through the year 2020 and beyond. It articulates a long-term vision and goals for each economic sector, identifying specific near-term, mid-term, and long-term strategies to assist in achieving these goals. This plan sets forth the following four goals, known as Big Bold Energy Efficiency Strategies, to achieve significant reductions in energy demand:

- All new residential construction in California will be zero net energy (ZNE) by 2020.¹
- All new commercial construction in California will be ZNE by 2030.
- Heating, ventilation and air conditioning (HVAC) will be transformed to ensure that its energy performance is optimal for California's climate.
- All eligible low-income customers will be given the opportunity to participate in the low-income energy efficiency program by 2020.

With respect to the commercial sector, the Long-Term Energy Efficiency Strategic Plan notes that commercial buildings, which include schools, hospitals, and public buildings, consume more electricity than any other end-use sector in California. The commercial sector's five-billion-plus square feet of space accounts for 38 percent of the state's power use and over 25 percent of natural gas consumption. Lighting, cooling, refrigeration, and ventilation account for 75 percent of all commercial electric use, and space heating, water heating, and cooking account for over 90 percent of gas use. In 2006, schools and colleges were in the top five facility types for electricity and gas consumption, accounting for approximately 10 percent of state's electricity and gas use (CPUC 2011).

¹ Zero net energy buildings are buildings where the total amount of energy used by the building annually is equal to or less than the amount of renewable energy created on the site.

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The CPUC and CEC have adopted the following goals to achieve ZNE levels by 2030 in the commercial sector:

Goal 1: New construction will increasingly embrace ZNE performance (including clean, distributed generation), reaching 100 percent penetration of new starts in 2030.

Goal 2: 50 percent of existing buildings will be retrofit to ZNE by 2030 through achievement of deep levels of energy efficiency and with the addition of clean distributed generation.

Goal 3: Transform the commercial lighting market through technological advancement and innovative utility initiatives.

Renewables Portfolio Standard

Senate Bills 1078, 107, and X1-2 and EO S-14-08

The California Renewables Portfolio Standard (RPS) Program was established in 2002 under Senate Bills (SB) 1078 (Sher) and 107 (Simitian). The RPS program requires investor-owned utilities, electric service providers, and community choice aggregators to increase the use of eligible renewable energy resources to 33 percent of total procurement by 2020. Initially under the RPS, certain retail sellers of electricity were required to increase the amount of renewable energy each year by at least 1 percent in order to reach at least 20 percent by December 30, 2010. EO S-14-08 was signed in November 2008, which expanded the state's Renewable Energy Standard to 33 percent renewable power by 2020. This standard was adopted by the California legislature in 2011 (SB X1-2). The California Public Utilities Commission is required to provide quarterly progress reports on progress toward RPS goals. This has accelerated the development of renewable energy projects throughout the state. For year 2020, the three largest retail energy utilities each provided an average of 43 percent of its supplies from renewable energy sources. Community choice aggregators provided an average of 41 percent of their supplies from renewable sources (CPUC 2021).

Senate Bill 350

Governor Jerry Brown signed SB 350 on October 7, 2015, which expands the RPS by establishing a goal of 50 percent of the total electricity sold to retail customers in California per year by December 31, 2030. In addition, SB 350 includes the goal to double the energy efficiency savings in electricity and natural gas final end uses (such as heating, cooling, lighting, or class of energy uses upon which an energy efficiency program is focused) of retail customers through energy conservation and efficiency. The bill also requires the CPUC, in consultation with the CEC, to establish efficiency targets for electrical and gas corporations consistent with this goal. SB 350 also provides for the transformation of the California Independent System Operator into a regional organization to promote the development of regional electricity transmission markets in the western states and to improve the access of consumers served by the California Independent System Operator to those markets, pursuant to a specified process.

Senate Bill 100

On September 10, 2018, Governor Brown signed SB 100, which replaces the SB 350 requirements. Under SB 100, the RPS for public owned facilities and retail sellers consist of 44 percent renewable energy by 2024, 52 percent by 2027, and 60 percent by 2030. Additionally, SB 100 established a new RPS requirement of 50

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percent by 2026. Furthermore, the bill also establishes an overall State policy that eligible renewable energy resources and zero-carbon resources supply 100 percent of all retail sales of electricity to California end-use customers and 100 percent of electricity procured to serve all State agencies by December 31, 2045. Under the bill, the State cannot increase carbon emissions elsewhere in the western grid or allow resource shuffling to achieve the 100 percent carbon-free electricity target.

Senate Bill 1020

SB 1020 was signed into law on September 16, 2022. SB 1020 provides interim RPS targets (90 percent renewable energy by 2035 and 95 percent renewable energy by 2040) and requires renewable energy and zero-carbon resources to reach 100 percent clean electricity by 2045.

AB 117 and SB 790

Community Choice Aggregation is a program that allows cities, counties, and other qualifying governmental entities within the service areas of investor-owned utilities to purchase and/or generate electricity for their residents and businesses. This program was made possible in California by passage of Assembly Bill (AB) 117 (Migden, 2002) and SB 790 (Leno, 2011). AB 117 established Community Choice, and SB 790 strengthened it by creating a “code of conduct” that the incumbent utilities must adhere to in their activities relative to Community Choice.

Energy Efficiency Regulations

Title 24, Part 6, 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 [CCR]). Title 24 requires the design of building shells and building components to conserve energy. The standards are updated periodically to allow for consideration and possible incorporation of new energy efficiency technologies and methods.

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 noncommercial buildings such as hotels, offices, medical offices, restaurants, retail stores, schools, warehouses, theaters, and convention centers.

Title 24, Part 11, Green Building Standards

On July 17, 2008, the California Building Standards Commission adopted the nation’s first green building standards. The California Green Building Standards Code (CALGreen) was adopted as part of the California Building Standards Code. It includes mandatory requirements for new residential and nonresidential buildings throughout California. CALGreen is intended to (1) reduce GHG emissions from buildings; (2) promote

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environmentally responsible, cost-effective, healthier places to live and work; (3) reduce energy and water consumption; and (4) respond to the directives by the Governor. The mandatory provisions of CALGreen became effective January 1, 2011. The 2022 CALGreen update, which was approved as part of 2022 Energy Code and became effective on January 1, 2023, provides updates to the residential and nonresidential voluntary measures.

Overall, CALGreen reduces construction waste, makes buildings more efficient in the use of materials and energy, and reduces environmental impacts during and after construction. CALGreen contains requirements for construction site selection, stormwater control during construction, construction waste reduction, indoor water use reduction, materials selection, natural resource conservation, and site irrigation conservation, among other requirements. It provides for design options allowing the designer to determine how best to achieve compliance for a given site or building condition. CALGreen Section 5.410.2, *Commissioning*, also requires building commissioning, which is a process for verifying that all building systems (e.g., heating and cooling equipment and lighting systems) are functioning at their maximum efficiency.

Appliance Efficiency Regulations

The 2006 Appliance Efficiency Regulations (20 CCR Sections 1601–1608) were adopted by the CEC and 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, 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.

Transportation-Sector-Specific Regulations

Assembly Bill 1493

California vehicle GHG emission standards were enacted under AB 1493 (Pavley I). Pavley I is a clean-car standard that reduced GHG emissions from new passenger vehicles (light-duty auto to medium-duty vehicles) from 2009 through 2016 and was anticipated to reduce GHG emissions from new passenger vehicles by 30 percent in 2016. California implements the Pavley I standards through a waiver granted to California by the EPA. In 2012, the EPA issued a Final Rulemaking that sets even more stringent fuel economy and GHG emissions standards for model years 2017 through 2025 light-duty vehicles (see also the discussion on the update to the CAFE standards under “Federal,” above).

In January 2012, the California Air Resources Board (CARB) approved the Pavley Advanced Clean Cars program (formerly known as Pavley II) for model years 2017 through 2025. The program combines the control of smog, soot, and global warming gases and requirements for greater numbers of zero-emission vehicles into a single package of standards. Under California’s Advanced Clean Car program, by 2025, new automobiles will emit 34 percent fewer global warming gases and 75 percent fewer smog-forming emissions.

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Executive Order N-79-20

On September 23, 2020, EO N-79-20 was issued, which sets a time frame for the transition to zero-emissions (ZE) passenger vehicles and trucks in addition to off-road equipment. It directs CARB to develop and propose the following:

- Passenger vehicle and truck regulations requiring increasing volumes of new ZEVs (zero-emission vehicles) sold in the California toward the target of 100 percent of in-state sales by 2035.
- Medium- and heavy-duty vehicle regulations requiring increasing volumes of new ZE trucks and buses sold and operated in California toward the target of 100 percent of the fleet transitioning to ZEVs by 2045 everywhere feasible, and for all drayage trucks to be ZE by 2035.
- Strategies to achieve 100 percent zero emissions from all off-road vehicles and equipment operations in California by 2035, in cooperation with other State agencies, the EPA, and local air districts.

On August 25, 2022, CARB adopted the Advanced Clean Cars II regulations that codify the EO goal of 100 percent of in-state sales of new passenger vehicles and trucks be ZE by 2035. Starting in year 2026, Advanced Clean Cars II requires that 35 percent of new vehicles sold be ZE or plug-in hybrids.

Advanced Clean Fleets Regulation

In April 2023, CARB released the Advanced Clean Fleets (ACF) regulation to accelerate the transition to zero-emission medium- and heavy-duty vehicles (CARB 2023). In conjunction with the Advanced Clean Trucks regulation, the ACF regulations helps to ensure that medium- and heavy-duty ZEVs are brought to the market by requiring certain fleets to purchase them. The ACF ZEV phase-in approach sets clear targets for regulated fleets to make a full conversion to ZEVs.

The ACF regulations cover four main elements:

- **Manufacturer sales mandate.** Manufacturers may sell only zero-emission medium- and heavy-duty vehicles starting in 2036.
- **Drayage fleets.** Beginning January 1, 2024, trucks must be registered in the CARB Online System to conduct drayage activities in California. Non-zero-emission “legacy” drayage trucks could register in the CARB Online System through December 31, 2023. Legacy drayage trucks can continue to operate through their minimum useful life. Beginning January 1, 2024, only zero-emission drayage trucks may register in the CARB Online System. All drayage trucks entering seaports and intermodal railyards would be required to be zero-emission by 2035.
- **High priority and federal fleets.** High priority and federal fleets must comply with the Model Year Schedule or may elect to use the optional ZEV Milestones Option to phase-in ZEVs into their fleets:
 - **Model Year Schedule:** Fleets must purchase only ZEVs beginning 2024 and, starting January 1, 2025, must remove internal combustion engine vehicles at the end of their useful life as specified in the regulation.

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- **ZEV Milestones Option (Optional):** Instead of the Model Year Schedule, fleets may elect to meet ZEV targets as a percentage of the total fleet starting with vehicle types that are most suitable for electrification.
- **State and local agencies.** State and local government fleets, including city, county, special district, and State agency fleets, would be required to ensure 50 percent of vehicle purchases are zero-emission beginning in 2024 and 100 percent of vehicle purchases are zero-emission by 2027. Small government fleets (those with 10 or fewer vehicles) and those in designated counties would start their ZEV purchases beginning in 2027. Alternately, State and local government fleet owners may elect to meet ZEV targets using the ZEV Milestones Option. State and local government fleets may purchase either ZEVs or near-ZEVs or a combination of ZEVs and near-ZEVs until 2035. Starting in 2035, only ZEVs will meet the requirements.

The ACF regulations also establish requirements that transform the medium- and heavy-duty vehicle sector and demonstrate independent utility through achievement of the following objectives:

- Achieve criteria and GHG emissions reductions consistent with the goals identified in the State Implementation Plan (SIP) Strategy and Scoping Plan.
- Provide emissions reductions in disadvantaged communities (DAC), thereby supporting the implementation of Assembly Bill (AB) 617 (Garcia, C., Chapter 136, Statutes of 2017).
- Support the goals of Executive Order N-79-20, which calls for accelerated ZEV deployment with these targets:
 - 100 percent ZE drayage by 2035.
 - 100 percent ZE trucks and buses where feasible by 2045.
 - Ensure requirements, such as ZEV deployment schedules and related infrastructure buildout, are technologically feasible, cost-effective, and support market conditions.
 - Lead the transition away from petroleum fuels and toward electric drivetrains.
 - Contribute towards achieving carbon neutrality in California pursuant to SB 100 and in accordance with EO B-55-18.
 - Mindfully set requirements to allow time for public ZE infrastructure buildout for smaller fleets or for regional haul applications who would be reliant on a regional network of public chargers.
 - Ensure manufacturers and fleets work together to place ZEVs in service suitably and successfully as market expands.
 - Establish a fair and level playing field among fleet owners.
 - Craft the proposed project in a way that ensures institutional capacity for CARB to manage, implement, and enforce requirements.

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Energy Storage

California has set ambitious long-term goals for energy storage beyond 2026 to support its clean energy and climate goals. The state aims to reach 100 percent carbon-free electricity by 2045, which will require significant investment in renewable energy sources like wind and solar, as well as energy storage technologies to balance the variability of these sources.

The California Independent System Operator (CAISO) has a total energy storage capacity of more than 3,160 megawatts (MW) as of June 2022 (CAISO 2022). This includes both large-scale and distributed energy storage systems, such as batteries, pumped hydroelectric storage, and thermal storage. CAISO is responsible for managing the electricity grid for much of California, and it has set a target of adding 3,300 MW of additional energy storage capacity by 2024 to support the integration of more renewable energy sources like wind and solar. As part of SB 100, load serving entities (LSE) were required to procure no less than 1.3 gigawatts (GW) of energy storage capacity by 2020, and 3 GW by 2030. Additionally, the CPUC has established a target of 15 GW of energy storage capacity by 2030 (CPUC 2022).

The Integrated Resource Plan

CAISO develops a coordinated grid management plan to integrate the generation and storage capacities of LSEs, called the Integrated Resource Plan (IRP). The IRP is a comprehensive planning document that outlines CAISO's forecasts for electricity demand, supply, and transmission needs over a 20-year planning horizon, as well as its strategies for integrating renewable energy resources and other grid services to meet those needs. The plan is developed in collaboration with LSEs, regulators, and other stakeholders, and is updated periodically to reflect changes in the energy landscape and evolving policy goals. Overall, the IRP plays a critical role in ensuring the reliability and resilience of California's electricity grid as the state continues to transition to a cleaner and more sustainable energy system.

When an individual Battery Energy Storage (BES) facility or generation infrastructure (i.e., solar panels) comes online in California, it is typically included in the IRP through a process known as the Interconnection Queue. The Interconnection Queue is managed by the CAISO, which oversees the operation of the State's electricity grid.

The Interconnection Queue

The Interconnection Queue is an application process that functions as a waiting list of proposed electricity generation and storage projects that are seeking to connect to the grid. When a new BES facility or generation infrastructure is proposed, the developer submits an application to CAISO to request an interconnection to the grid. CAISO evaluates the application to ensure that the facility meets technical and operational requirements, such as voltage regulation and frequency response, and that it can be integrated effectively into the grid.

Once the BES facility or generation infrastructure is approved by CAISO, it is assigned a point of interconnection on the grid, and its output is added to the IRP as a resource that can provide electricity and other grid services, such as frequency regulation or ramping support. The facility is then dispatched by CAISO based on its bids into the day-ahead and real-time electricity markets, and its output is used to help balance supply and demand on the grid in real-time.

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Overall, the Interconnection Queue is an important mechanism for integrating new BES facilities and other electricity resources into the California grid, and for ensuring that the grid remains reliable and resilient as the state continues to transition to a cleaner and more sustainable energy system.

Regional

SCAG's 2024-2050 RTP/SCS

SB 375 requires each MPO to prepare a sustainable communities strategy in its regional transportation plan (RTP/SCS). For the SCAG region, the 2024-2050 RTP/SCS, Connect SoCal, was adopted on April 4, 2024, and is an update to the 2020-2045 RTP/SCS. In general, the RTP/SCS outlines a development pattern for the region that, when integrated with the transportation network and other transportation measures and policies, would reduce VMT from automobiles and light duty trucks and thereby reduce GHG emissions from these sources.

Connect SoCal focuses on the continued efforts of the previous RTP/SCSs to integrate transportation and land use strategies in development of the SCAG region through the horizon year 2050 (SCAG 2024). Connect SoCal forecasts that the SCAG region will meet its GHG per capita reduction targets of 8 percent by 2020 and 19 percent by 2035. It also forecasts that implementation of the plan will reduce VMT per capita in year 2050 by 6.3 percent compared to baseline conditions for that year. Connect SoCal includes a “Core Vision” that centers on maintaining and better managing the transportation network for moving people and goods, while expanding mobility choices by locating housing, jobs, and transit closer together; and increasing investments in transit and complete streets (SCAG 2024).

Local

City of Redondo Beach General Plan

The Redondo Beach General Plan includes the Utilities Element which describes the sewer, storm drainage, water, electricity, natural gas, and telecommunications infrastructure in the cCty and contains goals, objectives, policies, and implementation programs that guide the City's management of these utilities. Policies of the Utilities Element that are applicable to energy impacts are listed below.

Utilities Element

GOAL 6C: Ensure adequate planning, maintenance, and operation of a modern, safe, and effective system of supply, distribution, transmission, and storage of water to meet the needs of the community; encouraging the upgrading of existing deficient systems and expansion, where necessary, in the city. The services shall be provided and system operated in an ecologically-sensitive manner.

Objective 6.3 Provide a modern and efficient system of transmission, distribution, and storage of water supplies to the City capable of meeting the normal daily and peak hour demands of the community, including adequate fire flow requirements, to meet existing and future water demand in a timely and cost-effective manner.

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- **Policy 6.3.5.** Improve and enhance cooperation and communication with the California Water Service Company, the West Basin Municipal Water District, and Metropolitan Water District officials (or any future purveyors of water to the City) to promote effective planning and ensure the most efficient operation and maintenance of the City's water supply, transmission, distribution, and storage system and facilities.
- **Policy 6.3.6.** Work, through the City Public Works Department, with the California Water Service Company, the West Basin Municipal Water District, and Metropolitan Water District (or any future purveyors of water to the City) in developing and implementing a menu of programs for public information/education and action in encouraging (or enforcing the potential mandating) of water conservation practices relevant to the periodic drought conditions faced by the area and the region.
- **Policy 6.3.10.** Ensure the prudent use of local water resources by the City of Redondo Beach municipal government by continuing to install and maintain drought-tolerant landscaping and adequate and operationally efficient irrigation systems in its parks, parkways, and median strips.
- **Policy 6.3.11.** Encourage the use of reclaimed water for landscape, grading, industrial, and other State and County health approved purposes as service is provided in the City by the West Basin Municipal Water District.
- **Policy 6.3.12.** Require that development projects of sufficient scale to make it economically feasible incorporate dual pipe systems for the use of reclaimed water for irrigation and other State and County health approved purposes where these uses are accessible to trunkline distribution service.
- **Policy 6.3.13.** Work with the City's water providers to encourage local residents, businesses, and industries to store and re-use gray water.
- **Policy 6.3.14.** Require that large scale development projects evaluate the feasibility of and where feasible incorporate gray water re-capture, storage, and distribution systems.

GOAL 6D: Provide an adequate, safe, and orderly supply of electrical energy to support the various existing and future land uses and development intensities in the city. The services shall be provided and system operated in an ecologically-sensitive manner.

Objective 6.4 Work actively with the Southern California Edison Company (or any future purveyor of electricity to City) to ensure that adequate electrical facilities and capacities are available to meet the average daily and peak electrical energy needs of existing and future development in the City.

- **Policy 6.4.1.** Improve and enhance cooperation and communication with the Southern California Edison Company (or any future purveyor of electricity to the City) to promote effective planning and ensure the most efficient and environmentally sensitive operation and maintenance of the City's electricity supply system and facilities.

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- **Policy 6.4.2.** Require that the approval of new development in the City be contingent upon the ability of the project to be served with adequate electrical infrastructure and service.
- **Policy 6.4.3.** Promote and require the undergrounding of electrical utilities, including on-site electrical utility infrastructure and connections within a new development project, unless such undergrounding is judged as being infeasible.
- **Policy 6.4.4.** Continue, through the City Public Works Department, to pursue potential funding mechanisms (outside of the City's General Fund) to undertake and carry out a more general program to incrementally underground, where possible, all of the existing overhead electrical utility infrastructure, cable television lines, and overhead telephone lines in the City.
- **Policy 6.4.7.** Work, through the City Public Works Department, with the Southern California Edison Company (or any future purveyor of electricity to the City) in developing and implementing a menu of programs for public information/education and action in encouraging electricity conservation practices.
- **Policy 6.4.8.** Work with the Southern California Edison Company to ensure that their facilities and operations are provided in a manner that is compatible with adjacent and surrounding uses in the community. Continue to pursue and implement, where feasible, a program of mitigation measures to lessen the severity and occurrence of the impacts of these facilities relative to noise, air quality, etc.

GOAL 6E: Provide an adequate, safe, and orderly supply of natural gas to support the various existing and future land uses and development intensities in the city. The services shall be provided and system operated in an ecologically-sensitive manner.

Objective 6.5: Work actively with the Southern California Gas Company (or any future purveyor of natural gas to the City) to ensure that adequate natural gas facilities and capacities are available to meet the average daily and peak natural gas energy needs of existing and future development in the City.

- **Policy 6.5.1.** Improve and enhance cooperation and communication with the Southern California Gas Company (or any future purveyor of natural gas to the City) to promote effective planning and ensure the most efficient and safe operation and maintenance of the City's natural gas supply system and facilities.

GOAL 6H: Ensure the continued safe operation of petroleum extraction and transportation facilities throughout the city. The facilities and systems shall be operated in an ecologically-sensitive manner.

Objective 6.8: Work to ensure that all petroleum extraction and transportation facilities in the City are operated and maintained in the most safe and effective manner available using existing technology and industry practices.

- **Policy 6.8.1.** Improve and enhance cooperation and communication with the various petroleum or utility companies operating in the City to promote effective planning and ensure the most efficient operation, maintenance, and monitoring of the City's petroleum extraction and transportation system and facilities.

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Circulation Element

The Redondo Beach General Plan Transportation and Circulation Element provides goals and policies for transportation development. Relevant goals and policies of the Element related to energy impacts include:

GOAL: Coordinate Land Use and Transportation

G6. Redondo Beach favors development that purposefully integrates itself with surrounding transportation facilities.

- **P1.** Support transit-oriented development that reduces current automobile trips.
- **P4.** Encourage mixed-use development that incentivizes residents to support nearby land uses by minimizing travel distances.

GOAL: Plan Regionally

G8. Redondo Beach will actively participate in subregional transportation planning efforts in order to protect the City's quality of life and maximize its voice in cooperative sub-regional solutions.

- **P6.** Coordinate with Caltrans and neighboring jurisdictions regarding multi-modal solutions (signal synchronization, enhanced bus facilities, etc.) for through traffic on Pacific Coast Highway.

GOAL: Pursue Transportation Demand Management.

G12. Encourage all employers to pursue successful TDM measures already demonstrated in South California.

- **P17.** Provide incentives for employer-based vanpools.
- **P21.** Work with adjacent cities to coordinate incentives for carpools, vanpools, and other measures for Redondo Beach residents.

GOAL: Pursue Bicycle and Pedestrian Priorities.

G13. Link existing and proposed facilities.

- **P23.** Focus on access at transit stations, the waterfront, South Bay Galleria, Artesia Boulevard, Riviera Village, Pacific Coast Highway retail zones, and school zones.

GOAL: Pursue Transit Priorities

G16. Provide reliable, safe fixed-route transit.

- **P32.** Create multi-modal transit hubs.

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Solid Waste Management and Recycling Element

The City of Redondo Beach General Plan includes a Solid Waste Management and Recycling Element that describes solid waste collection and recycling programs within the City and contains goals, objectives, policies, and implementation programs that guide the City's management of solid waste programs. The following goals, objectives, and policies from the Solid Waste Management and Recycling Element are applicable to energy impacts from the proposed project:

Goal 7A: Promote, develop, and maintain a comprehensive plan and strategy to manage the city's solid waste collection, transportation, and management in an efficient and environmentally sensitive manner, and in accordance with all applicable state laws.

Objective 7.1: Ensure that all available means of modern and efficient solid waste collection, transportation, and management are provided to the residential, commercial, and industrial users in the community, in accordance with evolving industry regulations and standards.

- **Policy 7.1.1.** The City of Redondo Beach shall actively participate and interact with other local cities, state and regional governments/agencies and planning bodies, and local and regional solid waste removal purveyors in pursuing and securing responsible long-term solutions for solid waste removal. These solutions may include, but, not be limited to: a) the securing of additional capacity and life span for existing operational landfills; b) the construction and operation of new solid waste landfills; and c) the construction and operation of “waste-to-energy” facilities.
- **Policy 7.1.2.** The City of Redondo Beach (principally through the Department of Public Works) shall continue to analyze and interpret solid waste generation rates, waste removal practices, and other events and trends related to solid waste generation and removal, to further increase the effectiveness and efficiency of its removal and increase the potential and practice of solid waste management/reduction and recycling programs.

Redondo Beach Municipal Code

According to Chapter 23, Green Building Standards, the City has adopted the 2022 CAL Green Code (24 CCR Part 11), which provides regulations for energy efficiency, water efficiency, material conservation, environmental quality, and more. The City has also adopted the 2022 California Energy Code (24 CCR Part 6) in Chapter 27, Energy Code.

Environmental Review Pursuant to CEQA

Title 10, Chapter 3, Environmental Review Pursuant to CEQA, of the Redondo Beach Municipal Code establishes the specific procedures necessary to implement CEQA. Article 2, Evaluation of Significant Effects, establishes criteria for determining significant effects and provides guidance in making an evaluation whether or not a particular project may have a substantial adverse effect on the environment. Pursuant to the Municipal Code, if there are inconsistencies between the provisions contained in Title 10, Chapter 3, and the State's CEQA Guidelines, the State's CEQA Guidelines shall control. As established in Section 10-3.202, significant effects may be due to primary consequences immediately related to the project or may be due to secondary

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consequences related more to the primary consequences than the project itself. As established in Section 10-3.203(b), with respect to energy, a project will normally have a significant effect on the environment if it will encourage activities which result in the use of large amounts of fuel, water, or energy and/or use fuel, water, or energy in a wasteful manner.

City of Redondo Beach Climate Action Plan

The City of Redondo Beach, in cooperation with the South Bay Cities Council of Governments, adopted a Climate Action Plan (CAP) in December 2017 to reduce GHG emissions in the City. The CAP sets GHG emission reduction goals and establishes strategies and policies to achieve desired outcomes over the next 20 years (Redondo Beach 2017). It identifies community-wide strategies to lower GHG emissions from a range of sources, including land use and transportation, energy efficiency, solid waste, urban greening, and energy generation/storage. The City set GHG emission reduction goals consistent with the State's AB 32 GHG emission reduction targets of 15 percent below 2005 levels by 2020 and a longer-term goal for year 2035 to reduce emissions by 49 percent below 2005 levels. These goals would put the City on a path to help the State meet its long-term 2050 goal to reduce emissions by 80 percent below 1990 levels. The CAP also recommends implementation and monitoring steps for the City to follow to enable City staff to make regular adjustments to the CAP.

5.5.1.2 EXISTING CONDITIONS

Electricity

Electricity is quantified using kilowatts (kW) and kilowatt-hours (kWh). A kW is a measure of 1,000 watts of electrical power and a kWh is a measure of electrical energy equivalent to a power consumption of 1,000 watts for one hour. The kWh is commonly used as a billing unit for energy delivered to consumers by electric utilities. A gigawatt is equal to one million kW. Overall electricity consumption in California was 287,826 gigawatt-hours in 2022 (CEC 2024a).

Southern California Edison

The City is in SCE's service area, which spans much of southern California—from Orange and Riverside counties on the south to Santa Barbara County on the west to Mono County on the north (SCE 2024a). Sources of electricity sold by SCE in 2022, the latest year for which data are available, were:

- 33.2 percent renewable, consisting mostly of solar and wind
- 3.4 percent large hydroelectric
- 24.7 percent natural gas
- 8.3 percent nuclear
- 0.1 percent other
- 30.3 percent unspecified sources—that is, not traceable to specific sources (SCE 2024a)²

² The electricity sources listed reflect changes after the 2013 closure of the San Onofre Nuclear Generating Station, which is owned by SCE. Numbers are rounded up and may cause the total to not add up to exactly 100 percent.

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Clean Power Alliance

The CPA is a nonprofit default electricity provider for over 30 public agencies in Southern California and started to service the City of Redondo Beach in February 2019. CPA provides electricity generated from renewable sources, such as solar, wind, biomass, bio-waste, geothermal, and hydroelectric, and delivers to customers through SCE transmission lines. Customers in the City are automatically enrolled in the CPA’s “Clean Power” energy plan when they establish a new energy supply connection with CPA, which delivers over 50 percent renewable energy (Redondo Beach 2024).

Sources of electricity sold by CPA under the “Clean Power” plan in 2022, the latest year for which data are available, were:

- 40.1 percent renewable, consisting mostly of geothermal, solar, and wind
- 20.4 percent large hydroelectric
- 0.0 percent natural gas
- 0.0 percent other
- 39.4 percent unspecified sources—that is, not traceable to specific sources (CPA 2024a)³

Customers have the option of opting up to “100% Green Power” plan, which provides 100 percent renewable and carbon-free electricity (CPA 2024a). Conversely, customers have the option to opt out of CPA renewable energy sources and receive their energy service from SCE. SCE is responsible for maintaining transmission lines, handling customer billing, and responding to new service requests and emergencies.

Total existing electricity demand in Redondo Beach is estimated at 657,942,472 kWh per year (657.9 GWh per year), as shown in Table 5.5-1, *Existing Electricity Demand*.

Table 5.5-1 Existing Electricity Demand	
Area	Electricity Usage (kWh per year)
Residential	269,169,987
Nonresidential	388,772,485
Total	657,942,472
Note: The existing annual electricity usage was calculated as an average based on past data provided by SCE and CPA (years 2020 to 2023); see Appendix C.	

Natural Gas

Gas is typically quantified using the “therm,” which is a unit of heat energy equal to 100,000 British thermal units (BTU) and is the energy equivalent of burning 100 cubic feet of natural gas (US EIA 2023).

SoCalGas provides natural gas service in and has facilities throughout the City of Redondo Beach. The service area of SoCalGas spans much of the southern half of California, from Imperial County on the southeast to

³ Unspecified power is electricity that has been purchased through open market transactions and is not traceable to a specific generation source.

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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 2024b).

Existing natural gas demands in the City, based on data provided by SoCalGas, are estimated at 11.1 million therms per year, as shown in Table 5.5-2, *Existing Natural Gas Demand*.

Table 5.5-2 Existing Natural Gas Demand

Sector	Natural Gas Usage (therms per year)
Residential	8,605,743
Nonresidential	2,542,855
Total	11,148,598

Note: The existing natural gas usage was calculated as an average based on past four years (2020–2023) of natural gas consumption provided by SoCalGas; see Appendix C.

Transportation Fuels

California is among the top producers of petroleum in the country, with crude oil pipelines throughout the state connecting to oil refineries in the Los Angeles, San Francisco Bay, and Central Valley regions. In addition to producing petroleum, California is also one of the top consumers of fuel for transportation. California's transportation sector accounted for approximately 61 percent of California's total energy demand in 2021, amounting to approximately 2,785.1 trillion BTUs (US EIA 2021).

Table 5.5-3, *Existing Operation-Related Annual Fuel Usage*, shows the fuel usage associated with VMT currently generated under existing baseline conditions based on fuel usage data obtained from EMFAC2021 (v. 1.0.2) and VMT data provided by Fehr & Peers (see Appendix C). VMT is based on vehicle trips beginning and ending in the City boundaries and from external/internal trips (i.e., trips that either begin or end in the City).

Table 5.5-3 Existing Operation-Related Annual Fuel Usage

	Gasoline		Diesel		Compressed Natural Gas		Electricity	
	VMT	Gallons	VMT	Gallons	VMT	Gallons	VMT	kWh
Existing Baseline	441,763,277	18,431,052	24,385,615	2,903,860	1,576,556	386,486	17,402,729	6,379,060

Source: EMFAC2021, version 1.0.2.

Note: VMTs based on daily VMT provided by Fehr & Peers. VMT per year based on a conversion of VMT x 347 days per year to account for less travel on weekend, consistent with CARB statewide GHG emissions inventory methodology (CARB 2008).

5.5.2 Thresholds of Significance

A project would normally have a significant effect on the environment if the project would:

- E-1 Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation.

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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 checklist question 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.
- The project's projected transportation energy use requirements and its overall use of efficient transportation alternatives.

5.5.3 General Plan Update Goals and Policies

Land Use Element

Goal LU-1 Balance: A sustainable community with a range of land uses that meet the diverse needs of Redondo Beach residents, offer a variety of employment, commercial, recreational, and housing opportunities that make it possible for people of all ages and abilities to live, work, recreate, and maintain a high quality of life in Redondo Beach.

- **Policy LU-1.10 Transit Oriented Development.** Encourage job centers with a potential affordable workforce housing component in close proximity (within 1/4 mile) to the bus transit center and current and future light rail stations.

Goal LU-2 Identity: A dynamic, progressive City containing self-sufficient, health-oriented, neighborhoods and commercial districts that foster a positive sense of identity and belonging among residents, visitors, and businesses.

- **Policy LU-2.8 Pedestrian access.** For new development, encourage pedestrian access and create strong building entries that are primarily oriented to the street.

Goal LU-3 Compatibility: Preserve and improve the character and integrity of existing neighborhoods and districts.

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- **Policy LU-3.6 Active Transportation.** Invest in active transportation connectivity between commercial corridors/job centers and residential neighborhoods to encourage healthy lifestyles.
- **Policy LU-3.7: Access to Transit.** Support the location of transit stations and enhanced stops near the Galleria (along Hawthorne Boulevard) and North Tech District to facilitate and take advantage of transit service, reduce vehicle trips and allow residents without private vehicles to access services.
- **Policy LU-3.8: Corridor Connectivity.** Recognize corridors as important cross-town thoroughfares that connect Redondo Beach, serve as transitions between neighborhoods, provide opportunities for local/neighborhood-serving retail and balance the needs of multiple transportation modes. Consider mid-block pass through between parking areas within the corridors and between the corridors and adjacent residential neighborhoods. Specifically target power line and transportation rights of way as pedestrian and bicycle corridors to connect amenities across the City and in nearby communities. Work with neighboring communities to integrate and connect these pedestrian and bicycle corridors across City boundaries.
- **Policy LU-3.10: Utility Corridors.** Develop plans and programs for the reuse of infrastructure and utility properties and easements as they are currently managed and should they no longer be required for their currently intended primary use and operations. In particular, the City shall target these corridors to provide active and passive uses and recreational amenities including bicycle and pedestrian paths to create connectivity to city-wide amenities and amenities located in neighboring cities.

Goal LU-4 Health and Vitality: A vibrant community that supports the healthy and active lifestyles of residents and visitors.

- **Policy LU-4.6: Connectivity.** Facilitate bicycling and pedestrian linkages to parks, beaches, tourist destinations, recreational amenities, open spaces and parks, and commercial destinations via the City's street, pedestrian, bicycle, and transit networks in a way that is visually appealing and safe to encourage local residents and visitors to minimize the use of automobiles. Focus on expanding connectivity through the addition of pedestrian and bike paths on public utility and transportation rights of way. Create additional mid-block connections (pass throughs) from adjacent residential neighborhoods into commercial corridors and create connections between adjacent commercial businesses.

Goal LU-5 Environmental Sustainability: An environmentally aware community that utilizes tools, strategies and approaches that protect and minimizes the impacts to the City's environmental resources.

- **Policy LU-5.1: Environmental Sustainability.** Ensure that new development is sensitive to the City's stewardship of the environment. Provide measures to minimize the impacts of future development on air quality, runoff, water use, trash generation (and its impacts on the ocean), noise, and traffic (including things such as exhaust generated from underperforming intersections).
- **Policy LU-5.2: Conservation and Re-use Strategy.** Promote the use of water conservation and re-use as a strategy to lower the cost, minimize energy consumption, and maximize the overall efficiency and capacity of public and private water systems. Encourage the installation of water storage, rain catchment

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and graywater systems to support domestic and outdoor water needs. Avoid water reuse that could adversely affect the quality of groundwater or surface water.

- **Policy LU-5.3: Renewable Energy Facilities.** To reduce or avoid conflicts, communicate and collaborate with affected ocean users, coastal residents and businesses, and applicants seeking state or federal authorization for the siting, development, and operation of renewable energy facilities.

Goal LU-6 Economic Sustainability: A financially healthy City with a balanced mix of land uses and special funding and financing districts that increase resources to invest in public facilities and services.

- **Policy LU-6.22: Home Based Businesses.** Encourage and incentivize the creation of new home-based businesses to support job creation in the City and to help reduce commuter trips in and out of the City.

Open Space and Conservation Element

Goal OS-1 Quantity, Location, and Access: A comprehensive, accessible, and well-balanced network of high-quality parks, public spaces, and recreational facilities that enhances the livability, wellness, and connectivity of the community.

- **Policy OS-1.8: Access.** Provide safe, convenient, and enjoyable routes for residents of all ages, abilities, and income to access the City's open spaces and recreational facilities on foot, bike, and public transit. Provide appropriate bicycle and vehicular parking for all parks, coastal open spaces, and public spaces.
- **Policy OS-1.9: Urban Greening.** Improve access routes to parks and recreational facilities through urban greening programs that enhance the City's urban forest, provide shade, and incorporate best practices for sustainable landscaping emphasizing drought tolerant native plants and conservation.
- **Policy OS-1.10: Regional Trails.** Coordinate with neighboring jurisdictions and other agencies to connect new and existing parks and public spaces to other desirable destinations beyond City boundaries via pedestrian, bicycle, and other urban trails that are part of the larger regional trail network, including the Manhattan and Hermosa Beach Greenbelt and the Strand bicycle and pedestrian connections, creating a greenbelt to the sea.

Goal OS-2 High-Quality Open Spaces and Recreational Facilities: Parks, public spaces, and recreational facilities that are highly utilized by residents and visitors of all ages, abilities, and incomes and are well-maintained, safe, and meet the long and-short term needs of the Redondo Beach Community.

- **Policy OS-2.9: Sustainable Landscaping.** Incorporate sustainable landscape practices that limit water usage and energy consumption, reduce urban runoff, and encourage groundwater recharge, such as drought-resistant and native landscaping, low impact development standards, and maximizing permeable surfaces.

Goal OS-4 Programs and Events: A recreation program with a wide variety of services, activities, and events designed to satisfy the diverse needs, traditions, and interests of residents of all ages, abilities, and incomes.

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- **Policy OS-4.5: Resiliency Programs.** Provide programs for sharing resources with the community about climate change, opportunities to reduce emissions, and techniques to increase resilience, showcases for sustainability, energy efficiency, and low carbon building, and to help residents obtain essential resources and information during and after a disaster.

Goal OS-8 Biological Resources: An enhanced ecosystem comprised of a thriving urban forest, protected habitats for biological resources, especially native, sensitive and special status wildlife species, to foster the well-being of the community and offer a reprieve from the built environment.

- **Policy OS-8.4: Urban Forest.** Expand the City's urban forest in a consistent, coordinated, and environmentally conscious manner. Prioritize native trees and associated companion species and habitats. Maximize and maintain tree canopy on public lands and open spaces.

Safety Element

Goal S-2 Critical Facilities: Redondo Beach's essential facilities retain functionality and structural integrity following natural and human-caused disasters.

- **Policy S-2.6: Backup Power Sources.** Coordinate with emergency management services to establish backup power, preferably renewable energy sources, and water resources at emergency shelters, resilience hubs, and cooling centers in case of power outages.

Goal S-10 Additional Climate Change Hazards: A resilient community able to adapt to climate change hazards.

- **Policy S-10.1: Financing Energy Efficient Programs for Economically Disadvantaged Households and Businesses.** Extend the City's funding and financing programs to support energy efficiency and renewable energy improvements for economically disadvantaged households and businesses.
- **Policy S-10.3: Drought Preparation with Regional Water Providers.** Prepare for more frequent and severe drought events by working with regional water providers to implement extensive water conservation measures and ensure sustainable water supplies.
- **Policy S-10.4: Energy Efficient City-owned Facilities.** Pursue that City-owned facilities and operations are energy efficient, and rely on renewable and resilient energy sources, including battery storage systems.
- **Policy S-10.5: Shading and Heat-Mitigating Materials.** Coordinate with local governments and transit agencies to increase shading and heat-mitigating materials on pedestrian walkways and transit stops.
- **Policy S-10.6: Integration of Sustainability Features in New Development and Existing Properties.** Encourage new developments and existing property owners to incorporate sustainable, energy-efficient, and environmentally regenerative features into their facilities, landscapes, and structures to reduce energy demands and improve on-site resilience. Support financing efforts to increase the communities funding of these features.

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- **Policy S-10.7: Drought-Tolerant Green Infrastructure.** Promote and expand the use of drought-tolerant green infrastructure, including street trees and landscaped areas, as part of cooling strategies and stormwater runoff reduction in public and private spaces.
- **Policy S-10.8: Use of Natural Resources and Green Infrastructure.** Use natural resources and green infrastructure to absorb the impacts of climate-related hazards and associated natural hazards, as feasible, such as biorientation areas in new development that collect and filter stormwater before being discharged into the City's storm drain system.
- **Policy S-10.11: Use of Existing Natural Features.** Where feasible, encourage the use of existing natural features and ecosystem processes, or the restoration of, when considering alternatives and adaptation projects through the conservation, preservation, or sustainable management of open space. This includes, but is not limited to, the conservation, preservation, or sustainable management of any form of aquatic or terrestrial vegetated open space, such as parks, rain gardens, and urban tree canopies. It also includes systems and practices that use or mimic natural processes, such as permeable pavements, bioswales, and other engineered systems, such as levees that are combined with restored natural systems, to provide clean water, conserve ecosystem values and functions, and provide a wide array of benefits to people and wildlife.

5.5.4 Environmental Impacts

5.5.4.1 METHODOLOGY

The following is a summary of the assumptions used for the City's energy analysis:

- **On-Road Fuel Use.** Fuel use was modeled based on Origin-Destination Method VMT provided by Fehr & Peers (see Section 5.15, *Transportation*) and modeled using CARB's EMFAC2021 v.1.0.2 web database (Appendix C). The VMT provided includes the full trip length for land uses in the City (origin-destination approach) and a 50 percent reduction in the trip length for external-internal/internal-external trips, consistent with the recommendations of CARB's Regional Targets Advisory Committee (CARB 2008).
- **Energy (Natural Gas and Electricity).** Emissions associated with electricity and natural gas use for residential and nonresidential land uses in the City were modeled based on data provided by SCE, CPA, and SoCalGas for varying years from 2018 through 2022. Existing energy and natural gas use are based on the four-year average (2020 to 2023) to account for fluctuations in usage associated with average annual temperature (Appendix C).⁴ Forecasts are adjusted for increases in population for residential electricity and natural gas use and non-residential square footage for non-residential electricity and natural gas use in the City. A weighted average of carbon intensity factors was used for year 2023 and year 2050 based on 2022 CalEEMod User's Guide, Appendix G, and total electricity usage between SCE and CPA (CAPCOA 2022).

⁴ Interpolated Year 2023 natural gas and energy usage based on previous years 2020 to 2022.

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5.5.4.2 IMPACT ANALYSIS

The applicable thresholds 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

The proposed project is a regulatory document that sets the framework for future growth and development in the City and does not directly result in development. Construction of individual development projects facilitated by the proposed project would create temporary demands for electricity. Natural gas is not generally required to power construction equipment, and therefore is not anticipated during construction phases. Electricity use would fluctuate according to the phase of construction. Additionally, it is anticipated that most electric-powered construction equipment would be hand tools (e.g., power drills, table saws, compressors) and lighting, which would result in minimal electricity usage during construction activities.

Future individual development projects would also temporarily increase demands for energy associated with transportation. Transportation energy use depends on the type and number of trips, VMT, fuel efficiency of vehicles, and travel mode. Energy use during construction would come from the transport and use of construction equipment, delivery vehicles and haul trucks, and construction employee vehicles that would use diesel fuel or gasoline. The use of energy resources by these vehicles would fluctuate according to the phase of construction and would be temporary. It is anticipated that most off-road construction equipment, such as those used during demolition and grading, would be gas or diesel powered. In addition, all operation of construction equipment would cease upon completion of project construction.

Furthermore, the construction contractors would minimize nonessential idling of construction equipment during construction in accordance with the California Code of Regulations Title 13, Article 4.8, Chapter 9, Section 2449. Such required practices would limit wasteful and unnecessary energy consumption during the construction of individual development projects facilitated by the proposed project. Therefore, the construction of individual development projects facilitated by the proposed project would not result in wasteful, inefficient, or unnecessary consumption of fuel use (energy resources).

Long-Term Impacts During Operation

Operation of new development projects accommodated under the proposed project would create additional demands for electricity and natural gas compared to existing conditions. Operational use of electricity and natural gas would include heating, cooling, and ventilation of buildings; water heating; operation of electrical systems; use of on-site equipment and appliances; and lighting. Updates to the Zoning Ordinance would reflect new land use designations and densities specified by the Focused General Plan Update. Updates to the LCP would include revisions to the Coastal Land Use Plan and Implementation Plan. These modifications would involve land-use changes that would be consistent with the Focused General Plan Update and the recently certified Housing Element and would not substantially affect energy.

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Nontransportation Energy

Electrical service to the City is provided by SCE and CPA through connections to existing off-site electrical lines and new on-site infrastructure. As shown in Table 5.5-4, *Year 2050 Forecast Electricity Consumption*, by horizon year 2050, electricity use in the City would increase by 230,624,940 kWh/year, or approximately 35 percent, from existing conditions.

Table 5.5-4 Year 2050 Forecast Electricity Consumption

Area	Electricity Usage, kWh per year (Subtotal)		
	Existing Baseline ¹	Year 2050 Forecast ²	Net Change
Residential	269,169,987	313,007,076	43,837,089
Nonresidential	388,772,485	575,560,337	186,787,852
Total	657,942,472	888,567,412	230,624,940

¹ The existing annual electricity usage was calculated as an average based on past data provided by SCE and CPA (years 2020-2023), see Appendix C.

² Residential energy and nonresidential energy forecasts are adjusted for increases in housing and employment, respectively, and do not account for reductions due to increase in energy efficiency from compliance with future Building Energy Efficiency Standards and updates to CALGreen.

As shown in Table 5.5-5, *Year 2050 Forecast Natural Gas Consumption*, existing natural gas use in the City totals 11,148,598 therms annually. By 2050, natural gas use in the City would increase by 2,623,262 therms annually, or approximately 24 percent, from existing conditions to a total of 13,771,860 therms per year.

Table 5.5-5 Year 2050 Forecast Natural Gas Consumption

Area	Natural Gas Usage, therms per year (Subtotal)		
	Existing Baseline ¹	Year 2050 Forecast ²	Net Change
Residential	8,605,743	10,007,276	1,401,533
Nonresidential	2,542,855	3,764,584	1,221,729
Total	11,148,598	13,771,860	2,623,262

¹ The existing natural gas usage was calculated as an average based on past four-years (2020–2023) of natural gas consumption provided by SoCalGas, see Appendix C.

² Residential energy and nonresidential energy forecasts are adjusted for increases in housing and employment, respectively, and do not account for reductions due to increase in energy efficiency from compliance with the Building Energy Efficiency Standards and CALGreen.

While the electricity and natural gas demand for the City would increase compared to existing conditions, development accommodated under the General Plan Update would be required to comply with the current and future updates to the Building Energy Efficiency Standards and CALGreen, which would contribute to reducing the energy demands shown in Tables 5.5-4 and 5.5-5. New and replacement buildings in compliance with these standards would generally have greater energy efficiency than existing buildings. It is anticipated that each update to the Building Energy Efficiency Standards and CALGreen would result in greater building energy efficiency and move closer toward buildings achieving ZNE.

In addition to the Building Energy Efficiency Standards and CALGreen, the General Plan Update includes policies to increase energy efficiency and reduce wasteful, inefficient use of energy resources. Policies S-10.1, S-10.4, and S-10.6 would support energy efficiency and renewable energy improvements at homes, businesses,

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and City-owned facilities. Encouraging sustainable and energy-efficient building practices and using more renewable energy strategies would further reduce energy consumption and move closer to achieving ZNE goals.

Transportation Energy

The growth accommodated under the General Plan Update would consume transportation energy from the use of motor vehicles (e.g., gasoline, diesel, compressed natural gas, and electricity).

Table 5.5-6, *Operation-Related Annual Fuel Usage: Net Change from Existing*, shows the net change in VMT, fuel usage, and fuel efficiency under horizon year 2050 General Plan Update conditions from existing baseline year 2023 conditions and existing uses under year 2050 conditions.

Table 5.5-6 Operation-Related Annual Fuel Usage: Net Change from Existing

Fuel Type	Existing Baseline Year 2023	Existing Year 2050 ¹	Year 2050	Net Change from Existing Baseline Year 2023	Net Change from Existing Year 2050
Gasoline					
VMT ²	441,763,277	399,911,915	476,109,071	34,345,794	76,197,157
Gallons	18,431,052	12,982,178	15,455,736	-2,975,316	2,473,557
Miles Per Gallon	23.97	30.80	30.80	6.84	0
Diesel					
VMT ²	24,385,615	25,320,719	30,145,199	5,759,584	4,824,479
Gallons	2,903,860	2,723,246	3,242,120	338,260	518,873
Miles Per Gallon	8.40	9.30	9.30	0.90	0
Compressed Natural Gas					
VMT ²	1,576,556	699,521	832,804	-743,752	133,283
Gallons	386,486	101,348	120,659	-265,828	19,310
Miles Per Gallon	4.08	6.90	6.90	2.82	0
Electricity					
VMT ²	17,402,729	59,196,022	70,474,928	53,072,198	11,278,905
kWh	6,379,060	15,419,534	18,357,492	11,978,432	2,937,959
Miles Per kWh	2.73	3.84	3.84	1.11	0
Total VMT	485,128,177	485,128,177	577,562,001	92,433,824	92,433,824

Source: EMFAC2021 Version 1.0.2.

¹ Represents existing uses as they currently exist in baseline year 2023 operating under year 2050 conditions.

² Based on daily VMT provided by Fehr & Peers (see Appendix C). VMT per year based on a conversion of VMT x 347 days per year to account for less travel on weekend, consistent with CARB statewide GHG emissions inventory methodology (CARB 2008).

When compared to existing baseline year conditions, the General Plan Update would result in an increase in VMT for gasoline-, electric-, and diesel-powered vehicles. Although annual VMT would increase for gasoline- and diesel-powered vehicles, the fuel efficiency would increase by 6.84 mpg and 0.90 mpg, respectively. For electric-powered vehicles, annual VMT would increase by 53,072,198 miles and annual consumption would increase by 11,978,432 kWh. The large increase in VMT and fuel usage for electric-powered vehicles are primarily based on the assumption in EMFAC that a greater mix of light-duty automobiles would be electric-powered in future years based on regulatory (e.g., Advanced Clean Cars) and consumer trends. Overall, the

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increase in VMT would be primarily attributable to the population growth associated with the General Plan Update (see Table 5.12-7 in Chapter 5.12, *Population and Housing*).

Compared to existing uses under year 2050 conditions, the General Plan Update would result in an increase in VMT and fuel usage for all fuel types (see “Net Change from Existing Year 2050” column). However, the fuel efficiency between the existing uses under 2050 conditions and the uses under the General Plan Update buildout would be the same, and implementation of the General Plan Update would not result in less efficiency in transportation fuel usage.

The improvement in fuel efficiency would be attributable to regulatory compliance (e.g., CAFE standards), resulting in new cars that are more fuel efficient and the attrition of older, less fuel-efficient vehicles. The CAFE standards are not directly applicable to residents or land use development projects, but to car manufacturers. Thus, residents and employees of Redondo Beach do not have direct control in determining the fuel efficiency of vehicles manufactured and that are made available. However, compliance with the CAFE standards by car manufacturers would ensure that vehicles produced in future years have greater fuel efficiency and would generally result in an overall benefit of reducing fuel usage by providing the population of the City more fuel-efficient vehicle options. Furthermore, while the demand in electricity would increase under the proposed project, in conjunction with the regulatory (i.e., Renewables Portfolio Standard, SB 350, and SB 100) and general trend toward increasing the supply and production of energy from renewable sources, it is anticipated that a greater share of electricity used to power electric vehicles would be from renewable sources in future years (e.g., individual photovoltaic systems, purchased electricity from SCE or CPA, and/or purchased electricity from SCE or CPA that is generated from renewable sources).

In addition to regulatory compliance that would contribute to more fuel-efficient vehicles and less demand in fuels, the General Plan Update includes policies that will contribute to minimizing overall VMT, and thus fuel usage associated with the City. Policies LU-2.8, LU-3.7, LU-4.6, OS-1.8, and OS-1.10 would encourage nonvehicular travel modes in the design and development of future projects. Policies LU-3.8, LU-3.10, and LU-6.22 would aid in minimizing VMT through incentives for vanpools or home-based businesses and improve corridor connectivity for passive uses along City streets.

Collectively, the policies and action listed above would minimize overall VMT, and thus fuel usage associated with potential future development in Redondo Beach. Furthermore, the proposed project would rely on mixed-use, transit-oriented development, and infill development for projected growth in the Redondo Beach region, thus contributing to reduced energy use from the transportation sector. For example, Policy LU-4.6 in the Land Use Element would encourage expansion of connectivity between residential neighborhoods and commercial corridors/businesses. Although population and VMT are projected to grow, the jobs-housing ratio would increase from 0.94 to 1.02—closer to a more equal distribution of employment and housing (see Impact 5.12-1 of this DEIR). Having a jobs-rich city would encourage employment opportunities for city residents and workers commuting out of Redondo Beach. Therefore, this could result in shorter distances traveled between where people work and live and to amenities.

Compliance with federal, State, and local regulations (e.g., Building Energy Efficiency Standards, CALGreen, Renewable Portfolio Standards, and CAFE standards) will increase building energy efficiency and vehicle fuel

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efficiency and reduce building energy demand and transportation-related fuel usage. Additionally, the General Plan Update includes policies related to land use, transportation planning, energy efficiency, and renewable energy generation that would contribute to minimizing the City's total energy consumption. Implementation of policies under the General Plan Update in conjunction with and complementary to regulatory requirements, will ensure that energy demand associated with growth under the proposed project would not be inefficient, wasteful, or unnecessary. Therefore, energy impacts associated with implementation and operation of land uses accommodated under the proposed project would be less than significant.

Level of Significance Before Mitigation: Impact 5.5-1 would be less than significant.

Impact 5.5-2: The proposed project would conflict with or obstruct a state or local plan for renewable energy or energy efficiency. [Threshold E-2]

California Renewables Portfolio Standard Program

The state's electricity grid is transitioning to renewable energy under California's RPS Program. Renewable sources of electricity include wind, small hydropower, solar, geothermal, biomass, and biogas. As stated, the RPS goals have been updated since adoption of SB 1078 in 2002. In general, California has RPS requirements of 33 percent renewable energy by 2020 (SB X1-2), 40 percent by 2024 (SB 350), 50 percent by 2026 (SB 100), 60 percent by 2030 (SB 100), and 100 percent by 2045 (SB 100). SB 100 also establishes RPS requirements for publicly owned utilities that consist of 44 percent renewable energy by 2024, 52 percent by 2027, and 60 percent by 2030. The statewide RPS requirements do not directly apply to individual development projects, but to utilities and energy providers such as SCE and CPA, whose compliance with RPS requirements would contribute to the State of California objective of transitioning to renewable energy. The land uses accommodated under the proposed project would comply with the current and future iterations of the Building Energy Efficiency Standards and CALGreen.

Furthermore, as discussed for Impact 5.5-1, the General Plan Update includes Policies LU-5.3, S-2.6, and S-10.1, which would support the statewide goal of transitioning the electricity grid to renewable sources. Policy S-10.4 would promote energy efficient city-owned facilities, including battery storage systems. Therefore, implementation of the proposed project would not conflict with or obstruct implementation of California's RPS program, and no impact would occur.

City of Redondo Beach Climate Action Plan

As mentioned prior, the City's CAP serves as a guide for action by setting GHG emission reduction goals consistent with the State's AB 32 GHG emission reduction targets and establishing strategies and policies to achieve desired outcomes over the next 20 years (Redondo Beach 2017). A consistency analysis with the applicable City's CAP goals is shown in Table 5.5-7, *Consistency Analysis with the City of Redondo Beach Climate Action Plan*.

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Table 5.5-7 Consistency Analysis with the City of Redondo Beach Climate Action Plan

Reduction Goal	Consistency Analysis
Land Use and Transportation (LUT)	
Goal LUT: A – Accelerate the Market for EV Vehicles	Consistent. Advanced Clean Cars II would require new cars sold in 2035 and beyond to be zero-emission vehicles, which includes battery electric vehicles, plug-in hybrid electric vehicles, and fuel cell electric vehicles. Future development under the proposed project would not obstruct implementation of Advanced Clean Cars II program since this is a requirement for auto manufacturers in California.
Goal LUT: B – Encourage Ride-Sharing	Consistent. The General Plan Update contains policies related to ride-sharing, for instance Policies LU-1.10 and LU-3.6 promote transit-oriented development and active transportation measures between job centers and residential neighborhoods.
Goal LUT: C – Encourage Transit Usage	Consistent. The General Plan Update supports a variety of housing types, including High Density Residential, Residential Overlays, and mixed-use development to encourage better connectivity to employment and commercial uses. Policies LU-1.1 through LU 1.10 encourage a balanced land use pattern, a diversity of housing types, jobs-housing balance, and transit-oriented development. Additionally, Policies LU-2.8, LU-3.7, LU-3.8, LU-4.6, and OS-1.8 would also help reduce VMT per service population and support convenient access to transit within the City.
Goal LUT: D – Adopt Active Transportation Initiatives	Consistent. As listed under Impact Discussion 5.7-1, the General Plan Update policies would help minimize mobile-source emissions and promote active transportation initiatives. For example, Policies LU-2.8, LU-3.7, LU-3.8, LU-3.10, LU-4.6, and OS-1.8 would promote pedestrian access and public transportation, reduce vehicle congestion, and support TDM measures where feasible.
Goal LUT: G – Land Use Strategies	Inconsistent. As described in Section 5.10, <i>Land Use and Planning</i> , implementation of the General Plan Update supports a variety of land use types, from high-density housing to mixed-use development, to encourage better connectivity to employment and commercial uses. However, buildout facilitated by the proposed project would increase VMT per service population beyond the threshold (16.8% below SBCCOG Baseline Conditions) and the proposed project would not be consistent with several of the Connect SoCal goals (see Table 5.10-1, <i>SCAG 2024 RTP/SCS Goal Consistency Analysis</i>). Although the proposed project would include climate benefits, land use patterns, and goals and policies that align with the RTP/SCS, impacts associated with VMT, Air Quality and GHG, would be significant and therefore, the proposed project would not be consistent with this goal.
Energy Efficiency (EE)	
Goal EE: A – Increase EE in Existing Residential Units	Consistent. Implementation of the General Plan Update Policy S-10.6 would encourage existing property owners to incorporate sustainable, energy-efficient, and environmentally regenerative features into their facilities, landscapes, and structures to reduce energy demands and improve on-site resilience.
Goal EE: B – Increase EE in New Residential Developments	Consistent. Future development under the proposed project would be required to be constructed in accordance with current State and City building codes in existence at the time. In the City's Municipal Code Chapter 23, Green Building Standards, the code contains both mandatory and voluntary green building measures to new low-rise residential buildings. Lastly, Policy S-10.6 would encourage new development to incorporate sustainable, energy-efficient, and environmentally regenerative features into their facilities, landscapes, and structures to reduce energy demands and improve on-site resilience.

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Table 5.5-7 Consistency Analysis with the City of Redondo Beach Climate Action Plan

Reduction Goal	Consistency Analysis
Land Use and Transportation (LUT)	
Goal EE: C – Increase EE in Existing Commercial Units	Consistent. As mentioned above, Policy S-10.6 would encourage existing property owners to incorporate sustainable, energy-efficient, and environmentally regenerative features into their facilities, landscapes, and structures to reduce energy demands and improve on-site resilience.
Goal EE: D – Increase EE in New Commercial Units	Consistent. Future nonresidential development under the proposed project would be required to be constructed in accordance with current State and City building codes in existence at the time, which include requirements related to on-site renewable energy systems. In addition, Policy S-10.6 would encourage new development to incorporate sustainable, energy-efficient, and environmentally regenerative features into their facilities, landscapes, and structures to reduce energy demands and improve on-site resilience.
Goal EE: E – Increase EE Through Water Efficiency	Consistent. According to Chapter 23, Green Building Standards, the City has adopted the 2022 CALGreen Code, which provides regulations for energy efficiency, water efficiency, material conservation, environmental quality, and more. Additionally, Policy 6.3.5, 6.3.10, and 6.3.11 in the existing General Plan's Utilities Element would promote effective planning for efficient operation of the City's water supply system and encourages the use of reclaimed water on drought-tolerant landscaping.
Goal EE: F – Decrease Energy Demand Through Reducing Urban Heat Island Effect	Consistent. The General Plan Update contains various policies to aid in increasing planting and shading to reduce urban heat islands. Implementation of Policy S-10.5 would promote local governments and transit agencies to increase shading/heat-mitigating materials on pedestrian walkways and transit stops. Policies OS-1.9 and OS-8.4 would expand access to the City's urban forest through urban greening programs that would provide shade and incorporate sustainable, native trees and landscaping.
Goal EE: I – Increase Energy Efficiency in City Infrastructure	Consistent. The General Plan Update contains various policies to reduce energy consumption in the long-term for City infrastructure. For example, Policy S-10.4 encourages that City-owned facilities and operations are energy efficient, and rely on renewable and resilient energy sources, including battery storage systems. Policy 6.4.1 in the existing General Plan's Utilities Element that seeks to improve and enhance cooperation and communication with the Southern California Edison Company (or any future purveyor of electricity to the City) to promote effective planning and ensure the most efficient and environmentally sensitive operation and maintenance of the City's electricity supply system and facilities and Policy 6.3.11 in the existing General Plan's Utilities Element would encourage the use of reclaimed water for landscape, which would reduce the energy required to treat water and be more cost effective.
Solid Waste (SW)	
Goal SW: A – Increase Diversion and Reduction of Residential Waste	Consistent. Future development under the proposed project would be required to comply with AB 939 and divert 50 percent of all solid waste from landfills through source reduction, recycling, and composting. In the City's Municipal Code Chapter 23, Green Building Standards, the code contains additional requirements for storage and collection of materials for multifamily premises. Lastly, Policy 7.1.1 and 7.1.2 in the existing General Plan's Solid Waste Management and Recycling Element would encourage the City to actively participate and monitor long-term solid waste removal practices.
Goal SW: B – Increase Diversion and Reduction of Commercial Waste	Consistent. Future development under the proposed project would be required to comply with AB 939 and divert 50 percent of all solid waste from landfills through source reduction, recycling, and composting. In the City's Municipal

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Table 5.5-7 Consistency Analysis with the City of Redondo Beach Climate Action Plan

Reduction Goal	Consistency Analysis
Land Use and Transportation (LUT)	
	Code Chapter 23, Green Building Standards, the code contains additional requirements for storage and collection of materials for commercial premises. Lastly, Policy 7.1.1 and 7.1.2 in the existing General Plan's Solid Waste Management and Recycling Element would encourage the City to actively participate and monitor long-term solid waste removal practices.
Urban Greening (UG)	
Goal UG: A – Increase and Maintain Urban Greening in the Community	Consistent. The General Plan Update contains various policies related to the expansion of green spaces in urban areas and increased water efficiency strategies to conserve these open spaces. Policies OS-1.8 and OS-1.10 promote access to the City's open spaces and existing parks through a safe regional trail network. Policies OS-1.9 and OS-8.4 would expand access to the City's urban forest through urban greening programs that would provide shade and incorporate sustainable, native trees and landscaping.
Energy Generation and Storage (EGS)	
Goal EGS: A – Support Energy Generation and Storage in the Community	Consistent. The General Plan Update contains various policies related to the expansion of renewable energy generation and storage technologies. For example, Policies S-10.1, S-10.4, and S-10.6 would contribute to reducing emissions from energy consumption by increasing energy efficiency and renewable energy improvements in households, businesses, and City-owned facilities. Moreover, future development under the proposed project would be required to be constructed in accordance with current State and City building codes in existence at the time, which include requirements related to on-site renewable energy systems.
Sources: Redondo Beach Climate Action Plan 2017.	

The General Plan Update includes goals and policies that would contribute toward minimizing inefficient, wasteful, or unnecessary transportation energy consumption, increasing building energy efficiency, and ensure compliance with State, regional, or local plans for renewable energy. Moreover, the land uses accommodated under the General Plan Update would be required to comply with the current and future iterations of the Building Energy Efficiency Standards and CALGreen.

However, as identified in Table 5.5-7, while the General Plan Update would be consistent with many of the strategies in the City's CAP, the General Plan Update would not be consistent with Goal LUT: G – Land Use Strategies and several SCAG'S RTP/SCS goals (see Section 5.10, *Land Use and Planning*, Table 5.10-1, *SCAG 2024 RTP/SCS Goal Consistency Analysis*). Therefore, implementation of the General Plan Update could conflict with or obstruct implementation of the City's CAP, and impacts would be potentially significant.

Level of Significance Before Mitigation: Impact 5.5-2 would be potentially significant.

5.5.5 Cumulative Impacts

The area considered for cumulative impacts to electricity and natural gas supplies and facilities is SCE, CPA and SoCalGas service areas. Other future development in the SCE, CPA, and SoCalGas service areas would be subject to existing state regulations, such as the California Energy Code and CALGreen Code. New buildings

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would use new energy-efficient appliances and equipment, pursuant to the Appliance Efficiency Regulations. These measures would reduce the overall consumption of electricity and natural gas. Moreover, the General Plan Update includes goals and policies to reduce energy consumption and promote renewable energy sources. Overall, the energy providers that serve the City indicate that they have the capability to serve future increases in population within their service areas without significant changes to the existing infrastructure. However, as the proposed project is inconsistent with the City's CAP with respect to land use strategies that aim to reduce GHG emissions, the proposed project's potential contribution to cumulative impacts would be significant.

5.5.6 Level of Significance Before Mitigation

Upon implementation of regulatory requirements, the noted goals and policies herein, these impacts would be less than significant: 5.5-1.

Without mitigation, these impacts would be **potentially significant**:

- **Impact 5.5-2** Implementation of the proposed project would conflict with or obstruct a state or local plan for renewable energy or energy efficiency and contribute to cumulative impacts.

5.5.7 Mitigation Measures

Impact 5.5-2

There are no feasible mitigation measures that can fully reduce VMT impacts at full buildout of the proposed project and fully reduce the proposed project's inconsistencies with the goals of SCAG's 2024-2050 RTP/SCS. Specific TDM measures and VMT mitigation strategies that align with the General Plan goals and policies would need to be tailored to the characteristics of each future development project under the proposed project, and their effectiveness would need to be analyzed and documented as part of the environmental review process to determine if impacts could be mitigated or if they would remain significant and unavoidable. Given that research on the effectiveness of TDM strategies is continuing to evolve, feasible mitigation measures should be considered based on the best data available at the time a project is being considered by the City.

See Section 5.17, *Transportation*, Section 5.15.7, *Mitigation Measures*, for a list of example mitigation measures under Impact 5.15-2 that could be implemented at the Citywide level in order to mitigate the significant impacts associated with the proposed project, as well as project-level CEQA clearances for future development projects.

5.5.8 Level of Significance After Mitigation

Impact 5.5-2

There are no feasible mitigation measures that could fully mitigate the proposed project's population growth and VMT levels to less than significant and fully reduce the proposed project's inconsistencies with the goals of SCAG's 2024-2050 RTP/SCS. Implementation of the General Plan Update would result in beneficial energy impacts by contributing to reducing VMT, increasing energy and water use efficiency, and increasing renewable energy improvements. However, because the proposed project is a regulatory document that sets the framework

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for future growth and development in the City and does not directly result in development, and thus VMT, use of VMT reduction strategies would need to be assessed on a project-by-project basis. Therefore, the proposed project would continue to be inconsistent with the land use strategies of the City's CAP as it pertains to reducing VMT. Project and cumulative impacts would remain **significant and unavoidable**.

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5.6 GEOLOGY AND SOILS

This section of the Draft Program Environmental Impact Report (DEIR) evaluates the potential for implementation of the updates to the General Plan Update, Zoning Ordinances, and Local Coastal Program (LCP) (proposed project) to impact geological and soil resources, paleontological resources, or unique geologic features in the City of Redondo Beach. The analysis in this section is based in part on the following technical report:

- *Cultural and Paleontological Resources Assessment for the City of Redondo Beach General Plan Update Project, City of Redondo Beach, Los Angeles County, California, Cogstone, June 2024.*

A copy of this study is included in Appendix D to this Draft EIR.

5.6.1 Environmental Setting

5.6.1.1 REGULATORY BACKGROUND

Federal Laws

Earthquake Hazards Reduction Act

The Earthquake Hazards Reduction Act of 1977 was intended to reduce the risks to life and property from future earthquakes in the United States through the establishment and maintenance of an effective earthquake hazards and reduction program. Pursuant to this Act, the National Earthquake Hazards Reduction Program was established, which designates the Federal Emergency Management Agency as the lead agency of the program. The program provides valuable resources to guide building code requirements and planning efforts such as emergency evacuation responsibilities and seismic code standards.

Paleontological Resources Preservation Act

The federal Paleontological Resources Preservation Act of 2002 (PRPA) limits the collection of vertebrate fossils and other rare and scientifically significant fossils to qualified researchers who have obtained a permit from the appropriate State or federal agency. Additionally, it specifies these researchers must agree to donate any materials recovered to recognized public institutions, where they will remain accessible to the public and to other researchers. This Act incorporates key findings of a report, “Fossils on Federal Land and Indian Lands,” issued by the Secretary of Interior in 2000, which establishes that most vertebrate fossils and some invertebrate and plant fossils are considered rare resources (USDI 2000). In passing the PRPA, Congress officially recognized the scientific importance of paleontological resources on some federal lands by declaring that fossils from these lands are federal property that must be preserved and protected. The PRPA codifies existing policies of the Bureau of Land Management, National Park Service, US Forest Service, Bureau of Reclamation, and US Fish and Wildlife Service, and provides the following:

- Uniform criminal and civil penalties for illegal sale and transport, and theft and vandalism of fossils from federal lands.

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- Uniform minimum requirements for paleontological resource-use permit issuance (terms, conditions, and qualifications of applicants).
- Uniform definitions for “paleontological resources” and “casual collecting.”
- Uniform requirements for curation of federal fossils in approved repositories.

Antiquities Act of 1906

The Antiquities Act of 1906 states, in part:

That any person who shall appropriate, excavate, injure or destroy any historic or prehistoric ruin or monument, or any object of antiquity, situated on lands owned or controlled by the Government of the United States, without the permission of the Secretary of the Department of the Government having jurisdiction over the lands on which said antiquities are situated, shall upon conviction, be fined in a sum of not more than five hundred dollars or be imprisoned for a period of not more than ninety days, or shall suffer both fine and imprisonment, in the discretion of the court. (16 US Code secs. 431–433)

Although there is no specific mention of natural or paleontological resources in the Act itself or in the Act's uniform rules and regulations (Code of Federal Regulations, Title 43 Part 3), the term “objects of antiquity” has been interpreted to include fossils by the National Park Service, Bureau of Land Management, the US Forest Service, and other federal agencies. Permits to collect fossils on lands administered by federal agencies are authorized under this Act; however, large gray areas, left open to interpretation, are due to the imprecision of the wording, so agencies are hesitant to interpret this Act as governing paleontological resources.

State Laws

California Alquist-Priolo Earthquake Fault Zoning Act

The Alquist-Priolo Earthquake Fault Zoning Act was passed in 1972 to mitigate the hazard of surface fault rupture to structures used for human occupancy. The main purpose of this Act is to prevent the construction of buildings used for human occupancy on top of active faults. This Act only addresses the hazard of surface fault rupture and is not directed toward other earthquake hazards, such as earthquake-induced liquefaction or landslides.

This Act requires the State Geologist to establish regulatory zones (known as Earthquake Fault Zones or Alquist-Priolo Zones) around surface traces of active faults and to issue appropriate maps. The maps are distributed to all affected cities, counties, and State agencies for their use in planning and controlling new or renewed construction. Pursuant to this Act, structures for human occupancy are not allowed within 50 feet of the trace of an active fault.

Seismic Hazard Mapping Act

The Seismic Hazard Mapping Act was adopted by the state in 1990 to protect the public from the effects of earthquake hazards other than surface fault rupture, including strong ground shaking, liquefaction, seismically

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induced landslides, or other ground failure caused by earthquakes. The goal of the Act is to minimize loss of life and property by identifying and mitigating seismic hazards. The California Geological Survey prepares and provides local governments with seismic hazard zone maps that identify areas susceptible to amplified shaking, liquefaction, earthquake-induced landslides, and other ground failures. The Act requires responsible agencies to only approve projects within seismic hazard zones following a site-specific investigation to determine if the hazard is present, and if so, the inclusion of appropriate mitigation(s). In addition, the Act requires real estate sellers and agents at the time of sale to disclose whether a property is within one of the designated seismic hazard zones.

California General Plan Law

State law requires cities to adopt a comprehensive long-term general plan that includes a safety element (Government Code Section 65302). 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, tsunamis, seiche, and dam failure; slope instability leading to mudslides and landslides; subsidence; liquefaction; other seismic hazards identified by Public Resources Code Sections 2691 et. seq.; and other geologic hazards known to the legislative body. The 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 Building Code

Current law states that every local agency enforcing building regulations, such as cities and counties, must adopt the provisions of the California Building Code (CBC) within 180 days of its publication. The publication date of the CBC is established by the California Building Standards Commission and the code is also known as Title 24, Part 2 of the California Code of Regulations. The most recent building standard adopted by the legislature and used throughout the state is the 2022 version of the CBC (effective January 1, 2023), often with local, more restrictive amendments that are based on local geographic, topographic, or climatic conditions. These codes provide 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 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.

California Plumbing Code

The California Plumbing Code of 2022 states rules, regulations, and provisions and conditions to be observed and followed in the moving, removal, demolition, condemnation, maintenance and use of plumbing, house drainage, house sewers, sanitary sewers, cesspools, septic tanks, gas piping, gas water heater vents, swimming pools, and gas outlets for swimming pool heaters and related subjects.

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Natural Hazards Disclosure Act

The Natural Hazards Disclosure Act requires that sellers of real property and their agents provide prospective buyers with a “Natural Hazard Disclosure Statement” when the property being sold lies within one or more state-mapped hazard areas, including a Seismic Hazard Zone. California law also requires that when houses built before 1960 are sold, the seller must give the buyer a completed earthquake hazards disclosure report and a booklet titled “The Homeowners Guide to Earthquake Safety.” This publication was written and adopted by the California Seismic Safety Commission.

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.

Public Resources Code Section 5097.5 and Section 30244

Paleontological sites are protected under a wide variety of state policies and regulations in the California Public Resources Code (PRC). In addition, paleontological resources are recognized as nonrenewable resources and receive protection under the PRC and CEQA. PRC Division 5, Chapter 1.7, Section 5097.5, and Division 20, Chapter 3, Section 30244 state:

No person shall knowingly and willfully excavate upon, or remove, destroy, injure or deface any historic or prehistoric ruins, burial grounds, archaeological or vertebrate paleontological site, including fossilized footprints, inscriptions made by human agency, or any other archaeological, paleontological or historical feature, situated on public lands, except with the express permission of the public agency having jurisdiction over such lands. Violation of this section is a misdemeanor.

This statute prohibits the removal, without permission, of any paleontological site or feature from lands under the jurisdiction of the state or any city, county, district, authority, or public corporation, or any agency thereof. As a result, local agencies are required to comply with PRC 5097.5 for their own activities, including construction and maintenance, as well as for permit actions (e.g., encroachment permits) undertaken by others. PRC Section 5097.5 establishes the removal of paleontological resources as a misdemeanor and requires reasonable mitigation of adverse impacts to paleontological resources from developments on public lands (state, county, city, and district).

Paleontological Assessment Standards

The California Environmental Quality Act (CEQA) also directs agencies to assess whether a project would have an adverse effect on unique paleontological resources. The Society of Vertebrate Paleontology (SVP) has established guidelines for the identification, assessment, and mitigation of adverse impacts on nonrenewable paleontological resources. Most practicing paleontologists in the United States adhere closely to the SVP's

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assessment, mitigation, and monitoring requirements as outlined in these guidelines, which were approved through a consensus of professional paleontologists. The SVP has helped define the value of paleontological resources and, in particular, indicates that geologic units of high paleontological potential are those from which vertebrate or significant invertebrate or plant fossils have been recovered in the past (i.e., are represented in institutional collections). Only invertebrate fossils that provide new information on existing flora or fauna or on the age of a rock unit would be considered significant. Geologic units of low paleontological potential are those that are not known to have produced a substantial body of significant paleontological material. As such, the sensitivity of an area with respect to paleontological resources hinges on its geologic setting and whether significant fossils have been discovered in the area or in similar geologic units.

Local Laws

City of Redondo Beach Municipal Code

- **Title 5, Chapter 7.111 Good Housekeeping Provisions.** Owners and occupants of property within the City shall comply with requirements for septic wastes. This code states that no person shall leave, deposit, discharge, dump, or otherwise expose any chemical or septic waste to precipitation in an area where a discharge to City streets or MS4¹ may or does occur.
- **Title 9, Chapter 1.01 Adoption of the 2022 California Building Code (CBC).** Site development in the City is required to comply with the CBC and all state requirements pertaining to geotechnical hazards and constraints, including soil conditions. The CBC has been incorporated and adopted in its entirety.
- **Title 9, Chapter 5.01 Adoption of the California Plumbing Code (CPC).** Redondo Beach established and adopted as the rules, regulations, and provisions and conditions to be observed and followed in the moving, removal, demolition, condemnation, maintenance and use of plumbing, house drainage, house sewers, sanitary sewers, cesspools, septic tanks, gas piping, gas water heater vents, swimming pools, and gas outlets for swimming pool heaters and related subjects, items and matters as set forth in said Code, within the City.
- **Title 10, Chapter 5. 1542.** The applicant for any development located below elevation 15 feet above mean sea level shall provide information concerning the height and force of likely tsunami run-up on the property. If the development proposed is located on an existing slope greater than 2:1 or on artificial fill, new construction may be permitted only on the basis of detailed, site specific geologic and soil studies. All structures located on fill or on alluvial deposits shall provide an analysis of the potential for seismic hazards, including liquefaction. The design of such structures shall include measures to minimize damage and loss of life and property from such hazards. New or substantially reconstructed structures on ocean fronting parcels shall be permitted only if they are sited and designed so that no future shoreline protective devices will be necessary to protect them from storm waves and bluff erosion. The City shall require as an

¹ "Municipal separate storm sewer system (MS4)" means a conveyance or system of conveyances (including roads with drainage systems, municipal streets, catch basins, curbs, gutters, ditches, man-made channels, or storm drains).

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enforceable condition of any Coastal Development Permit for such a structure that no shoreline protective structure shall be allowed in the future to protect the development from bluff erosion or wave uprush.

- **Title 10, Chapter 3, Environmental Review Pursuant to CEQA.** The Redondo Beach Municipal Code establishes the specific procedures necessary to implement CEQA. Article 2, Evaluation of Significant Effects, establishes criteria for determining significant effects and provides guidance in making an evaluation whether or not a particular project may have a substantial adverse effect on the environment. Pursuant to the Municipal Code, if there are inconsistencies between the provisions contained in Title 10, Chapter 3, and the State's CEQA Guidelines, the State's CEQA Guidelines shall control. As established in Section 10-3.202, significant effects may be due to primary consequences immediately related to the project or may be due to secondary consequences related more to the primary consequences than the project itself. As established in Section 10-3.203, with respect to geology and soils, a project will normally have a significant effect on the environment if it will (j) disrupt or adversely affect a prehistoric or historic archaeological site or a property of historic or cultural significance to a community or ethnic or social group; or a paleontological site except as a part of a scientific study; (q) cause substantial flooding, erosion or siltation; and/or (r) expose people or structures to major geologic hazards.

Redondo Beach Local Coastal Program (LCP)

The LCP consists of the City's land use plans within the Coastal Zone and implementing ordinances to carry out the intent of the Coastal Act. The LCP includes regulations and provisions for development related to soil erosion, geologic sloping, fire hazards, liquefaction, necessary structure mitigations, and all applicable geologic instabilities.

Redondo Beach Local Hazards Mitigation Plan

The Redondo Beach LHMP, approved in 2020, aims to identify hazards located in Redondo Beach and provide hazard assessment, threat assessment, hazard mitigation strategies, and plan maintenances within the City. Information regarding geological hazards and mitigation efforts to reduce effects of these potential hazards can be found in the LHMP.

5.6.1.2 EXISTING CONDITIONS

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Geologic Setting

The City of Redondo Beach is located along the southwestern margin of the Los Angeles Basin and Coastal Plain. The Los Angeles Basin is an alluvial basin bounded to the north and east by the Santa Monica, San Gabriel, and Santa Ana Mountains and to the west and south by the Pacific Ocean and the Palos Verdes Peninsula. Redondo Beach lies within the Peninsular Ranges geomorphic province, which extends approximately 900 miles southward from the Los Angeles Basin to Baja California and is characterized by elongated northwest-trending mountain ranges separated by sediment-floored valleys. (Saucedo et al. 2016)

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The City sits within the Long Beach 30' x 20' quadrangle (Saucedo et al. 2016). The geologic units exposed at the surface in Redondo Beach consist of modern superficial deposits (alluvial sediments and sedimentary rocks) along the coastal edge of the City and older surficial sediments (unconsolidated fine-grained sand) throughout the remainder of the City. These units are shown on Figure 5.6-1, *Geologic Map*.

Seismic Hazards

Faults

An active fault is defined by the State Mining and Geology Board as a fault that has had surface displacement within Holocene times (approximately within the last 11,000 years) and therefore is considered more likely to generate a future earthquake. Redondo Beach is in a seismically active area, as is the majority of southern California. Several major active regional faults lie within close proximity to the City. (See Figure 5.6-2, *Faults Near Redondo Beach*).

- **Compton Blind Thrust Fault.** The Compton Blind Thrust Fault is a deep fault underneath the Los Angeles Basin (“blind” indicates that the fault does not reach the ground surface). Most of the thrust fault is a ramp that rises to the southwest from depths as great as 6 miles up to 3 miles. The ramp connects the Central Basin Decollement, a thrust flat below the Los Angeles Basin, with shallower parts of the thrust fault near its tip below the Palos Verdes Peninsula.
- **Palos Verdes Fault Zone.** The Palos Verdes Fault Zone is approximately 60 miles long, extending southeast from near the head of submarine Santa Monica Canyon under Santa Monica Bay, across the Palos Verdes Peninsula and continuing southeast from San Pedro Bay offshore. This fault zone is considered active and is not included in an Alquist-Priolo Earthquake Fault Zone designated by the State of California.
- **Newport-Inglewood Fault Zone.** Extending southeast from Culver City, the LA Basin segment of the Newport-Inglewood Fault Zone is approximately 41 miles long and includes multiple segments. This fault zone is considered active, and the LA Basin segment is included within an Alquist-Priolo Earthquake Fault Zone.
- **Charnock Fault.** Extending southeast from the Del Rey area of Los Angeles and parallel to the Newport-Inglewood Fault, the Charnock Fault is approximately five miles long. It is considered potentially active and is not in an Alquist-Priolo Earthquake Fault Zone.
- **Santa Monica Fault.** The Santa Monica Fault is approximately 17.4 miles long, extending northeast from offshore of Amarillo Beach in Malibu to Beverly Hills. The Santa Monica Fault is considered active but is not in an Alquist-Priolo Earthquake Fault Zone.
- **Puente Hills Blind Thrust Fault.** The Puente Hills Blind Thrust Fault is a deep fault that lies underneath the Puente Hills and is approximately 27 miles long. It is considered active and is not in an Alquist-Priolo Earthquake Fault Zone.

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- **Hollywood Fault.** The Hollywood Fault is the westward extension of the Raymond Fault. The Hollywood Fault is approximately 10.6 miles long, extending west from the Glassell Park area of Los Angeles to Beverly Hills. The fault is considered active and is not in an Alquist-Priolo Earthquake Fault Zone.
- **Elysian Park Fault.** The Lower Elysian Park Fault trends at least 20 miles, from Whittier and across the northern Los Angeles Basin, running beneath central Los Angeles.
- **Cabrillo Fault.** The Cabrillo Fault is a quaternary fault, whose onshore section trends northwesterly for 6.2 miles, across the Palos Verdes Hills.

Strong Earthquakes

Horizontal ground acceleration, which frequently results in widespread damage to structures, is estimated as a percentage of g , the acceleration of gravity. The damage that an earthquake will cause to a structure depends on the earthquake's size, location, distance, and depth; the types of rock and soil at the surface of the site; and the type of construction of the structure.

When comparing the sizes of earthquakes, the most meaningful feature is the amount of energy released. Thus, scientists most often consider seismic moment, a measure of the energy released when a fault ruptures.

Magnitude scales are logarithmic. Each one-point increase in magnitude represents a 10-fold increase in the size of the waves as measured at a specific location, and a 32-fold increase in energy. That is, a magnitude 7 earthquake produces 100 times (10×10) the ground motion of a magnitude 5 earthquake. Similarly, a magnitude 7 earthquake releases approximately 1,000 times more energy (32×32) than a magnitude 5 earthquake. Recently, scientists have developed the moment magnitude (M_w) scale to relate energy release to magnitude.

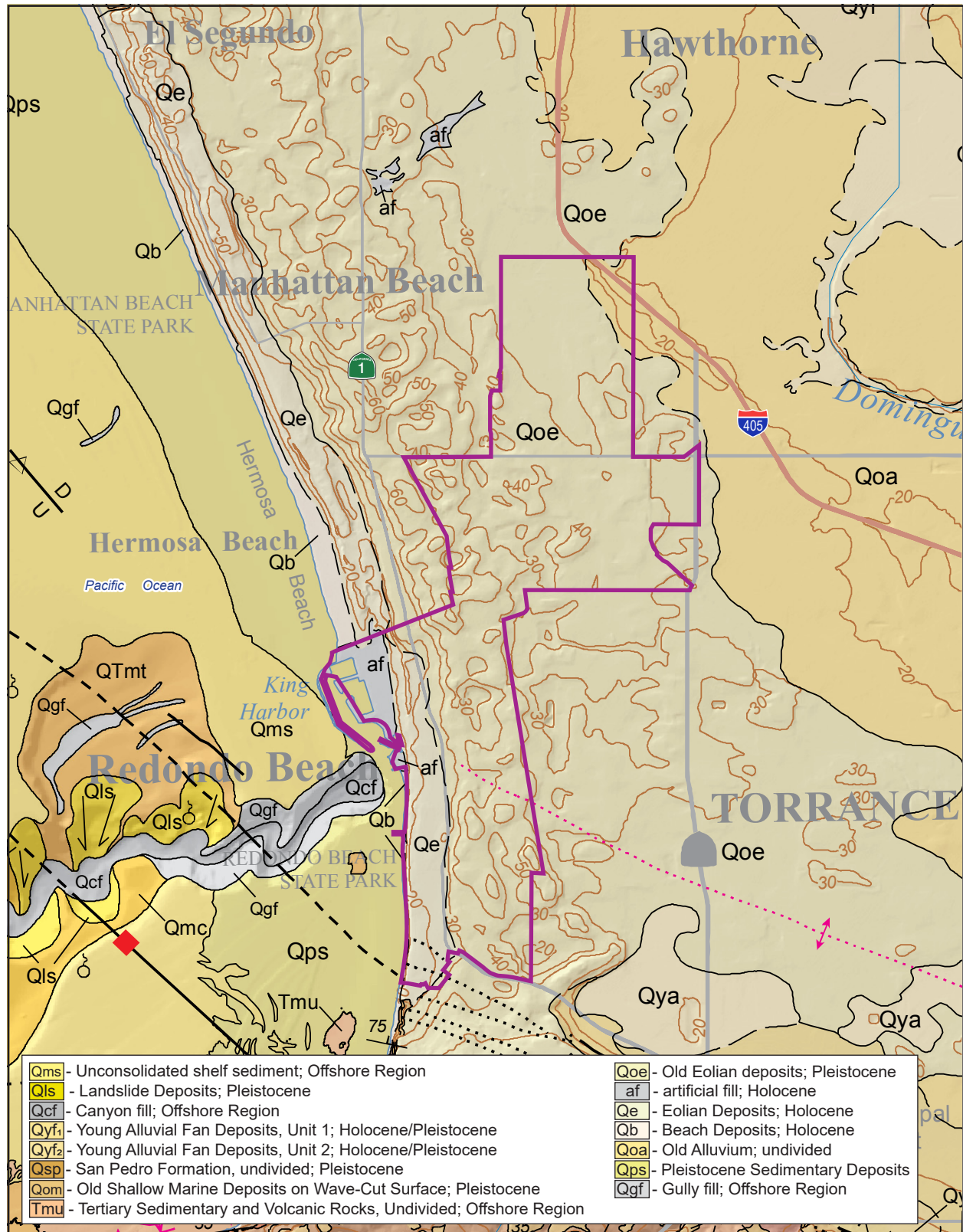
Table 5.6-1, *Estimated Maximum Earthquake Magnitude and Distance to Faults Near Redondo Beach*, lists the maximum magnitudes of earthquakes that each fault is capable of and the distance to Redondo Beach.

Table 5.6-1 Estimated Maximum Earthquake Magnitude and Distance to Faults Near Redondo Beach

Fault	Approximate Distance to Redondo Beach (miles)	Magnitude (Mmax)
Compton Blind Thrust Fault	0	Unspecified
Cabrillo	3	6.0–6.8
Palos Verdes	0–1	6.0–7.0 or greater
Newport-Inglewood	4–5	6.0–7.4
Charnock	2	Unspecified
Santa Monica	12–13	6.0–7.0
Puente Hills Blind Thrust Fault	6–7	7.1
Hollywood	12–13	5.8–6.5
Elysian Park Fault	11	7.0

Sources: SCEDC 2024b, 2024c, 2024d, 2024e; USGS 2024a, 2024b, 2024c, 2024f.

Figure 5.6-1 - Geologic Map



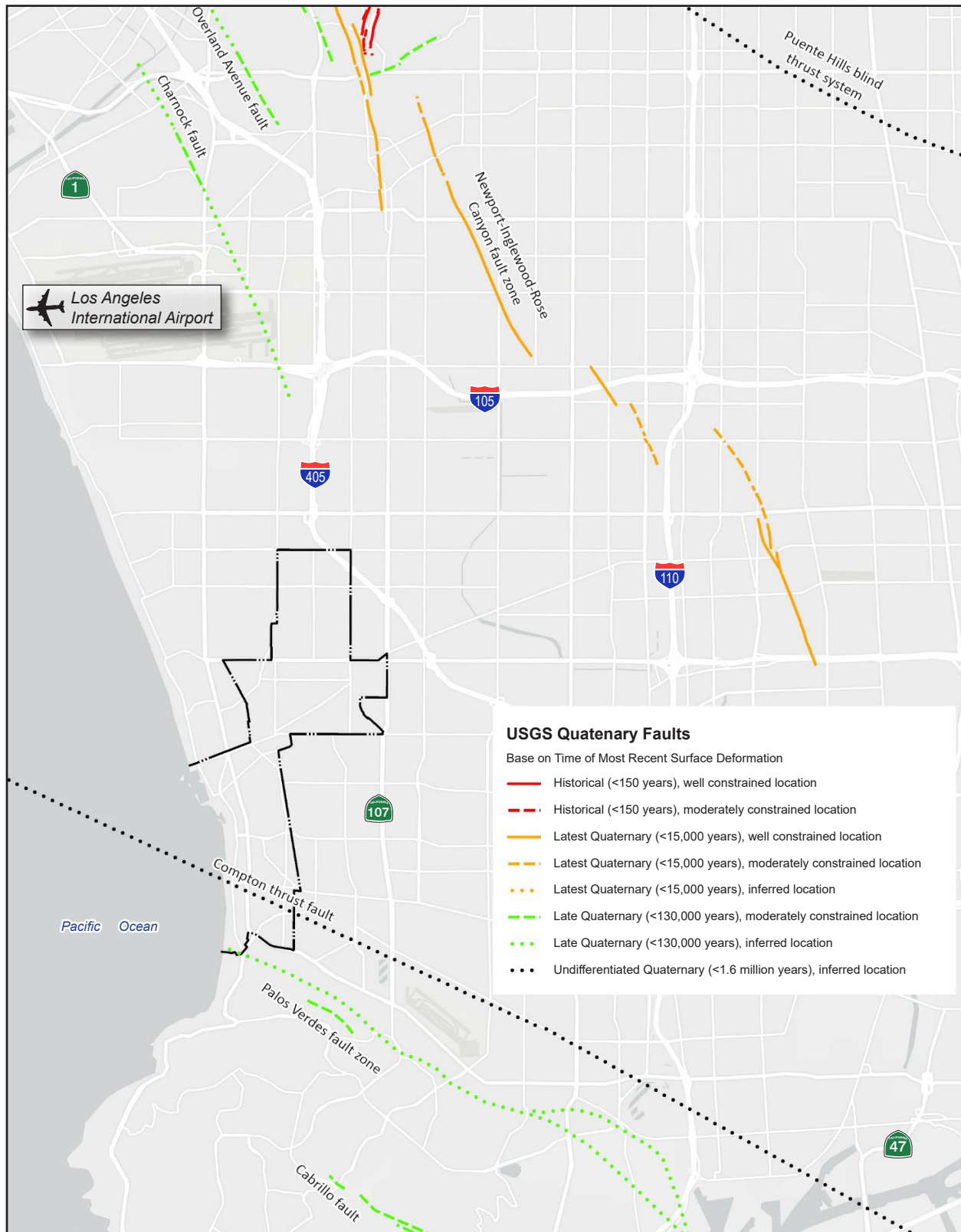
Source: California Geological Survey 2024.

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Figure 5.6-2 - Faults Near Redondo Beach



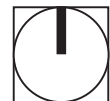
USGS Quaternary Faults

Base on Time of Most Recent Surface Deformation

- Historical (<150 years), well constrained location
- - - Historical (<150 years), moderately constrained location
- Latest Quaternary (<15,000 years), well constrained location
- - - Latest Quaternary (<15,000 years), moderately constrained location
- ... Latest Quaternary (<15,000 years), inferred location
- Late Quaternary (<130,000 years), moderately constrained location
- ... Late Quaternary (<130,000 years), inferred location
- ... Undifferentiated Quaternary (<1.6 million years), inferred location

— City of Redondo Beach

0 2
Scale (Miles)



Source: USGS 2020.

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Surface Rupture of a Fault

Primary ground rupture due to fault movement typically results in a relatively small percentage of the total damage in an earthquake, yet being too close to a rupturing fault can result in extensive damage. It is difficult to safely reduce the effects of this hazard through building and foundation design. Therefore, the primary mitigation measure is to set structures back from the fault zone. Application of this measure is subject to requirements of the Alquist-Priolo Earthquake Fault Zoning Act and guidelines prepared by the California Geological Survey. The final approval of a fault setback lies with the local reviewing agency. There are not any Alquist-Priolo Earthquake Fault Zones in the City of Redondo Beach (CGS 2023). Nearby faults can be seen in Figure 5.6-2, *Faults Near Redondo Beach*.

Liquefaction and Related Ground Failure

Liquefaction is a process whereby 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 failure that can damage structures. If surface failure does occur, it is usually expressed as lateral spreading, flow failures, ground oscillation, and/or general loss of bearing strength. Sand boils (injections of fluidized sediment) can commonly accompany these different types of failure.

In order to determine a region's susceptibility to liquefaction, three major factors must be analyzed:

- The intensity and duration of ground shaking.
- The age and textural characteristic of the alluvial sediments. Generally, the younger, less compacted sediments have a higher susceptibility to liquefaction. Textural characteristics also play a dominant role in determining liquefaction susceptibility. Sand and silty sands deposited in river channels and floodplains tend to be more susceptible to liquefaction, and floodplains tend to be more susceptible to liquefaction than coarser or finer grained alluvial materials.
- The depth to the groundwater. Groundwater saturation of sediments is required for earthquake induced liquefaction. In general, groundwater depths shallower than 10 feet to the surface can cause the highest liquefaction susceptibility.

Strong earthquakes can be expected in the Redondo Beach area on any of the faults in the region listed in Table 5.6-1. Young, loose, unconsolidated sediments, the second factor in liquefaction, are present throughout the Redondo Beach area on beach floors. Fine sand and silty sand, the types of sediments most often associated with liquefaction, occur mainly along the sandy beaches at the western boundary of the City. Historically, many of these effects occurred in the King Harbor area after the 1994 Northridge earthquake (Stewart et al. 1996). Site-specific geotechnical studies are the only practical and reliable way of determining the specific liquefaction potential of a site; however, a determination of general risk potential can be provided based on soil type and depth of groundwater. Figure 5.6-3, *Liquefaction Zones in Redondo Beach*, depicts the areas where liquefaction is likely within Redondo Beach.

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Landslides

A landslide is the downslope movement of soil and/or rock. Landslides can range in speed from very rapid to an imperceptible creep. Landslides can be caused by ground shaking from an earthquake or water from rainfall, septic systems, landscaping, or other origins that infiltrates slopes of unstable material. Boulder-strewn hillsides can also pose a boulder-rolling hazard from ground shaking, blasting, or a gradual loosening of their contact with the surface.

The likelihood of a landslide depends on an area's geologic formations, topography, ground-shaking potential, and human influences. Improper or excessive grading can increase the probability of a landslide. Land alterations such as excavation, placement of fill, removal of vegetative cover, and introduction of water from drainage, irrigation, or septic systems may further contribute to slope instability and increase the likelihood of a landslide. Undercutting support at the base of a slope or adding too much weight to the slope can also produce a landslide.

The City of Redondo Beach has varying topography with compacted nature of soils in areas with slopes. There are only a few areas in Redondo Beach vulnerable to earthquake-induced landslides. These areas are concentrated at the bottom of hillsides or sloped areas (Redondo Beach 2024). Based on a search of readily available databases, an important area to note that is susceptible to landslides is on the property of Redondo Union High School (CGS 2024; USGS 2024d).

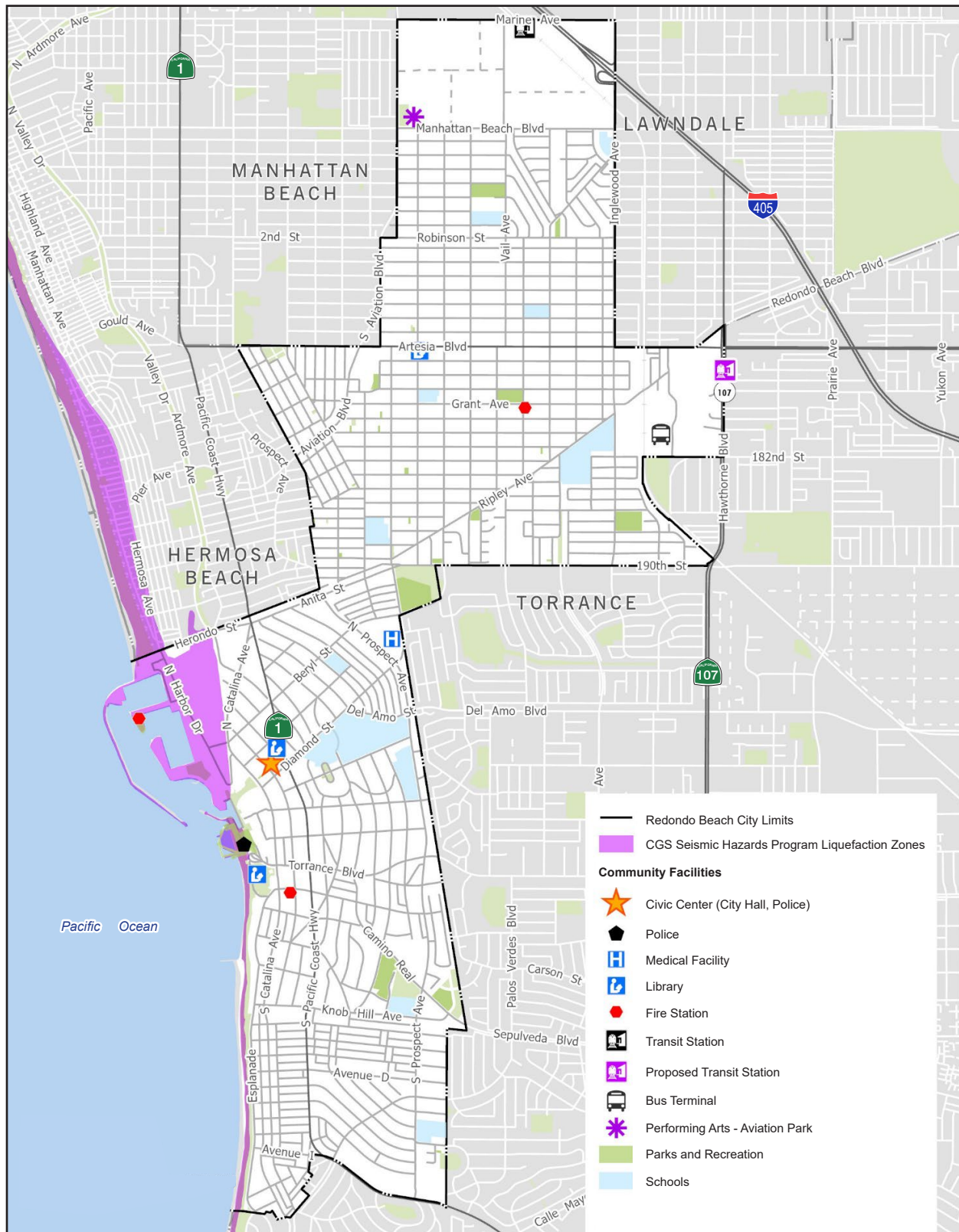
Hazardous Buildings

The principal threat in an earthquake is the damage to buildings. 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 of our new buildings. However, many buildings were built before current 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 and are generally known to be the most hazardous buildings in an earthquake. Per Senate Bill 547, local jurisdictions are required to enact structural hazard reduction programs by inventorying pre-1943 unreinforced masonry buildings and developing mitigation programs to correct the structural hazards.
- **Precast Concrete Tilt-up Buildings.** This building type was introduced after 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 floor, and foundation elements of the building and for stronger roof diaphragms.² The typical damage scenario for these buildings, involved the concrete wall panels falling outward and the roof would then collapse.

² A structural roof deck capable of resisting the stress produced by lateral forces, such as wind or seismic loads.

Figure 5.6-3 - Liquefaction Zones in Redondo Beach



City of Redondo Beach

0 0.75
Scale (Miles)

Source: California Geological Survey 2018.

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- **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.
- **Nonductile Concrete Frame Buildings.** The brittleness of nonductile concrete frame buildings can result in 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 of 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 have four to eight stories, many are shorter. This category also includes one-story parking garages with heavy concrete roof systems supported by nonductile concrete columns.

Other Geologic Hazards

Ground Subsidence

Ground subsidence is the gradual settling or sinking of the ground surface with little or no horizontal movement, and most often results from human activities such as the extraction of oil, gas, or groundwater. Effects of subsidence include fissures, sinkholes, depressions, and disruption of surface drainage (Borchers et al. 2014).

The Torrance Oil Field encompasses much of the southern portion of the City of Redondo Beach. Subsidence of roughly 3 centimeters per year in the 1990s was attributed to petroleum extraction (USGS 1996). Although there is no data currently available documenting the precise areas where subsidence could occur, it is most likely near active or abandoned oil wells as a result of seismic shaking or changes in subsurface conditions. Abandoned oil wells throughout the City are mapped, and development in close proximity to these wells requires closure documentation. New development on these properties would require soil analysis to confirm soil integrity for new structures (Redondo Beach 1993).

Collapsible Soils

When collapsible soils become saturated, their grains rearrange and lose cohesion, causing rapid, substantial settlement under relatively light loads. Soils prone to collapse are generally young, deposited by flash floods or wind. Increased surface water infiltration, such as from irrigation or a rise in the groundwater table, combined with the weight of a building, can cause rapid settlement and cracking of foundations and walls. Dry, stiff silts with a high void ratio are especially susceptible to collapse. Most of the alluvium that underlies Redondo Beach is generally not susceptible to collapse due to the granular nature of the soils and the lack of clay needed to

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form dry bonds between grains. Areas of concern can be areas with loose-grained deposits such as those along the coastal boundary of the City (Saucedo et al. 2016).

Compressible Soils

Compressible soils are typically unconsolidated, low-density Holocene sediments that may compress under the weight of structures and fill soil. The young sediments underlying the inland portions of the City are generally dry and loose in the upper few feet and therefore susceptible to compression (Saucedo et al. 2016).

Expansive Soils

Soils containing expansive clay minerals can shrink or swell substantially as the moisture content decreases or increases. Structures built on these soils may experience shifting, cracking, and breaking damage as soils shrink and subside or expand. The near-surface sediments in the western and central parts of the City are composed primarily of granular soils, that is, silty sand, sand, and gravel. Such sediments are usually nonexpansive or have very low expansion potential. Expansive soils are not likely to be present in the City (Saucedo et al. 2016).

Erosion

Erosion is the movement of rock and soil due to water, wind, and gravity. Soil erosion may be a slow process that continues relatively unnoticed, or it may occur quickly, causing serious loss of topsoil. The rate and magnitude of soil erosion by water is controlled by rainfall intensity and runoff, soil texture and cohesion, slope gradient and length, and vegetation cover. The young alluvial sediment underlying the City is generally granular, poorly consolidated, and very susceptible to erosion. Grading can increase the potential for erosion by removing protective vegetation, changing natural drainage patterns, and constructing slopes (Saucedo et al. 2016).

Paleontological Resources

Paleontological resources are the fossilized remains of organisms from prehistoric environments found in geologic strata. These are valued for the information they yield about the history of the earth and its past ecological settings. There are two types of resources: vertebrate and invertebrate. These resources are found in geologic strata conducive to their preservation, typically sedimentary formations. Paleontological sites are areas that show evidence of prehuman activity. Often, they are simply small outcroppings visible on the surface or sites encountered during grading. While the sites are important indicators, it is the geologic formations that are the most important, since they may contain important fossils. Potentially sensitive areas for the presence of paleontological resources are based on the underlying geologic formation.

Paleontological Records Search

A Records Search was conducted by Cogstone, using information obtained from the Natural History Museum of Los Angeles County, the University of California Museum of Paleontology database, the PaleoBiology Database, and various print sources to assess the paleontological resources located within the City.

According to the search conducted by Cogstone, fourteen localities are known to be from Pleistocene deposits between 6 and 10 miles from the project location. Another six localities were found between 10 and 15 miles from the project location. These localities range in distance from nearby cities of Lomita, CA, south of the

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project site, to Bell Gardens, CA, northeast of the project site. Fossils in Pleistocene deposits were discovered a minimum of 5 feet from the surface, and those found in Holocene deposits started at 11 feet from the surface (Cogstone 2024). Many of the known fossil collections from Redondo Beach and adjacent areas are of Pleistocene age.

Paleontological Sensitivity

A multilevel ranking system was developed by professional resource managers within the U.S. Bureau of Land Management as a practical tool to assess the sensitivity of sediments for fossils. The Potential Fossil Yield Classification (PFYC) system has a multilevel scale based on demonstrated yield of fossils. The PFYC system provides additional guidance regarding assessment and management for different fossil yield rankings. The probability for finding significant fossils in a project area can be broadly predicted from previous records of fossils recovered from the geologic units present in and/or adjacent to the project area. The geological setting and the number of known fossil localities help determine the paleontological sensitivity according to PFYC criteria.

Sediments that are close to their basement rock source are typically coarse; those farther from the basement rock source are finer. The chance of fossils being preserved greatly increases once the average size of the sediment particles is reduced to 5 millimeters or less in diameter. Moreover, fossil preservation also greatly increases after natural burial in rivers, lakes, or oceans. Remains left on the ground surface become weathered by the sun or consumed by scavengers and bacterial activity, usually within 20 years or less. Therefore, the sands, silts, and clays of rivers, lakes, and oceans are the most likely sediments to contain fossils.

Using the PFYC system, geologic units are classified according to the relative abundance of vertebrate fossils or scientifically significant invertebrate or plant fossils and their sensitivity to adverse impacts within the known extent of the geological unit. Although significant localities may occasionally occur in a geologic unit, a few widely scattered important fossils or localities do not necessarily indicate a higher PFYC value; instead, the relative abundance of localities is intended to be the major determinant for the value assignment. Table 5.6-2, *Paleontological Sensitivity Rankings*, serves as a summation of data found and its relative sensitivity rankings. No formations in the City are assigned a very high sensitivity (PFYC 5). The Pleistocene sedimentary deposits, old eolian deposits, and old alluvium are assigned a moderate sensitivity (PFYC 3). Holocene unconsolidated shelf sediments, eolian deposits, and beach deposits along with modern artificial fill are very low sensitivity (PFYC 1).

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Table 5.6-2 Paleontological Sensitivity Rankings

Rock Unit	PFYC rankings				
	5 very high	4 high	3 moderate	2 low	1 very low
Pleistocene sedimentary deposits, Pleistocene			Below 5 feet	Above 5 feet	
Old eolian deposits, middle to late Pleistocene			Below 5 feet	Above 5 feet	
Old alluvium, undivided; middle to late Pleistocene			Below 5 feet	Above 5 feet	
Unconsolidated shelf sediments, late Holocene					X
Eolian deposits, late Holocene					X
Beach deposits. Late Holocene					X
Artificial fill, modern					X

Source: Cogstone 2024.

5.6.2 Thresholds of Significance

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

- G-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.
- G-2 Result in substantial soil erosion or the loss of topsoil.
- G-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.
- G-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.
- G-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.
- G-6 Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?

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5.6.3 Proposed General Plan Goals and Policies

City of Redondo Beach General Plan

Open Space and Conservation Element

Goal OS-6 Coastal Resources. Beaches, bluffs, harbors, and waters that serve the recreational needs of the community, enhance the City's economic vitality, preserve the unique natural environments, and sustain sensitive habitat areas within the City's coastal zone and jurisdictional waters.

Policy OS-6.4 Erosion. Prevent erosion of beaches and coastal bluffs by maintaining stormwater systems, educating the public about erosion factors, restricting pedestrian access to vegetated areas, continuing beach bluff restoration, and coordinating with the County and other entities.

Safety Element

Goal S-2 Critical Facilities: Redondo Beach's essential facilities retain functionality and structural integrity following natural and human-caused disasters.

- **Policy S-2.1 Site Design of Critical Facilities.** Site, design, and construct new City-owned critical facilities to ensure continued operations following geologic, seismic, or other hazard events, including prohibiting critical facilities within 100 feet of an active fault system, within a FEMA flood hazard zone, or within a sea level rise hazard area.
- **Policy S-2.2 Siting of Critical and Sensitive Structures.** Locate Critical and Sensitive structures in areas of the City with continuous road access, and areas where utility services can be easily maintained and/or quickly reinstated after a hazardous event.

Goal S-3 Hazard and Emergency Data: Up-to-date hazard and emergency data to ensure effective planning and response to natural and human-caused hazardous events.

- **Policy S-3.1 Maintain Current Geologic Hazards Databases.** Maintain a current information and GIS database with the best available science on local and regional seismic and geologic hazards and ensure this information is available to the community.
- **Policy S-3.2 Ongoing Fault Location Data Collection.** Continue collecting relevant data on fault locations and history of fault displacement activity, as a basis for future refinement of seismic-related policies.

Goal S-4 Seismic and Geologic Hazards: Reduce death, injury, property damage, economic and social dislocation, and disruption of vital services resulting from seismic and geologic related events.

- **Policy S-4.1 Compliance with State, Regional and Local Regulations.** Require new development to comply with current state, regional, and local regulations for seismic safety. Encourage retrofitting of

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existing development during building permit review to comply with current state, regional, and local requirements relative to seismic safety.

- **Policy S-4.2 Keep Local Ordinances and Regulations Current.** Update local ordinances and regulations after each update to the Local Hazard Mitigation Plan and/or Safety Element to incorporate relevant geologic and seismic hazard information.
- **Policy S-4.3 Evacuation and Access.** Ensure that new development, especially high-occupancy facilities, allow for evacuation of occupants through stabilized corridors and access points if buildings are damaged by seismic activity.
- **Policy S-4.4 Property Owner Notification of New Faults.** Formally notify all property owners within a 500 linear foot radius of any and all boundaries of a newly discovered fault and/or existence of a fault if previously unidentified or unexposed fault is identified within the City of Redondo Beach municipal boundaries.
- **Policy S-4.5 Development in Liquefaction Zones.** Require new development located in Liquefaction Zones, identified in Figure 4.4, to implement specific measures in the California Building Code Chapter 18 to reduce damage in an earthquake event.
- **Policy S-4.6 Police, Fire and Public Works Coordination.** Coordinate with fire, police, and public works departments to ensure effective preparation, response, and recovery services are available throughout the community before, during, and after a seismic event.
- **Policy S-4.7 Upgrade of Major Roadway Corridors in Liquefaction-Prone Areas.** Require new development to upgrade major roadway corridors in liquefaction-prone areas, identified in Figure 4.4, to reduce damage and disruptions from potential damage to transportation and evacuation routes.
- **Policy S-4.9 Agency Coordination to Minimize and Mitigate Geologic and Seismic Hazards.** Coordinate and cooperate with local and state agencies within the County to avoid, minimize, and mitigate geologic and seismic hazards.
- **Policy S-4.10 Automatic Natural Gas Shutoff Earthquake Sensors.** Require automatic natural gas shutoff earthquake sensors in high-occupancy industrial and commercial facilities, as well as new homes, and encourage them for all existing residences.
- **Policy S-4.11 Mapping of Areas Prone to Landslides and/or Mudflows.** Coordinate with California Geologic Survey and United States Geologic Survey to map areas prone to potential landslides and/or mudflows.

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5.6.4 Environmental Impacts

5.6.4.1 METHODOLOGY

The USGS Fault, Landslide, and Subsidence database maps and the CGS Earthquake Zones of Required Investigation databases were searched to examine geologically significant areas within the City. Through these searches, liquefaction, soil erosion, expansive soils, settlement, and collapse are evident in the City.

In addition to the USGS database search results, locally sensitive paleontological resources are found in the Cultural and Paleontological Resource Assessment provided by Cogstone. A records search was conducted by Cogstone using information obtained from the Natural History Museum of Los Angeles County, the University of California Museum of Paleontology database, the PaleoBiology Database, and various print sources to assess the paleontological resources in the City. Paleontological resources rated a 3 or higher in these inventories are considered moderately sensitive or higher, and criteria for sensitivity rankings are listed in Appendix C and Appendix K of the Cultural and Paleontological Resources Assessment (See Appendix D of the DEIR).

5.6.4.2 IMPACT ANALYSIS

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

Impact 5.6-1: Project residents and visitors would be subject to potential seismic-related hazards; however, development associated with the proposed project would adhere to existing structural safety requirements. [Threshold G-1i-iv])

Seismic Hazards

Earthquakes can be expected in the Redondo Beach area on any of the faults in the region listed in Table 5.6-1, *Estimated Maximum Earthquake Magnitude and Distance to Faults Near Redondo Beach*. In Redondo Beach, earthquake effects include possible ground shaking and secondary effects of earthquakes, including landslides, liquefaction, settlement, subsidence, collapse, ground lurching, and tsunami-related erosion.

Secondary effects are nontectonic processes such as ground deformation, including fissures, settlement, displacement, and loss of bearing strength, which are the leading causes of damage to structures during a moderate to large earthquake.

Ground Shaking

The City is in a seismically active part of Southern California. Conformance with the CBC would reduce impacts to new development associated with strong seismically induced ground shaking to the maximum extent practicable, under currently accepted engineering practices. The CBC sets forth structural design parameters for buildings to withstand seismic shaking without substantial structural damage. Section 1803 of the CBC requires preparation of a site-specific geotechnical investigation to assess the degree of potential seismic hazards and recommend appropriate design/mitigation measures. The 2022 CBC contains standards and regulations relating to seismic safety and construction standards for building foundations. Conformance with

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the CBC, as required by State law, would minimize the potential for damage of new structures and their foundations.

Liquefaction

Areas of concern for potential liquefaction in Redondo Beach are areas along the City's southwestern boundary, and the location of the sand and gravel-filled deposits that make up the sediment along the City's beaches. Research and historical data indicate that loose, granular materials at depths of less than 50 feet with silt and clay contents of less than 30 percent saturated by relatively shallow groundwater table are most susceptible to liquefaction. These geological conditions are typical in parts of southern California, including Redondo Beach, and in valley regions and alluvial floodplains. The City's southwestern edge along the coast is susceptible to liquefaction. Areas of liquefaction hazard are shown in Figure 5.6-3, *Liquefaction Zones in Redondo Beach*. Policy S-4.5 would require new development in liquefaction zones to implement specific measures in CBC Chapter 18 to reduce damage in an earthquake event. Redondo Beach includes both hillside topography with some areas of steep slopes and areas that are relatively flat. The City is made up of Pleistocene and Holocene soil deposits. These deposits make for stable soil conditions. Liquefaction related to potential erosion is still a concern for the City because coastal areas are made up of loose soils and are susceptible to liquefaction. Tsunamis from seismic-related events may also be potentially significant to the City in areas within a few miles of the ocean, primarily along the southwestern edge of the City. Policy OS-6.4 addresses soil erosion in coastal areas and its applicable coordination with the county and other agencies when addressing the erosion hazards and impacts.

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. Although there are some areas of slope in the City, much of the terrain of the City is relatively flat and built up. Landslides are not a concern for the City of Redondo Beach (USGS 2024d). Although the City has varying topography in sections of the City, such as areas in the neighborhoods in the upper Avenues, Beryl Heights, and areas near Dominguez Park, soils in these areas tend to be compact in nature and would not affect existing facilities or future uses due to landslide hazards. Since Redondo Beach is mainly built-up and areas where there is varying topography, have established infrastructure, landslide susceptibility is not a concern for the City (USGS 2024e). Adherence to Policy S-4.4 would introduce notifications for owners on or near faults/newly discovered faults, and requirements for review of soils and their hazards, relative to seismicity prior to various steps in the planning process. Additional policies that would enforce regulations and mitigation efforts for seismicity include Policy S-2-1, Policy S-2-2, Policy S-3.1, Policy S-3.2, Policy S-4.1, Policy S-4.2, Policy S-4.3, Policy S-4.5, Policy S-4.6, Policy S-4.7, Policy S-4.9, Policy S-4.10, and Policy S-4.11. Impacts of seismic-related hazards would be less than significant.

Settlement, Subsidence, and/or Collapse

Subsidence refers to the sudden sinking or gradual downward settling and compaction of soil and other surface material with little or no horizontal motion. It may be caused by a variety of human and natural activities, including underground mining, oil and gas extraction, sinkholes, or drainage and decomposition of organic soils. Most of the early documented cases of subsidence affected only agricultural land or open space. As urban

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areas have expanded, so too have the impacts of subsidence on structures for human occupancy. Although there have been isolated incidents, Redondo Beach is not susceptible to soil subsidence. (Redondo Beach 1993 USGS 2024e).

Level of Significance Before Mitigation: Impact 5.6-1 would be less than significant.

Impact 5.6-2: Unstable geologic unit or soils conditions, including soil erosion and loss of topsoil, could result from development of the proposed project; however, such development would adhere to existing regulatory requirements. [Thresholds G-2, G-3, and G-4]

Development facilitated by the proposed project would involve soil disturbance, construction, and operation of developed land uses that could each be subject to unstable soil conditions.

Soil Erosion

Soils are particularly prone to erosion during the grading phase of development, especially during heavy rains. The use of a Storm Water Pollution Prevention Plan (SWPPP), which specifies best management practices for temporary erosion control, would reduce the potential for erosion during construction activities. Standard erosion control measures would be implemented as part of a SWPPP for proposed projects within the City to minimize the risk of erosion or sedimentation during construction. The SWPPP must include an erosion control plan that prescribes measures, such as phased grading, limited areas of disturbance, designated restricted-entry zones, diversion of runoff from disturbed areas, protective measures for sensitive areas, outlet protection, and provisions for revegetation or mulching.

The young alluvial sediment underlying the City is generally granular, poorly consolidated, and very susceptible to erosion. Grading can increase the potential for erosion by removing protective vegetation, changing natural drainage patterns, and constructing slopes. General Plan Policy OS-6.4, would prevent erosion of beaches and coastal bluffs by maintaining stormwater systems, educating the public about erosion factors, restricting pedestrian access to vegetated areas, continuing beach bluff restoration, and coordinating with the County and other entities.

Mandatory compliance with existing regulations, including the preparation and submittal of a SWPPP and a soil engineering evaluation, and compliance with the Proposed General Plan policies, would help mitigate issues associated with erosion in the project area and would reduce the impacts to less than significant.

Expansive Soils

Most of the City consists of alluvial sediments, and therefore there is some potential for expansive soils throughout the City. Expansive soils are possible wherever clays and elastic silts may be present, including alluvial soils and weathered granitic and fine-grained sedimentary rocks. The presence of expansive soils represents a potential hazard to structures and people.

The City has adopted the latest version of the CBC (2022 CBC), which requires that structures be designed to mitigate for expansive soils. Methods that could be used to reduce the impact of expansive soils include drainage control devices to limit water infiltration near foundation, over-excavation and recompacting of engineered fill,

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or support of the foundation with piles. Applicable General Plan policies include Policy S-4.5 and S-18, which would require adherence to the CBC and implementation of measures to reduce damage due to liquefaction, and requirements for geotechnical reports and EIRs to be adherent to the CBC which would map areas susceptible to landslides, and mudflows. The methods in the CBC, as well as policies in the Proposed General Plan, would reduce impacts related to expansive soils to less than significant.

Settlement and Collapse

Settlement or collapse is a risk in areas with alluvial soils. Areas of large settlement can damage or destroy structures. Compressible soil in the City is a hazard to structures and people. The CBC requires that structures be designed to mitigate compressible soils. Methods that could be used to reduce the impact of compressible soils include using piles to transfer the weight of the structure to underlying noncompressible layers, and over-excavating compressible soils and recompacting with engineered fill.

Adherence to policies in the Proposed General Plan would help to mitigate problems associated with settlement or collapse, such as Policies S-4.5 and S-4.11, which would set standards and requirements for building, or project planning, that would identify multiple soil characteristics and their risks. These standards would reduce the impact of settlement or compressible soils to less than significant.

Subsidence

Hazards surrounding subsidence are not a large issue in the City of Redondo Beach (USGS 2024e). Additionally, there are no active oil wells in the City that would cause a concern for subsidence, caused by oil wells. Subsidence-related hazards would be less than significant. Section 5.8.2, *Hazards and Hazardous Materials*, addresses oil wells and their current statuses, and there are no currently active oil wells within City boundaries that would pose a threat of subsidence.

Level of Significance Before Mitigation: Impact 5.6-2 would be less than significant.

Impact 5.6-3: Soil conditions may adequately support proposed septic tanks. [Threshold G-5]

Septic systems are allowed in the City if they adhere to Municipal Code Title 5, Chapter 7.111, which outlines the provisions on septic waste: “No person shall leave, deposit, discharge, dump, or otherwise expose any chemical or septic waste to precipitation in an area where a discharge to City streets or MS4 may or does occur,” or are seeking improvements to existing single-family residences, in which a Coastal Development Permit would be required prior to implementation (Redondo Beach 2021). Redondo Beach has also adopted the 2022 CBC and the 2022 Plumbing Code, which outline provisions, regulations, and provisions associated with excavation and implementation for septic tanks.

In Redondo Beach, permits are required before installing a septic tank in areas where connection to the City’s sewer facilities are not feasible. Pursuant to the CBC, a site investigation must determine that soil conditions are suitable. The provisions and requirements of the 2022 Plumbing Code and the CBC and the City’s municipal code outline the provisions for installing septic tanks in the City; therefore, impacts would be less than significant.

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Level of Significance Before Mitigation: Impact 5.6-3 would be less than significant.

Impact 5.6-4: Development under the proposed project could directly or indirectly destroy a unique paleontological resource or unique geologic feature. [Threshold G-6]

Paleontological resources are recognized as nonrenewable and therefore receive protection under the California Public Resources Code and CEQA. Adoption of the proposed project would not directly affect paleontological resources. Long-term implementation of the General Plan update land use plan could allow development, including grading, of known and unknown sensitive areas. Grading and construction activities in undeveloped areas or redevelopment that requires more intensive soil excavation than in the past could potentially disturb paleontological resources. Therefore, future development accommodated by the proposed project could potentially unearth previously unrecorded resources. Review and protection of paleontological resources are afforded by CEQA for individual development projects subject to discretionary actions that are implemented in accordance with the land use plan of the Proposed General Plan.

Research conducted by Cogstone using the Natural History Museum of Los Angeles County, the University of California Museum of Paleontology database, the PaleoBiology Database, and various print sources, indicate that paleontological sensitivity rankings (see Table 5.6-2) do not surpass level 3, indicating moderate sensitivity. Within the given sensitivities, records show palaeontologic resources are mainly found in Pleistocene deposits.

Long-term implementation of the proposed project could allow development, including grading, on portions of the City with sensitivity to paleontological resources. Therefore, future development could potentially unearth previously unknown/unrecorded paleontological resources. Mitigation Measures GEO-1 requires evaluating paleontological sensitivities prior to grading, and GEO-2 dictates the required process in the event of fossil discovery. Additionally, Policy OS-2.10 requires proper planning when dealing with the preservation and enhancement of unique and valuable community resources as part of the planning and development of various projects within the City.

Level of Significance Before Mitigation: Impact 5.6-4 would be potentially significant.

5.6.5 Cumulative Impacts

The geographic context for the analysis of impacts resulting from geologic hazards generally is site specific rather than cumulative in nature, because each project site has a different set of geologic considerations that would be subject to uniform site development and construction standards and unique standards depending on the outcome of a project-specific geotechnical study. Therefore, the potential for cumulative impacts is limited.

Future development and redevelopment pursuant to the proposed project and other development projects in the surrounding area would involve grading and excavation activities on individual sites, which would result in changes to the area's existing topography. Compliance with the CBC and the recommendations of individual geotechnical investigations would reduce geologic hazards to new development.

There are no faults that run through the City, but there are neighboring faults around the City that may have seismic impacts on Redondo Beach. However, policies and implementation actions in the Proposed General

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Plan, such as S-4.4, S-4.5, and S-4.11, would provide beneficial provisions and requirements relating to faults, fault hazards, and seismic-related hazards.

Ground shaking hazards due to regional earthquake events could lead to the damage of buildings, parking lots, and utility lines and subsequent fires, falling objects, and other structural hazards that could cause property damage and personal injuries. These ground-shaking hazards are not unlike the potential hazards in other areas of the region. Depending on the magnitude of the earthquake, distance to the development site, underlying soil conditions, and strength of structures and infrastructure, ground-shaking hazards may be significant. Future development and redevelopment in the City would be designed and built in accordance with applicable standards in the CBC, including pertinent seismic design criteria. Existing buildings to be reused would be rehabilitated in accordance with the CBC and local building regulations. This would allow structures to withstand ground shaking and to maintain hazards at acceptable levels.

Site-specific geologic hazards would be addressed by the geotechnical investigation required by the City for each development proposal. This investigation would identify the geologic and seismic characteristics on a site and provide guidelines for engineering design and construction to ensure the structural integrity of proposed development. Compliance of individual projects with the recommendations of the geotechnical investigation would prevent hazards associated with unstable soils, landslide potential, lateral spreading, liquefaction, soil collapse, expansive soil, soil erosion, and other geologic issues. No cumulative adverse impacts are expected.

New development would hook up future development to sewer, but development that would require future installation of septic tanks must follow the CBC and the CPC, which outline provisions and requirements for septic tanks along with State regulations requiring soil and site evaluations prior to excavation for or installation of a septic tank.

Long-term implementation of the General Plan could allow development, including grading, on portions of the City with sensitivity to paleontological resources. No area of the City surpasses a level 3 sensitivity for paleontological resources, indicating moderate sensitivity. Records show that palaeontologic resources in the City are mainly found in Pleistocene deposits. If a paleontological resource is discovered or expected prior to or during grading or excavation, implementation of Mitigation Measure GEO-1 and Mitigation Measure GEO-2 would apply and would reduce impacts to less than significant. Additionally, the Proposed General Plan includes Policy OS-2.10, which would provide proper planning when dealing with the preservation and enhancement of unique and valuable community resources. Therefore, impacts would be less than cumulatively considerable with mitigation incorporated.

5.6.6 Level of Significance Before Mitigation

Upon implementation of regulatory requirements, and goals and policies from the proposed project, the following impacts would be less than significant: 5.6-1, 5.6-2, and 5.6-3.

Without mitigation, these impacts would be **potentially significant**:

- **Impact 5.6-4:** Implementation of the Proposed General Plan could impact paleontological resources.

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5.6.7 Mitigation Measures

- GEO-1 **Low-to-High Sensitivity.** Prior to issuance of a grading permit for discretionary projects that involve ground disturbance in previously undisturbed areas mapped with “low-to-high” potential for paleontological sensitivity, the project applicant shall consult with a geologist or paleontologist to confirm whether the grading would occur at depths that could encounter highly sensitive sediments for paleontological resources. If confirmed that underlying sediments may have sensitivity, a qualified paleontologist shall be retained to develop and implement a Paleontological Resources Impact Mitigation Plan. The paleontologist shall have the authority to halt construction during ground disturbing activities as outlined in Mitigation Measure GEO-2.
- GEO-2 **All Projects.** In the event of any fossil discovery, regardless of depth or geologic formation, ground disturbing activities shall halt within a 50-foot radius of the find until its significance can be determined by a qualified paleontologist. Significant fossils shall be recovered, prepared to the point of curation, identified by qualified experts, listed in a database to facilitate analysis, and deposited in a designated paleontological curation facility in accordance with the standards of the Society of Vertebrate Paleontology. The most likely repository is the Natural History Museum of Los Angeles County. The repository shall be identified, and a curatorial arrangement shall be signed as part of the Paleontological Impact Mitigation Plan (GEO-1) and prior to collection of the fossils.

5.6.8 Level of Significance After Mitigation

Mitigation Measure GEO-1 would require all discretionary projects to obtain a grading permit prior to performing grading, in order to assess paleontological sensitivity at project sites. GEO-2 would apply to any project that encounters any paleontological resource, regardless of depth, to coordinate with a qualified paleontologist and any applicable experts in order to collect the resources. Adherence to the mitigation measures would reduce project impacts, and cumulative impacts, to less than significant.

5.6.9 References

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5.7 GREENHOUSE GAS EMISSIONS

This section of the Program Draft Environmental Impact Report (DEIR) evaluates the potential for implementation of the Redondo Beach Focused General Plan Update, Zoning Ordinance Update and Local Coastal Program (LCP) Amendment (proposed project) to cumulatively contribute to greenhouse gas (GHG) emissions impacts. Because no single project is large enough to result in a measurable increase in global concentrations of GHG, climate change impacts of a project are considered on a cumulative basis. GHG emissions modeling for the General Plan Update is included in Appendix C of this DEIR. Transportation-sector impacts are based on trip generation and vehicle miles traveled, as provided by Fehr & Peers.

Terminology

- **Greenhouse gases (GHG).** Gases in the atmosphere that absorb infrared light, thereby retaining heat in the atmosphere and contributing to a greenhouse effect.
- **Global warming potential (GWP).** Metric used to describe how much heat a molecule of a greenhouse gas absorbs relative to a molecule of carbon dioxide (CO₂) over a given period of time (20, 100, and 500 years). CO₂ has a GWP of 1.
- **Carbon dioxide-equivalent (CO₂e).** The standard unit to measure the amount of greenhouse gases in terms of the amount of CO₂ that would cause the same amount of warming. CO₂e is based on the GWP ratios between the various GHGs relative to CO₂.
- **MTCO₂e.** Metric ton of CO₂e.
- **MMTCO₂e.** Million metric tons of CO₂e.

5.7.1 Environmental Setting

5.7.1.1 GREENHOUSE GASES AND CLIMATE CHANGE

Scientists have concluded that human activities are contributing to global climate change by adding large amounts of heat-trapping gases, known as GHGs, to the atmosphere. The primary source of these GHGs is fossil fuel use. The Intergovernmental Panel on Climate Change (IPCC) has identified four major GHGs—water vapor, carbon dioxide (CO₂), methane (CH₄), and ozone (O₃)—that are the likely cause of an increase in global average temperatures observed in the 20th and 21st centuries. Other GHGs identified by the IPCC that

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contribute to global warming to a lesser extent are nitrous oxide (N₂O), sulfur hexafluoride (SF₆), hydrofluorocarbons, perfluorocarbons, and chlorofluorocarbons (IPCC 2001).^{1,2}

The major GHGs applicable to the proposed project are briefly described.

- **Carbon dioxide (CO₂)** enters the atmosphere through the burning of fossil fuels (oil, natural gas, and coal), solid waste, trees and wood products, and respiration, and also as a result of other chemical reactions (e.g., manufacture of cement). Carbon dioxide is removed from the atmosphere (sequestered) when it is absorbed by plants as part of the biological carbon cycle.
- **Methane (CH₄)** is emitted during the production and transport of coal, natural gas, and oil. Methane emissions also result from livestock and other agricultural practices and from the decay of organic waste in landfills and water treatment facilities.
- **Nitrous oxide (N₂O)** is emitted during agricultural and industrial activities as well as during the combustion of fossil fuels and solid waste.

GHGs are dependent on the lifetime, or persistence, of the gas molecule in the atmosphere. Some GHGs have a stronger greenhouse effect than others. These are referred to as high GWP gases. The GWP of GHG emissions are shown in Table 5.7-1, *GHG Emissions and Their Relative Global Warming Potential Compared to CO₂*. The GWP is used to convert GHGs to CO₂-equivalence (CO₂e) to show the relative potential that different GHGs have to retain infrared radiation in the atmosphere and contribute to the greenhouse effect. For example, under IPCC's Fifth Assessment Report (AR5), GWP values for CH₄, 10 MT of CH₄ would be equivalent to 280 MT of CO₂.

¹ Water vapor (H₂O) is the strongest GHG and the most variable in its phases (vapor, cloud droplets, ice crystals); however, water vapor is not considered a pollutant because it is considered part of the feedback loop rather than a primary cause of change.

² Black carbon contributes to climate change both directly, by absorbing sunlight, and indirectly, by depositing on snow (making it melt faster) and by interacting with clouds and affecting cloud formation. Black carbon is the most strongly light-absorbing component of particulate matter (PM) emitted from burning fuels such as coal, diesel, and biomass. The share of black carbon emissions from transportation is dropping rapidly and is expected to continue to do so between now and 2030 as a result of California's air quality programs. The remaining black carbon emissions will come largely from woodstoves/fireplaces, off-road applications, and industrial/commercial combustion (CARB 2022a). However, state and national GHG inventories do not include black carbon due to ongoing work resolving the precise global warming potential of black carbon. Guidance for CEQA documents does not yet include black carbon.

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Table 5.7-1 GHG Emissions and Their Relative Global Warming Potential Compared to CO₂

GHGs	Fourth Assessment Report Global Warming Potential Relative to CO ₂ ¹	Fifth Assessment Report Global Warming Potential Relative to CO ₂ ¹	Sixth Assessment Report Global Warming Potential Relative to CO ₂ ¹
Carbon Dioxide (CO ₂)	1	1	1
Methane (CH ₄) ²	25	28	30
Nitrous Oxide (N ₂ O)	298	265	273

Source: IPCC 1995, 2007, and 2022.

Notes: The IPCC published updated GWP values in its Sixth Assessment Report (AR6) that reflect new information on atmospheric lifetimes of GHGs and an improved calculation of the radiative forcing of CO₂. However, GWP values identified in AR5 are used by the 2022 Scoping Plan for long-term emissions forecasting. Therefore, this analysis utilizes AR5 GWP values consistent with the current Scoping Plan.

¹ Based on 100-year time horizon of the GWP of the air pollutant compared to CO₂.

² The methane GWP includes direct effects and indirect effects due to the production of tropospheric ozone and stratospheric water vapor. The indirect effect due to the production of CO₂ is not included.

Human Influence on Climate Change

For approximately 1,000 years before the Industrial Revolution, the amount of GHGs in the atmosphere remained relatively constant. During the 20th century, however, scientists observed a rapid change in the climate and the quantity of climate change pollutants in the Earth's atmosphere that is attributable to human activities.

The recent IPCC Sixth Assessment Report (AR6) summarizes the latest scientific consensus on climate change. It finds that atmospheric concentrations of CO₂ have increased by 50 percent since the Industrial Revolution and continue to increase at a rate of two parts per million each year. By the 2030s, and no later than 2040, the world will exceed 1.5°C warming (CARB 2022a). These recent changes in the quantity and concentration of climate change pollutants far exceed the extremes of the ice ages, and the global mean temperature is warming at a rate that cannot be explained by natural causes alone. Human activities are directly altering the chemical composition of the atmosphere through the buildup of climate change pollutants (CAT 2006). In the past, gradual changes in the Earth's temperature changed the distribution of species, availability of water, and other conditions. Human activities are accelerating this process so that environmental impacts associated with climate change no longer occur in a geologic time frame but within a human lifetime (IPCC 2007).

Like the variability in the projections of the expected increase in global surface temperatures, the environmental consequences of gradual changes in the Earth's temperature are hard to predict. Projections of climate change depend heavily upon future human activity. Therefore, climate models are based on different emission scenarios that account for historical trends in emissions and on observations of the climate record that assess the human influence of the trend and projections for extreme weather events. Climate-change scenarios are affected by varying degrees of uncertainty. For example, there are varying degrees of certainty on the magnitude of the trends for:

- Warmer and fewer cold days and nights over most land areas.
- Warmer and more frequent hot days and nights over most land areas.
- An increase in frequency of warm spells/heat waves over most land areas.

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- An increase in frequency of heavy precipitation events (or proportion of total rainfall from heavy falls) over most areas.
- Larger areas affected by drought.
- Intense tropical cyclone activity increases.
- Increased incidence of extreme high sea level (excluding tsunamis).

Potential Climate Change Impacts for California

There is at least a greater than 50 percent likelihood that global warming will reach or exceed 1.5°C in the near-term, even for the very low GHG emissions scenario (IPCC 2022). Climate change is already impacting California and will continue to affect it for the foreseeable future. For example, the average temperature in most areas of California is already 1°F (~0.56°C) higher than historical levels, and some areas have seen average increases in excess of 2°F (~1.1°C) (CalOES 2020). The California Fourth Climate Change Assessment identifies the following climate change impacts under a business-as-usual scenario, in which no new actions are taken to curb GHG emissions:

- Annual average daily high temperatures in California are expected to rise by 2.7°F by 2040, 5.8°F by 2070, and 8.8°F by 2100 compared to observed and modeled historical conditions. These changes are statewide averages. Heat waves are projected to become longer, more intense, and more frequent.
- Warming temperatures are expected to increase soil moisture loss and lead to drier seasonal conditions. Summer dryness may become prolonged, with soil drying beginning earlier in the spring and lasting longer into the fall and winter rainy season.
- High heat increases the risk of death from cardiovascular, respiratory, cerebrovascular, and other diseases.
- Droughts are likely to become more frequent and persistent through 2100.³
- Climate change is projected to increase the strength of the most intense precipitation and storm events affecting California.
- Mountain ranges in California are already seeing a reduction in the percentage of precipitation falling as snow. Snowpack levels are projected to decline significantly by 2100 due to reduced snowfall and faster snowmelt.
- Marine layer clouds are projected to decrease, though more research is needed to better understand their sensitivity to climate change.

³ Overall, California has become drier over time, with five of the eight years of severe to extreme drought occurring between 2007 and 2016, and with unprecedented dry years in 2014 and 2015 (OEHHA 2018). Statewide precipitation has become increasingly variable from year to year, with the driest consecutive four years occurring from 2012 to 2015 (OEHHA 2018).

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- Extreme wildfires (i.e., fires larger than 10,000 hectares or 24,710 acres) would occur 50 percent more frequently. The maximum area burned statewide may increase 178 percent by the end of the century.
- Exposure to wildfire smoke is linked to increased incidence of respiratory illness.
- Sea level rise is expected to continue to increase erosion of beaches, cliffs, and bluffs. (CalOES 2020)

Global climate change risks to California are shown in Table 5.7-2, *Summary of GHG Emissions Risks to California*, and include impacts to public health, water resources, agriculture, coastal sea level, forest and biological resources, and energy.

Table 5.7-2 Summary of GHG Emissions Risks to California

Impact Category	Potential Risk
Public Health Impacts	Heat waves will be more frequent, hotter, and longer Fewer extremely cold nights Poor air quality made worse Higher temperatures increase ground-level ozone levels
Water Resources Impacts	Decreasing Sierra Nevada snow pack Challenges in securing adequate water supply Potential reduction in hydropower Loss of winter recreation
Agricultural Impacts	Increasing temperature Increasing threats from pests and pathogens Expanded ranges of agricultural weeds Declining productivity Irregular blooms and harvests
Coastal Sea Level Impacts	Accelerated sea level rise Increasing coastal floods Shrinking beaches Worsened impacts on infrastructure
Forest and Biological Resource Impacts	Increased risk and severity of wildfires Lengthening of the wildfire season Movement of forest areas Conversion of forest to grassland Declining forest productivity Increasing threats from pest and pathogens Shifting vegetation and species distribution Altered timing of migration and mating habits Loss of sensitive or slow-moving species
Energy Demand Impacts	Potential reduction in hydropower Increased energy demand

Sources: CEC 2006, 2009; CCCC 2012; CNRA 2014; CalOES 2020.

5.7.1.2 REGULATORY BACKGROUND

This section describes the federal, state, and local regulations applicable to GHG emissions.

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Federal

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

To regulate GHGs from passenger vehicles, the EPA was required to issue an endangerment finding. The finding identifies emissions of six key GHGs—CO₂, CH₄, N₂O, hydrofluorocarbons, perfluorocarbons, and SF₆—that have been the subject of scrutiny and intense analysis for decades by scientists in the United States and around the world. The first three are applicable to the proposed project's GHG emissions inventory because they constitute the majority of GHG emissions; they are the GHG emissions that should be evaluated as part of a project's GHG emissions inventory.

US Mandatory Reporting Rule for GHGs (2009)

In response to the endangerment finding, the EPA issued the Mandatory Reporting of GHG Rule that requires substantial emitters of GHG emissions (large stationary sources, etc.) to report GHG emissions data. Facilities that emit 25,000 MTCO₂e or more per year are required to submit an annual report.

Update to Corporate Average Fuel Economy Standards (2021 to 2026)

The federal government issued new Corporate Average Fuel Economy (CAFE) standards in 2012 for model years 2017 to 2025, which required a fleet average of 54.5 miles per gallon (mpg) in 2025. On March 30, 2020, the EPA finalized an updated CAFE and GHG emissions standards for passenger cars and light trucks and established new standards covering model years 2021 through 2026, known as the Safer Affordable Fuel Efficient (SAFE) Vehicles Final Rule for Model Years 2021 to 2026. In response to Executive Order (EO) 13990, the National Highway Traffic Safety Administration (NHTSA) announced new proposed fuel standards on August 5, 2021 (NHTSA 2021).

On December 21, 2021, under direction of EO 13990 issued by President Biden, the National Highway Traffic Safety Administration repealed Safer Affordable Fuel Efficient Vehicles Rule Part One, which had preempted state and local laws related to fuel economy standards. In addition, the NHTSA finalized new fuel standards in response to EO 13990. Fuel efficiency under the standards will increase 8 percent annually for model years 2024 to 2025 and 10 percent annually for model year 2026. Overall, the new CAFE standards require a fleet average of 49 mpg for passenger vehicles and light trucks for model year 2026, which would be a 10 mpg increase relative to model year 2021 (NHTSA 2022).

On July 28, 2023, NHTSA proposed new CAFE standards for passenger cars and light trucks built in model years 2027-2032, and new fuel efficiency standards for heavy-duty pickup trucks and vans built in model years 2027-2035. If finalized, the proposal would require an industry fleet-wide average of approximately 58 mpg for passenger cars and light trucks in model year 2032, by increasing fuel economy by 2 percent year over year

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for passenger cars and by 4 percent year over year for light trucks. For heavy-duty pickup trucks and vans, the proposal would increase fuel efficiency by 10 percent year over year (NHTSA 2023).

State

Current state of California guidance and goals for reductions in GHG emissions are generally embodied in EOs S-03-05, B-30-15, and B-55-18, Assembly Bill (AB) 32, AB 1279, Senate Bill (SB) 32, and SB 375.

Executive Order S-03-05

EO S-03-05, signed June 1, 2005, set the following GHG reduction targets for the State:

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

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

AB 32 was passed by the California State legislature on August 31, 2006, to place the State on a course toward reducing its contribution of GHG emissions. AB 32 follows the 2020 tier of emissions reduction targets established in EO S-03-05. CARB prepared the 2008 Scoping Plan to outline a plan to achieve the GHG emissions reduction targets of AB 32.

Executive Order B-30-15

EO B-30-15, signed April 29, 2015, sets a goal of reducing GHG emissions in the State to 40 percent below 1990 levels by year 2030. EO B-30-15 also directs CARB to update the Scoping Plan to quantify the 2030 GHG reduction goal for the State and requires state agencies to implement measures to meet the interim 2030 goal as well as the long-term goal for 2050 in AB 1279. It also requires the Natural Resources Agency to conduct triennial updates of the California adaptation strategy, Safeguarding California, in order to ensure climate change is accounted for in state planning and investment decisions.

Senate Bill 32 and Assembly Bill 197

In September 2016, Governor Brown signed SB 32 and AB 197, making the executive order goal for year 2030 into a statewide, mandated legislative target. AB 197 established a joint legislative committee on climate change policies and requires the CARB to prioritize direct emissions reductions rather than the market-based cap-and-trade program for large stationary, mobile, and other sources.

Executive Order B-55-18

EO B-55-18, signed September 10, 2018, sets a goal “to achieve carbon neutrality as soon as possible, and no later than 2045, and achieve and maintain net negative emissions thereafter.” EO B-55-18 directs CARB to work with relevant state agencies to ensure future Scoping Plans identify and recommend measures to achieve the carbon neutrality goal. The goal of carbon neutrality by 2045 is in addition to other statewide goals, meaning

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not only should emissions be reduced to 80 percent below 1990 levels by 2050, but that, by no later than 2045, the remaining emissions be offset by equivalent net removals of CO_{2e} from the atmosphere, including through sequestration in forests, soils, and other natural landscapes.

2022 Climate Change Scoping Plan

CARB adopted the *2022 Scoping Plan for Achieving Carbon Neutrality* (2022 Scoping Plan) on December 15, 2022, which lays out a path to achieve carbon neutrality by 2045 or earlier and to reduce the State’s anthropogenic GHG emissions (CARB 2022a). The Scoping Plan was updated to address the carbon neutrality goals of EO B-55-18 and the ambitious GHG reduction target as directed by AB 1279. Previous scoping plans focused on specific GHG reduction targets for industrial, energy, and transportation sectors—to meet 1990 levels by 2020, and then the more aggressive 40 percent below that for the 2030 target. This Plan expands upon earlier scoping plans with a target of reducing anthropogenic emissions to 85 percent below 1990 levels by 2045. Carbon neutrality takes it one step further by expanding actions to capture and store carbon, including through natural and working lands and mechanical technologies, while drastically reducing anthropogenic sources of carbon pollution at the same time.

The path forward was informed by the recent IPCC AR6; the measures would achieve 85 percent below 1990 levels by 2045 in accordance AB 1279. CARB’s 2022 Scoping Plan identifies strategies as shown in Table 5.7-3, *Priority Strategies for Local Government Climate Action Plans*, that would be most impactful at the local level for ensuring substantial process toward the State’s carbon neutrality goals.

Table 5.7-3 Priority Strategies for Local Government Climate Action Plans

Priority Area	Priority Strategies
Transportation Electrification	Convert local government fleets to zero-emission vehicles (ZEV) and provide electric vehicle (EV) charging at public sites.
	Create a jurisdiction-specific ZEV ecosystem to support deployment of ZEVs statewide (such as building standards that exceed State building codes, permit streamlining, infrastructure siting, consumer education, preferential parking policies, and ZEV readiness plans).
Vehicle Miles Traveled (VMT) Reduction	Reduce or eliminate minimum parking standards.
	Implement complete streets policies and investments, consistent with general plan circulation element requirements.
	Increase access to public transit by increasing density of development near transit, improving transit service by increasing service frequency, creating bus priority lanes, reducing or eliminating fares, microtransit, and other approaches.
	Increase public access to clean mobility options by planning for and investing in electric shuttles, bike share, car share, and walking.
	Implement parking pricing or transportation demand management pricing strategies.
	Amend zoning or development codes to enable mixed-use, walkable, transit-oriented, and compact infill development (such as increasing allowable density of the neighborhood).
Building Decarbonization	Preserve natural and working lands by implementing land use policies that guide development toward infill areas and do not convert “greenfield” land to urban uses (e.g., green belts, strategic conservation easements).
	Adopt all-electric new construction reach codes for residential and commercial uses.
Building Decarbonization	Adopt policies and incentive programs to implement energy efficiency retrofits for existing buildings, such as weatherization, lighting upgrades, and replacing energy-intensive appliances and equipment with more efficient systems (such as Energy Star-rated equipment and equipment controllers).

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Table 5.7-3 Priority Strategies for Local Government Climate Action Plans

Priority Area	Priority Strategies
	Adopt policies and incentive programs to electrify all appliances and equipment in existing buildings such as appliance rebates, existing building reach codes, or time of sale electrification ordinances.
	Facilitate deployment of renewable energy production and distribution and energy storage on privately owned land uses (e.g., permit streamlining, information sharing).
	Deploy renewable energy production and energy storage directly in new public projects and on existing public facilities (e.g., solar photovoltaic systems on rooftops of municipal buildings and on canopies in public parking lots, battery storage systems in municipal buildings).

Source: CARB 2022a.

Residential and mixed-use development projects including the following key project attributes would accommodate growth in a manner consistent with State GHG reduction and equity prioritization goals. This is the first approach the State recommends for qualitatively determining whether a proposed residential or mixed-use residential development would align with the State's climate goals while simultaneously advancing fair housing.

Key residential and mixed-use project attributes that reduce GHGs:

- Transportation Electrification
 - Provide EV charging infrastructure that, at a minimum, meets the most ambitious voluntary standards in the California Green Building Standards Code at the time of project approval.
- VMT Reduction
 - Is located on infill sites that are surrounded by existing urban uses and reuses or redevelops previously undeveloped or underutilized land that is presently served by existing utilities and essential public services (e.g., transit, streets, water, and sewer).
 - Does not result in the loss or conversion of the State's natural and working lands.
 - Consists of transit-supportive densities (minimum of 20 residential dwelling units/acre), or is in proximity to existing transit stops (within a half mile), or satisfies more detailed and stringent criteria specified in the region's Sustainable Communities Strategy (SCS).
 - Reduces parking requirements by:
 - Eliminating parking requirements or including maximum allowable parking ratios (i.e., the ratio of parking spaces to residential units or square feet); or
 - Providing residential parking supply at a ratio of <1 parking space per dwelling unit; or
 - For multi-family residential development, requiring parking costs to be unbundled from costs to rent or own a residential unit.
 - At least 20 percent of the units are affordable to lower-income residents.
 - Result in no net loss of existing affordable units.

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- Building Decarbonization
 - Use all electric appliances without any natural gas connections and does not use propane or other fossil fuels for space heating, water heating, or indoor cooking.

The second approach to project-level alignment with State climate goals is net zero GHG emissions, especially for new residential development. The third approach to demonstrating project-level alignment with State climate goals is to align with GHG thresholds of significance, which many local air quality management and air pollution control districts have developed or adopted (CARB 2022a).

Assembly Bill 1279

AB 1279, signed by Governor Newsom in September 2022, codifies the carbon neutrality targets of EO B-55-18 for year 2045 and sets a new legislative target for year 2045 of 85 percent below 1990 levels. SB 1279 also requires CARB to update the Scoping Plan to address these new targets.

Senate Bill 375

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

2017 Update to the SB 375 Targets

CARB is required to update the targets for the MPOs every eight years. In June 2017, CARB released updated targets and technical methodology and released another update in February 2018, which became effective in October 2018. CARB adopted the updated targets and methodology on March 22, 2018. All sustainable community's strategies (SCS) adopted after October 1, 2018, are subject to these new targets. The updated targets consider the need to further reduce VMT, as identified in the 2017 Scoping Plan Update, while balancing the need for additional and more flexible revenue sources to incentivize positive planning and action toward sustainable communities. Like the 2010 targets, the updated SB 375 targets are in units of percent per capita reduction in GHG emissions from automobiles and light trucks compared to 2005. This excludes reductions anticipated from implementation of state technology and fuels strategies and any potential future state strategies such as statewide road user pricing. The proposed targets call for greater per-capita GHG emission reductions from SB 375 than are currently in place, which for 2035 translates into proposed targets that either match or exceed the emission reduction levels in the MPOs' currently adopted SCSs. As proposed, CARB staff's proposed targets would result in an additional reduction of over 8 MMTCO_{2e} in 2035 compared to the current targets. For the next round of SCS updates, CARB's updated targets for the SCAG region are an 8 percent per

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capita GHG reduction in 2020 from 2005 levels (unchanged from the 2010 target) and a 19 percent per capita GHG reduction in 2035 from 2005 levels (compared to the 2010 target of 13 percent) (CARB 2018).

Transportation-Sector-Specific Regulations

Advanced Clean Fleets and Advanced Clean Trucks

CARB adopted the Advanced Clean Fleets (ACF) regulation in 2023 to accelerate the transition to zero-emission medium- and heavy-duty vehicles. In conjunction with the Advanced Clean Trucks regulation, the ACF regulations helps to ensure that medium- and heavy-duty ZEVs are brought to the market, by requiring certain fleets to purchase ZEVs. The ACF ZEV phase-in approach provides initial focus where the best fleet electrification opportunities exist, sets clear targets for regulated fleets to make a full conversion to ZEVs, and creates a catalyst to accelerate development of a heavy-duty public charging infrastructure network.

Assembly Bill 1493

California vehicle GHG emission standards were enacted under AB 1493 (Pavley I). Pavley I is a clean-car standard that reduces GHG emissions from new passenger vehicles (light-duty auto to medium-duty vehicles) from 2009 through 2016 and was anticipated to reduce GHG emissions from new passenger vehicles by 30 percent in 2016. California implements the Pavley I standards through a waiver granted to California by the EPA. In 2012, the EPA issued a Final Rulemaking that sets even more stringent fuel economy and GHG emissions standards for model years 2017 through 2025 light-duty vehicles. See also the previous discussion in federal regulations under “Update to Corporate Average Fuel Economy Standards (2017 to 2026).”

In January 2012, CARB approved the Advanced Clean Cars program (formerly known as Pavley II) for model years 2017 through 2025. The program combines the control of smog, soot, and GHGs with requirements for greater numbers of ZE vehicles into a single package of standards. Under California’s Advanced Clean Car program, by 2025 new automobiles will emit 34 percent less GHG emissions and 75 percent less smog-forming emissions.

Executive Order S-01-07

On January 18, 2007, the State set a new low-carbon fuel standard (LCFS) for transportation fuels sold in the State. EO S-01-07 set a declining standard for GHG emissions measured in CO₂e gram per unit of fuel energy sold in California. The LCFS required a reduction of 2.5 percent in the carbon intensity of California’s transportation fuels by 2015 and a reduction of at least 10 percent by 2020. The standard applied to refiners, blenders, producers, and importers of transportation fuels, and used market-based mechanisms to allow these providers to choose the most economically feasible methods for reducing emissions during the “fuel cycle.”

Executive Order B-16-2012

On March 23, 2012, the State identified that CARB, the California Energy Commission (CEC), the Public Utilities Commission, and other relevant agencies worked with the Plug-in Electric Vehicle Collaborative and the California Fuel Cell Partnership to establish benchmarks to accommodate ZE vehicles in major metropolitan areas, including infrastructure to support them (e.g., electric vehicle charging stations). EO B-16-2012 also directed the number of ZE vehicles in California’s state vehicle fleet to increase through the normal

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course of fleet replacement so that at least 10 percent of fleet purchases of light-duty vehicles are ZE by 2015 and at least 25 percent by 2020. The executive order also established a target for the transportation sector of reducing GHG emissions to 80 percent below 1990 levels.

Executive Order N-79-20

On September 23, 2020, Governor Newsom signed EO N-79-20, whose goal is that 100 percent of in-state sales of new passenger cars and trucks will be ZE by 2035. Additionally, the fleet goals for trucks are that 100 percent of drayage trucks are ZE by 2035, and 100 percent of medium- and heavy-duty vehicles in the State are ZE by 2045, where feasible. The EO's goal for the 2 is to transition to 100 percent ZE off-road vehicles and equipment by 2035, where feasible. In August 2022, CARB approved the new Advanced Clean Cars II standards that will ensure all new passenger cars, trucks and SUVs sold in the State will be zero-emitting by 2035 (CARB 2024). The Advanced Clean Cars II standards will amend the Zero-Emission Vehicle Regulation to require an increase in zero-emission vehicles and amends the Low-Emission Vehicle Regulations to include more stringent standards for gasoline cars and heavier passenger trucks to continue to reduce smog-forming emissions.

Renewables Portfolio: Carbon Neutrality Regulations

Senate Bills 1078, 107, and X1-2 and Executive Order S-14-08

A major component of California's Renewable Energy Program is the renewables portfolio standard established under SBs 1078 (Sher) and 107 (Simitian). Under the Renewable Portfolio Standard (RPS), certain retail sellers of electricity were required to increase the amount of renewable energy each year by at least 1 percent in order to reach at least 20 percent by December 30, 2010. EO S-14-08, signed in November 2008, expanded the State's renewable energy standard to 33 percent renewable power by 2020. This standard was adopted by the legislature in 2011 (SB X1-2). Renewable sources of electricity include wind, small hydropower, solar, geothermal, biomass, and biogas. The increase in renewable sources for electricity production decreases indirect GHG emissions from development projects because electricity production from renewable sources is generally considered carbon neutral.

Senate Bill 350

SB 350 (de Leon) was signed into law in September 2015 and establishes tiered increases to the RPS—40 percent by 2024, 45 percent by 2027, and 50 percent by 2030. SB 350 also set a new goal to double the energy-efficiency savings in electricity and natural gas through energy efficiency and conservation measures.

Senate Bill 100

On September 10, 2018, Governor Brown signed SB 100. Under SB 100, the RPS for public-owned facilities and retail sellers consists of 44 percent renewable energy by 2024, 52 percent by 2027, and 60 percent by 2030. SB 100 also established a new RPS requirement of 50 percent by 2026. Furthermore, the bill establishes an overall state policy that eligible renewable energy resources and zero-carbon resources supply 100 percent of all retail sales of electricity to California end-use customers and 100 percent of electricity procured to serve all state agencies by December 31, 2045. Under the bill, the State cannot increase carbon emissions elsewhere in the western grid or allow resource shuffling to achieve the 100 percent carbon-free electricity target.

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Senate Bill 1020

SB 1020 was signed into law on September 16, 2022. SB 1020 provides interim RPS targets (90 percent renewable energy by 2035 and 95 percent renewable energy by 2040) and requires renewable energy and zero-carbon resources to reach 100 percent clean electricity by 2045.

Energy Efficiency Regulations

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 [CCR]). Title 24 requires the design of building shells and building components to conserve energy. The standards are updated periodically to allow for the 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, and 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, multifamily buildings (i.e., more than three stories) and noncommercial buildings such as hotels, offices, medical offices, restaurants, retail stores, schools, warehouses, theaters, and convention centers (CEC 2022).

California Building Code: CALGreen

On July 17, 2008, the California Building Standards Commission adopted the nation's first green building standards. The California Green Building Standards Code (24 CCR, Part 11, known as "CALGreen") was adopted as part of the California Building Standards Code. CALGreen established planning and design standards for sustainable site development, energy efficiency (in excess of the California Energy Code requirements), water conservation, material conservation, and internal air contaminants. The mandatory provisions of CALGreen became effective January 1, 2011, and were last updated in 2022. The 2022 CALGreen standards became effective on January 1, 2023.

2006 Appliance Efficiency Regulations

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

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Solid Waste Diversion Regulations

AB 939: Integrated Waste Management Act of 1989

California's Integrated Waste Management Act of 1989 (AB 939, Public Resources Code Section 40050 et seq.) set a requirement for cities and counties throughout the State to divert 50 percent of all solid waste from landfills by January 1, 2000, through source reduction, recycling, and composting. In 2008, the requirements were modified to reflect a per capita requirement rather than tonnage. To help achieve this, the Act requires that each city and county prepare and submit a source reduction and recycling element. AB 939 also established the goal for all California counties to provide at least 15 years of ongoing landfill capacity.

AB 341

AB 341 (Chapter 476, Statutes of 2011) increased the statewide goal for waste diversion to 75 percent by 2020 and requires recycling of waste from commercial and multifamily residential land uses. Section 5.408 of CALGreen also requires that at least 65 percent of the nonhazardous construction and demolition waste from nonresidential construction operations be recycled and/or salvaged for reuse.

AB 1327

The California Solid Waste Reuse and Recycling Access Act (AB 1327, Public Resources Code Section 42900 et seq.) requires areas to be set aside for collecting and loading recyclable materials in development projects. The act required the California Integrated Waste Management Board to develop a model ordinance for adoption by any local agency requiring adequate areas for collection and loading of recyclable materials as part of development projects. Local agencies are required to adopt the model or an ordinance of their own.

AB 1826

In October of 2014, Governor Brown signed AB 1826 requiring businesses to recycle their organic waste on and after April 1, 2016, depending on the amount of waste they generate per week. This law also requires that on and after January 1, 2016, local jurisdictions across the State implement an organic waste recycling program to divert organic waste generated by businesses and multifamily residential dwellings with five or more units. Organic waste means food waste, green waste, landscape and pruning waste, nonhazardous wood waste, and food-soiled paper waste that is mixed with food waste.

Water Efficiency Regulations

SBX7-7

The 20x2020 Water Conservation Plan was issued by the Department of Water Resources (DWR) in 2010 pursuant to Senate Bill 7, which was adopted during the 7th Extraordinary Session of 2009–2010 and therefore dubbed “SBX7-7.” SBX7-7 mandated urban water conservation and authorized the DWR to prepare a plan implementing urban water conservation requirements (20x2020 Water Conservation Plan). In addition, it required agricultural water providers to prepare agricultural water management plans, measure water deliveries to customers, and implement other efficiency measures. SBX7-7 required urban water providers to adopt a water conservation target of a 20 percent reduction in urban per capita water use by 2020 compared to 2005 baseline use.

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AB 1881: Water Conservation in Landscaping Act

The Water Conservation in Landscaping Act of 2006 (AB 1881) requires local agencies to adopt the updated DWR model ordinance or an equivalent. AB 1881 also requires the CEC to consult with the DWR to adopt, by regulation, performance standards and labeling requirements for landscape irrigation equipment, including irrigation controllers, moisture sensors, emission devices, and valves, to reduce the wasteful, uneconomic, inefficient, or unnecessary consumption of energy or water.

Short-Lived Climate Pollutant Reduction Strategy

Senate Bill 1383

On September 19, 2016, the Governor signed SB 1383 to supplement the GHG reduction strategies in the Scoping Plan to consider short-lived climate pollutants, including black carbon and CH₄. Black carbon is the light-absorbing component of fine particulate matter produced during incomplete combustion of fuels. SB 1383 required the State board no later than January 1, 2018, to approve and begin implementing a comprehensive strategy to reduce emissions of short-lived climate pollutants to achieve a reduction in methane by 40 percent, hydrofluorocarbon gases by 40 percent, and anthropogenic black carbon by 50 percent below 2013 levels by 2030. The bill also established targets for reducing organic waste in landfills. On March 14, 2017, CARB adopted the Short-Lived Climate Pollutant Reduction Strategy, which identifies the State's approach to reducing anthropogenic and biogenic sources of short-lived climate pollutants. Anthropogenic sources of black carbon include on- and off-road transportation, residential wood burning, fuel combustion (charbroiling), and industrial processes. According to CARB, ambient levels of black carbon in California are 90 percent lower than in the early 1960s, despite the tripling of diesel fuel use (CARB 2017). In-use on-road rules are expected to reduce black carbon emissions from on-road sources by 80 percent between 2000 and 2020.

Regional

SCAG's 2024-2050 RTP/SCS

SB 375 requires each MPO to prepare a sustainable communities strategy in its regional transportation plan (RTP/SCS). For the SCAG region, the 2024-2050 RTP/SCS, Connect SoCal, was adopted on April 4, 2024, and is an update to the 2020-2045 RTP/SCS. In general, the RTP/SCS outlines a development pattern for the region that, when integrated with the transportation network and other transportation measures and policies, would reduce VMT from automobiles and light duty trucks and thereby reduce GHG emissions from these sources.

Connect SoCal focuses on the continued efforts of the previous RTP/SCSs to integrate transportation and land use strategies in development of the SCAG region through the horizon year 2050 (SCAG 2024). Connect SoCal forecasts that the SCAG region will meet its GHG per capita reduction targets of 8 percent by 2020 and 19 percent by 2035. It also forecasts that implementation of the plan will reduce VMT per capita in year 2050 by 6.3 percent compared to baseline conditions for that year. Connect SoCal includes a "Core Vision" that centers on maintaining and better managing the transportation network for moving people and goods, while expanding mobility choices by locating housing, jobs, and transit closer together; and increasing investments in transit and complete streets (SCAG 2024).

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Local

City of Redondo Beach General Plan

Utilities Element

The Redondo Beach General Plan includes the Utilities Element which describes the sewer, storm drainage, and water infrastructure in the City and contains goals, objectives, policies, and implementation programs that guide the City's management of these utilities. Policies of the Utilities Element that are applicable to GHG emission are listed below.

Goal 6A: Establish and maintain adequate planning, construction, maintenance, and funding for sanitary sewer collection and treatment facilities to support and serve the various land uses and intensities of development in the city and protect public health and safety; upgrading existing deficient systems, and expanding the system, where necessary. The services shall be provided and system operated in an ecologically-sensitive manner.

Objective 6.1: Provide a comprehensive and modern system of sanitary sewer collection and treatment facilities which will adequately collect, convey, and treat sewerage generated by existing and future development in the City. The services shall be provided and system operated in an ecologically-sensitive manner.

- **Policy 6.1.10.** Examine the feasibility and potential for the use of reclaimed water for irrigation and cleaning purposes, in both public and private facilities.
- **Policy 6.1.11.** Wherever applicable and feasible, the City of Redondo Beach shall require that major water users in the community install systems for the collection of and use of reclaimed water as an irrigation and cleaning source.

Goal 6B: Establish and maintain adequate planning, construction, maintenance, and funding for storm drainage facilities to support and serve the various land uses and intensities of development in the city and protect public health and safety; upgrading existing deficient systems and expanding the system, where necessary. The services shall be provided and system operated in an ecologically-sensitive manner.

Objective 6.2: Ensure the provision of a comprehensive and modern system of storm drainage facilities that will adequately collect, convey, and remove/dispose of the quantities of storm water and excess water that are generated in the City. The services shall be provided and system operated in an ecologically-sensitive manner.

- **Policy 6.2.13.** Evaluate the potential feasibility of collecting and using reclaimed excess storm water for irrigation and other non-potable uses, and implement such uses where possible.

Goal 6C: Ensure adequate planning, maintenance, and operation of a modern, safe, and effective system of supply, distribution, transmission, and storage of water to meet the needs of the community; encouraging the upgrading of existing deficient systems and expansion, where necessary, in the city. The services shall be provided and system operated in an ecologically-sensitive manner.

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Objective 6.3: Provide a modern and efficient system of transmission, distribution, and storage of water supplies to the City capable of meeting the normal daily and peak hour demands of the community, including adequate fire flow requirements, to meet existing and future water demand in a timely and cost-effective manner.

- **Policy 6.3.5.** Improve and enhance cooperation and communication with the California Water Service Company, the West Basin Municipal Water District, and Metropolitan Water District officials (or any future purveyors of water to the City) to promote effective planning and ensure the most efficient operation and maintenance of the City's water supply, transmission, distribution, and storage system and facilities.
- **Policy 6.3.10.** Ensure the prudent use of local water resources by the City of Redondo Beach municipal government by continuing to install and maintain drought-tolerant landscaping and adequate and operationally efficient irrigation systems in its parks, parkways, and median strips.
- **Policy 6.3.11.** Encourage the use of reclaimed water for landscape, grading, industrial, and other state and County health approved purposes as service is provided in the City by the West Basin Municipal Water District.
- **Policy 6.3.13.** Work with the City's water providers to encourage local residents, businesses, and industries to store and re-use gray water.

Goal 6E: Provide an adequate, safe, and orderly supply of natural gas to support the various existing and future land uses and development intensities in the city. The services shall be provided and system operated in an ecologically-sensitive manner.

Objective 6.5: Work actively with the Southern California Gas Company (or any future purveyor of natural gas to the City) to ensure that adequate natural gas facilities and capacities are available to meet the average daily and peak natural gas energy needs of existing and future development in the City.

- **Policy 6.5.1.** Improve and enhance cooperation and communication with the Southern California Gas Company (or any future purveyor of natural gas to the City) to promote effective planning and ensure the most efficient and safe operation and maintenance of the City's natural gas supply system and facilities.

Goal 6H: Ensure the continued safe operation of petroleum extraction and transportation facilities throughout the city. The facilities and systems shall be operated in an ecologically-sensitive manner.

Objective 6.8: Work to ensure that all petroleum extraction and transportation facilities in the City are operated and maintained in the most safe and effective manner available using existing technology and industry practices.

- **Policy 6.8.1.** Improve and enhance cooperation and communication with the various petroleum or utility companies operating in the City to promote effective planning and ensure the most efficient operation, maintenance, and monitoring of the City's petroleum extraction and transportation system and facilities.

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Solid Waste Management and Recycling Element

The City of Redondo Beach General Plan includes a Solid Waste Management and Recycling Element that describes solid waste collection and recycling programs within the City and contains goals, objectives, policies, and implementation programs that guide the City's management of solid waste programs. The following policies from the Solid Waste Management and Recycling Element are applicable to GHG emissions for the proposed project:

Goal 7A: Promote, develop, and maintain a comprehensive plan and strategy to manage the city's solid waste collection, transportation, and management in an efficient and environmentally sensitive manner, and in accordance with all applicable state laws.

Objective 7.1: Ensure that all available means of modern and efficient solid waste collection, transportation, and management are provided to the residential, commercial, and industrial uses.

- **Policy 7.1.1.** The City of Redondo Beach shall actively participate and interact with other local cities, state and regional governments/agencies and planning bodies, and local and regional solid waste removal purveyors in pursuing and securing responsible long-term solutions for solid waste removal. These solutions may include, but, not be limited to: a) the securing of additional capacity and life span for existing operational landfills; b) the construction and operation of new solid waste landfills; and c) the construction and operation of “waste-to-energy” facilities.
- **Policy 7.1.2.** The City of Redondo Beach (principally through the Department of Public Works) shall continue to analyze and interpret solid waste generation rates, waste removal practices, and other events and trends related to solid waste generation and removal, to further increase the effectiveness and efficiency of its removal and increase the potential and practice of solid waste management/reduction and recycling programs.

Circulation Element

The Redondo Beach General Plan Transportation and Circulation Element provides goals and policies for transportation development. Relevant goals of the Element related to GHG emissions include:

Goal: Coordinate land transportation use.

G6. Redondo Beach favors development that purposefully integrates itself with surrounding transportation facilities.

- **P1.** Support transit-oriented development that reduces current automobile trips.
- **P4.** Encourage mixed-use development that incentivizes residents to support nearby land uses by minimizing travel distances.

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Goal: Take action on climate change.

G7. To comply with State legislation, Redondo Beach will implement plans and programs to reduce greenhouse gas emissions.

Goal: Plan regionally.

G8. Redondo Beach will actively participate in subregional transportation planning efforts in order to protect the City's quality of life and maximize its voice in cooperative sub-regional solutions.

- **P7.** Coordinate with SCAG to produce RHNA numbers that address regional disparities in the jobs/housing balance in accordance with population density.
- **P11. Traffic impact mitigation.** The Public Works Commission should annually review the status of intersections requiring improvement, and report back on progress to date and plans for the upcoming year. Redondo Beach has expressed the following traffic mitigation preferences, in order of priority:
 1. Design the project to minimize or avoid the impact
 2. Demonstrate project has maximized utilization of all travel modes
 3. Modify traffic signal timing
 4. Modify existing turn storage
 5. Add travel lanes within existing right-of-way
 6. Make improvements requiring additional right-of-way

When a project is desirable, but it will not meet LOS standards and the above mitigations are infeasible, additional TDM and transit enhancements will be required.

Goal: Pursue transportation demand management.

G12. Encourage all employers to pursue successful TDM measures already demonstrated in Southern California.

- **P17.** Provide incentives for employer-based vanpools.
- **P21.** Work with adjacent cities to coordinate incentives for carpools, vanpools, and other measures for Redondo Beach residents.

Goal: Pursue bicycle and pedestrian priorities.

G13. Link existing and proposed facilities.

Goal: Enhance bicycle infrastructure.

G14. Increase the provision of bike lockers, bike racks, and lighting for bike facilities.

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- **P23.** Focus on access at transit stations, the waterfront, South Bay Galleria, Artesia Boulevard, Riviera Village, Pacific Coast Highway retail zones, and school zones.

Goal: Create opportunities for physical activity.

G15. Ensure that residents will be able to walk or bicycle to destinations such as the beach, the Civic Center, Redondo Beach Pier, Riviera Village, and other activity centers.

- **P29.** Provide climate-appropriate landscaping, adequate lighting, and street amenities to make walking safe, interesting, and enjoyable.

GOAL: Pursue transit priorities.

G16. Provide reliable, safe fixed-route transit.

- **P32.** Create multi-modal transit hubs.

City of Redondo Beach Municipal Code

According to Chapter 23, Green Building Standards, the City has adopted the 2022 California Green Building Standards Code (24 CCR Part 11), which provides regulations for energy efficiency, water efficiency, material conservation, environmental quality, and more. The City has also adopted the 2022 California Energy Code (24 CCR Part 6) in Chapter 27, Energy Code.

Environmental Review Pursuant to CEQA

Title 10, Chapter 3, Environmental Review Pursuant to CEQA, of the Redondo Beach Municipal Code establishes the specific procedures necessary to implement CEQA. Article 2, Evaluation of Significant Effects, establishes criteria for determining significant effects and provides guidance in making an evaluation whether or not a particular project may have a substantial adverse effect on the environment. Pursuant to the Municipal Code, if there are inconsistencies between the provisions contained in Title 10, Chapter 3, and the State's CEQA Guidelines, the State's CEQA Guidelines shall control. As established in Section 10-3.202, significant effects may be due to primary consequences immediately related to the project or may be due to secondary consequences related more to the primary consequences than the project itself. As established in Section 10-3.203(b), with respect to GHG emissions, a project will normally have a significant effect on the environment if it will encourage activities which result in the use of large amounts of fuel, water, or energy and/or use fuel, water, or energy in a wasteful manner.

City of Redondo Beach Climate Action Plan

The City of Redondo Beach, in cooperation with the South Bay Cities Council of Governments, adopted a Climate Action Plan (CAP) in December 2017 to reduce GHG emissions within the City. The City's CAP serves as a guide for action by setting GHG emission reduction goals and establishing strategies and policies to achieve desired outcomes over the next 20 years (Redondo Beach 2017). The City's CAP identifies community-wide strategies to lower GHG emissions from a range of sources within the jurisdiction, including land use and transportation, energy efficiency, solid waste, urban greening, and energy generation/storage. The City set

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GHG emission reduction goals consistent with the state's AB 32 GHG emission reduction targets of 15 percent below 2005 levels by 2020 and a longer-term goal for year 2035 to reduce emissions by 49 percent below 2005 levels. These goals would put the City on a path towards helping the state meet its long-term 2050 goal to reduce emissions by 80 percent below 1990 levels. The City's CAP also recommends implementation and monitoring steps for the City to follow to enable the City staff to make regular adjustments to the CAP.

5.7.1.3 EXISTING CONDITIONS

California's GHG Sources and Relative Contribution

In 2022, the statewide GHG emissions inventory was updated for 2000 to 2020 emissions using the GWPs in IPCC's AR4, and reported that California produced 369.2 MMTCO_{2e} GHG emissions in 2020 (CARB 2022a), which was 35.3 MMTCO_{2e} lower than 2019 levels and 61.8 MMTCO_{2e} below the 2020 GHG Limit of 431 MMTCO_{2e}. The 2019 to 2020 decrease in emissions is likely due in large part to the impacts of the COVID-19 pandemic. However, since the peak level in 2004, California's GHG emissions have generally followed a decreasing trend. In 2014, statewide GHG emissions dropped below the 2020 GHG limit and have remained below the limit since that time. Per capita GHG emissions in California have dropped from a 2001 peak of 13.8 metric tons per person to 9.3 metric tons per person in 2020, a 33 percent decrease (CARB 2022b).

California's transportation sector remains the largest generator of GHG emissions, producing 37 percent of the State's total emissions in 2020. Industrial sector emissions made up 20 percent and electric power generation made up 16 percent of the State's emissions inventory. Other major sectors of GHG emissions include commercial and residential (4 percent), agriculture and forestry (8.6 percent), high-GWP gases (5.8 percent), and recycling and waste (2 percent) (CARB 2022b).

Transportation emissions continued to decline for the past three consecutive years with the rise of fuel efficiency for the passenger vehicle fleet and an increase in battery electric vehicles. The deployment of renewable and less-carbon-intensive resources and higher energy efficiency standards have facilitated the continuing decline in fossil fuel electricity generation. The industrial sector trend has been relatively flat in recent years but saw a decrease of 7.1 MMTCO_{2e} in 2020. Commercial and residential emissions saw a decrease of 1.7 MMTCO_{2e}. Emissions from high-GWP gases have continued to increase as they replace ozone-depleting substance that are being phased out under the 1987 Montreal Protocol. Emissions from other sectors have remained relatively constant in recent years. Overall trends in the inventory also continue to demonstrate that the carbon intensity of California's economy (i.e., the amount of carbon pollution per million dollars of gross domestic product) is declining. From 2000 to 2020, the carbon intensity of California's economy decreased by 49 percent while the gross domestic product increased by 56 percent (CARB 2022b).

Existing Communitywide GHG Emissions

The existing land uses in Redondo Beach consist of residential, commercial, mixed residential and commercial, industrial, and public uses. Operation of these land uses generates GHG emissions from natural gas used for energy, heating, and cooking; electricity usage; vehicle trips for employees and residents; area sources such as

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landscaping equipment and consumer cleaning products; water demand; waste generation; and solid waste generation.⁴

Table 5.7-4, *Existing City of Redondo Beach GHG Emissions Inventory*, shows the emissions associated with existing land uses in the City.

Table 5.7-4 Existing City of Redondo Beach GHG Emissions Inventory

Sector	Existing MTCO ₂ e/year	Percent of Total
Building Electricity	112,885	27%
Building Natural Gas	59,329	14%
On-Road Transportation	187,753	46%
Off-Road Vehicles and Equipment	8,125	2.0%
Solid Waste/Landfills	6,292	1.5%
Refrigerants	33,262	8%
Water Use	2,125	0.5%
Wastewater Treatment	968	0%
Total	410,739	100%
Service Population (SP)¹	98,949	NA
MTCO₂e/SP	4.2	NA

Source: Appendix C.

Note: Totals may not add to 100% due to rounding.

¹ Service Population (SP) consists of the aggregate of total employees and population within the City.

5.7.2 Thresholds of Significance

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

- 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.

5.7.2.1 CONSISTENCY WITH STATEWIDE GHG REDUCTION TARGETS

The General Plan Update forecasts growth in the City through year 2050; therefore, this EIR analyzes the potential for the 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

⁴ Emissions from water demand and wastewater are emissions associated with electricity used to supply, treat, and distribute water.

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reduction in GHG emissions by 2045 to stabilize CO₂e emissions and avoid the most catastrophic impacts of climate change as well as substantial progress toward carbon neutrality.⁵

Based on the City's existing inventory in Table 5.7-5, *City of Redondo Beach GHG Emissions Forecast*, a trajectory consistent with the State's GHG emissions targets would be:

- 61,611 MTCO₂e by Year 2050

5.7.2.2 MASS EMISSIONS AND HEALTH EFFECTS

On December 24, 2018, in *Sierra Club et al. v. County of Fresno et al.* (Friant Ranch), the California Supreme Court determined that the EIR for the proposed Friant Ranch project failed to adequately analyze the project's air quality impacts on human health. The EIR prepared for the project, which involved a master planned retirement community in Fresno County, showed that project-related mass emissions would exceed the San Joaquin Valley Air Pollution Control District's regional significance thresholds. In its findings, the California Supreme Court affirmed the holding of the Court of Appeal that EIRs for projects must not only identify impacts to human health, but also provide an "analysis of the correlation between the project's emissions and human health impacts" related to each criterion air pollutant that exceeds the regional significance thresholds or explain why it could not make such a connection. In general, the ruling focuses on the correlation of emissions of toxic air contaminants and criteria air pollutants and their impact to human health.

In 2009, the EPA issued an endangerment finding for six GHGs (CO₂, CH₄, N₂O, HFCs, PFCs, and SF₆) in order to regulate GHG emissions from passenger vehicles. The endangerment finding is based on evidence that shows an increase in mortality and morbidity associated with increases in average temperatures, which increase the likelihood of heatwaves and ozone levels. The effects of climate change are identified in Table 5.7-2. Though identified effects such as sea level rise and increased extreme weather can indirectly impact human health, neither the EPA nor CARB has established ambient air quality standards for GHG emissions. The State's GHG reduction strategy outlines a path to avoid the most catastrophic effects of climate change. Yet the State's GHG reduction goals and strategies are based on the State's path toward reducing statewide cumulative GHGs as outlined in AB 32, SB 32, EO S-03-05, and AB 1279.

The two significance thresholds that the City uses to analyze GHG impacts are based on achieving the statewide GHG reduction goals (GHG-1) and relying on consistency with policies or plans adopted to reduce GHG emissions (GHG-2). Further, because no single project is large enough to result in a measurable increase in global concentration of GHG emissions, climate change impacts of a project are considered on a cumulative

⁵ The 2022 Scoping Plan includes statewide measures to achieve the state's carbon neutrality goals under Executive Order B-55-18 such as carbon dioxide removal (CDR) that are not applicable to local governments. Carbon neutrality goals are a "no impact" level and not a "less than significant" impact level for climate change effects. There are presently no reliable means of forecasting how future technological developments related to carbon dioxide removal may affect future emissions in a planning jurisdiction. Therefore, carbon neutrality targets are not directly applicable to local governments and CEQA projects to mitigate GHG emissions impacts of a proposed project. Moreover, AB 1279 GHG reduction targets for 2045 are in line with the scientifically established levels needed in the U.S. to limit global warming below 1.5 to 2.0 degrees Celsius, the warming threshold at which scientists say there will likely be major climate disruptions such as super droughts and rising sea levels. For these reason, the targets of AB 1279 are applicable to the EIR. However, the CAP includes measures that align with the state's carbon neutrality goals under Executive Order B-55-18 and per-capita targets under SB 32.

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basis. Without federal ambient air quality standards for GHG emissions and given the cumulative nature of GHG emissions and the City's significance thresholds, which are tied to reducing the State's cumulative GHG emissions, it is not feasible at this time to connect the project's specific GHG emissions to the potential health impacts of climate change.

5.7.3 General Plan Update Goals and Policies

Land Use Element

Goal LU-1 Balance: A sustainable community with a range of land uses that meet the diverse needs of Redondo Beach residents, offer a variety of employment, commercial, recreational, and housing opportunities that make it possible for people of all ages and abilities to live, work, recreate, and maintain a high quality of life in Redondo Beach.

- **Policy LU-1.2: Inclusivity.** Provide for a mix of land uses to create a complete community where residents of all ages and abilities, employers, workers, and visitors have a broad range of choices of where they can live, work, shop and recreate within Redondo Beach.
- **Policy LU-1.4. Jobs-Housing Balance.** Create a place to live and a place to work that seeks to match its residents to jobs and promotes a workforce/ jobs balance.
- **Policy LU-1.9. Employment Opportunities.** Provide a broad spectrum of land uses and development that offer employment opportunities for current and future Redondo Beach residents.
- **Policy LU-1.10. Transit Oriented Development.** Encourage job centers with a potential affordable workforce housing component in close proximity (within 1/4 mile) to the bus transit center and current and future light rail stations.
- **Policy LU-1.14. Existing Commercial Uses in Residential Designations.** Allow for the continuation neighborhood serving business and institutional uses currently existing in residential designations. Incentivize investment in, and improvements to, these uses, including maintenance, remodels or potential building additions.

Goal LU-2 Identity: A dynamic, progressive city containing self-sufficient, health-oriented, neighborhoods and commercial districts that foster a positive sense of identity and belonging among residents, visitors, and businesses.

- **Policy LU-2.8. Pedestrian access.** For new development, encourage pedestrian access and create strong building entries that are primarily oriented to the street.

Goal LU-3 Compatibility: Preserve and improve the character and integrity of existing neighborhoods and districts.

- **Policy LU-3.6 Active Transportation.** Invest in active transportation connectivity between commercial corridors/job centers and residential neighborhoods to encourage healthy lifestyles.

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- **Policy LU-3.7 Access to Transit.** Support the location of transit stations and enhanced stops near the Galleria (along Hawthorne Boulevard) and North Tech District to facilitate and take advantage of transit service, reduce vehicle trips and allow residents without private vehicles to access services.
- **Policy LU-3.8 Corridor Connectivity.** Recognize corridors as important cross-town thoroughfares that connect Redondo Beach, serve as transitions between neighborhoods, provide opportunities for local/neighborhood-serving retail and balance the needs of multiple transportation modes. Consider mid-block pass through between parking areas within the corridors and between the corridors and adjacent residential neighborhoods. Specifically target power line and transportation rights of way as pedestrian and bicycle corridors to connect amenities across the city and in nearby communities. Work with neighboring communities to integrate and connect these pedestrian and bicycle corridors across city boundaries.
- **Policy LU-3.10 Utility Corridors.** Develop plans and programs for the reuse of infrastructure and utility properties and easements as they are currently managed and should they no longer be required for their currently intended primary use and operations. In particular, the City shall target these corridors to provide active and passive uses and recreational amenities including bicycle and pedestrian paths to create connectivity to city-wide amenities and amenities located in neighboring cities.

Goal LU-4 Health and Vitality: A vibrant community that supports the healthy and active lifestyles of residents and visitors.

- **Policy LU-4.4 New Open Space and Parkland Opportunities.** Preserve, invest in, and expand open space and parkland opportunities for active and passive recreational public and private open spaces. Work with future developments along commercial corridors and other nonresidential developments to create useable public open spaces to enhance the commercial neighborhood experience for residents and visitors alike.
- **Policy LU-4.6 Connectivity.** Facilitate bicycling and pedestrian linkages to parks, beaches, tourist destinations, recreational amenities, open spaces and parks, and commercial destinations via the City's street, pedestrian, bicycle, and transit networks in a way that is visually appealing and safe to encourage local residents and visitors to minimize the use of automobiles. Focus on expanding connectivity through the addition of pedestrian and bike paths on public utility and transportation rights of way. Create additional mid block connections (pass throughs) from adjacent residential neighborhoods into commercial corridors and create connections between adjacent commercial businesses.

Goal LU-5 Environmental Sustainability: An environmentally aware community that utilizes tools, strategies and approaches that protect and minimizes the impacts to the City's environmental resources.

- **Policy LU-5.1: Environmental Sustainability.** Ensure that new development is sensitive to the City's stewardship of the environment. Provide measures to minimize the impacts of future development on air quality, runoff, water use, trash generation (and its impacts on the ocean), noise, and traffic (including things such as exhaust generated from underperforming intersections).

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Goal LU-6 Economic Sustainability: A financially healthy city with a balanced mix of land uses and special funding and financing districts that increase resources to invest in public facilities and services.

- **Policy LU-6.22 Home Based Businesses.** Encourage and incentivize the creation of new home-based businesses to support job creation in the City and to help reduces commuter trips in and out of the City.

Open Space & Conservation Element

Goal OS-1 Quantity, Location, and Access: A comprehensive, accessible, and well-balanced network of high-quality parks, public spaces, and recreational facilities that enhances the livability, wellness, and connectivity of the community.

- **Policy OS-1.8 Access.** Provide safe, convenient, and enjoyable routes for residents of all ages, abilities, and income to access the City's open spaces and recreational facilities on foot, bike, and public transit. Provide appropriate bicycle and vehicular parking for all parks, coastal open spaces, and public spaces.
- **Policy OS-1.9 Urban Greening.** Improve access routes to parks and recreational facilities through urban greening programs that enhance the City's urban forest, provide shade, and incorporate best practices for sustainable landscaping emphasizing drought tolerant native plants and conservation.
- **Policy OS-1.10 Regional Trails.** Coordinate with neighboring jurisdictions and other agencies to connect new and existing parks and public spaces to other desirable destinations beyond City boundaries via pedestrian, bicycle, and other urban trails that are part of the larger regional trail network, including the Manhattan and Hermosa Beach Greenbelt and the Strand bicycle and pedestrian connections, creating a greenbelt to the sea.

Goal OS-4 Programs and Events: A recreation program with a wide variety of services, activities, and events designed to satisfy the diverse needs, traditions, and interests of residents of all ages, abilities, and incomes.

- **Policy OS-4.5 Resiliency Programs.** Provide programs for sharing resources with the community about climate change, opportunities to reduce emissions, and techniques to increase resilience, showcases for sustainability, energy efficiency, and low carbon building, and to help residents obtain essential resources and information during and after a disaster.

Goal OS-8 Biological Resources: An enhanced ecosystem comprised of a thriving urban forest, protected habitats for biological resources, especially native, sensitive and special status wildlife species, to foster the well-being of the community and offer a reprieve from the built environment.

- **Policy OS-8.4 Urban Forest.** Expand the City's urban forest in a consistent, coordinated, and environmentally conscious manner. Prioritize native trees and associated companion species and habitats. Maximize and maintain tree canopy on public lands and open spaces.

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Safety Element

Goal S-10 Additional Climate Change Hazards: A resilient community able to adapt to climate change hazards.

- **Policy S-10.1 Financing Energy Efficient Programs for Economically Disadvantaged Households and Businesses.** Extend the City's funding and financing programs to support energy efficiency and renewable energy improvements for economically disadvantaged households and businesses.
- **Policy S-10.4 Energy Efficient City-owned Facilities.** Pursue that City-owned facilities and operations are energy efficient, and rely on renewable and resilient energy sources, including battery storage systems.
- **Policy S-10.5 Shading and Heat-Mitigating Materials.** Coordinate with local governments and transit agencies to increase shading and heat-mitigating materials on pedestrian walkways and transit stops.
- **Policy S-10.6 Integration of Sustainability Features in New Development and Existing Properties.** Encourage new developments and existing property owners to incorporate sustainable, energy-efficient, and environmentally regenerative features into their facilities, landscapes, and structures to reduce energy demands and improve on-site resilience. Support financing efforts to increase the communities funding of these features.

5.7.4 Environmental Impacts

5.7.4.1 METHODOLOGY

This GHG evaluation was prepared in accordance with the requirements of CEQA to determine if significant GHG impacts are likely to occur in conjunction with future development that would be accommodated by the General Plan Update.

The City's GHG emissions inventory includes the following sectors:

- **Building Energy.** Emissions associated with electricity and natural gas use for residential and nonresidential land uses in the city were modeled based on data provided by Southern California Edison (SCE), Clean Power Alliance (CPA) and the Southern California Gas Company (SoCalGas), for years varying from 2018 through 2022. Due to the 15/15 Rule, electricity use data for industrial land uses was aggregated with the nonresidential land uses in the data provided by SCE.⁶ Existing energy and natural gas use are based on the four-year average (2020-2023) to account for fluctuations in usage associated with average annual temperature.⁷ Forecasts are adjusted for increases in population for residential electricity

⁶ The 15/15 Rule was adopted by the California Public Utilities Commission in the Direct Access Proceeding (CPUC Decision 97-10-031) to protect customer confidentiality. The 15/15 rule requires that any aggregated information provided by a utility must be made up of at least 15 customers, and a single customer's load must be less than 15 percent of an assigned category. If the number of customers in the compiled data is below 15, or if a single customer's load is more than 15 percent of the total data, categories must be combined before the information is released. The Rule further requires that if the 15/15 Rule is triggered for a second time after the data have been screened once already using the 15/15 Rule, the customer be dropped from the information provided.

⁷ Interpolated Year 2023 natural gas and energy usage based on previous years 2020-2022.

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and natural gas use and nonresidential square footage for nonresidential electricity and natural gas use in the city. A weighted average of carbon intensity factors was used for year 2023 and year 2050 based on 2022 CalEEMod User's Guide, Appendix G, and total electricity usage between SCE and CPA (CAPCOA 2022).

- **Transportation.** Transportation emissions forecasts were modeled using emissions data from CARB's EMFAC2021 v.1.0.2 web database. Model runs were based on daily per-capita VMT data provided by Fehr & Peers and calendar year 2023 (existing) and 2050 emission rates. The VMT is based on the origin-destination methodology using the Southern California Association of Governments' Regional Transportation Model and includes the full trip length for land uses in the City and a 50 percent reduction in the trip length for external-internal/internal-external trips based on the recommendations of CARB's Regional Targets Advisory Committee (RTAC) under SB 375.⁸ Consistent with CARB's methodology within the Climate Change Scoping Plan Measure Documentation Supplement, daily VMT was multiplied by 347 days per year to account for reduced traffic on weekends and holidays to determine annual emissions.
- **Off-Road Equipment.** OFFROAD is a database of equipment use and associated emissions for each county compiled by CARB. Off-road equipment in the City is based on year 2023 emission rates for Los Angeles County obtained from CARB's OFFROAD v.1.0.5 web database. OFFROAD was used to estimate GHG emissions from lawn and garden, light commercial, and construction equipment in the City. In order to determine the percentage of emissions attributable to the City, light commercial equipment is estimated based on employment for Redondo Beach as a percentage of Los Angeles County and forecasted based on the change in employment in the City. Construction equipment use is estimated based on building permit data for Redondo Beach and County of Los Angeles from data compiled by the US Census and assumes that construction emissions for the forecast year would be similar to historical levels. Lawn and garden equipment is based on the percentage of population in Redondo Beach compared to Los Angeles County and forecasted based on the change in population in the City.
- **Refrigerant Leakage.** Refrigerants are based on the statewide 2019 refrigerant use and statewide population based on the 2022 census data in order to derive emissions per person. Emissions from this sector are based on AR4 since the inventory is not available with AR5 GWPs.
- **Solid Waste Disposal.** GHG emissions from solid waste disposed of by residents and employees in the City were quantified based on the waste-in-place method. This method assumes that the degradable organic component in waste decays slowly throughout a few decades, during which CH₄ and biogenic CO₂ are

⁸ For accounting purposes, there are three types of trips:

Internal-Internal. Vehicle trips that originated and terminated within the City (Internal-Internal, I-I). Using the accounting rules established by RTAC, 100 percent of the length of these trips and their emissions are attributed to the City.

Internal-External/External-Internal. Vehicle trips that either originated or terminated (but not both) in the City (Internal-External or External-Internal, I-X and X-I). Using the accounting rules established by RTAC, 50 percent of the trip length for these trips is attributed to the City.

External-External. Vehicle trips that neither originated nor terminated in the City. These trips are commonly called pass-through trips (External-External, X-X). Using the accounting rules established by RTAC, these trips are not counted toward the City's VMT or emissions.

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formed. If conditions are constant, the rate of CH₄ production depends solely on the amount of carbon remaining in the waste. As a result, emissions of CH₄ from waste deposited in a disposal site are highest in the first few years, then gradually decline. Significant CH₄ production typically begins one or two years after waste disposal in a landfill and continues for 10 to 60 years or longer. Waste disposal was averaged over several years to account for fluctuations in average annual solid waste disposal. Waste generated was based on data obtained from the California Department of Resources Recycling and Recovery (CalRecycle), to provide an estimate of GHG emissions for existing conditions (2023). Since Redondo Beach is part of the Los Angeles Integrated Waste Management Authority (LARA), solid waste generated by the City are based on the percentage of people in the City compared to the City populations incorporated under LARA.

GHG emissions from solid waste disposal in the baseline year were modeled using CARB's Landfill Emissions Tool v.1.9, which includes waste characterization data from CalRecycle. Because the landfill gas captured is not under the jurisdiction of the City of Redondo Beach, the landfill gas emissions from the capture system are not included in the inventory. Only fugitive sources of GHG emissions from landfills are included. Modeling assumes a 75 percent reduction in fugitive GHG emissions from the landfill's Landfill Gas Capture System. The Landfill gas capture efficiency is based on CARB's LGOP, v.1.1. Total GHG emissions from waste disposal in 2023 were forecast based on the percent increase in population for the City. The emissions forecast does not account for reductions from increasing waste diversion.

- **Water Use and Wastewater Treatment.** GHG emissions from this sector include indirect GHG emissions from the embodied energy associated with water use and wastewater generation and fugitive GHG emissions from processing wastewater. The total annual existing and proposed water demand/ wastewater generation in the City are based on Infrastructure Report prepared by Fuscoe Engineering (see Appendix F). Electricity use from water use is estimated using energy rates identified by in the 2022 CalEEMod Users Guide (CAPCOA 2022). Then energy is multiplied by the carbon intensity of energy. Wastewater treatment also results in direct CH₄ emissions from wastewater processing, which are based on the emission rates identified in the 2022 CalEEMod Users Guide (CAPCOA 2022).

Industrial sources of emissions that require a permit from South Coast AQMD are not included in the community inventory. Life-cycle emissions are not included in this analysis because not enough information is available for the General Plan Update; and therefore, they would be speculative.⁹ Black carbon emissions are not included in the GHG analysis because CARB does not include this short-lived climate pollutant in the state's GHG emissions inventory but treats it separately.¹⁰

⁹ Life cycle emissions include indirect emissions associated with materials manufacture. However, these indirect emissions involve numerous parties, each of which is responsible for GHG emissions of their particular activity. The California Resources Agency, in adopting the CEQA Guidelines Amendments on GHG emissions found that lifecycle analysis was not warranted for project-specific CEQA analysis in most situations, for a variety of reasons, including lack of control over some sources, and the possibility of double-counting emissions (see Final Statement of Reasons for Regulatory Action, December 2009). Because the amount of materials consumed during the operation or construction of the proposed project is not known, the origin of the raw materials purchased is not known, and manufacturing information for those raw materials is also not known, calculation of life cycle emissions would be speculative. A life-cycle analysis is not warranted (OPR 2008).

¹⁰ Particulate matter emissions, which include black carbon, are analyzed in Section 5.3, *Air Quality*. The majority of anthropogenic sources come from transportation—specifically, heavy-duty vehicles. The share of black carbon emissions from transportation is dropping rapidly and is expected to continue to do so between now and 2030 as a result of California's air quality programs. The

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5.7.4.2 IMPACT ANALYSIS

The applicable thresholds are identified in brackets after the impact statement.

Impact 5.7-1: Implementation of the proposed project would not result in a substantial increase in emissions but would not place the City on a trajectory to achieve the goals established under Executive Order S-03-05 or progress toward the State's carbon neutrality goal. [Threshold GHG-1]

Development under the proposed project would contribute to global climate change through direct and indirect emissions of GHG from land uses in the City. A general plan does not directly result in development without subsequent approvals of development projects.. Updates to the Zoning Ordinance would reflect new land use designations and densities specified by the Focused General Plan Update. Updates to the LCP would include revisions to the Coastal Land Use Plan (LUP) and Implementation Plan (IP) consistent with the Land Use Map in the Focused General Plan Update. These modifications would not involve land-use changes that would cause a substantially greater impact in GHG emissions compared to what is evaluated from buildout of the Focused General Plan Update.

Horizon Year 2050 Emissions Forecast

Buildout of the General Plan Update is not linked to a specific development time frame but is assumed over a 25-year horizon. Implementation of the General Plan Update by the horizon year of 2050 would result in a net increase of 8,667 residents and 7,989 employees in the City. Development that would be accommodated by the General Plan Update would generate a net increase of 266,380 daily VMT at buildout. The community GHG emissions inventory for the General Plan Update at buildout compared to existing conditions is in Table 5.7-5, *City of Redondo Beach GHG Emissions Forecast*.

remaining black carbon emissions will come largely from woodstoves/fireplaces, off-road applications, and industrial/commercial combustion (CARB 2022a).

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Table 5.7-5 City of Redondo Beach GHG Emissions Forecast

Emissions Sector	GHG Emissions (MTCO ₂ e/Year)					
	Existing (2023)		Proposed Project 2050		Net Change	
Building Electricity	112,885	27%	115,490	28%	2,605	2%
Building Natural Gas	59,329	14%	73,289	18%	13,960	24%
On-Road Transportation	187,753	46%	162,967	40%	-24,786	-13%
Off-Road Vehicles and Equipment	8,125	2.0%	8,893	2%	768	9%
Solid Waste/Landfills	6,292	1.5%	7,068	2%	776	12%
Refrigerants	33,262	8%	37,362	9%	4,100	12%
Water Use	2,125	0.5%	1,647	0%	-478	-22%
Wastewater Treatment	968	0%	995	0%	27	3%
Total Community Emissions	410,739	100%	407,712	100%	-3,028	-1%
Trajectory to AB 1279 for Year 2045	61,611	-85%	Does Not Achieve Target	—	—	—
Service Population (SP)	98,949		115,605		16,656	17%
MTCO ₂ e/SP	4.2		3.5		-0.6	-15%

Source: Appendix B.

Notes: Based on GWPs in the IPCC Fifth Assessment Report (AR5).

Emissions may not total to 100 percent due to rounding.

As shown in Table 5.7-5, buildout of the land uses accommodated under the General Plan Update would result in a net decrease GHG emissions from existing conditions. In addition, GHG emissions per service population (SP) would decrease. The primary reason for the decrease in overall community-wide GHG emissions, despite an increase in population and employment in the City, is due to regulations adopted to reduce GHG emissions and turnover of California's on-road vehicle fleets.

Consistency with the State's GHG Reduction Targets and Carbon Neutrality Goals

To determine whether the proposed project would result in a potentially significant impact, the proposed project must demonstrate consistency with the State's 2045 GHG reduction target of carbon neutrality. Under the General Plan Update, new growth would be focused on areas of the City where services exist or can be expanded and/or extended to serve additional and more intensive development and in proximity to existing and proposed major transit centers. However, even with the planned intensification of existing development and transit oriented development, as identified in Table 5.7-5, the General Plan Update would result in a substantial increase in GHG emissions and would not achieve an 85 percent reduction in GHG emissions by 2045.

Reduction strategies to meet the long-term 2050 GHG reduction goal in addition to establishment of a 2050 reduction target would be required to be included in the planned future updates to the Climate Action Plan. Additionally, state strategies to achieve post-2030 targets would be necessary. Therefore, until such time, GHG emissions impacts for the General Plan Update are considered potentially significant in regard to meeting the long-term year 2050 reduction goal.

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General Plan Update Policies That May Reduce GHG Emissions

As identified in Table 5.7-5, the majority of emissions are from on-road transportation (40 percent) and building electricity (28 percent). While growth in the City would cumulatively contribute to GHG emissions impacts, implementation of the General Plan Update policies could also help minimize energy and mobile-source emissions. Policies S-10.1, S-10.4, and S-10.6 would contribute to reducing emissions from energy consumption by increasing energy efficiency and renewable energy improvements in households, businesses, and City-owned facilities. Policies LU-2.8, LU-3.7, LU3.8, LU-4.6, and OS-1.8 contribute to reducing GHG emissions from mobile sources by promoting pedestrian access and public transportation, reducing vehicle congestion, and supporting TDM measures where feasible.

Summary

It is anticipated that the proposed project would reduce energy sector emissions by increasing energy efficiency, energy conservation, and use of renewable energy. Implementation of these energy-related policies would contribute to minimizing GHG emissions associated with the City to the extent feasible. However, as described and shown in Table 5.7-5, GHG emissions reduction are only 1 percent less than the CEQA baseline and not the 85 percent necessary to ensure the City is on a trajectory to achieve the long-term reductions goals AB 1279 and substantial progress toward the State's carbon neutrality goals. Therefore, GHG emissions associated with the proposed project are considered potentially significant.

Level of Significance Before Mitigation: Impact 5.7-1 would be potentially significant.

Impact 5.7-2: Implementation of the proposed project would 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 CARB's Scoping Plan, SCAG's Connect SoCal, and the City's CAP. A consistency analysis with these plans is presented below.

CARB Scoping Plan

CARB's Scoping Plan is applicable to state agencies but is not directly applicable to cities/counties and individual projects (i.e., the Scoping Plan does not require local jurisdictions to adopt its policies, programs, or regulations to reduce GHG emissions). However, new regulations adopted by the State agencies from the Scoping Plan result in GHG emissions reductions at the local level. So local jurisdictions benefit from reductions in transportation emissions rates, increases in water efficiency in the building and landscape codes, and other statewide actions that affect a local jurisdiction's emissions inventory from the top down. Statewide strategies to reduce GHG emissions include the low carbon fuel standard, changes in the corporate average fuel economy standards, RPS, and triannual updates to the California building codes.

The GHG emissions shown in Table 5.7-5 include reductions associated with statewide strategies that have been adopted since AB 32, SB 32, and AB 1279. Development projects accommodated under the proposed project are required to adhere to the programs and regulations identified by the Scoping Plan and implemented

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by State, regional, and local agencies to achieve the statewide GHG reduction goals of AB 32, SB 32, and AB 1279. Future development projects would be required to comply with these state GHG emissions reduction measures because they are statewide strategies. For example, new buildings associated with land uses accommodated by the proposed project would be required to meet the CALGreen and Building Energy Efficiency Standards in effect at the time when applying for building permits. Furthermore, as discussed under the discussion for Impact 5.7-1, the General Plan Update includes policies that would help reduce GHG emissions and therefore help achieve GHG reduction goals. Implementation of the proposed project would not obstruct implementation of the CARB Scoping Plan, and impacts would be less than significant.

SCAG's Connect SoCal

SCAG adopted the 2024-2050 RTP/SCS, Connect SoCal, in April 2024. Connect SoCal is a long-term plan for 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 (SCAG 2024). This plan outlines a forecasted 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 (SCAG 2024). 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.

As further described under Impact 5.11-1 of Chapter 5.12, *Population and Housing*, the proposed project buildout would exceed the SCAG growth projections for 2050 and would result in significant impacts related to population and employment growth. Moreover, the projected regional development, when integrated with the proposed regional transportation network in Connect SoCal, would increase VMT per service population beyond the threshold (16.8% below SBCCOG Baseline Conditions) and generate significant long-term GHG emissions in the SCAG region. As demonstrated in Section 5.10, *Land Use and Planning*, and Section 5.15, *Transportation*, the General Plan Update would not be consistent with several goals of the Connect SoCal (see Table 5.10-1, *SCAG 2024 RTP/SCS Goal Consistency Analysis* and Table 5.15-3, *Programs, Plans, Ordinance, and Policy Consistency Review*, respectively). Although, Policies LU-2.8, LU-3.7, LU3.8, LU-4.6, and OS-1.8 would help minimize VMT and reduce VMT per service population. As described previously, the proposed project would conflict with SCAG's Connect SoCal goals aimed at improving air quality and reducing GHG emissions and impacts would be potentially significant.

City of Redondo Beach CAP

The City's CAP serves as a guide for action by setting GHG emission reduction goals consistent with the State's AB 32 GHG emission reduction targets and establishing strategies and policies to achieve desired outcomes over the next 20 years (Redondo Beach 2017). The City's CAP identifies goals, measures, and sub strategies to lower GHG emissions from a range of sources within the jurisdiction, including land use and transportation, energy efficiency, solid waste, urban greening, and energy generation/storage. A consistency analysis with the

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applicable CAP goals is shown in Table 5.7-6, *Consistency Analysis with the City of Redondo Beach Climate Action Plan*.

Table 5.7-6 Consistency Analysis with the City of Redondo Beach Climate Action Plan

Reduction Goal	Consistency Analysis
Land Use and Transportation (LUT)	
Goal LUT: A – Accelerate the Market for EV Vehicles	Consistent. Advanced Clean Cars II would require new cars sold in 2035 and beyond to be zero-emission vehicles, which includes battery electric vehicles, plug-in hybrid electric vehicles and fuel cell electric vehicles. Future development under the proposed project would not obstruct implementation of Advanced Clean Cars II program since this is a requirement for auto manufacturers in California.
Goal LUT: B – Encourage Ride-Sharing	Consistent. The General Plan Update contains policies related to ride-sharing—for instance Policies LU-1.10 and LU-3.6 promote active transportation measures between job centers and residential neighborhoods.
Goal LUT: C – Encourage Transit Usage	Consistent. The General Plan Update supports a variety of housing types, including High Density Residential, Residential Overlays, and mixed-use development to encourage better connectivity to employment and commercial uses. Policies LU-1.1 through LU 1.10 encourage a balanced land use pattern, a diversity of housing types, jobs-housing balance, and transit-oriented development. Additionally, Policies LU-2.8, LU-3.7, LU-3.8, LU-4.6, and OS-1.8 would also help reduce VMT per service population and support convenient access to transit within the City.
Goal LUT: D – Adopt Active Transportation Initiatives	Consistent. As listed under Impact Discussion 5.7-1, the General Plan Update policies would help minimize mobile-source emissions and promote active transportation initiatives. For example, Policies LU-2.8, LU-3.7, LU-3.8, LU-3.10, LU-4.6, and OS-1.8 would promote pedestrian access and public transportation, reduce vehicle congestion, and support TDM measures where feasible.
Goal LUT: G – Land Use Strategies	Inconsistent. As described in Section 5.10, <i>Land Use and Planning</i> , implementation of the General Plan Update supports a variety of land use types, from high-density housing to mixed-use development, to encourage better connectivity to employment and commercial uses. However, buildout facilitated by the proposed project would increase VMT per service population beyond the threshold (16.8% below SBCCOG Baseline Conditions) and the proposed project would not be consistent with several of the Connect SoCal goals (see Table 5.10-1, <i>SCAG 2024 RTP/SCS Goal Consistency Analysis</i>). Although the proposed project would include climate benefits, land use patterns, and goals and policies that align with the RTP/SCS, impacts associated with VMT, Air Quality and GHG, would be significant and therefore, the proposed project would not be consistent with this goal.
Energy Efficiency (EE)	
Goal EE: A – Increase EE in Existing Residential Units	Consistent. Implementation of the General Plan Update Policy S-10.6 would encourage existing property owners to incorporate sustainable, energy-efficient, and environmentally regenerative features into their facilities, landscapes, and structures to reduce energy demands and improve on-site resilience.
Goal EE: B – Increase EE in New Residential Developments	Consistent. Future development under the proposed project would be required to be constructed in accordance with current State and City building codes in existence at the time. In the City's Municipal Code Chapter 23, Green Building Standards, the code contains both mandatory and voluntary green building measures for new low-rise residential buildings. Lastly, Policy S-10.6 would encourage new development to incorporate sustainable, energy-efficient, and

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Table 5.7-6 Consistency Analysis with the City of Redondo Beach Climate Action Plan

Reduction Goal	Consistency Analysis
	environmentally regenerative features into their facilities, landscapes, and structures to reduce energy demands and improve on-site resilience.
Goal EE: C – Increase EE in Existing Commercial Units	Consistent. As mentioned above, Policy S-10.6 would encourage existing property owners to incorporate sustainable, energy-efficient, and environmentally regenerative features into their facilities, landscapes, and structures to reduce energy demands and improve on-site resilience.
Goal EE: D – Increase EE in New Commercial Units	Consistent. Future nonresidential development under the proposed project would be required to be constructed in accordance with current State and City building codes in existence at the time, which include requirements related to on-site renewable energy systems. In addition, Policy S-10.6 would encourage new development to incorporate sustainable, energy-efficient, and environmentally regenerative features into their facilities, landscapes, and structures to reduce energy demands and improve on-site resilience.
Goal EE: E – Increase EE Through Water Efficiency	Consistent. According to Chapter 23, Green Building Standards, of the municipal code, the City has adopted the 2022 CALGreen Code (24 CCR Part 11), which provides regulations for energy efficiency, water efficiency, material conservation, environmental quality, and more. Additionally, Policy 6.3.5, 6.3.10, and 6.3.11 in the existing General Plan's Utilities Element would promote effective planning for efficient operation of the City's water supply system and encourage the use of reclaimed water on drought-tolerant landscaping.
Goal EE: F – Decrease Energy Demand Through Reducing Urban Heat Island Effect	Consistent. The General Plan Update contains various policies to aid in increasing planting and shading to reduce urban heat islands. Implementation of Policy S-10.5 would promote local governments and transit agencies to increase shading/heat-mitigating materials on pedestrian walkways and transit stops. Policy OS-1.9 and OS-8.4 would expand access to the City's urban forest through urban greening programs that would provide shade and incorporate sustainable, native trees and landscaping.
Goal EE: I – Increase Energy Efficiency in City Infrastructure	Consistent. The General Plan Update contains various policies to reduce energy consumption in the long-term. For example, Policy S-10.6 encourages new developments and existing property owners to incorporate energy-efficient features into their landscapes and facilities. Policy 6.3.11 in the existing General Plan's Utilities Element would encourage the use of reclaimed water for landscape, which would reduce the energy required to treat water and be more cost effective.
Solid Waste (SW)	
Goal SW: A – Increase Diversion and Reduction of Residential Waste	Consistent. Future development under the proposed project would be required to comply with AB 939 and divert 50 percent of all solid waste from landfills through source reduction, recycling, and composting. In the City's Municipal Code Chapter 23, Green Building Standards, the code contains additional requirements for storage and collection of materials for multifamily premises. Lastly, Policy 7.1.1 and 7.1.2 in the existing General Plan's Solid Waste Management and Recycling Element would encourage the City to actively participate and monitor long-term solid waste removal practices.
Goal SW: B – Increase Diversion and Reduction of Commercial Waste	Consistent. Future development under the proposed project would be required to comply with AB 939 and divert 50 percent of all solid waste from landfills through source reduction, recycling, and composting. In the City's Municipal Code Chapter 23, Green Building Standards, the code contains additional requirements for storage and collection of materials for commercial premises. Lastly, Policy 7.1.1 and 7.1.2 in the existing General Plan's Solid Waste

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Table 5.7-6 Consistency Analysis with the City of Redondo Beach Climate Action Plan

Reduction Goal	Consistency Analysis
	Management and Recycling Element would encourage the City to actively participate and monitor long-term solid waste removal practices.
Urban Greening (UG)	
Goal UG: A – Increase and Maintain Urban Greening in the Community	Consistent. The General Plan Update contains various policies related to the expansion of green spaces in urban areas and increased water efficiency strategies to conserve these open spaces. Policies OS-1.8 and OS-1.10 promote access to the City's open spaces and existing parks through a safe regional trail network. Policies OS-1.9 and OS-8.4 would expand access to the City's urban forest through urban greening programs that would provide shade and incorporate sustainable, native trees and landscaping. Policy 6.3.10 and 6.3.11 in the existing General Plan's Utilities Element would encourage the use of reclaimed water on drought-tolerant landscaping and adequate irrigation systems in the City's parks, parkways, and median strips.
Energy Generation and Storage (EGS)	
Goal EGS: A – Support Energy Generation and Storage in the Community	Consistent. The General Plan Update contains various policies related to the expansion of renewable energy generation and storage technologies. For example, Policies S-10.1, S-10.4, and S-10.6 would contribute to reducing emissions from energy consumption by increasing energy efficiency and renewable energy improvements in households, businesses, and City-owned facilities. Moreover, future development under the proposed project would be required to be constructed in accordance with State and City building codes current at the time, which include requirements related to on-site renewable energy systems.
Source: Redondo Beach 2017.	

Implementation of the General Plan Update would result in beneficial GHG emissions impacts by contributing to reducing VMT, increasing energy and water use efficiency, and increasing renewable energy improvements. Moreover, future development projects would be required to comply with state GHG emissions reduction goals of AB 32, SB 32, and AB 1279 because they are statewide strategies.

However, as identified in Table 5.7-6, while the General Plan Update would be consistent with many of the strategies in the City's CAP, the General Plan Update would not be consistent with Goal LUT: G – Land Use Strategies and several SCAG's RTP/SCS goals (see Table 5.10-1, *SCAG 2024 RTP/SCS Goal Consistency Analysis*). Therefore, implementation of the proposed project could obstruct implementation of the City's CAP to reduce community-wide GHG emissions, and impacts would be potentially significant.

Level of Significance Before Mitigation: Impact 5.7-2 would be potentially significant.

5.7.5 Level of Significance Before Mitigation

Without mitigation, these impacts would be **potentially significant**:

- **Impact 5.7-1** Implementation of the proposed project would result in a substantial increase in GHG emissions and would not place the City on a trajectory to achieve the goals

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established under AB 1279 or achieve progress toward the State's carbon neutrality goal.

- **Impact 5.7-2** Implementation of the proposed project would conflict with an applicable plan, policy, or regulation of an agency adopted for the purpose of reducing GHG emissions.

5.7.6 Mitigation Measures

Impact 5.7-1

GHG-1 The City of Redondo Beach shall prepare an update to its Climate Action Plan (CAP) to achieve the greenhouse gas (GHG) reduction targets of Senate Bill (SB) 32 for the year 2030 and chart a trajectory to achieve the long-term GHG reduction goal set by Assembly Bill (AB) 1279. The updated CAP shall be completed within three years of certification of the General Plan EIR. The updated CAP shall be updated every five years to ensure the City is monitoring the plan's progress toward achieving the City's GHG reduction target and to require amendment if the plan is not achieving a specified level. The update shall consider a trajectory consistent with the GHG emissions reduction goal established under SB 32 for year 2030, AB 1279 for year 2045, and the latest applicable statewide legislative GHG emission reduction that may be in effect at the time of the CAP update

The CAP update shall include the following:

- GHG inventories of existing and forecast year GHG levels.
- Tools and strategies for reducing GHG emissions to achieve the GHG reduction goals of Senate Bill 32 for year 2030.
- Tools and strategies for reducing GHG emissions to ensure a trajectory with the long-term GHG reduction goal and carbon neutrality goal for year 2045 of AB 1279.
- Plan implementation guidance that includes, at minimum, the following components consistent with the proposed updated CAP:
 - Administration and Staffing
 - Finance and Budgeting
 - Timelines for Measure Implementation
 - Community Outreach and Education
 - Monitoring, Reporting, and Adaptive Management
 - Tracking Tools.

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Impact 5.7-2

There are no feasible mitigation measures that can fully reduce VMT impacts at full buildout of the proposed project and fully reduce the proposed project's inconsistencies with the goals of SCAG's 2024-2050 RTP/SCS. Specific TDM measures and VMT mitigation strategies that align with the General Plan goals and policies would need to be tailored to the characteristics of each future development project under the proposed project, and their effectiveness would need to be analyzed and documented as part of the environmental review process to determine if impacts could be mitigated or if they would remain significant and unavoidable. Given that research on the effectiveness of TDM strategies is continuing to evolve, feasible mitigation measures should be considered based on the best data available at the time a project is being considered by the City.

See Section 5.15.7, *Mitigation Measures*, for a list of example mitigation measures under Impact 5.15-2 that could be implemented at the Citywide level in order to mitigate the significant impacts associated with the proposed project, as well as project-level CEQA clearances for future development projects

5.7.7 Level of Significance After Mitigation

Impact 5.7-1

Implementation of Mitigation Measure GHG-1 would ensure that the City prepares a Climate Action Plan to achieve the GHG reduction goals of Senate Bill 32 and chart a trajectory to achieve the long-term year 2045 GHG reduction goal and State's carbon neutrality goal set by AB 1279. However, given the growth in population and employment within the City and the magnitude of GHG emissions reductions needed to achieve the GHG reduction target, GHG emissions are considered **significant and unavoidable**.

Impact 5.7-2

There are no feasible mitigation measures that could fully mitigate the proposed project's population growth and VMT levels to less than significant and fully reduce the proposed project's inconsistencies with the goals of SCAG's 2024-2050 RTP/SCS. Implementation of the General Plan Update would result in beneficial GHG emissions impacts by contributing to reducing VMT, increasing energy and water use efficiency, and increasing renewable energy improvements. However, because the proposed project is a regulatory document that sets the framework for future growth and development in the City and does not directly result in development, and thus VMT, use of VMT reduction strategies would need to be assessed on a project-by-project basis. Therefore, the proposed project would continue to be inconsistent with several of the Connect SoCal goals and the land use strategies of the City's CAP as it pertains to reducing VMT. Overall, impacts would remain **significant and unavoidable**.

5.7.8 References

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5.8 HAZARDS AND HAZARDOUS MATERIALS

This section of the Draft Program Environmental Impact Report (Draft EIR) evaluates the potential impacts of the Redondo Beach General Plan, Zoning Ordinance Updates, and Local Coastal Program Amendment (proposed project) on human health and the environment due to exposure to hazardous materials or conditions associated with the project site, project construction, and project operations.

5.8.1 Environmental Setting

Regulatory Background

Hazardous materials are substances that exhibit corrosive, poisonous, flammable, and/or reactive properties and have the potential to harm human health and/or the environment. Hazardous materials are used in products (e.g., household cleaners, industrial solvents, paints, pesticides) and manufacturing (e.g., of electronics, newspapers, plastic products). 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)

There are many federal, state, and local programs that regulate the use, storage, and transportation of hazardous materials and hazardous waste, and they are constantly changing. Federal and state statutes as well as local ordinances and plans regulate hazardous waste management. These regulations can reduce the danger that hazardous substances pose to people and businesses under normal daily circumstances and as a result of emergencies and disasters. 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

The following agencies govern hazardous materials in the City of Redondo Beach.

Federal Agencies

- **U.S. Environmental Protection Agency.** The EPA is the primary federal agency that regulates hazardous materials and waste. In general, the EPA develops and enforces regulations that implement environmental

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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 waste 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 waste that include tracking shipments with manifests to ensure that waste is delivered to its intended destination.

- **Occupational Safety and Health Administration.** OSHA oversees administration of the Occupational Safety and Health Act, which requires specific training for hazardous materials handlers, provision of information to employees who may be exposed to hazardous materials, and acquisition of material safety data sheets from manufacturers. Material safety data sheets describe the risks associated with particular hazardous materials, and proper handling and procedures. Employee training must include response and remediation procedures for hazardous materials releases and exposures.
- **U.S. Department of Transportation.** The USDOT has developed regulations pertaining to the transport of hazardous materials and hazardous wastes by all modes of transportation. The US Postal Service has developed additional regulations for the transport of hazardous materials by mail. USDOT regulations specify packaging requirements for different types of materials.
- **Federal Aviation Administration.** 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

- **California Environmental Protection Agency.** 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, Department of Pesticide Regulation, and Office of Environmental Health Hazard Assessment. CalEPA also oversees the unified hazardous waste and hazardous materials management regulatory program (Unified Program), which consolidates and coordinates:
 - Hazardous Materials Release Response Plans and Inventories (Business Plans)
 - Underground Storage Tank Program
 - Aboveground Petroleum Storage Tank Act
 - Hazardous Waste Generator and Onsite Hazardous Waste Treatment Programs

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- California Uniform Fire Code: Hazardous Material Management Plans and Inventory Statements
- California Accidental Release Prevention Program
- **California Department of Toxic Substances Control.** DTSC is the department of CalEPA that carries out the RCRA and the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) 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 is dedicated to the fire protection and stewardship of over 13 million acres of California's wildlands. The Office of the State Fire Marshal supports CAL FIRE's mission to protect life and property through fire prevention engineering programs, law and code enforcements, and education. It 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 wildfire 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.** Like OSHA at the federal level, 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 establish policies, practices, and procedures to prevent the exposure of workers and members of the public to hazardous materials originating from the contaminated site or building.
- **California Office of Emergency Services.** Cal OES was established as part of the Governor's Office on January 1, 2009, pursuant to Assembly Bill 38, and merged the duties, powers, purposes, and responsibilities of the former Emergency Management Agency and 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.

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- **California Department of Transportation and California Highway Patrol.** Caltrans and the CHP have primary responsibility for enforcing federal and State regulations regarding transportation 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 the first responder for hazardous material spills and releases 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 transport 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.** 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 overflow protection.
 - **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

- **Certified Unified Program Agency.** The County of Los Angeles Fire Department (County Fire) is designated by the state as the CUPA for the Redondo Beach region in the County of Los Angeles. County Fire focuses on the management of specific environmental programs at the local government level to address the disposal, handling, processing, storage, and treatment of local hazardous materials and waste products. County Fire is also responsible for implementing the leak prevention element of the UST Program.

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5.8.1.2 REGULATIONS

Federal Regulations

CERCLA of 1980 and SARA of 1986

The Comprehensive Environmental Response, Compensation and Liability Act of 1980, commonly known as “Superfund,” established prohibitions and requirements concerning closed and abandoned hazardous waste sites, provided for liability of persons responsible for releases of hazardous waste at these sites, and established a trust fund to provide for cleanup when no responsible party could be identified. CERCLA was amended by the Superfund Amendments and Reauthorization Act (SARA) on October 17, 1986. SARA stressed the importance of permanent remedies and innovative treatment technologies in cleaning up hazardous waste sites, required Superfund actions to consider the standards and requirements found in other state and federal environmental laws and regulations, provided new enforcement authorities and settlement tools, increased state involvement in every phase of the Superfund program, increased the focus on human health problems posed by hazardous waste sites, encouraged greater citizen participation in site cleanup decisions, and increased the size of 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 established the National Priority List of Superfund sites.

RCRA 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 up 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

Congress passed SARA in 1986, and SARA Title III is called the “Emergency Planning and Community Right-to-Know Act of 1986” (EPCRA), 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.

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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. 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 of toxic chemical releases and other waste management activities by certain industry groups and federal facilities. This national database, publicly available online, is called the Toxics Release Inventory and was expanded by the Pollution Prevention Act of 1990.

Under the requirements of the EPCRA, local emergency planning committees are responsible for developing a plan for preparing for and responding to a chemical emergency, including:

- Identification of local facilities and transportation routes where hazardous materials are present.
- 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. The Los Angeles County Department of Environmental Health is 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.

Natural Gas Pipeline Safety Act of 1968

The Natural Gas Pipeline Safety Act of 1968 authorizes the USDOT 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. The Pipeline and Hazardous Materials Safety Administration within the USDOT develops and enforces regulations for the safe, reliable, and environmentally sound operation of the nation's 2.6-million-mile

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pipeline transportation system. Regulations governing natural gas transmission pipelines, facility operations, employee activities, and safety are in the Code of Federal Regulations (CFR) Title 49, Transportation, Parts 190 through 192, Part 195, and Part 199.

Pipeline Safety Improvement Act of 2002

The Pipeline Safety Improvement Act mandates that the USDOT, Department of Energy, and 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 (USDOT 2002). The purpose of the Research and Design 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 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 Integrity Management Programs 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 for the Secretary of Transportation to waive safety standards in emergencies.
- Authority for the Secretary 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 the Pipeline and Hazardous Materials Safety Administration for short laterals that feed industrial and electric generator consumers from interstate natural gas pipelines (INGAA 2022).

National Pollutant Discharge Elimination System

The National Pollutant Discharge Elimination System (NPDES) permit program was established by the Clean Water Act 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

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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.

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 Regional Water Quality Control Boards. The City is in the jurisdiction of the Los Angeles Board (Region 4).

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 controls these chemicals as necessary to protect human health and the environment. The Toxic Substances Control 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 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 govern permits for hazardous materials transportation. CFR Title 49 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 the 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

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that handle a hazardous material 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 the 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 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 South Coast Air Quality Management District 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 Regulations

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.

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California Health and Safety Code Chapter 6.95 and California Code of Regulations (CCR), Title 19, Section 2729, describes 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 in certain quantities or mixtures containing them 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 that set forth 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

Although numerous state policies deal with hazardous waste, the most comprehensive is the Tanner Act, 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 Part of 2 Title 24 of the CCR. The CBC is based on the International Building Code, modified for California conditions. It is generally adopted on a jurisdiction-by-jurisdiction basis, subject to further modification based on local conditions. Buildings are plan checked by city and county building officials for compliance with the CBC.

State Hazardous Waste Management Programs

Numerous state programs regulate hazardous waste management.

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

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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 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 government (CFR, EPA, SARA, and EPCRA) and the state (Health and Safety Code, Division 20, Chapter 6.95, §§ 2500–25520; 19 CCR, Chapter 2, Subchapter 3, Article 4, §§ 2729-2734) require all businesses that handle more than a specified amount of hazardous materials or extremely hazardous materials to submit a hazardous materials business plan to their local CUPA. The responsible CUPA in Redondo Beach is the County of Los Angeles Fire Department, which is responsible for conducting compliance inspections of regulated facilities in Redondo Beach.

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 Redondo Beach Fire Department (RBFD), and County Fire 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 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 the California Office of Emergency Services within 15 days of the incident.

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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.
- 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.

The City of Redondo Beach lies within the Southern Region (Region I) of the SERC's CalEOS that oversees the Southern Regional Response Operations of the LEPCs in 11 Counties, of which Los Angeles County is one.

Hazardous Materials Spill/Release Notification Guidance

All significant spills, releases, or threatened releases of hazardous materials must be immediately reported. Federal and state emergency notification 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 California Occupational Safety and Health Administration (California Labor Code, Section 6409.1[b]).

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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 replacing 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 accident factors present at a business and the mitigation 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 County of Los Angeles Fire Department is the CUPA designated as the administering agency for CalARP.

California Fire Code

The California Fire Code (CCR Title 24 Part 9) requirements include 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 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.

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Regional Regulations

2020 County of Los Angeles All-Hazards Mitigation Plan

The Los Angeles All-Hazards Mitigation Plan (Los Angeles AHMP), was updated in 2020, and Redondo Beach is in Los Angeles' Supervisorial District 4. The Los Angeles AHMP aims to address hazards in the county.

Local Regulations

City of Redondo Beach General Plan

The City of Redondo Beach General Plan includes the Utilities Element which describes infrastructure in the City and contains goals, objectives, policies, and implementation programs that guide the City's management of utilities. Goals, objectives, and policies of the Utilities Element that are applicable to the proposed project are listed below.

Goal 6H: Ensure the continued safe operation of petroleum extraction and transportation facilities throughout the city. The facilities and systems shall be operated in an ecologically-sensitive manner.

Objective 6.8. Work to ensure that all petroleum extraction and transportation facilities in the City are operated and maintained in the most safe and effective manner available using existing technology and industry practices.

- **Policy 6.8.1.** Improve and enhance cooperation and communication with the various petroleum or utility companies operating in the City to promote effective planning and ensure the most efficient operation, maintenance, and monitoring of the City's petroleum extraction and transportation system and facilities.
- **Policy 6.8.2.** Maintain, through the City of Redondo Beach Public Works Department, a comprehensive textual and graphic inventory of the operators, location, and function of all existing petroleum extraction and transportation operators in the City.
- **Policy 6.8.3.** Require the inspection and monitoring of all petroleum extraction and transportation facilities in the City be carried out in a formal and organized manner, on at least an annual basis to ensure the continued safe operation of such facilities. The inspection and monitoring programs shall be reviewed and approved by the City of Redondo Beach Department of Public Works, and the programs shall be funded by the owners and/or operators of the various facilities.
- **Policy 6.8.4.** Work, through the local design review and approval process implemented with the Conditional Use Permit process and building inspection/citation process, to ensure that all above-ground petroleum extraction and transportation facilities are designed, constructed, and maintained in an aesthetically-pleasing manner.

Redondo Beach Municipal Code

- **§ 3-4.101 California Fire Code adopted.** That portion of the State Building Standards Code, known as the California Fire Code, 2022 Edition, published by the International Code Council and the

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California Building Standards Commission with errata is adopted and hereby collectively declared to be the Redondo Beach Fire Code.

- **§ 3-4.103.2 General requirements.** This requirement in the municipal codes, addresses that any person or facility required by Occupational Safety and Health Administration (OSHA) regulations to prepare or maintain a Material Safety Data Sheet (MSDS)/Safety Data Sheets (SDS), who stores, transports, dispenses, uses, or handles hazardous materials, shall provide an immediate, verbal report of any release or threatened release of a hazardous material to the City of Redondo Beach Fire Department accessing the 911 emergency reporting system.
- **§ 5-4.105 Immediate notification of accidental discharge.** This municipal code addresses the system to follow to address any potential accidental discharge of hazardous materials. These include proper measures to allow notification of hazardous substances discharges to the correct agencies and employees. In the City, these agencies are the City's Fire Department and the Engineering Division of the Public Works Departments and CSDLA.
- **§ 5-4.106 Written notification of accidental discharge.** Within five working days following an accidental discharge, an unintentional bypass, an upset or a slug loading, the user shall submit to the Engineer Division a written report describing in detail the type, volume and cause of the discharge, corrective actions taken, and measures to prevent future occurrences. Notification shall not relieve the user of any resulting criminal and/or civil liability.
- **§ 5-4.107 Notice of hazardous waste discharge.** This municipal code addresses the protocols for providing written notice of any discharge into the City's wastewater system which would be considered a hazardous waste under 40 CFR part 261. These include discharge quantities, timeframes, and agencies to contact in case of such discharge.
- **§ 5-4.410 Additional emergency remedial measures.** The City Engineer shall have full power and authority to take any necessary precautions, including, but not limited to, decontamination, sewer closure, packaging, diking, and transportation of materials, in order to protect life, protect property, or prevent an imminent hazard to the public's health, safety or welfare.
- **§ 10-2.1618 Hazardous waste facilities.** Any amendment to the General Plan, land use classifications, approval of any parcel map or tract map, approval of any Conditional Use Permit, or approval of any Variance issued or granted in connection with the siting of hazardous waste facilities shall require a separate finding that such approval is consistent with that portion of the Los Angeles County Hazardous Waste Management Plan which identifies the siting criteria for hazardous waste facilities.
- **§ 11-4.14 Hazardous substances.** Prior to the issuance of any excavation permit for the construction or installation of any pipelines for the transmission of flammable liquids or gases, approval shall be obtained from the City Engineer. Such approval should be based on the determination that no undue fire hazard will be created to life or property in the areas through which the proposed pipeline will be located.
- **§ 11-4.16 Pipeline emergency plan.** Municipal code 11-4.16 addresses pipeline emergency plans and the requirements for franchises to follow when operations of pipelines are present. This includes

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filing with the City fire department, a pipeline emergency plan, required by 49 CFR Section 195.402, the state if CA Pipeline Safety Act of 1981, or other applicable law. It also addresses emergency equipment and emergency contacts that would ensure updated contact with the City and safety protocols.

- **§ 11-4.18 Release of contaminants.** This municipal code addresses that the release of a contaminant from any facility is a trespass and a public nuisance. Measures that would take place in the event of any release or any uncontrolled loss of a contaminant or discovery of an unremediated environmental condition on, under, or from any facility are addressed along with necessities to mitigate and remediate in accordance to law.
- **§ 11-4.19 Environmental compliance reports—Environmental notices and records.** Grantee shall establish and maintain at its sole expense a system to monitor and to assure continued compliance with all applicable law relating to the protection of the environment including detailed annual reviews, environmental audits, and supplemental audits, as well as any additional information to the City.
- **§ 11-4.30 Emergency suspension order.** The City may, by order of the City Manager or the City Engineer, suspend operations pursuant to a franchise when the City Manager or the City Engineer determines that such suspension is necessary in order to stop an actual or impending discharge which may present endangerment in any way to the health and welfare of persons in the City.
- **§ 10-3 Environmental Review Pursuant to CEQA.** The Redondo Beach Municipal Code establishes the specific procedures necessary to implement CEQA. Article 2, Evaluation of Significant Effects, establishes criteria for determining significant effects and provides guidance in making an evaluation whether or not a particular project may have a substantial adverse effect on the environment. Pursuant to the Municipal Code, if there are inconsistencies between the provisions contained in Title 10, Chapter 3, and the State's CEQA Guidelines, the State's CEQA Guidelines shall control. As established in Section 10-3.202, significant effects may be due to primary consequences immediately related to the project or may be due to secondary consequences related more to the primary consequences than the project itself. As established in Section 10-3.203(v), with respect to hazards and hazardous materials, a project will normally have a significant effect on the environment if it will create a potential public health hazard or involve the use, production or disposal of materials which pose a hazard to people or animal or plant populations in the area affected.

Local Hazard Mitigation Plan

The City adopted its first Local Hazard Mitigation Plan (LHMP) on July 7, 2020, which focuses on developing short-term (approximately 5 years) mitigation strategies that make a community more resilient to disasters, so less damage occurs and the community is able to recover more effectively from emergencies. The LHMP includes a risk assessment and mitigation measures for the hazards identified as the most threatening to Redondo Beach, including climate change, sea-level rise, flood, erosion, extreme weather, seismic hazards, and human-caused hazards. Many of these hazards threaten parks and open spaces as well as natural resources in the City.

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Continuity of Operations Plan and Emergency Operations Plan

The City is prepared to maintain its core level of service during emergency situations, such as fire, earthquake, or other hazardous events. To better ensure that adequate coordination and services are maintained during future hazardous events, the City plans to develop a “continuity of operations plan” (COOP) and an “emergency operations plan” (EOP). The COOP and EOP will provide procedures that address readiness, mobilization, and contingency planning to allow for uninterrupted delivery of essential functions during disasters. The COOP and EOP aim to save lives, prevent property damage, protect and assist the public with emergencies, and facilitate recovery after a disaster.

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 are 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.

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:

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- **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 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.

Current existing industrial land uses are present in the City. A portion of the City's northern region is zoned as I-1 Industrial. Smaller areas zoned I-2 and I-3 are present along Manhattan Beach Boulevard, the 405 freeway, 182nd Street, 190th Street, and a small area between N. Harbor Drive and N. Pacific Coast Highway.

The required lists of hazardous material release sites are commonly referred to as the "Cortese List," named after the author of 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 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 January 8, 2024, identified 42 hazardous materials sites within the City of Redondo Beach, as shown in Table 5.8-1, *SWRCB Hazardous Sites in the City of Redondo Beach*, and Table 5.8-2, *DTSC Hazardous Sites in the City of Redondo Beach* (SWRCB 2024; DTSC 2024). Fourteen sites are designated as "closed," "completed—case closed," "no action required," or "no further action." And 14 sites were designated as "active," "undergoing closure," "Referral: Non-specified," "Open-Site Assessment," "Open-Inactive," or "Open-Eligible for closure." These sites are listed in Table 5.8-3, *Active or Open Hazardous Waste Sites in Redondo Beach*.

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Tabel 5.8-1 SWRCB Hazardous Sites in the City of Redondo Beach

GeoTracker Sites (SWRCB)			
Site Name	Address	Project Type	Status
Triton Oil & Gas - Redondo Beach	612 North Francisca Avenue	Cleanup Program	Completed-Case Closed
SCE - Redondo Generating Station	1100 Harbor Dr	Cleanup Program	Open- Site Assessment
Ralphs Supermarket	1413 Hawthorne Blvd	Cleanup Program	Completed-Case Closed
South Bay Southern Shopping Center	1815 Hawthorne Blvd #201	Cleanup Program	Open-Inactive
Former Arco Station	300 Torrance Boulevard	Cleanup Program	Completed-Case Closed
Beryl Site	1272 Beryl St	Cleanup Program	Open- Site Assessment
The Foundry	2829 W 190th St	Cleanup Program	Open - Eligible for Closure ¹
Lady Alice Cleaners	261 Avenida Del Norte	Cleanup Program	Completed-Case Closed
Coury & Son Cleaners (Former)	1232 Beryl St	Cleanup Program	Open- Site Assessment
Delta Baker Inc	1644 Haynes Ln	Cleanup Program	Completed-Case Closed
County Of Los Angeles Building	743 Esplanade Dr	LUST Cleanup Site	Completed - Case Closed
Triangle Shopping Center	2323 Hawthorne Blvd	LUST Cleanup Site	Completed - Case Closed
Chevron #93777	1630 Elena St S	LUST Cleanup Site	Completed - Case Closed
West Group Construction	260 Portofino Wy	LUST Cleanup Site	Completed - Case Closed
US Postal Service	1201 Catalina Ave N	LUST Cleanup Site	Completed - Case Closed
Sweetser Property	507 Gertruda Ave N	LUST Cleanup Site	Completed - Case Closed
California Water Service Co	801 Prospect Ave	LUST Cleanup Site	Completed - Case Closed
Rapid Gas #8	2118 Artesia Blvd	LUST Cleanup Site	Completed - Case Closed
Beryl & Prospect Shell	1200 E Beryl St	LUST Cleanup Site	Completed - Case Closed
South Bay Galleria South Lot	1501 Hawthorne Blvd	LUST Cleanup Site	Completed - Case Closed
Beach Cities Health District	514 N Prospect Ave	LUST Cleanup Site	Completed - Case Closed
Select Gas Lube Express	236 Pacific Coast Hwy. S	LUST Cleanup Site	Completed - Case Closed
City of Redondo Beach	545 Gertruda Ave North	LUST Cleanup Site	Completed - Case Closed
Exxon #7-2515 (Former)	2714 Artesia Blvd E	LUST Cleanup Site	Completed - Case Closed
Exxon #7-2824 (Former)	1700 Artesia Blvd	LUST Cleanup Site	Completed - Case Closed
Exxon #7-3630	300 Torrance Blvd	LUST Cleanup Site	Completed - Case Closed
Redondo Beach Marina	161 Harbor Dr N	LUST Cleanup Site	Completed - Case Closed
T-Y Nursery Inc	808 Paulina Ave	LUST Cleanup Site	Completed - Case Closed
Dairy Mart 1	2901 190th St	LUST Cleanup Site	Completed - Case Closed
Tosco S.S. #2947	247 Pacific Coast Hwy N	LUST Cleanup Site	Completed - Case Closed

Source: SWRCB 2023.

¹ Corrective action at the Site has been determined to be completed and any remaining petroleum constituents from the release are considered to be low threat to Human Health, Safety, and the Environment. The case is going through the process of being closed.

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Table 5.8-2 DTSC Hazardous Sites in the City of Redondo Beach

EnviroStor Sites (DTSC)			
Site Name	Address	Project Type	Status
K&L Redondo Beach Partnership	2701-2741 Manhattan Beach Boulevard	Voluntary Cleanup	Active
Redondo Beach Police Shooting Range	1513 Beryl Street	Voluntary Cleanup	No Further Action
Northrop Corporation Aircraft Division	4030 Freeman Blvd	Non-operating	Protective Filer
Northrop Grumman S&MSC	One Space Park Blvd	Non-operating	Closed
EPTC-Redondo	1100a Harbor Drive	Non-operating	Undergoing Closure
Northrop Grumman Space & Mission Systems	1 Space Park Blvd	Corrective Action	Active
AES - Redondo Beach Generating Station	1100a Harbor Drive	Corrective Action	Active
Advanced Design & Construction Inc.	1740 Carlson Lane	Evaluation	Referral: Non-specified
1609-11 Ripley Lane	1609-11 Ripley Lane	Evaluation	Referral: Non-specified
California Delta Baker	604-612 Reynolds Lane	Evaluation	Referral: Non-specified
Lady Alice Cleaners	261 Avenida Del Norte	Evaluation	Referral: Non-specified
Parisian Cleaners	400 Diamond Street	Evaluation	Referral: Non-specified

Source: DTSC 2023.

Referral Non-specified: Senate Bill (SB) 1248 allows a responsible party and a local agency to enter into a written agreement for the supervision of a cleanup of a simple waste release.

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Table 5.8-3 Active or Open Hazardous Waste Sites in Redondo Beach

Total List of Sites That Are:	Active, Undergoing Closer, Referring to a local agency, or Open		
Site Name	Address	Project Type	Status
DTSC Sites			
K&L Redondo Beach Partnership	2701-2741 Manhattan Beach Boulevard	Voluntary Cleanup	Active
EPTC-Redondo	1100a Harbor Drive	Non-Operating	Undergoing Closure ¹
Northrop Grumman Space & Mission Systems	1 Space Park Blvd	Corrective Action	Active
AES - Redondo Beach Generating Station	1100a Harbor Drive	Corrective Action	Active
Advanced Design & Construction Inc.	1740 Carlson Lane	Evaluation	Referral: Non-specified
1609-11 Ripley Lane	1609-11 Ripley Lane	Evaluation	Referral: Non-specified ²
California Delta Baker	604-612 Reynolds Lane	Evaluation	Referral: Non-specified
Lady Alice Cleaners	261 Avenida Del Norte	Evaluation	Referral: Non-specified
Parisian Cleaners	400 Diamond Street	Evaluation	Referral: Non-specified
SWRCB Sites			
SCE - Redondo Generating Station	1100 Harbor Dr	Cleanup Program	Open- Site Assessment
South Bay Southern Shopping Center	1815 Hawthorne Blvd #201	Cleanup Program	Open-Inactive
Beryl Site	1272 Beryl St	Cleanup Program	Open- Site Assessment
The Foundry	2829 W 190th St	Cleanup Program	Open - Eligible for Closure
Coury & Son Cleaners (Former)	1232 Beryl St	Cleanup Program	Open- Site Assessment

Sources: DTSC 2023; SWRCB 2023

¹ Non-operating facility but in the process of closure. Site is not completely classified as "closed."

² Referral Non-specified: Senate Bill (SB) 1248 allows a responsible party (RP) and a local agency to enter into a written agreement for the supervision of a cleanup of a simple waste release.

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 asbestos-containing material (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.

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- **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 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 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. Los Angeles County is listed as a Zone 2 county, which predicts an average indoor radon screening level between 2 and 4 pCi/L, which is within the recommended levels assigned by the EPA for installation of radon mitigation systems (EPA 2014).

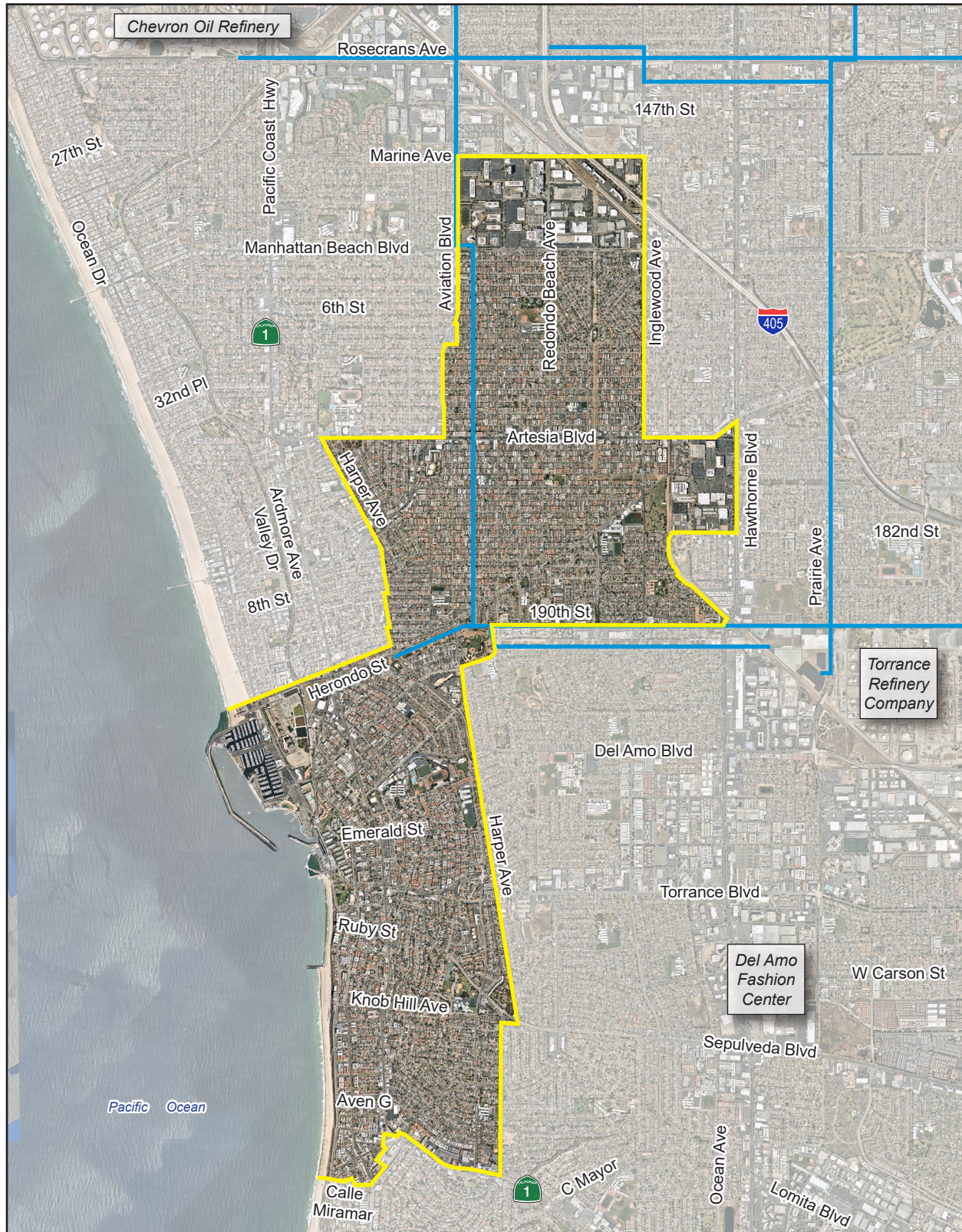
Schools

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, 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. There are currently 13 public schools and 12 private schools in Redondo Beach.

Pipelines

Pipelines of concern carry hazardous liquids and/or gases that can be harmful to life and property. Redondo Beach does have hazardous pipelines that run through the City. A search on the USDOT National Pipeline Mapping System found gas transmission lines and hazardous liquid pipelines in the City (DOT 2024). Locations of these lines are shown on Figure 5.8-1, *Gas Transmission Pipelines in Redondo Beach*, and Figure 5.8-2, *Hazardous Liquid Pipelines in Redondo Beach*.

Figure 5.8-1 - Gas Transmission Pipelines in Redondo Beach



City of Redondo Beach

Gas Transmission Pipelines

Note: The City boundary extends 3 miles into the Pacific Ocean, which is not shown on this exhibit.

Source: City of Redondo Beach, 2023.

0 4,000
Scale (Feet)

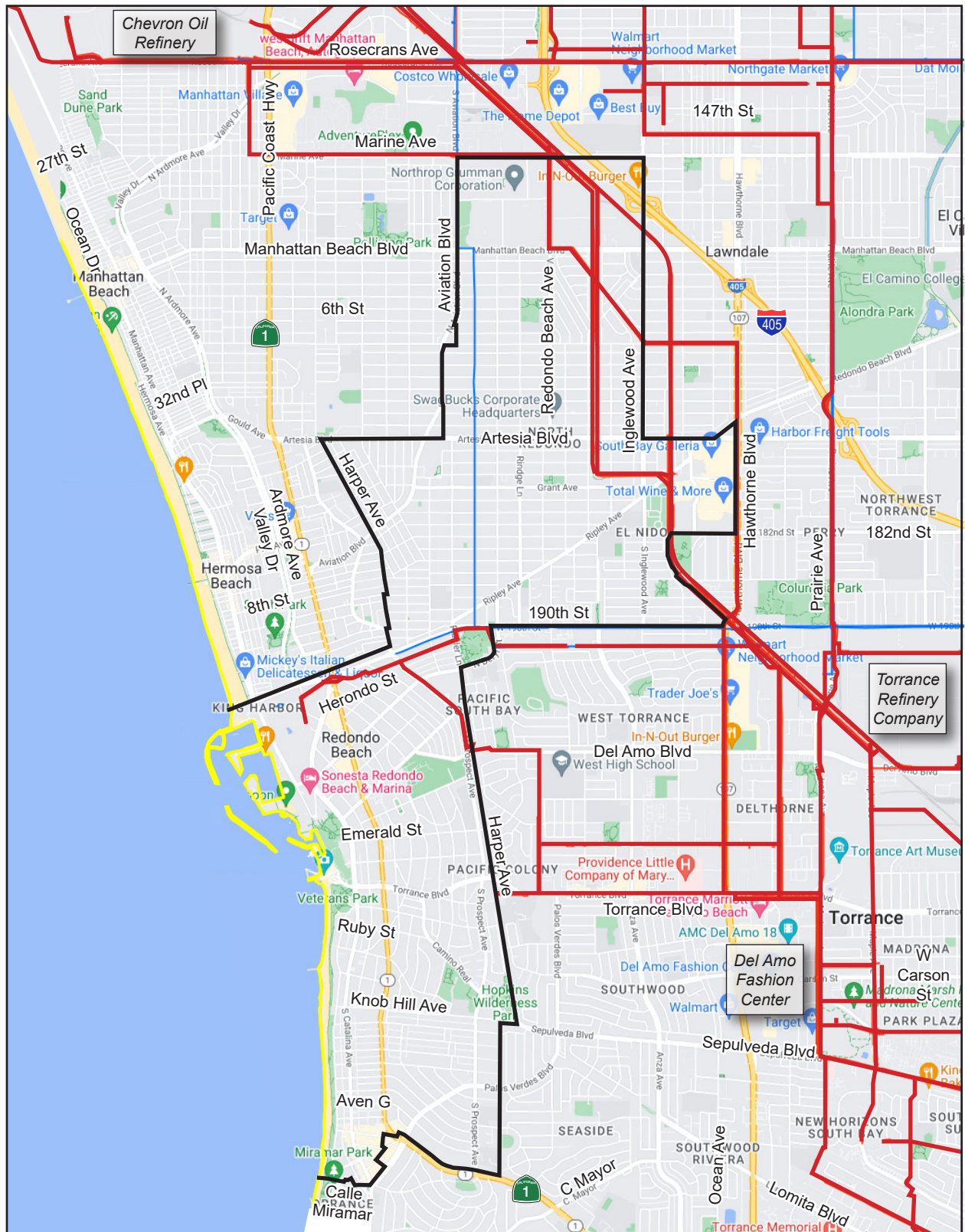


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Figure 5.8-2 - Hazardous Liquid Pipelines in Redondo Beach



City of Redondo Beach Hazardous Liquid Pipelines

Note: The City boundary extends 3 miles into the Pacific Ocean, which is not shown on this exhibit.

Source: City of Redondo Beach, 2023.

0 4,000
Scale (Feet)



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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. There are no airports in Redondo Beach. The nearest airport is the Torrance Municipal Airport (Zamperini Field) approximately 1.6 miles southeast of the City.

Wildfire

The City of Redondo Beach is not within any fire hazard zones (Los Angeles 2024).

Wells

No active wells are within the City's boundaries. According to the California Geographical Survey's Well Finder database, portions of Redondo Beach are within the boundary of an oil and gas field that currently has over 100 plugged oil and gas wells and four wells that are idle within the City (CGS 2024).

5.8.2 Thresholds of Significance

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

- H-1 Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials.
- H-2 Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment.
- H-3 Emit hazardous emissions or handle hazardous or acutely hazardous materials, substance, or waste within one-quarter mile of an existing or proposed school.
- H-4 Be located on a site which is included on a list of hazardous materials compiled pursuant to Government Code Section 65962.5 and, as a result, would create a significant hazard to the public or the environment.
- H-5 For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would result in a safety hazard or excessive noise for people residing or working in the project area.
- H-6 Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan.
- H-7 Expose people or structures, either directly or indirectly, to a significant risk of loss, injury, or death involving wildland fires.

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5.8.3 Proposed General Plan Goals and Policies

Safety Element

Goal S-1 Emergency Preparedness, Response, and Recovery: A prepared Redondo Beach that can effectively plan for, respond to, and recover from emergencies and hazardous events.

- **Policy S-1.1 Emergency Operations Plan.** Coordinate with federal, state, and local emergency response agencies to develop adopt, and maintain a City of Redondo Beach Emergency Operations Plan (EOP) and a Continuity of Operations Plan (COOP).
- **Policy S-1.2 Recovery and Rehabilitation.** Facilitate the rapid recovery of persons and rehabilitation of buildings and infrastructure following a hazardous event.
- **Policy S-1.3 Public Awareness.** Increase public awareness and knowledge of emergency response planning, procedures, and opportunities for public engagement, participation, and support.
- **Policy S-1.4 Emergency Operations Center Readiness.** Provide the resources, funding, and tools to ensure the local Emergency Operations Center (EOC) is prepared for any disaster that may affect the City.
- **Policy S-1.5 Local Hazard Mitigation Plan.** Incorporate the current Local Hazard Mitigation Plan, most recently adopted by FEMA in July 2020, into this Safety Element by reference, as permitted by California Government Code Section 65302.6 to ensure that emergency response and evacuation routes are accessible throughout the City.
- **Policy S-1.6 Responsiveness to Large-Scale Disasters.** Improve the City's ability to prepare for and respond to large-scale disasters through coordination and sharing data, experience, and strategies with other emergency management agencies in state or regional efforts on disaster planning.
- **Policy S-1.7 Early-warning Notification Systems.** Provide alerts about potential, developing, and ongoing emergency situations through extensive early-warning and notification systems that convey information to all residents, in multiple languages and formats to ensure it is widely accessible.
- **Policy S-1.8. Coordination with National, State and Local Emergency Management Agencies.** Continue to coordinate with local and State Emergency Management agencies using the Standardized Emergency Management System (S.E.M.S.) and National Incident Management System (N.I.M.S.) to facilitate multi-agency emergency response.

Goal S-2 Critical Facilities: Redondo Beach's essential facilities retain functionality and structural integrity following natural and human-caused disasters.

- **Policy S-2.4 Emergency Response Plans for Critical, Sensitive and High-Occupancy Facilities.** Require Critical, Sensitive, and High-Occupancy Facilities located in areas of potential hazards, such as seismic, flooding, or sea level rise, to maintain site-specific emergency response plans, with contingencies for all appropriate hazards.

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- **Policy S-2.5 Citywide Network of Resilience Hubs.** Establish a network of equitably located resilience hubs throughout Redondo Beach and ensure that resilience hubs are situated outside of areas at risk from hazard impacts to the extent possible, offer refuge from extreme heat and poor air quality due to regional wildfire smoke, and are equipped with renewable energy generation and backup power supplies. Such facilities should be in easily accessible locations and be available to all community members.

Goal S-4 Seismic and Geologic Hazards: Reduce death, injury, property damage, economic and social dislocation, and disruption of vital services resulting from seismic and geologic related events.

- **Policy S-4.2 Keep Local Ordinances and Regulations Current.** Update local ordinances and regulations after each update to the Local Hazard Mitigation Plan and/or Safety Element to incorporate relevant geologic and seismic hazard information.
- **Policy S-4.3 Evacuation and Access.** Ensure that new development, especially high-occupancy facilities, allow for evacuation of occupants through stabilized corridors and access points if buildings are damaged by seismic activity.
- **Policy S-4.6 Police, Fire and Public Works Coordination.** Coordinate with fire, police, and public works departments to ensure effective preparation, response, and recovery services are available throughout the community before, during, and after a seismic event.

Goal S-5 Tsunami Hazards: Protection of life, prevention of injury, and reduction in the potential for property damage from tsunami runup.

- **Policy S-5.2 Tsunami Evacuation Notices to Community Members.** Obtain information from the U.S. Tsunami Warning System and the Tsunami Ready Communities program to send evacuation notices to community members in the event of a tsunami.

Goal S-8 Hazardous Materials: The adequate management, transportation, storage, and disposal of hazardous materials in Redondo Beach.

- **Policy S-8.1 Agency Coordination to Manage Hazardous Waste Facilities.** Coordinate with Los Angeles County to effectively manage hazardous waste facilities and materials, including household hazardous waste, through the enforcement of federal, state, and local regulations, to ensure safe handling, transport, use, and disposal of toxic and hazardous materials.
- **Policy S-8.2 Enforce Toxic and Hazardous Waste Facility Regulations.** Continue to cooperate with state, regional, and county agencies to enforce regulations for the safe operation of toxic and hazardous waste facilities.
- **Policy S-8.3 Coordinate with Businesses to Minimize Hazardous Waste.** Identify and coordinate with local businesses to minimize hazardous waste produced by businesses that must use, store, or transport hazardous materials.

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- **Policy S-8.4. Responses to Toxic and Hazardous Waste and Materials Emergencies.** Coordinate with state and regional agencies to facilitate coordinated and effective responses to toxic and hazardous waste and materials emergencies in the City to minimize health, property, and environmental risks, damage, and consequences.
- **Policy S-8.5 Toxic and Hazardous Waste Contamination Prevention of Local Water Supply.** Integrate inter-agency and interdepartmental review and participation in water resource evaluation and mitigation programs to protect against toxic and hazardous waste contamination of the local water supply.
- **Policy S-8.6 Eliminate and/or Clean Water Supply Contaminants.** Eliminate and/or clean existing sources of water supply contaminants due to toxic or hazardous materials and uses. Regularly monitor the state's hazardous sites list and work with identified locations on eliminating and/or cleaning identified water supply contamination.
- **Policy S-8.7 Hazardous Materials Disposal.** Ensure that the use and disposal of hazardous materials in the City complies with local, regional, state, and federal safety standards.
- **Policy S-8.8 Siting of New Facilities Using, Storing or Producing Hazardous Materials.** Prohibit any new facilities using, storing, or producing hazardous materials from being located directly adjacent to existing residential or school uses.
- **Policy S-8.9 Hardening of Hazardous Waste Storage Containers.** Encourage hardening of hazardous waste storage containers to minimize increased risks from hazards such as floods, earthquakes, sea level rise, and severe weather.

Goal S-9 Fire Hazards: Minimal risk of injuries, property damage, and economic loss due to fire emergencies.

- **Policy S-9.1 Fire Services to Protect from Fire and Fire-Related Emergencies.** Provide fire prevention, protection, and emergency preparedness services that adequately protect residents, employees, visitors, and structures from fire and fire-related emergencies.
- **Policy S-9.3 Agency Coordination to Implement Regional Fire Protection Agreement.** Continue to cooperate with fire, paramedic, and emergency operations personnel in adjacent municipalities and the County of Los Angeles to assist each other in carrying out the existing regional fire protection agreement.
- **Policy S-9.4 New Development Standards to Reduce Fire Hazard Risk.** Continue to enforce and, as necessary, adopt new development standards to reduce fire hazard risks for new and existing development to minimize property damage and loss of life.

5.8.4 Environmental Impacts

5.8.4.1 METHODOLOGY

The SWRCB GeoTracker database and the DTSC EnviroStor database were searched to identify hazardous materials and buildings in Redondo Beach. Fourteen hazardous sites were identified. The National Pipeline

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Mapping System online mapping system was also used to determine that hazardous liquid pipelines are located in the City.

5.8.4.2 IMPACT ANALYSIS

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

IMPACT 5.8.1: Project construction and operations would not create a significant impact due to the transport, use, and/or disposal of hazardous materials; and reasonably foreseeable upset and accident conditions; and would not impact an existing or proposed school. [Thresholds H-1, H-2, and H-3]

Construction

The proposed project is a regulatory document that sets the framework for future growth and development in the City and does not directly result in development. Updates to the Zoning Ordinance and LCP would involve land-use changes that would be consistent with the General Plan Update. 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 would not be in such quantities or stored in such a manner as to pose a significant safety hazard. These activities would also be short term or one time in nature. Project construction workers would be trained in safe handling and hazardous materials use.

To prevent hazardous conditions, existing local, state, and federal laws—such as those listed under Section 5.8.1.2, *Regulatory Background*—are to be enforced at construction sites as well as during the transport and disposal of hazardous materials. 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 construction activities. 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. For example, all spills or leakage of petroleum products during construction activities are required to be immediately contained, the hazardous material identified, and the material remediated in compliance with applicable state and local regulations for the cleanup and disposal of that contaminant. All contaminated waste encountered would be required to be collected and disposed of at an appropriately licensed disposal or treatment facility. Furthermore, strict adherence to all emergency response plan requirements set forth by the Los Angeles County Fire Department and the Rbfd would be required throughout the duration of project construction. Therefore, impacts would be less than significant.

Operations

The proposed project would allow for the development of a variety of land uses, including industrial, residential, commercial, office, civic/institutional, and open space uses. Industrial uses and some commercial uses utilize greater amounts of hazardous materials than other uses, such as residential uses and schools. Operation of future residential and some commercial uses that would be accommodated would involve the use

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of small quantities of hazardous materials for cleaning and maintenance purposes, such as paints, household cleaners, fertilizers, and pesticides. Operation of future industrial and some types of commercial uses would involve use of larger amounts of hazardous materials, such as fuel/diesel, and commercial grade chemicals, solvents, cleaners, etc. These types of industrial and commercial uses, and therefore, the specific types of hazardous materials to be used, are not yet known.

The use, storage, transport, and disposal of hazardous materials by future residents and commercial and industrial tenants/owners would be required to comply with existing regulations of several agencies, including the California Department of Toxic Substances Control, US Environmental Protection Agency, California Division of Occupational Safety and Health, California Department of Transportation, and LA County Fire Department. Regulations that would be required of the uses that involve transporting, using, or disposing of hazardous materials include RCRA, which provides the “cradle to grave” regulation of hazardous wastes; CERCLA, which regulates closed and abandoned hazardous waste sites; the Hazardous Materials Transportation Act, which governs hazardous materials transportation on U.S. roadways; International Fire Code, which creates procedures and mechanisms to ensure the safe handling and storage of hazardous materials; CCR Title 22, which regulates the generation, transportation, treatment, storage and disposal of hazardous waste; and CCR Title 27, which regulates the treatment, storage, and disposal of solid wastes. For development in California, Government Code Section 65850.2 requires that no final certificate of occupancy or its substantial equivalent be issued unless there is verification that the owner or authorized agent has met, or is meeting, the applicable requirements of the Health and Safety Code, Sections 25500 through 25520.

Compliance with applicable laws and regulations governing the use, storage, transport, and disposal of hazardous materials would ensure that all potentially hazardous materials are used and handled in an appropriate manner and would minimize the potential for safety impacts. Additionally, future residential and nonresidential uses under the proposed project would be constructed and operated with strict adherence to all emergency response plan requirements of the RBFD and County Fire.

County Fire’s Health Hazardous Materials Division is the Certified Unified Program Agency (CUPA) for the City of Redondo Beach. County Fire and the RBFD work together to implement the City’s proposed Emergency Operations Plan that addresses Redondo Beach’s planned response to emergencies. The CUPA is responsible for managing the following programs in the county:

- Underground Storage Tank Program
- Aboveground Petroleum Storage Act Requirements
- Hazardous Waste Generator and Onsite Hazardous Waste Treatment Programs
- Hazardous Materials Release Response Plans and Inventories (Business Plan)
- California Accidental Release Prevention
- Hazardous Material Management Plans

Additionally, several policies in the General Plan Update would minimize risks from businesses that use hazardous materials. For Example, Policy S-8.3 would identify and coordinate with local businesses to minimize hazardous waste produced by businesses that must use those materials, and Policy S-8.7 would ensure that the use and disposal of hazardous materials in the City comply with local, regional, state, and federal safety

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standards. Additional policies that relate to storage, operation, transport, and emergency procedures for hazardous sites/wastes are S-8.1, S-8.2, S-8.4, S-8.5, S-8.6, S-8.8, and S-8.9. Therefore, impacts would be less than significant.

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 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 for 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 nonflammability, 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 USEPA 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 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 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 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

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protection and good working practice by workers exposed to lead and ACMs. Therefore, impacts would be less than significant.

Accidental Release

The use, storage, and transport of hazardous materials and hazardous wastes in compliance with the laws and regulations mentioned above would minimize the potential for releases of hazardous materials that could pose substantial hazards to the public or the environment and would entail prompt containment and cleanup of spills. Residential uses, some civic/institutional uses such as schools and parks, and some commercial uses utilize only small amounts of hazardous materials—such as cleansers, paints, fertilizers, and pesticides—and mostly or entirely for cleaning and maintenance purposes. Use of such small amounts of hazardous materials would not pose substantial hazards to the public or the environment through accidental releases. Businesses handling reporting quantities of hazardous or extremely hazardous materials would maintain business plans including: procedures in the event of a hazardous materials release, procedures for immediate notification of all appropriate agencies and personnel, identification of local emergency medical assistance, contact information for company emergency coordinators, a listing and location of emergency equipment at the business, an evacuation plan, and a training program for business personnel.

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 accident factors present at a business and the mitigation 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 Los Angeles County Fire Department is the CUPA designated as the administering agency for CalARP. Therefore, impacts would be less than significant.

Pipelines

As noted in Section 5.8.1.3, *Existing Conditions*, hazardous pipelines run through the City (DOT 2024). (See Figure 5-8.1, *Gas Transmission Pipelines in Redondo Beach*, and Figure 5.8-2, *Hazardous Liquid Pipelines in Redondo Beach*.) Additionally, municipal code Section 11-4.16 would provide guidelines to follow within the City that concern coordination with the local fire department, producing a pipeline safety plan, and any other applicable law. Furthermore, policies such as Policy 6.8.1, Policy 6.8.2, Policy 6.8.3, and Policy 6.8.4 all pertain to petroleum utility operations encompassing improvements, maintenance, requirements, and overall work surrounding petroleum pipelines.

Schools

There are currently 13 public schools and 12 private schools in Redondo Beach. Policy S-8.8 would prohibit any new facilities using, storing, or producing hazardous materials from being located directly adjacent to existing residential or school uses. Therefore, impacts would be less than significant.

Level of Significance Before Mitigation: Impact 5.8-1 would be less than significant.

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IMPACT 5.8-2: There are sites with the planning area that are on the list of hazardous materials sites but would not create a significant hazard to the public or environment. [Threshold H-4]

There are currently 14 hazardous waste sites within the City (see Table 5.6-3, *Active or Open Hazardous Waste Sites in Redondo Beach*). 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. Additionally, there are several policies in the General Plan Update that would ensure impacts as a result of hazardous materials would be reduced. For example, Policy S-8.1 would make sites coordinate with Los Angeles County to effectively manage hazardous waste facilities and materials, including household hazardous waste, through the enforcement of federal, state, and local regulations, to ensure safe handling, transport, use, and disposal of toxic and hazardous materials. Additionally, Policies S-8.2, S-8.3, S-8.4, S-8.5, S-8.6, S-8.7, S-8.8, and S-8.9 have set regulations and procedures to follow for sites that handle, store, operate, and dispose of hazardous materials. Therefore, impacts would be less than significant.

Level of Significance Before Mitigation: Impact 5.8-2 would be less than significant.

Impact 5.8-3: The project site is not located in the vicinity of an airport or within the jurisdiction of an airport land use plan. [Threshold H-5]

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. Pursuant to Section 21096 of the Public Resources Code, the lead agency must consider whether the project would result in a safety hazard for persons using the airport or for persons residing or working in a project area.

Redondo Beach is not within the vicinity of any airports or within the jurisdiction of an airport land use plan. The closest airport is approximately 1.6 miles southwest of the City. Therefore, no impacts would occur.

Level of Significance Before Mitigation: Impact 5.8-3 would be less than significant.

Impact 5.8-4: Project development would not affect the implementation of an emergency responder or evacuation plan. [Threshold H-6]

The regional access roads located in the City include SR-1 and SR-107. There are many local arterials in the City for accessibility of execution of emergency operations. Additionally, the proposed project has many policies associated with emergency operations. For example, Policy S-1.1 and Policy S-1.4 address cooperation and coordination with the City of Redondo Beach EOP, COOP, and the local Emergency Operations Center. Additional policies that would address emergency operations and preparedness include S-1.2, S-1.3, S-1.5, S-1.6, S-1.7, S-1.8, S-2.4, S-2.5, S-4.2, S-4.3, S-4.6, and S-5.2.

Regarding emergency operations and notification systems for citizens and visitors of Redondo Beach, many policies are in place to ensure public safety and early notification in the event of emergencies. For example,

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Policy S-1.3 and Policy S-1.7 aim to increase public awareness and knowledge of emergency response planning, procedures, and opportunities for public engagement, participation, and support. They provide for alerts about potential, developing, and ongoing emergency situations through extensive early-warning and notification systems that convey information to all residents in multiple languages and formats to ensure it is widely accessible.

Additionally, the use of Redondo Beach's LHMP would serve as a reference for available evacuation routes and procedures to accompany emergency operations. Policy S-1.5 aims to incorporate the current LHMP, most recently approved by FEMA and adopted by the City in July 2020, into the Safety Element by reference, as permitted by California Government Code Section 65302.6, to ensure that emergency response and evacuation routes are accessible throughout the City.

Furthermore, to better ensure adequate coordination and services are maintained during future hazardous events, the City plans to develop a COOP and EOP, which will provide procedures that address readiness, mobilization, and contingency planning to allow for uninterrupted delivery of essential functions during disasters. The COOP and EOP aim to save lives, prevent property damage, protect and assist the public with emergencies, and facilitate recovery after a disaster. Additional policies that would address emergency operations and preparedness include Policy S-1.1 and Policy S-1.4 that aim to adopt and maintain a COOP and EOP. Therefore, impacts would be less than significant.

Level of Significance Before Mitigation: Impact 5.8-4 would be less than significant.

Impact 5.8-5: The project site is not in a designated fire hazard zone and could expose structures and/or residences to fire danger. [Threshold H-7]

The City of Redondo Beach is not in any fire severity zones (Los Angeles 2024). The City has policies in place that would help mitigate or assist in operations where fire may occur. Policy S-9.1 addresses fire services by providing fire prevention, protection, and emergency preparedness services that adequately protect residents, employees, visitors, and structures from fire and fire-related emergencies. Policy S-9.3 addresses the City's coordination to continue to implement the regional fire protection agreement by continuing to cooperate with fire, paramedic, and emergency operations personnel in adjacent municipalities, the RBFD, and the County of Los Angeles to assist each other in carrying out the existing regional fire protection agreement. Policy S-9.4 addresses new development standards by continuing to enforce and, as necessary, adopt new development standards to reduce fire hazard risks for new and existing development to minimize property damage and loss of life. Therefore, impacts would be less than significant.

Level of Significance Before Mitigation: Impact 5.9-5 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 of Redondo Beach. 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

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transport of hazardous materials across regional transportation systems, have the potential to impact areas outside of the City.

Hazardous Materials

Construction activities for all projects in the county, including within incorporated jurisdictions, 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 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

Through the use of the EOP provided by the County of Los Angeles and the measures in the Redondo Beach LHMP and Safety Element, projects under the General Plan Update, as well as in other jurisdictions, would not restrict or interfere with the flow of emergency vehicles or evacuation and would therefore not create a cumulatively considerable effect. Based upon these considerations, the cumulative effect of the proposed project's implementation would be less than significant.

Fire Hazards

The City of Redondo Beach is not within any fire hazard severity zones. With coordination from local municipalities, the Redondo Beach Fire Department, and the County of Los Angeles Fire Department, any hazards regarding fire and its potential hazards would be mitigated. Therefore, fire hazards in the City would be less than significant.

5.8.6 Level of Significance Before Mitigation

Upon implementation of regulatory requirements, and goals and policies from the proposed project, all impacts would be less than significant.

5.8.7 Mitigation Measures

No mitigation measures are required.

5.8.8 Level of Significance After Mitigation

No significant unavoidable adverse impacts relating hazards have been identified. All impacts would be less than significant.

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5.8.9 References

- Department of Toxic Substances Control (DTSC). 2024. EnviroStor.
<https://www.envirostor.dtsc.ca.gov/public/map/?myaddress=Redondo+Beach>
- Los Angeles County. 2024. Fire Hazard Severity Zones. <https://egis-lacounty.hub.arcgis.com/maps/lacounty:fire-hazard-severity-zones/about>
- State Water Resources Control Board (SWRCB), 2024. GeoTracker.
<https://geotracker.waterboards.ca.gov/map/?CMD=runreport&myaddress=Redondo+Beach#>.
- US Department of Transportation (DOT), 2024. National Pipeline Mapping System Public Viewer- Los Angeles County. <https://pvnpm.phmsa.dot.gov/PublicViewer/>
- US Environmental Protection Agency (USEPA). 2014. California. EPA Map of Radon Zones.
<https://www.epa.gov/sites/default/files/2014-08/documents/california.pdf>.

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5.9 HYDROLOGY AND WATER QUALITY

This section of the Draft Program Environmental Impact Report (DEIR) evaluates the potential for implementation of the General Plan and Zoning Ordinance Updates, and Local Coastal Program (LCP) amendment (proposed project) to impact hydrology and water quality conditions in the City of Redondo Beach. Hydrology deals with the distribution and circulation of water, both on land and underground. Water quality deals with the quality of surface- and groundwater. Surface water includes lakes, rivers, streams, creeks, and water that drains into these surface waters from storm drainage systems; groundwater is under the earth's surface.

- *City of Redondo Beach General Plan Update Infrastructure Report for Water, Sewer, Storm Drainage, and Water Quality*, Fuscoe Engineering Inc., July 2024.

A complete copy of this study is included in the Technical Appendices to this Draft EIR (Appendix F).

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 requirements must be submitted for any activity that would result in the placement of dredged or fill material

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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.

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.

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In California, the NPDES permit program is administered by the SWRCB through the nine RWQCBs. The City lies within the jurisdiction of the Los Angeles RWQCB (Region 4).

Floodplain Development

The Federal Emergency Management Agency (FEMA) is responsible for determining flood elevations and floodplain boundaries based on USACE studies and approved agency studies. FEMA is also responsible for distributing the Flood Insurance Rate Maps (FIRMs), which are used in the National Flood Insurance Program (NFIP). These maps identify the locations of special flood hazard areas (SFHA), including the 100-year flood zone. FEMA allows nonresidential development in SFHAs; however, construction activities are restricted depending upon the potential for flooding within each area. Federal regulations governing development in a SFHA are set forth in Title 44, Part 60 of the Code of Federal Regulations (CFR), which enables FEMA to require municipalities that participate in the NFIP to adopt certain flood hazard reduction standards for construction and development in 100-year flood plains. In addition, the Flood Disaster Protection Act of 1973 and the National Flood Insurance Reform Act of 1994 mandate the purchase of flood insurance as a condition of federal or federally related financial assistance for acquisition and/or construction of buildings in SFHAs of any community.

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.

Rivers and Harbors Appropriation Act of 1899

Under the Rivers and Harbors Act of 1899, the USACE requires permits for activities involving the obstruction of the navigable capacity of any waters of the United States or the construction of any structures in or over navigable waters of the United States, including ports, canals, navigable rivers, or other waters. “Navigable waters” under Section 10 of the Rivers and Harbors Act are defined as “those waters of the United States that are subject to the ebb and flow of the tide shoreward to the mean high-water mark and/or are presently used, or have been used in the past, or may be susceptible to use to transport interstate or foreign commerce.” Pursuant to Section 10 of the Rivers and Harbors Act, the USACE administers this regulatory program separate from the Section 404 program. A Section 10 permit may be required for structures or work outside the limits of navigable waters if the structure or work affects the course, location, condition, or capacity of the water body.

State

State Water Resources Control Board

Responsibility for the protection of water quality in California rests with the SWRCB and nine Regional RWQCBs. The SWRCB establishes statewide policies and regulations for the implementation of water quality

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control programs mandated by federal and state water quality statutes and regulations. The RWQCBs develop and implement Water Quality Control Plans (Basin Plans) that consider regional beneficial uses, water quality characteristics, and water quality problems. In cases where the Basin Plan does not contain a standard for a particular pollutant, other criteria are used to establish a standard. Other criteria may be applied from SWRCB documents (e.g., the Inland Surface Waters Plan and the Pollutant Policy Document, California Toxics Rule) or from EPA water quality criteria developed under Section 304(a) of the CWA. Numeric criteria are required by the CWA for many priority toxic pollutants. To fill in the gap between the water quality control plans and CWA requirements, on May 18, 2000, the EPA promulgated the California Toxics Rule based on the Administrator's determination that numeric criteria are necessary in California to protect human health and the environment. These federal criteria are numeric water quality criteria for priority toxic pollutants and other provisions for water quality standards legally applicable in California for inland surface waters, enclosed bays, and estuaries for all purposes and programs under the CWA (USEPA 2012).

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.

The Porter-Cologne Act also authorizes the SWRCB and RWQCBs to issue and enforce waste discharge requirements, NPDES permits, Section 401 water quality certifications, or other approvals. Other State agencies with jurisdiction over water quality regulation in California include the California Department of Health Services for drinking water regulations, the California Department of Fish and Wildlife, and the Office of Environmental Health and Hazard Assessment.

California Coastal Act

The California Coastal Act of 1976 and the California Coastal Commission, the state's coastal protection and planning agency, were established by voter initiative in 1972 to plan for and regulate new development and to protect public access to and along the shoreline. The Coastal Act requires the protection and restoration of marine and coastal water resources, including water quality. The Coastal Commission administers a Water Quality Program which integrates nonpoint source water quality protection measures into coastal development projects and local governments' land use planning documents, in accordance with Coastal Act requirements (California Coastal Commission 2015).

The Coastal Commission has also adopted several policy guidance documents for local jurisdictions to implement within their Local Coastal Programs (LCPs). The Sea Level Rise Policy Guidance was the first of these documents and was adopted in 2015. This document focuses on how to apply the Coastal Act to the challenges presented by sea level rise through LCP certifications and Coastal Development Permit decisions. The Residential Adaptation Policy Guidance document is meant as a companion document to the Commission's 2015 Sea Level Rise Policy Guidance and provides specific sea level rise adaptation strategies for residential

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development that jurisdictions can implement within their LCPs. The Critical Infrastructure at Risk: Sea Level Rise Planning Guidance for California's Coastal Zone also builds on the Sea Level Rise Policy Guidance by providing potential adaptation strategies for critical infrastructure that can be incorporated into LCPs (California Coastal Commission 2024).

California Ocean Plan

Section 13170.2 of the California Water Code directs the SWRCB to formulate and adopt a water quality control plan for California's ocean waters. The SWRCB first adopted this plan, known as the California Ocean Plan, in 1972. The California Water Code also requires a review of the California Ocean Plan at least every three years to guarantee that current standards are adequate and are not allowing degradation to indigenous marine species or posing a threat to human health. The current iteration of the California Ocean Plan establishes water quality objectives for California's ocean waters and provides the basis for regulation of waste discharged into the state's coastal waters (SWRCB 2019).

Construction General Permit

The SWRCB adopted the revised Statewide Construction General Permit (CGP) on September 8, 2022 (Order WQ 2022-0057-DWQ), which became effective on September 1, 2023. 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 (SMARTS) website.

Applicants must also 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 both before and after construction, and drainage patterns across the project site. The SWPPP must list BMPs that would be implemented to prevent soil erosion and discharge of other construction-related pollutants that could contaminate nearby water resources. Additionally, the SWPPP must contain a weekly visual monitoring program and BMP inspections prior to, during, and after qualifying precipitation events. Water quality monitoring is also required with a schedule based on the risk level of the site.

General Industrial Permit

The Statewide General Permit for Stormwater Discharges Associated with Industrial Activities—Order No. 2014-0057-DWQ and amended by 2015-0122-DWQ (2018)—implements the federally required stormwater regulations in California for stormwater associated with industrial activities that discharge to waters of the United States. This regulation covers facilities that are required by federal regulations or by the RWQCBs to obtain an NPDES permit. Dischargers are required to eliminate nonstorm water discharges, develop SWPPPs that include BMPs, conduct monitoring of stormwater runoff, and submit all compliance documents via the SWRCB's SMARTS program.

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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, multi-benefit 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.

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 comply with any, more-stringent standards in the applicable basin plan. Dischargers are also required to file a report of waste discharge.

California Department of Fish and Wildlife

The CDFW is charged with protecting streams, water bodies, and riparian corridors through the streambed alteration agreement process under Sections 1601 to 1606 of the California Fish and Game Code. The Fish and Game Code stipulates that it is “unlawful to substantially divert or obstruct the natural flow or substantially change the bed, channel or bank of any river, stream or lake” without notifying the CDFW, incorporating necessary mitigation, and obtaining a streambed alteration agreement. CDFW’s jurisdiction extends to the top of banks and often includes the outer edge of riparian vegetation.

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. The California Office of Emergency Services (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.

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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 establishing new subbasins. The Department of Water Resources (DWR) identifies the status of water basins by overdraft and priority levels (e.g., very low, low, medium, or high) (DWR 2020).

Regional

Los Angeles Region Basin Plan for the Coastal Watersheds of Los Angeles and Ventura Counties

The Los Angeles RWQCB's Basin Plan is designed to preserve and enhance water quality and protect the beneficial uses of all regional waters. Specifically, the Basin Plan:

- Designates beneficial uses for surface and ground waters.
- Sets narrative and numerical objectives that must be attained or maintained to protect the designated beneficial uses and conform to the state's antidegradation policy.
- Describes implementation programs to protect all waters in the region.

In addition, the Basin Plan incorporates (by reference) all applicable SWRCB and RWQCB plans and policies and other pertinent water quality policies and regulations.

The Basin Plan is a resource for the RWQCB and others who use water and/or discharge wastewater in Region 4. Other agencies and organizations involved in environmental permitting and resource management activities also use the Basin Plan. Finally, the Basin Plan provides valuable information to the public about local water quality issues (LARWQCB 2014).

Los Angeles RWQCB (MS4) Permit for the Coastal Watershed of Los Angeles and Ventura Counties

On July 23, 2021, the Los Angeles RWQCB adopted a Regional Phase I MS4 Permit for discharges within the coastal watersheds of Los Angeles and Ventura counties (Order No. R4-2021-0105, NPDES No. CAS004004). The Permit establishes performance criteria for new development and redevelopment projects in the Coastal Zone, including low impact development (LID). The Permit also requires each regulated entity, including the City of Redondo Beach, to participate in regional watershed working groups to identify regional projects to improve water quality in the local receiving waters (LARWQCB 2021).

The Los Angeles County Flood Control District and County of Los Angeles; 85 incorporated cities within the coastal watersheds of Los Angeles County, including Redondo Beach; Ventura County Watershed Protection

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District; County of Ventura; and 10 incorporated cities in Ventura County are subject to waste discharge requirements for MS4 discharges originating from within their jurisdiction.

Groundwater from Construction and Project Dewatering to Surface Waters

On June 6, 2013, the Los Angeles RWQCB adopted Order No. R4-2018-0215—Waste Discharge Requirements for Discharges of Groundwater from Construction and Project Dewatering to Surface Waters in Coastal Watersheds of Los Angeles and Ventura Counties. The order covers discharges to surface waters from dewatering operations and other types of wastewaters, as deemed appropriate, and authorizes discharges of treated or untreated groundwater generated from dewatering operations, or other applicable wastewater discharges not specifically covered, or fill material that have received water quality certification pursuant to Section 401 of the CWA (LARWQCB 2018).

To be authorized to discharge, the discharger must submit a notice of intent. If the discharge is eligible, the Los Angeles RWQCB will notify the discharger that the discharge is authorized and prescribe an appropriate monitoring and reporting program. For new discharges, the discharge shall not commence until receipt of the Los Angeles RWQCB's written determination of eligibility or until an individual NPDES permit is issued.

Enhanced Watershed Management Program for the Beach Cities EWMP Area

Following adoption of the 2012 Los Angeles MS4 NPDES permit, the cities of Hermosa Beach, Manhattan Beach, Redondo Beach, and Torrance and the Los Angeles County Flood Control District (LACFCD)—collectively referred to as the Beach Cities Watershed Management Group (WMG)—agreed to collaborate on the development of an Enhanced Watershed Management Program (EWMP) for the Santa Monica Bay and Dominguez Channel areas within their jurisdictions (referred to herein as the Beach Cities EWMP Area). The EWMP summarizes watershed-specific water quality priorities identified by the Beach Cities WMG; outlines the program plan including specific strategies, control measures, and BMPs to achieve water quality targets; and describes the quantitative analyses completed to support target achievement and permit compliance (Beach Cities WMG 2016).

The EWMP does not establish policies or regulations that the participating cities must impose on new development or redevelopment, nor does the program require the construction of the specific features. However, the approach described in the EWMP, in combination with the required LID-based best management practices that each participating City must impose on development, are anticipated to protect and potentially improve water quality in Santa Monica Bay from pollutants in stormwater runoff.

Los Angeles County Department of Public Works' Construction Site Best Management Practices Manual

The LACDPW prepared a Construction Site BMP Manual to assist contractors in the process of selection and implementation of construction site BMPs. The BMP Manual includes the LACDPW requirements for the implementation of construction site BMPs. As site conditions change or as deemed necessary, LACDPW may impose additional construction site BMPs for contractor activities. Additional BMPs may be included in the project's contract Special Provisions or may be required by the LACDPW Engineer.

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The BMP manual does not permit the discharge of groundwater during dewatering activities to the sanitary sewer system, street/gutter, ground or any other location, whether contaminated, treated, or not, until approved by the LACDPW Engineer. A construction dewatering plan in accordance with contract Special Provisions and NPDES Permit issued by the RWQCB, must be submitted to the Engineer for approval, prior to any dewatering discharge (LACDPW 2010).

Standard Urban Stormwater Mitigation Plan

The NPDES MS4 Permit defines the minimum required BMPs that must be adopted by the permittee municipalities and included by developers within plans for facility operations. To obtain coverage under this permit, a developer must obtain approval of a project-specific Standard Urban Stormwater Mitigation Plan (SUSMP) from the appropriate permittee municipality. A SUSMP addresses the discharge of pollutants within stormwater generated following new construction or redevelopment. Under recent regulations adopted by the Los Angeles RWQCB, projects are required to implement a SUSMP during the operational life of a project to ensure that stormwater quantity and quality is addressed by incorporating BMPs into project design. This plan defines water quality design standards to ensure that stormwater runoff is managed for water quality concerns and to ensure that pollutants carried by stormwater are confined and not delivered to receiving waters. Applicants are required to abide by source control and treatment control BMPs from the list approved by the Los Angeles RWQCB and included in the SUSMP. These measures include infiltration of stormwater as well as filtering runoff before it leaves a site. This can be accomplished through various means, including the use of infiltration pits, flow-through planter boxes, hydrodynamic separators, and catch basin filters.

In combination, these treatment control BMPs must be sufficiently designed and constructed to treat or filter the first 0.75 inches of stormwater runoff from a 24-hour storm event, and postdevelopment peak runoff rates and volumes cannot exceed peak runoff rates and volumes of pre-development conditions where the increased peak stormwater discharge rate will result in increased potential for downstream erosion (LARWQCB 2000). Permittees are required to adopt the requirements set forth herein in their own SUSMP. Additional BMPs may be required by ordinance or code adopted by the permittee and applied in a general way to all projects or on a case-by-case basis.

Los Angeles County Flood Control District Permits

LACFCD administers permits for any work, encroachment, or activity within or affecting the LACFCD right-of-way, facilities, interests, or jurisdiction. These include access permits for temporary uses of the LACFCD rights-of-way, construction permits for encroachment onto/or alteration of LACFCD right-of-way for new construction, connection permits for proposed connections to an existing LACFCD facility, and temporary discharge permits for the discharge of nonstorm water into LACFCD facilities (LACFCD 2024).

Los Angeles County Department of Public Works Design Manuals

Hydraulic Design Manual

This manual establishes the LACDPW's Hydraulic Design Procedures and was adopted in 1982. The Manual contains hydrological design criteria for specific conditions including close conduits, open channels, and pump stations (LACDPW 1982).

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Hydrology Manual

The LACDPW Hydrology Manual establishes county hydrologic design procedures and serves as a reference and training guide. The manual outlines county standards to be used when converting rainfall to runoff flow rates and volumes based on collected historic rainfall and runoff data specific to the County of Los Angeles. The standards set forth in this manual govern all hydrology calculations done under LACDPW jurisdiction. The hydrologic techniques in this manual apply to the design of local storm drains, retention and detention basins, pump stations, and major channel projects. The techniques also apply to storm drain deficiency and flood hazard evaluations (LACDPW 2006).

Low Impact Development Standards Manual

The County of Los Angeles prepared the 2013 Low Impact Development (LID) Standards Manual to comply with the requirements of the NPDES MS4 Permit. The LID Standards Manual provides guidance for the implementation of stormwater quality control measures in new development and redevelopment projects with the intention of improving water quality and mitigating potential water quality impacts from stormwater and nonstorm water discharges (LACDPW 2006).

Local

City of Redondo Beach General Plan

The City of Redondo Beach General Plan includes the Utilities Element which describes the sewer, storm drainage, and water infrastructure in the City and contains goals, objectives, policies, and implementation programs that guide the City's management of these utilities. Goals, objectives, and policies of the Utilities Element that are applicable to the proposed project are listed below.

Goal 6B Establish and maintain adequate planning, construction, maintenance, and funding for storm drainage facilities to support and serve the various land uses and intensities of development in the City and protect public health and safety; upgrading existing deficient systems and expanding the system, where necessary. The services shall be provided and system operated in an ecologically-sensitive manner. **Objective 6.2** Ensure the provision of a comprehensive and modern system of storm drainage facilities that will adequately collect, convey, and remove/dispose of the quantities of storm water and excess water that are generated in the City. The services shall be provided and system operated in an ecologically-sensitive manner.

- **Policy 6.2.1.** Ensure the provision and operation of adequate storm drainage facilities, where necessary, throughout the City.
- **Policy 6.2.2.** Provide for the maintenance and repair of existing storm drainage facilities, wherever located, throughout the City.
- **Policy 6.2.3.** Require that the approval of new development in the City be contingent upon the ability of the project to be served with adequate storm drainage infrastructure and service.
- **Policy 6.2.4.** Improve and enhance cooperation and communication with the Los Angeles County Department of Public Works Flood Control Division officials to promote effective planning and ensure

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the most efficient operation and maintenance of the City's storm drainage collection and removal/disposal system and facilities.

- **Policy 6.2.5.** Plan and provide for the ongoing construction of upgraded and expanded storm drainage facilities in areas currently underserved by such facilities in the City, focusing on areas currently encumbered by high incidences of long standing “nuisance” or excess water generated by day to day domestic activities (i.e., washing of vehicles, irrigation of lawns or planting areas, etc.), to protect existing and new development.
- **Policy 6.2.6.** Pursue, through the City Public Works Department additional or alternative mechanisms (other than the City General Fund) for the funding of future storm drainage system improvements.
- **Policy 6.2.7.** Require that improvements to or expansion of existing storm drainage facilities necessitated by specific new development projects be borne by the project proponent, either through the payment of impact fees or the actual construction of such improvements.
- **Policy 6.2.8.** Allow for the formation of benefit assessment districts and community facilities districts, where appropriate and feasible, in which those who directly benefit from specific local storm drainage improvements pay a pro rata share of the costs of the improvements.
- **Policy 6.2.9.** Examine the feasibility of an improved filtering or purification system to treat collected storm water prior to its discharge into Santa Monica Bay and the Pacific Ocean at the various drainage outfall points.
- **Policy 6.2.10.** Ensure an adequate and thorough notification of the resident population of the community that will be affected by planned storm drainage improvements or repairs prior to the actual action being taken.
- **Policy 6.2.11.** Encourage the City of Redondo Beach and Los Angeles County Department of Public Works Flood Control Division to install additional shields, barriers, or other design improvements to improve the aesthetics and visual appearance of the various ocean storm drainage outfalls along the shoreline that are open to public view.
- **Policy 6.2.12.** Where appropriate and feasible, upgrade the existing drainage system by replacing open swales and drainage channels with covered or underground facilities.
- **Policy 6.2.13.** Evaluate the potential feasibility of collecting and using reclaimed excess storm water for irrigation and other non-potable uses, and implement such uses where possible.
- **Policy 6.2.14.** Provide additional information and education to the public relative to the proper or improper disposal of debris or materials into the storm drainage system (i.e., household materials, toxics, etc.).

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Goal 6C Ensure adequate planning, maintenance, and operation of a modern, safe, and effective system of supply, distribution, transmission, and storage of water to meet the needs of the community; encouraging the upgrading of existing deficient systems and expansion, where necessary, in the City. The services shall be provided and system operated in an ecologically-sensitive manner.

Objective 6.3 Provide a modern and efficient system of transmission, distribution, and storage of water supplies to the City capable of meeting the normal daily and peak hour demands of the community, including adequate fire flow requirements, to meet existing and future water demand in a timely and cost effective manner.

- **Policy 6.3.9.** Ensure the continued monitoring and maintenance of water quality in the community's supply of potable water, to protect the public health and welfare.

Goal 6G Ensure the continued protection of groundwater sources and aquifers in the local area and region from contamination through saltwater intrusion from Santa Monica Bay and the Pacific Ocean. The protection system shall be operated and maintained in an ecologically-sensitive manner.

Objective 6.7 Work to continue to protect local and regional groundwater sources and aquifers from contamination through saltwater intrusion from Santa Monica Bay and the Pacific Ocean.

- **Policy 6.7.1.** Ensure the continued operation, maintenance, upkeep, and expansion (as necessary) of the existing West Coast Basin Barrier Project groundwater (seawater) intrusion barrier and water injection well system operating in the eastern portion of South Redondo Beach.
- **Policy 6.7.2.** Improve and enhance cooperation and communication with the Los Angeles County Department of Public Works Flood Control Division officials to ensure that the City's groundwater (seawater) intrusion barrier and freshwater injection well system and facilities are effectively planned, operated, and maintained and that their construction and operation is undertaken in a manner that minimizes traffic disruptions and does not adversely impact adjacent land uses.
- **Policy 6.7.3.** Ensure that any new development proposed in the area of the existing groundwater (saltwater) intrusion barrier and freshwater injection well facilities is reviewed to prevent potential impacts or damage to the system.

Redondo Beach Local Hazard Mitigation Plan

Redondo Beach's Local Hazard Mitigation Plan (LHMP) is a plan to identify and profile hazard conditions, analyze risk to people and facilities, and develop mitigation actions to reduce or eliminate hazard risks in the City. The City prepared the LHMP in accordance with the federal Disaster Mitigation Act of 2000 and FEMA's LHMP guidance, which was adopted in 2020. The LHMP addresses hazards of specific concern to the City including earthquakes, and flooding associated with sea level rise and tsunamis.

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City of Redondo Beach Municipal Code

Title 10, Planning and Land Use

Chapter 3, Environmental Review Pursuant to CEQA. The Redondo Beach Municipal Code establishes the specific procedures necessary to implement CEQA. Article 2, Evaluation of Significant Effects, establishes criteria for determining significant effects and provides guidance in making an evaluation whether or not a particular project may have a substantial adverse effect on the environment. Pursuant to the Municipal Code, if there are inconsistencies between the provisions contained in Title 10, Chapter 3, and the State's CEQA Guidelines, the State's CEQA Guidelines shall control. As established in Section 10-3.202, significant effects may be due to primary consequences immediately related to the project or may be due to secondary consequences related more to the primary consequences than the project itself. As established in Section 10-3.203(f)(g)(h)(i), with respect to hydrology and water quality, a project will normally have a significant effect on the environment if it will substantially degrade water quality, contaminate a public water supply, substantially degrade or deplete ground water resources, and/or interfere substantially with ground water recharge, respectively.

Chapter 5, Coastal Land Use Plan Implementing Ordinance. Section 10-5.1542, Geologic Hazards, of the Redondo Beach Municipal Code (RBMC) requires an application for development below 15 feet above mean sea level to provide information concerning the height and force of likely tsunami run-up on the property. This provision also requires that development in a possible tsunami run-up zone install, as appropriate, warning systems and other measures to minimize loss of life due to a tsunami.

Chapter 7, Stormwater Management and Discharge Control Ordinance. RBMC Title 5, Chapter 7, contains the City's Stormwater Management and Discharge Control Ordinance. This chapter seeks to ensure health and safety of citizens and the water quality of receiving waters of the County of Los Angeles and surrounding coastal areas by:

- Reducing pollutants in stormwater discharges to the maximum extent practicable.
- Regulating illicit connections and illicit discharges and thereby reducing the level of contamination of stormwater and urban runoff into the MS4.
- Regulating nonstorm water discharges to the MS4.
- Protecting and enhancing the quality of watercourses, water bodies, and wetlands in the City in a manner consistent with the federal Clean Water Act, the California Porter-Cologne Water Quality Control Act, and the Los Angeles County MS4 NPDES Permit.

RBMC Title 5 Chapter 7 prohibits illicit discharges and connections to the municipal stormwater system, littering, and any discharges in violation of the County of Los Angeles MS4 NPDES Permit. RBMC Section 5-7.113 contains the SUSMP requirements for new development and redevelopment projects, which regulates urban runoff in Redondo Beach and requires owners and occupants within the City to implement BMPs to prevent or reduce the discharge of pollutants to the municipal stormwater system. RBMC Section 5-7.113 also requires integration of low impact development (LID) practices and standards through means of infiltration,

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evapotranspiration (i.e., the combined process of water surface evaporation, soil moisture evaporation, and plant transpiration), biofiltration, and rainfall harvest and use be included in the SUSMP. LID BMPs focus on reducing peak runoff by allowing rainwater to soak into the ground, evaporate into the air, or collect in storage receptacles for irrigation or other beneficial uses. Examples of infiltration BMPs include infiltration basins, dry wells, and pervious pavement. Additionally, Section 5-7.112 includes requirements for industrial/commercial and construction activities and generally requires conformance with the NPDES permit, including the implementation of source control BMPs for industrial/commercial facilities. Section 5-7.107, Storm Drain Impact Fees, levies a fee on development to offset the City's costs of NPDES related implementation and enforcement.

Title 9, Building Regulations

Chapter 12, Flood Damage Prevention. Title 9, Chapter 12 of the RBMC applies standards for development within SFHAs, which are lands within the floodplain subject to a 1 percent or greater chance of flooding in any given year. Article 5, Provisions for Flood Hazard Reduction, provides standards for construction practices and development to reduce flood hazard risks within SFHAs.

City of Redondo Beach Flood Control Policy

In 2009, the City published an Administrative Report of the City's flood control policy. The report referenced the City's Strategic Plan and designated the City Engineer as the policy administrator. As requested as part of the City's Strategic Planning document, the Engineering Division prepared a proposed Administrative policy to address requirements for driveway slopes and approaches.

City of Redondo Beach Local Coastal Program

The City's LCP consists of the Coastal Land Use Plan, which is integrated in the City's General Plan, and a Local Implementation Plan, which is incorporated into the City's implementing ordinances, including changes to the municipal code. The Coastal Land Use Plan component adopted by the City and certified by the California Coastal Commission in 1980 addresses hydrology, water quality, and water-related public safety considerations of development within the coastal zone.

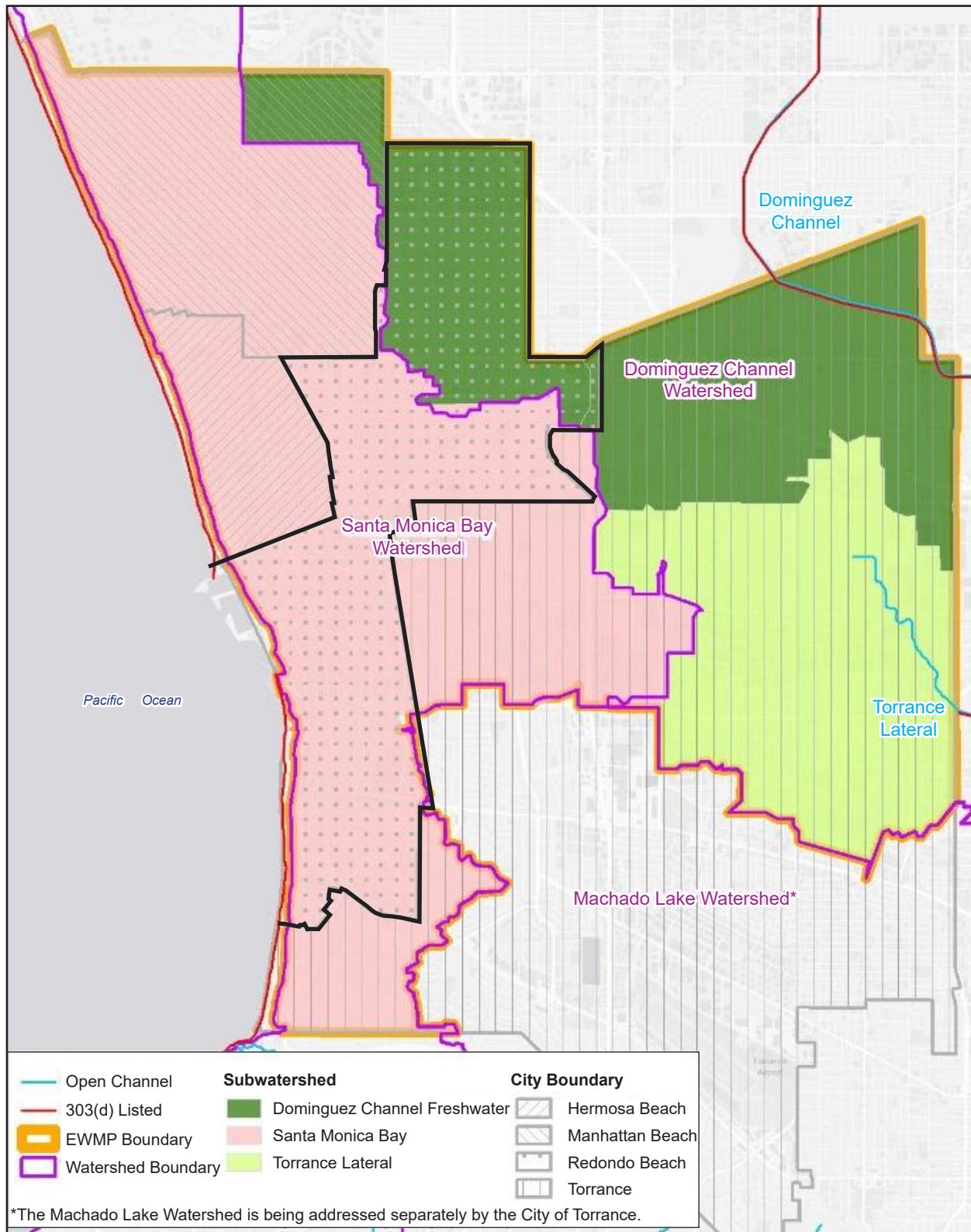
5.9.1.2 EXISTING CONDITIONS

The following existing conditions information is from the *City of Redondo Beach General Plan Update Infrastructure Report for Water, Sewer, Storm Drainage, and Water Quality, July 2024* (see Appendix F for additional information and citations).

Watersheds

The City is in the Beach Cities WMG, which includes the watershed management areas for the Santa Monica Bay, Dominguez Channel, and Machado Lake Watersheds, as shown on Figure 5.9-1, *Watersheds in Redondo Beach*. The Dominguez Channel Watershed encompasses the north portion of the City (1,251.8 acres) bordering Lawndale and Torrance. The Santa Monica Bay Watershed includes most of the southeastern part of the City (2,592.3 acres), with a small section falling within the Machado Lake Watershed at the City's southeastern border

Figure 5.9-1 - Watersheds in Redondo Beach

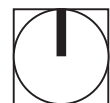


City of Redondo Beach

Note: The City boundary extends 3 miles into the Pacific Ocean, which is not shown on this exhibit.

Source: FUSCOE, 2024.

0 4,000
Scale (Feet)



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with Torrance near the Hopkins Wilderness Park (see Figure 5.9-1). Stormwater and excess water follow three routes out of the City via the Dominguez Channel, drainage outfalls, and sump pumps. Stormwater from the north and northeast portions of Redondo Beach is carried out of the City to the east and drains into the Dominguez Channel, a major regional drainage facility. From the southern part of the City, stormwater is directed into the Pacific Ocean through 13 different drainage outfalls along the southwestern shoreline. Water collected in five sumps is pumped back into the system and drained through one of the ocean drainage outfall pipes (Beach Cities WMG 2021).

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 TMDL 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 may 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 are discharging 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.

Identifying water quality priorities is a main component of the EWMP process because the MS4 Permit requires that water quality characterization, water body pollutants, and source assessments are prioritized. The MS4 Permit describes three categories of priority:

- Category 1: Highest Priority
 - Water body pollutants with an established TMDL in the MS4 Permit.
- Category 2: High Priority
 - Pollutants that indicate water quality impairment according to the State's Water Quality Control Policy 303(d) list and MS4 discharges that could be contributing to water quality impairment.
- Category 3: Medium Priority
 - Pollutants that have exceeded applicable receiving water limitations in the MS4 Permit but have insufficient data to indicate they contribute to water quality impairment or exceedance in the receiving water(s).

In addition, the SWRCB has adopted the statewide Trash Amendments that requires implementation of BMPs that mitigate or abate trash within Priority Land Use Areas. Priority Land Uses are high density residential, industrial, commercial, and mixed urban uses and public transportation stations. The purpose of the Trash Amendments is to establish a statewide water quality objective that ensures the quality of surface waters that enter storm drains and eventually lead out to major water ways are free of trash. State and Regional Water Board MS4 permits have or will contain trash control implementation requirements and compliance milestones to demonstrate progress toward 100 percent compliance with the Trash Provisions. The City is currently undergoing and implementing this process through the Los Angeles RWQCB requirements. Table 5.9-1, *List*

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of 303(d) Impairments and TMDLs, presents the 303(d) listed impairments and TMDLs for the applicable regional channels and water bodies that receive flows from the Redondo Beach General Plan Area.

Table 5.9-1 List of 303(d) Impairments and TMDLs

Water body/Channel	List of 303(d) Impairments	TMDL
Santa Monica Bay Watershed		
Redondo Beach	Arsenic, DDT, Indicator Bacteria, Mercury, PCBs (Polychlorinated biphenyls), Trash	Santa Monica Bay Beaches <ul style="list-style-type: none">• Bacteria TMDL• Santa Monica Bay Nearshore and Offshore• Debris TMDL• Santa Monica Bay• TMDL for DDTs and PCBs
Santa Monica Bay Offshore/Nearshore		
Dominguez Channel Watershed		
Dominguez Channel	Algae, Ammonia, ChemA, Chlordane (tissue), Copper, DDT (tissue), Dieldrin (tissue), Eutrophic, Indicator Bacteria, Lead, Odor PCBs (tissue), Toxicity, Trash, Zinc	Dominguez Channel and Greater Los Angeles and Long Beach Harbor Waters <ul style="list-style-type: none">• Toxic Pollutants TMDL Machado Lake <ul style="list-style-type: none">• Nutrient TMDL• Pesticides and PCBs TMDL• Trash TMDL
Dominguez Channel Estuary		
Machado Lake		
Torrance Lateral		

Source: Fuscoe 2024 (Appendix F).

Groundwater

The City is in the West Coast Basin of the Coastal Plain of Los Angeles Groundwater Basin. Various entities and stakeholders, including the Water Replenishment District (WRD), LACPW, and Los Angeles RWQCB manage and maintain water quality within the West Coast Basin. Adjudication efforts for the West Coast Basin began in 1945 and led to the formation of the West Basin Municipal Water District in 1947. The WRD, established in 1959, collaborated with the West Coast Basin Water Association to address overdraft and seawater intrusion. In 1965, stakeholders agreed to adjudicate water from the Basin with a limiting Allowable Pumping Allocation (APA) of 80 percent. The Basin provides approximately 64,468 acre-feet per year (afy) of groundwater to the City and several other cities in the region; the City specifically has an APA right to extract 4,070 afy from the Basin. The West Coast Basin is categorized as very low priority. Therefore, the implementation of a GSP is not required because groundwater storage and extraction in the West Coast Basin is governed by basin adjudication, with excess production restricted to emergencies.

Overall, the current groundwater quality in the West Coast Basin is generally good, with only some areas experiencing water quality challenges from natural or human-induced sources. WRD closely monitors water quality trends and proposed water quality compliance in agency production wells, monitoring wells, and recharge/injection waters into the West Coast Basin. If noncompliance is identified, WRD develops an action plan and implements measures to achieve compliance. WRD also evaluates the impacts of prospective drinking water regulations and legislation. WRD also collaborates with well owners on these projects and focuses on installing wellhead treatment facilities at existing production wells. Currently WRD is focusing on the removal of volatile organic compounds and offers financial assistance for the design of and equipment of treatment facilities. In doing so, WRD hopes to remove contaminants from the underground supply and use the extracted

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water as potable supply. Further information regarding WRD groundwater quality monitoring is available in its Engineering and Survey Reports, as well as Regional Groundwater Monitoring Reports.

Beneficial Uses

The West Coast Basin has prescribed beneficial uses and water quality objectives, as stated in the Los Angeles RWQCB's Basin Plan. According to the Basin Plan, the West Coast Subbasin is split further into several land areas, including the parts underlying the Ports of Los Angeles and Long Beach, parts underlying El Segundo/ Seaward of Barrier, and the remainder of basin. The benefits of each of these areas are listed in Table 5.9-2, *Beneficial Uses of the West Coast Subbasin*.

Table 5.9-2 Beneficial Uses of the West Coast Subbasin

Portion of West Coast Subbasin	Beneficial Use
Underlying Ports of Los Angeles and Long Beach	<ul style="list-style-type: none"> • IND – Industrial Service Supply • PROC – Industrial Process Supply • AGR – Agricultural Supply
Underlying El Segundo, Seaward of Barrier	<ul style="list-style-type: none"> • IND – Industrial Service Supply • PROC – Industrial Process Supply • AGR – Agricultural Supply
Remainder of Basin	<ul style="list-style-type: none"> • MUN – Municipal and Domestic Supply • IND – Industrial Service Supply • PROC – Industrial Process Supply • AGR – Agricultural Supply

Source: Fuscoe 2024 (Appendix F)

As shown in Table 5.9-2, the beneficial uses of the West Coast Basin are agricultural, municipal, and industrial supply.

Water Quality

The Clean Water Act mandates states to establish water quality standards, which include beneficial uses and water quality objectives. Similarly, the California Water Code requires RWQCBs to establish water quality objectives to protect beneficial uses and prevent nuisances. These objectives guide regulatory efforts, such as Waste Discharge Requirements, to maintain or improve water quality. The Los Angeles RWQCB regularly reviews and updates these objectives to reflect new information and ensure ongoing protection of regional waters.

Numeric water quality objectives in the Basin Plan have been established for the West Coast Basin and are listed in Table 5.9-3, *Numeric Water Quality Objectives for the West Coast Basin*.

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Table 5.9-3 Numeric Water Quality Objectives for the West Coast Basin

Water Quality Objective	Numeric Objective (mg/L)
Total Dissolved Solids (TDS)	800
Sulfate	250
Chloride	150
Boron	1.0

Source: Fuscoe 2024 (Appendix F).

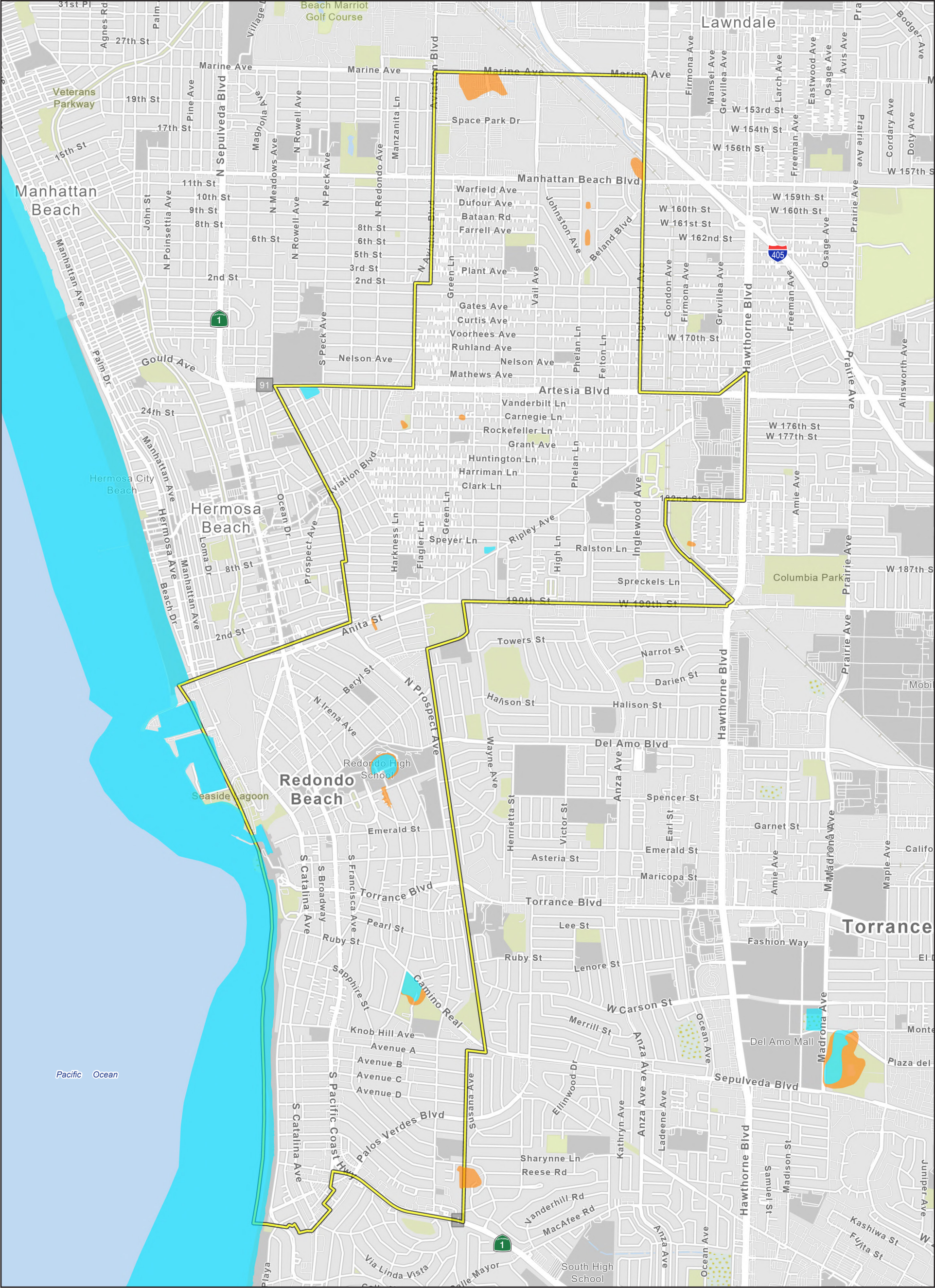
Seawater intrusion and thus salinity is a significant water quality problem in many parts of southern California, including Los Angeles County. Salinity is a measure of the dissolved minerals in water, including total dissolved solids and chloride. The West Coast Basin has a critical role in reducing the seawater intrusion further inland through injection wells. The injections wells pump a mix of domestic recycled and imported potable water into the ground between the ocean and the freshwater aquifer keeping the groundwater level near the ocean high enough to prevent sweater from seeping into the aquifer.

To maintain groundwater quality, WRD conducts an extensive monitoring program that serves and manages the West Coast Basin's groundwater production, contamination, and compliance with all required laws and regulations. Additionally, to ensure accurate data, WRD uses depth-specific (nested) monitoring wells that tap discrete aquifer zones. In the most recent Regional Groundwater Monitoring Report, WRD presents water quality results from the 22 WRD nested monitoring wells (112 individual wells zones) during the 2021-2022 water year. The WRD collected hundreds of samples from these wells and concluded that groundwater in their service area is of generally good quality and suitable for use, noting that any localized areas with marginal to poor water quality can be treated and utilized as potable water.

Flooding

According to the Flood Zone determination, portions of the City are designated as Zone X. Zone X is defined as the area determined to be outside the 500-year flood, protected by a levee from a 100-year flood, and with a minimal or 0.2 percent chance of flooding. Other portions of the City and the coast are marked as Special Flood Hazard Zone AE and VE, which are areas that have a 1 percent chance of flooding in any given year or 100-year floodplain. Table 5.9-4, *FEMA Flood Zone Designations*, describes each of the flood zone designations.

Figure 5.9-2 - FEMA Flood Zones in Redondo Beach



City of Redondo Beach

Flood Hazard Zones

Zones AE, AH, & VE: 1% Annual Chance Flood Hazard (AE with Base Flood Elevations Determined)

Zones X: 0.2% Annual Chance Flood Hazard

02,400

Scale (Feet)

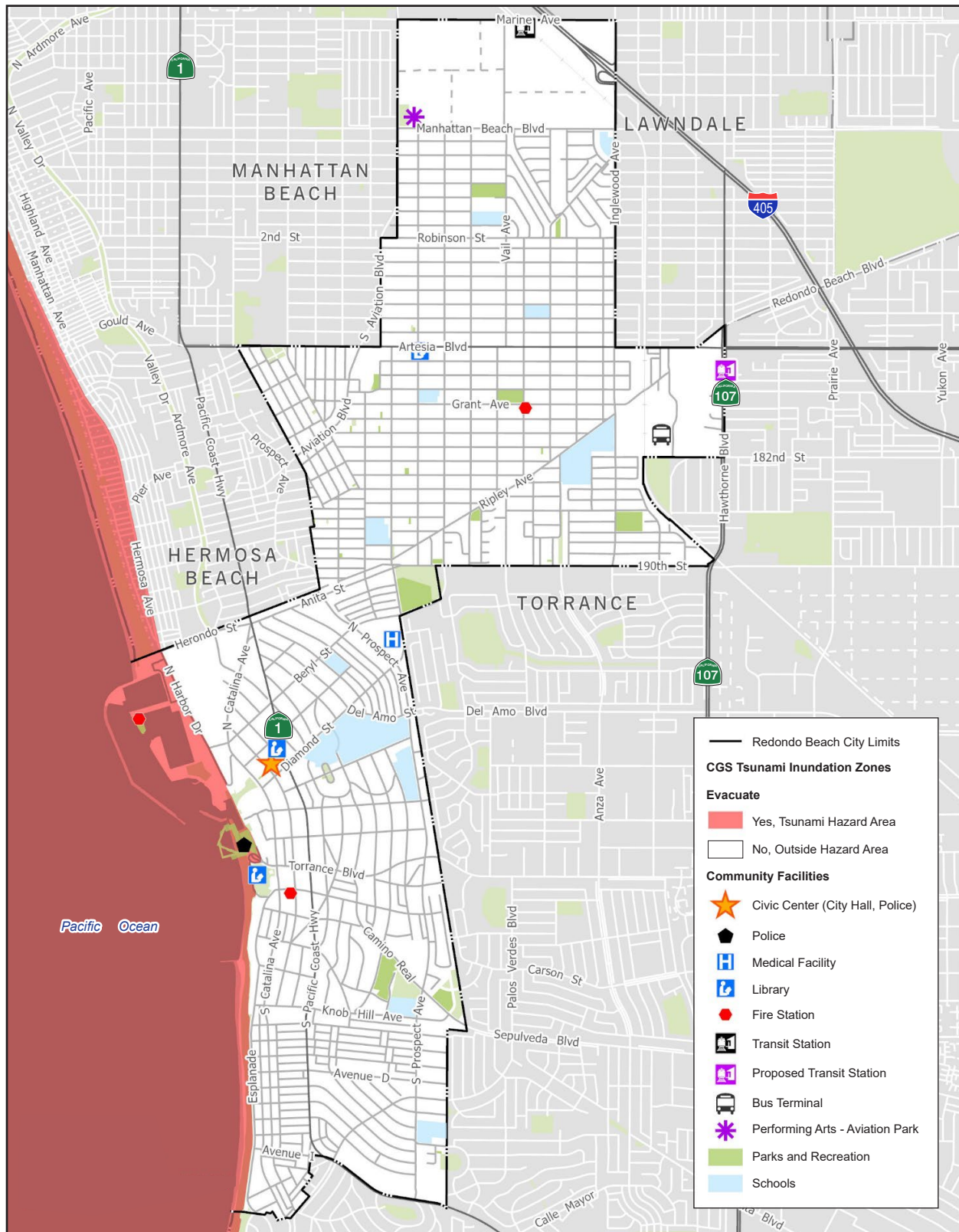
Source: FUSCOE, 2024.

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Figure 5.9-3 - Tsunami Hazards Areas in Redondo Beach



City of Redondo Beach

Note: The City boundary extends 3 miles into the Pacific Ocean, which is not shown on this exhibit.

Source: California Geological Survey 2009.

0 0.75
Scale (Miles)



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Table 5.9-4 FEMA Flood Zone Designations

Water body/Channel	List of 303(d) Impairments	TMDL
Special Flood Hazard Area – With Base Flow Elevation or Depth	Zone AE	The base floodplain where base flood elevations are provided.
	Zone VE	Coastal areas with a 1% or greater chance of flooding and an additional hazard associated with storm waves. These areas have a 26% chance of flooding.
Other Areas of Flood Hazard	Zone X	<u>Shaded</u> : Area of 500-year flood; area subject to the 100-year flood with average depths of less than 1 foot or with contributing drainage area less than one square mile; and areas protected by levees from the base flood.

Source: Fuscoe 2024 (Appendix F).

Any development in SFHAs (Zone AE and Zone VE) must follow FEMA and the City’s floodplain safety requirements, including flood analysis, proper setbacks, and sufficient pad elevations. The City also has preparation measures to protect residents and limit damage and infrastructure loss. Figure 5.9-2, FEMA Flood Zones in Redondo Beach, shows which areas of the City are in a SFHA.

Dam Inundation

As shown in the DWR’s Dam Breach Inundation Map, the City is not within the inundation extent of any dams, the closest of which is in the Hollywood Hills (DWR 2024). For example, the Mullholand Dam, a dam with an extremely high downstream hazard, is 18 miles north of the Redondo Beach. This dam’s inundation extent extends to north of Culver City by the Interstate 10 freeway.

Tsunami

The southwestern portion of the City is in a State of California Tsunami Inundation Zone Area, as shown in Figure 5.9-3, *Tsunami Hazards Areas in Redondo Beach* (CDOC 2009). Tsunamis are a series of large ocean waves generated by large undersea disturbances, such as a major earthquakes or landslides on the sea floor. Tsunamis are not affected by tides or currents—in a tsunami, the whole column of water is moving, not just the surface. When tsunami waves enter shallow water, they rise to form massive moving water columns called “run-up”. The run-up of water many feet high rushes onto shore, striking the coast with tremendous destructive force.

Coastal areas in Los Angeles County are vulnerable to both local (<621 miles away) and distant-source tsunamis, although a local tsunami would be more devastating and could reach the coast in less than 30 minutes after the initial earthquake. The source of most local-source tsunamis will be earthquakes and landslides off the Cascadia subduction zone, the closest subduction zone to the California coast (LACOES 2006). According to the City’s LHMP, approximately 600 households and nine key facilities in the City are within the Tsunami Inundation Zone Area (Redondo Beach 2020). The National Weather Service monitors for tsunamis and facilitates the tsunami warning system to alert areas that may face tsunamis. The Redondo Beach Fire Department also provides information for evacuation routes in the City and a guide for tsunami safety and awareness on its website (RBFD 2024). Provisions in the City’s LCP, RBMC, and LHMP include requirements for development in order to reduce the effects of tsunami flooding hazards.

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Sea Level Rise

Sea level rise is a gradual, irreversible long-term trend caused by rising atmospheric and ocean temperatures. Melting glaciers and ice sheets release large volumes of water into the ocean. Warmer temperatures also cause the ocean water volume to expand. These processes raise the global mean sea level, which represents the height of the ocean irrespective of its relative heights to land. Along the Redondo Beach coastline, the Ocean Protection Council's 2018 *California Sea Level Rise Guidance Update* states that sea levels are projected to rise by 22 inches by 2050 and 80 inches by 2100 (Redondo Beach 2020).

Sea level rise threatens buildings and infrastructure, such as the Redondo Beach Pier, Harbor Drive, and buildings at the Marina, which may be temporarily or permanently flooded by water along the coastline. Higher sea levels can also give a “boost” to smaller floods that would not have been large enough to flood dry land during normal conditions, making shoreline flooding more frequent. King tides are the highest tides of the year, which are one to two feet higher than average. They are caused by the alignment of the Earth, moon, and sun, which creates the strongest tidal effects of the year. During strong storms and king tides, coastal flooding can damage or destroy additional buildings in low-lying areas not affected by permanent sea level rise, disrupt transportation along Harbor Drive, and cause further harm to important economic assets such as coastal recreation and tourism sites. Figure 5.9-4, *Sea Level Rise in Redondo Beach by 2050*, shows the expected sea level rise by the buildout year of the proposed project.

Seiche

Seiches are periodic oscillations in large bodies of water. Seiches are typically caused when strong winds and rapid changes in atmospheric pressure push water from one end of a body of water to the other. When the wind stops, the water rebounds to the other side of the enclosed area. The water then continues to oscillate back and forth for hours or even days. In a similar fashion, earthquakes, tsunamis, or severe storm fronts may also cause seiches along ocean shelves and ocean harbors (NOAA 2024). Seiches are of concern relative to water storage facilities because inundation from a seiche can occur if the wave overflows a containment wall, such as the wall of a reservoir, water storage tank, dam, or other artificial body of water. There are no large bodies of contained water within proximity to the City.

Figure 5.9-4 - Sea Level Rise in Redondo Beach by 2050

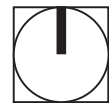


City of Redondo Beach

Note: The City boundary extends 3 miles into the Pacific Ocean, which is not shown on this exhibit.

Source: NOAA, 2018.

0 0.75
Scale (Miles)



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5.9.2 Thresholds of Significance

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

- 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.
 - 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.

5.9.3 Proposed General Plan Goals and Policies

Land Use Element

Goal LU-5 Environmental Sustainability: An environmentally aware community that utilizes tools, strategies and approaches that protect and minimizes the impacts to the City's environmental resources.

- **Policy LU-5.1. Environmental Sustainability.** Ensure that new development is sensitive to the City's stewardship of the environment. Provide measures to minimize the impacts of future development on air quality, runoff, water use, trash generation (and its impacts on the ocean), noise, and traffic (including things such as exhaust generated from underperforming intersections).
- **Policy LU-5.9. Stormwater Recapture.** Prioritize bioswales and other strategies to recapture storm water and infiltrate it in the aquifer. Develop policies and ordinance that requires the implementation of bioswales and similar strategies such as permeable surfaces to capture and infiltrate storm water from streets and development.

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Open Space and Conservation Element

Goal OS-7 Water Management: Efficiently manage the City's available water resources to protect both the short- and long-term water supply.

- **Policy OS-7.2. Public Education.** Educate homeowners and business owners about water conservation and stormwater management strategies appropriate to Redondo Beach, and partner with Cal Water, Los Angeles County, and other agencies to inform residents and business owners about water conservation and stormwater management programs available to them.
- **Policy OS-7.3. Groundwater Infiltration.** Improve natural groundwater recharge by incorporating best management principles (BMPs), such as maximizing permeable surfaces, using native landscaping, and installing stormwater gardens, on new public and private projects and retrofits to incorporate BMPs. Consider expanding the application of the City's "Low Impact Design" (LID) stormwater management program required in the Coastal Zone to the City's Non-Coastal/Inland areas.
- **Policy OS-7.4. Regional Cooperation.** Cooperate with the County, utility companies, and other agencies operating in the City to replenish the groundwater supplies in the region.

Safety Element

Goal S-5 Tsunami Hazards: Protection of life, prevention of injury, and reduction in the potential for property damage from tsunami runup.

- **Policy S-5.2. Tsunami Evacuation Notices to Community Members.** Obtain information from the U.S. Tsunami Warning System and the Tsunami Ready Communities program to send evacuation notices to community members in the event of a tsunami.

Goal S-6 Flood Hazards: Protection of life, prevention of injury, and reduction in the potential for property damage from flooding.

- **Policy S-6.1. Agency Coordination.** Cooperate with local, regional, State, and federal flood control agencies to reduce the potential for flood damage in Redondo Beach.
- **Policy S-6.2. Public Awareness of Flood Hazards and Flood Control Measures.** Increase public awareness of flood hazards and promote flood-control measures, such as increasing permeable surfaces, to avoid and reduce potential impacts from flooding.
- **Policy S-6.3. Protect City-Owned Buildings from Flooding Impacts.** Ensure city-owned buildings and infrastructure are protected from the impacts generated by flooding.
- **Policy S-6.4. Assessment and Maintenance of Storm Drainage Systems.** Coordinate with the Los Angeles County Flood Control District to increase green infrastructure and ensure that flood channels and storm drainage systems are regularly assessed, cleaned, maintained, and upgraded to minimize flood risks to existing development.

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- **Policy S-6.5. Development in the 100-Year or 500 Year Floodplain.** Require new development within the 100-year or 500-year floodplain, identified in Figure 4.6, to comply with the Redondo Beach Flood Damage Prevention Ordinance, to minimize flood risk.

Goal S-7 Sea Level Rise: A resilient and thriving community, safeguarded and adaptively managing for rising sea levels.

- **Policy S-7.1. Habitable Areas and Sea Level Rise.** Require new development to locate habitable areas and essential buildings above the highest water level expected during the life of the project, based on Figure 4.7 and Figure 4.8.
- **Policy S-7.2. Agency Coordination.** Coordinate with regional agencies, cities, utilities, property owners, community groups, and other stakeholders to conduct regional sea level rise adaptation planning.
- **Policy S-7.3. Availability of Flood Information.** Provide information to property owners, business owners/operators, and the public in areas subject to increased flooding due to sea level rise by working with neighborhood associations, realtors, business associations/groups, and community-based organizations to disclose potential property risks and mitigation options.
- **Policy S-7.4. Nature-based Solutions.** Integrate nature-based solutions into sea level rise adaptation strategies, including the construction of living shorelines, which are made of plants, sand, or rock that can grow over time to provide both wildlife habitat and natural resilience, rather than artificial structures.
- **Policy S-7.5. Planning for Sea Level Rise.** Integrate sea level rise projections and analyses into City development and environmental review processes.
- **Policy S-7.6. Sea Level Rise Projections.** Update sea level rise projections based on best available science during each update to the Safety Element.
- **Policy S-7.7. Wave Action from Storm Surge.** Require structures, including City-owned structures, along the coast to be built or upgraded to withstand strong wave action from storm surge.

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5.9.4 Methodology

The analysis presented below is based on a review of existing regulatory procedures, plans, and ordinances that reduce impacts to water quality and hydrology, including the State Construction Stormwater General Permit, the LA County MS4 Permit, provisions in the Redondo Beach Municipal Code, Los Angeles County Department of Public Works manuals, and the City's Local Hazard Mitigation Plan, among other regulations. This analysis also refers to FEMA's National Flood Hazard Layer and the Department of Water Resource's Dam Inundation web tool in addition to tsunami and sea-level rise maps generated for the proposed Safety Element to identify impacts associated with flooding and inundation. Information pertaining to the City's existing storm drainage infrastructure was derived from the *City of Redondo Beach General Plan Update Infrastructure Report for Water, Sewer, Storm Drainage, and Water Quality* prepared by Fuscoe Engineering Inc. in February, 2024 (See Appendix F). In determining the level of significance, the analysis assumes that future projects facilitated by the proposed project would comply with these federal, state, and local laws, ordinances, and regulations.

5.9.5 Environmental Impacts

5.9.5.1 IMPACT ANALYSIS

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

Impact 5.9-1: The proposed project would not violate water quality standards or waste discharge requirements or otherwise substantially degrade surface or groundwater quality. [Threshold HYD-1]

The proposed project is a regulatory document that sets the framework for future growth and development in the City and does not directly result in development. Before any development or redevelopment activities would occur in the City, all such activities would be required to be analyzed for conformance with applicable local, state, and federal requirements. Therefore, adoption of the proposed project in itself would not lead to the direct development or redevelopment of a specific project. Updates to the Zoning Ordinance and LCP would involve land-use changes that would be consistent with the General Plan Update. Buildout consistent with the proposed project would involve soil disturbance, construction, and operation of developed land uses that could generate pollutants affecting stormwater. Buildout of the proposed project would add 4,956 dwelling units and 5,681,999 nonresidential square feet in the City based on the land use changes proposed under the proposed project (see Chapter 3, *Project Description*). Impacts related to the potential for accidental discharges of hazardous materials into receiving waters are addressed in Section 5.8, *Hazards and Hazardous Materials*.

Construction

Clearing, grading, excavation, and construction activities associated with future buildout of the proposed project have the potential to impact water quality through soil erosion and increasing 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

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equipment on-site during construction may result in oil, grease, or related pollutant leaks and spills that may discharge into the storm drain system.

To minimize these potential impacts, development pursuant to the proposed project must comply with the CGP Water Quality Order 2022-0057-DWQ, which requires the preparation and implementation of a SWPPP. 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. Examples of BMPs include jute swales, silt fencing, storm drain protection, covering of soil and other similar measures designed to slow or stop the flow of water to allow sediment or debris from entering the storm drainage system. The SWRCB mandates that projects that disturb one or more acres of land obtain coverage under the Statewide CGP. The CGP also requires that prior to the start of construction activities, the project applicant must file PRDs with the SWRCB, including 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 identified 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, which includes preparation of a SWPPP. Categories of potential BMPs that would be implemented for this project are described in Table 5.9-5, *Construction BMPs*.

Table 5.9-5 Construction BMPs

Category	Purpose	Examples
Erosion Controls and Wind Erosion Controls	<ul style="list-style-type: none"> • Use project scheduling and planning to reduce soil or vegetation disturbance (particularly during the rainy season) • Prevent or reduce erosion potential by diverting or controlling drainage • Prepare and stabilize disturbed soil areas 	Scheduling, preservation of existing vegetation, hydraulic mulch, hydroseeding, soil binders, straw mulch, geotextile and mats, wood mulching, earth dikes and drainage swales, velocity dissipation devices, slope drains, streambank stabilization, compost blankets, soil preparation/roughening, and non-vegetative stabilization
Sediment Controls	<ul style="list-style-type: none"> • Filter out soil particles that have been detached and transported in water 	Silt fence, sediment basin, sediment trap, check dam, fiber rolls, gravel bag berm, street sweeping and vacuuming, sandbag barrier, straw bale barrier, storm drain inlet protection, manufactured linear sediment controls, compost socks and berms, and biofilter bags
Wind Erosion Controls	<ul style="list-style-type: none"> • Apply water or other dust palliatives to prevent or minimize dust nuisance 	Dust control soil binders, chemical dust suppressants, covering stockpiles, permanent vegetation, mulching, watering, temporary gravel construction, synthetic covers, and minimization of disturbed area
Tracking Controls	<ul style="list-style-type: none"> • Minimize the tracking of soil offsite by vehicles 	Stabilized construction roadways and construction entrances/exits, and entrance/outlet tire wash.
Non-Storm Water Management Controls	<ul style="list-style-type: none"> • Prohibit discharge of materials other than stormwater, such as discharges from the cleaning, maintenance, and fueling of vehicles and equipment. 	Water conservation practices, temporary stream crossings, clear water diversions, illicit connection/discharge, potable and irrigation water management, and the proper management of the following

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Table 5.9-5 Construction BMPs

Category	Purpose	Examples
	<ul style="list-style-type: none"> Conduct various construction operations, including paving, grinding, and concrete curing and finishing, in ways that minimize non-stormwater discharges and contamination of any such discharges. 	operations: paving and grinding, dewatering, vehicle and equipment cleaning, fueling and maintenance, pile driving, concrete curing, concrete finishing, demolition adjacent to water, material over water, and temporary batch plants.
Waste Management and Controls (i.e., good housekeeping practices)	<ul style="list-style-type: none"> Manage materials and wastes to avoid contamination of stormwater. 	Stockpile management, spill prevention and control, solid waste management, hazardous waste management, contaminated soil management, concrete waste management, sanitary/septic waste management, liquid waste management, and management of material delivery storage and use.

Source: LACDPW 2010.

Construction activities are also regulated under Section 5-7.112 of the RBMC which requires proof of compliance with the NPDES Permit submitted to the City Engineer prior to the issuance of any grading, building or occupancy permits. Submittal of the PRDs and implementation of the SWPPP throughout the construction phase of projects pursuant to the proposed project will address anticipated and expected pollutants of concern as a result of construction activities associated with projects larger than one acre, reducing water quality impacts to less than significant.

Projects that disturb less than one acre must implement an effective combination of erosion and sediment control BMPs listed in Table 13, Minimum Set of BMPs for All Construction Sites, in the LA County MS4 Permit (NPDES No. CAS004001), to prevent erosion and sediment loss and the discharge of construction wastes. These BMPs include but are not limited to preservation of existing vegetation, providing sandbag barriers, water conservation practices, spill prevention and control, and stockpile management. Compliance with these BMPs would ensure that impacts related to construction activities for projects that disturb less than one acre are less than significant. As a result, water quality impacts associated with construction activities would be less than significant.

Jurisdictional Waters and Wetlands

Future development under the proposed project would also include construction work that could impact USACE and CDFW jurisdictional waters. Under Sections 401 and 404 of the CWA, a permit is required from the USACE and a Water Quality Certification is required from the Los Angeles RWQCB for USACE jurisdictional waters. Under Section 1600 of the California Fish and Game Code, construction activities in CDFW jurisdiction are regulated by a lake or streambed alteration agreement. Additionally, compliance with construction BMPs in projects' SWPPPs would ensure construction activities would not violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface water quality related to jurisdictional waters.

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Dewatering

Construction activities under the proposed project may also involve site dewatering. Dewatering is the process of removing unwanted water from excavations such as foundations or basements to enable construction. Any discharge of dewatered groundwater to surface waters must comply with the Los Angeles RWQCB adopted Order R4-2018-0215. Discharges to land would comply with SWRCB's Order No. 2003-0003-DWQ. Additionally, per LACDPW's Construction Site BMP Manual, discharge of groundwater during dewatering activities to the LACSD sanitary sewer system, street/gutter, ground, or any other location would not be permitted until approved by the LACDPW Engineer. A construction dewatering plan must also be submitted to the LACDPW Engineer for approval, prior to any dewatering discharge. Compliance with these mandated regulations would ensure construction activities would not violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface water quality related to dewatering.

Operation

Development resulting from the proposed project may have long-term impacts on the quality of stormwater and urban runoff, subsequently impacting downstream water quality. This development has 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, parking lots, storage areas, and plaza areas.

Future development under the proposed project would prepare and submit SUSMPs, which would include LID/site design and source control BMPs to address post-construction stormwater runoff management, as required under the Los Angeles County MS4 Permit and RBMC Chapter 7, Stormwater Management and Discharge Control. 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.

Policies under the proposed project also encourage the implementation of BMPs and other educational efforts that support maintaining water quality in receiving waters. Policy OS-7.3 in the Open Space Element requires the incorporation of BMPs such as maximizing permeable surfaces, using native landscaping, and installing stormwater gardens for new public and private projects in addition to expanding the application of the City LID stormwater management program in the LCP. For example, a stormwater garden, also known as a rain garden or bioretention cell, is a shallow depression in the ground that's planted with native plants to capture and filter stormwater runoff. Policies in the existing General Plan's Utilities Element also present strategies that help to reduce water quality impacts. Policy 6.2.9 directs the City to examine the feasibility of an improved filtering or purification system to treat collected stormwater prior to its discharge into Santa Monica Bay and the Pacific Ocean at the various drainage outfall points. Policy 6.2.14 encourages providing additional information and education of the proper or improper disposal of debris or materials into the storm drainage system, and Policy 6.3.9 directs the City to ensure continued monitoring and maintenance of water quality in the community's supply of potable water.

Implementation of these measures would ensure that projects effectively retain or treat the water runoff of the 85th percentile, 24-hour storm for pollutants such as bacteria, metals, nutrients, oil and grease, organics, pesticides, sediment, trash, and oxygen-demanding substances prior to discharge off their property. As

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properties in the City undergo redevelopment, existing properties that do not have water quality BMPs will be replaced with projects incorporating LID BMPs. Therefore, long-term surface water quality of runoff from development in the City would be expected to improve over existing conditions as more LID BMPs are implemented.

In addition to LID BMPs associated with development, the City is part of the Beach Cities Watershed Management Area, which requires the City to identify regional projects to improve water quality in the local receiving waters. Over the next 20 years, the City will contribute to engineering design, construction and operations, and maintenance of regional watershed improvement projects in accordance with the approved EWMP and in partnership with other cities and LA County.

Additionally, as part of the statewide mandate to reduce trash in receiving waters, the City is required to adhere to the requirements of the California Trash Amendments. The 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 certified trash full-capture systems and must be installed on all inlets by 2030. Furthermore, all development that discharges stormwater associated with industrial activity shall also comply with the requirements of the Statewide General Industrial Permit (Order No. 2014-0057-DWQ), as amended in 2018 by Order No. 2015-0122-DWQ.

Compliance with these existing State, regional, and local plans, goals, policies, and regulations would ensure that impacts to surface water and groundwater quality are less than significant.

Level of Significance Before Mitigation: Less than significant.

Impact 5.9-2: The proposed project would not substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that it may impede sustainable groundwater management of the basin. [Threshold HYD-2]

The City overlies the West Coast Subbasin (West Coast Basin) within the Coastal Plain of Los Angeles Groundwater Basin. Groundwater from the West Coast Basin is actively managed by numerous water agencies and stakeholders, including the West Basin Municipal Water District and WRD. Stakeholders of the Basin agreed to adjudicate water from the Basin with a limiting APA of 80 percent; the City's APA is 4,070 afy from the Basin. Additionally, the West Coast Basin is currently categorized as a very low priority basin by DWR and therefore does not require the implementation of a GSP. Adjudication of groundwater from the basin ensures that excess production is restricted to emergencies. Furthermore, individual development projects under the proposed project would not utilize site-specific wells for groundwater supply. The implementation of LID features would allow for stormwater infiltration and therefore groundwater recharge at project sites.

Additionally, the General Plan Update includes policies that target groundwater recharge in the proposed Open Space Element. Policy OS-7.3 directs development to include BMPs such as maximizing permeable surfaces, using native landscaping, and installing stormwater gardens, on new public and private projects and retrofits to incorporate BMPs, and Policy OS-7.4 directs the City to coordinate with the County, utility companies, and other agencies operating in the City to replenish the groundwater supplies in the region. Through management

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by the local water districts, development under the proposed project would not result in interference with groundwater recharge or management of the groundwater basin.

Level of Significance Before Mitigation: Less than significant.

Impact 5.9-3: Development under the proposed project would not substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces in a manner which would: Result in a substantial erosion or siltation on- or off-site; Substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or offsite; 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; Impede or redirect flood flows. [Threshold HYD-3]

Development under the proposed project is largely expected to maintain existing drainage patterns and utilize the existing drainage facilities within the public right of way. Current runoff is captured and conveyed by existing City storm drain infrastructure that discharges to County flood control facilities and channels before ultimately reaching the Pacific Ocean. The City is primarily built out, so no major changes in flood flows are anticipated. The City and County have policies in place to require detention systems to mitigate peak flows for certain development projects, and/or if downstream drainage facilities ever become deficient.

Erosion and Siltation

All potential future development pursuant to the proposed project would be required to implement construction-phase BMPs as well as post-construction site design, source control measures, and treatment controls in accordance with the requirements of the CGP; RBMC Title 5, Chapter 7; the Los Angeles RWQCB MS4 Permit; and the Beach Cities EWMP. As described in Impact 5.9-1, typical construction BMPs include silt fences, fiber rolls, catch basin inlet protection, water trucks, street sweeping, and stabilization of truck entrances/exits. Each new development or redevelopment project that disturbs one or more acre of land would be required to prepare and submit a SWPPP to the SWRCB that describes the measures to control erosion and sedimentation due to construction activities. For projects of less than one acre, the minimum BMPs for construction sites listed in the MS4 Permit would be required.

Once future development projects have been constructed, the MS4 permit requirements for new development or redevelopment projects must be implemented and include site design measures, source control measures, LID, and treatment measures that address stormwater runoff and would reduce the potential for erosion and siltation. LID measures include the use of permeable pavements, directing runoff to pervious areas, and the construction of bioretention areas. Project-specific SUSMPs submitted to the City must include BMPs that are maintained during the operational life of the project in accordance with the Los Angeles RWQCB MS4 Permit. Adherence to the streambed alteration agreement process under Sections 1600 to 1616 of the California Fish and Game Code and 404 and 401 permits, as applicable, would further reduce erosion and siltation impacts that may occur due to streambed alterations.

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Additionally, the majority of storm drainage structures, streams, and channels that collect runoff in the City are concrete lined and not susceptible to scour or erosion. For areas that are tributary to streams and may be susceptible to scour, hydromodification requirements, as part of the regional MS4 permit, would ensure that impacts are minimized. Overall impacts to erosion and siltation as a result of development under the proposed project would be less than significant.

Flooding On- or Off-Site

New development and/or redevelopment and changes in land uses could result in an increase in impervious surfaces, which in turn could result in an increase in stormwater runoff, higher peak discharges to drainage channels, and the potential to cause nuisance flooding in areas without adequate drainage facilities. For proposed development that would include storm drain system improvements that directly connect to Los Angeles County Flood Control systems, hydrology and LID studies would be prepared, reviewed, and approved by LACDPW. LACFCD's Hydraulic Design Manual presents the design criteria to be used for both closed conduits and open channels. Regulated projects must implement BMPs, pursuant to the Los Angeles RWQCB MS4 Permit, including LID BMPs and site design BMPs, which effectively minimize imperviousness, retain or detain stormwater on-site, decrease surface water flows, and slow runoff rates. Additionally, Chapter 14 of the 2006 Los Angeles County Department of Public Works Hydrology Manual includes procedures for requesting Q-allowable, or the maximum stormwater discharges that would be allowed from the proposed development associated with the proposed storm drain connection. Adherence to these regulatory requirements would minimize the amount of stormwater runoff from new development and redevelopment in the City. Therefore, potential future development under the proposed project would not result in flooding on- or off-site, and impacts would be less than significant.

Stormwater Drainage System Capacity

As stated in the impact discussions above, an increase in impervious surfaces with new development or redevelopment could result in increases in stormwater runoff, which in turn could exceed the capacity of existing or planned stormwater drainage systems.

Development that meets the requirements of Section VI(D)(7)(b) (Section 5-7.113(d) in the RBMC) in the MS4 Permit would trigger the implementation of site design, source control, and stormwater treatment measures to reduce stormwater runoff, in the MS4 Permit. Prior to the issuance of grading permits, the City will require completion and submittal of a SUSMP report for review and approval to ensure that these requirements are met. Stormwater treatment measures must be sufficiently designed and constructed to treat or filter the first 0.75 inches of stormwater runoff from a 24-hour storm event, and postdevelopment peak runoff rates and volumes cannot exceed peak runoff rates and volumes of predevelopment conditions where the increased peak stormwater discharge rate will result in increased potential for downstream erosion. Implementation of the LID requirements and BMPs required by the MS4 Permit and RBMC would reduce the amount of stormwater runoff that is ultimately discharged to the receiving waters. Also, as part of the permitting process, future development would be required to pay drainage fees pursuant to RBMC Section 5-7.107. The fees are used to offset the City's costs of NPDES-related implementation and enforcement.

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Furthermore, policies in the Utilities Element of the existing General Plan support the improvement of the City's storm drainage infrastructure. Policy 6.2.3 requires that the approval of new development in the City be contingent upon the ability of the project to be served with adequate storm drainage infrastructure and service. Policy 6.2.5 directs the City to plan and provide for the ongoing construction of upgraded and expanded storm drainage facilities in areas of the city currently underserved by such facilities. Policy 6.2.7 requires that improvements to or expansion of existing storm drainage facilities necessitated by specific new development projects be borne by the project proponent, either through the payment of impact fees or the actual construction of such improvements. These policies would further help to ensure that new development is served by storm drainage facilities.

With implementation of these provisions for new development and redevelopment projects, the proposed project would not result in significant increases in runoff that would exceed the capacity of existing or planned storm drain facilities, and the impact is less than significant.

Redirecting Flood Flows

The discussion above regarding on- and off-site flooding is also applicable to the analysis of impeding or redirecting flood flows. Since new development projects are required to comply with the MS4 Permit and retain stormwater on-site via the use of bioretention facilities or other stormwater treatment measures, any flood flows would also be detained temporarily on-site, which would minimize the potential for flooding impacts. Impact 5.10-4 discusses the potential for impeding or redirecting flood flows with development in areas within areas at risk of flood hazards. Based on these discussions, impacts related to impeding or redirecting flood flows would be less than significant.

With compliance with the MS4 permit, the City's stormwater requirements, and the implementation of General Plan goals and policies in the Utilities Element which require the City to ensure adequate storm drainage, potential future development under the proposed project would not result in substantial erosion or siltation and would not substantially increase the rate of surface runoff which would result in flooding, impede or redirect flood flows, or exceed the capacity of the drainage system. Impacts would be less than significant.

Level of Significance Before Mitigation: Less than significant.

Impact 5.9-4: The proposed project would not increase the risk of pollutant release due to inundation in flood hazard, tsunami, or seiche zones. [Threshold HYD-4]

Pollutant Release in Flood Hazard Zones

While a majority of land in the City is outside the 100-year flood zone, areas adjacent to the coastline and other portions of the City defined as Zone AE and VE have a 1 percent chance of annual flood hazards, as shown on Figure 5.9-2. All development in these areas would require conformance with FEMA requirements and setbacks to adequately protect structures from flood hazards. Future development within the 100-year flood zones would also be subject to the floodplain requirements in RBMC Chapter 12, Flood Damage Prevention, which requires new construction to be built above the base flood elevation or be designed to mitigate flooding impacts. Upon completion of a structure in an SFHA, the building must be certified by a registered civil

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engineer and verified by the community building inspector and City Floodplain Administrator. In general, the standards of construction include provisions for flood risk reduction, including anchoring and flood-resistant materials and construction methods, with the lowest floors elevated at or one foot above the base flood elevation. The City does not allow structures to be built within floodways, i.e., the drainage area necessary for a 100-year floodplain. Compliance with FEMA's National Flood Insurance Program requirements and RBMC requirements would reduce potential flood hazards and ensure that pollutants are not released during flood inundation.

Additionally, several policies from the proposed Safety Element would help to reduce flood risks for new development in the City. Policy S-6.1 encourages coordination between local, regional, State, and federal flood control agencies; Policy S-6.2 promotes public education of flood-control measures; Policy S-6.3 directs the City to ensure that City-owned buildings and infrastructure are fortified against flood hazards; and Policy S-6.5 requires new development in the 100-year or 500-year floodplain to comply with the City's Flood Damage Prevention Ordinance.

Conformance with the FEMA requirements and the provisions of Title 9 Chapter 12, Flood Damage Prevention, of the RBMC would reduce impacts related to flood hazards for new development or redevelopment to less than significant.

Pollutant Release from Dam Inundation, Tsunamis, and Seiches

The King Harbor area, including the commercial/visitor accommodations west of Harbor Drive, is in a tsunami hazard zone. Based on the frequency of historical tsunamis, the probability of occurrence of any tsunami during buildout of the proposed project is low. In the unlikely event one does occur, the Redondo Beach Fire Department has recommended evacuation routes, a tsunami inundation map, and tsunami safety and awareness guidelines. Also, the National Weather Service's tsunami warning system would keep residents and businesses up to date on evacuation orders. The proposed Safety Element of the General Plan Update includes Policy S-5.2, which directs the City to obtain information from the U.S. Tsunami Warning System and the Tsunami Ready Communities program to send evacuation notices to community members in the event of a tsunami. Policy S-7.7 would require structures along to the coast to be built or upgraded to withstand strong waves from a storm surge. The City's LCP also requires development within a tsunami inundation zone to provide information concerning the height and force of likely tsunami run-up on the property.

All facilities within King Harbor are required to follow tsunami guidelines and emergency preparedness requirements, in addition to the City's policies that aim to reduce tsunami risks to the extent possible. These measures would reduce impacts to less than significant.

The City is not within proximity to any dam inundation areas, as determined by the DWR's Inundation Maps, and would therefore not be subject to dam breach inundation risks. The City may be subject to impacts from seiches on the Pacific Ocean. The policies and regulations that reduce risks associated with tsunamis would also reduce risks from seiches. For example, Policy S-7.7 would require structures along the coast to be fortified against waves from a storm surge. Therefore, risks associated with seiches would also be less than significant.

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Pollutant Release Due to Sea Level Rise

Additionally, the City faces increased flooding risks associated with rising sea levels which are expected to increase by 13 to 23 inches on the California coast by 2050. As shown in Section 5.9.3, the proposed Safety Element of the General Plan Update includes policies that aim to locate new development outside of areas at risk of coastal inundation and increase the resiliency of structures within these areas. For example, Policy S-7.1 requires new development of residential buildings and critical infrastructure to be outside of the highest level of sea level rise expected during the life of the project. Policy S-7.4 directs the City to integrate nature-based solutions into sea level rise adaptation strategies, including the construction of living shorelines. Policy S-7.5 would integrate sea level rise projections into the City development and environmental review process. Policy S-7.7 would also help to protect structures from storm surges related to higher tides.

The City's 2020 LHMP includes hazard mitigation actions to help reduce flooding risks associated with coastal flooding, sea level rise, and storm surge. These actions include developing a Marina Climate Resiliency Master Plan, requiring structures along the coast to be built to withstand strong wave action from storm surge (also implemented by proposed Safety Element Policy S-7.7), and upgrading City-owned assets to withstand coastal hazards. The City's LCP also requires wave uprush studies to be submitted to the City for development in the Peir or Harbor area. These policies, strategies, and regulatory requirements would help to reduce the risks of coastal inundation for new development, ensuring impacts are less than significant.

Level of Significance Before Mitigation: Less than significant.

Impact 5.9-5: The proposed project would not conflict with or obstruct the implementation of a water quality control plan or sustainable groundwater management plan. [Threshold HYD-5]

New development and redevelopment under the proposed project would implement the requirements of the Statewide CGP, the Los Angeles County MS4 Permit, and Title 5 Chapter 7, Stormwater Management and Discharge Control, of the RBMC. Furthermore, Industrial development and redevelopment would abide by the Statewide General Industrial Permit. Policies in the proposed Open Space Element also promote efforts to sustainably manage the City's groundwater supply from the West Coast Basin. Policy OS-7.4 directs the City to coordinate with the County, utility companies, and other agencies operating in the City to replenish the groundwater supplies in the region, and Policy OS-7.3 directs development to include BMPs that improve natural groundwater recharge. Additionally, the Utilities Element of the General Plan contains policies that target the protection of groundwater supplies from saltwater intrusion, including Policy 6.7.1, which directs the City to ensure the continued operation, maintenance, upkeep, and expansion (as necessary) of the existing West Coast Basin Barrier Project groundwater (seawater) intrusion barrier. Policy 6.7.3 ensures that any new development proposed in the area of the existing groundwater (saltwater) intrusion barrier and freshwater injection well facilities is reviewed to prevent potential impacts or damage to the system.

Adherence to these regulations ensures that surface and groundwater quality are not adversely impacted during construction and operation of development under the proposed project. As a result, site development would not obstruct or conflict with the implementation of the Basin Plan or California Ocean Plan. Proposed development would be connected to the City's public water supply, and no development would connect to on-

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site wells for use of groundwater. As discussed in Impact 5.9-2, increased demand due to development pursuant to the GPU would not adversely impact the sustainable management of the West Coast Basin. Due to its status as a low-priority basin, the West Coast Basin does not have an adopted GSP. The supply of the West Coast Basin is also adjudicated to ensure that stakeholders do not exceed the Allowable Pumping Allocation of the Basin. Therefore, the project would not obstruct or conflict with a water quality control plan or groundwater management plan, and impacts would be less than significant.

Level of Significance Before Mitigation: Less than significant.

5.9.6 Cumulative Impacts

The geographic area for the cumulative impacts to hydrology and water quality is the watershed management area for the Beach Cities WMG, which includes the Santa Monica Bay, Dominguez Channel, and the Machado Lake Watersheds. As described in Section 5.9.1.2, *Existing Conditions*, the City is within the watershed management areas of each of these watersheds.

Hydrology and Drainage

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 Los Angeles County MS4 permit. Projects in the region would also be required to limit post-development runoff discharges per the requirements of the Los Angeles County Department of Public Works, as detailed in the Los Angeles County Hydrology Manual and the Los Angeles County Hydraulic Design Manual as well as the goals and policies in the GPU and applicable regulations within the RBMC. Compliance with these countywide and local requirements would ensure that impacts are not cumulatively considerable. Therefore, cumulative impacts would be less than significant.

Water Quality

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 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. 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.

Flooding

Cumulative projects in the LA region could also be subject to flood hazards, including flooding associated with sea-level rise and tsunamis for development in coastal areas. All projects within SFHAs would comply with FEMA requirements that aim to minimize flood risks. The standards for new construction in 100-year floodplains would include anchoring and flood-resistant materials and construction methods, with the lowest floors elevated one foot above the base flood elevation. Compliance with federal, State, and local regulations

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that reduce flood hazards would ensure that impacts from projects in the region are not cumulatively considerable.

5.9.7 Level of Significance Before Mitigation

Upon implementation of regulatory requirements, and goals and policies from the proposed project all impacts would be less than significant.

5.9.8 Mitigation Measures

No mitigation measures are required.

5.9.9 Level of Significance After Mitigation

All impacts would be less than significant.

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5.10 LAND USE AND PLANNING

This section of the Draft Program Environmental Impact Report (DEIR) evaluates the potential impacts to land use in the City of Redondo Beach from implementation of the proposed Redondo Beach General Plan, Zoning Ordinance Updates, and Local Coastal Program Amendments (proposed project).

Land use impacts can be either direct or indirect. Direct impacts are those that result in land use incompatibilities, division of neighborhoods or communities, or interference with other land use plans, including habitat or wildlife conservation plans. This section focuses on direct land use impacts. Indirect impacts are secondary effects resulting from land use policy implementation, such as an increase in demand for public utilities or services, or increased vehicle miles traveled (VMT) on roadways. Indirect impacts are addressed in other sections of this DEIR.

5.10.1 Environmental Setting

5.10.1.1 REGULATORY BACKGROUND

State Regulations

State Planning and Zoning Law and California Complete Streets 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 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, Assembly Bill (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)

SCAG is a council of governments covering Imperial, Los Angeles, Orange, Riverside, San Bernardino, and Ventura counties. SCAG is the federally recognized metropolitan planning organization (MPO) for this region, which encompasses over 38,000 square miles. SCAG is a regional planning agency and a forum for addressing regional issues concerning transportation, the economy, community development, and the environment. SCAG is also the regional clearinghouse for projects requiring environmental documentation under federal and state

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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 RTP/SCS, Connect SoCal, which encompasses four principles—mobility, economy, healthy/complete communities, and environment—that are important to the region's future. 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.

Local

Local Coastal Program

The California Coastal Act of 1976 requires all cities and counties along the State of California coast to prepare a Local Coastal Program (LCP). The LCP includes a local government's land use plan, zoning ordinances, zoning district maps, and other implementing actions applicable to the Coastal Zone. The LCP must reflect the coastal issues and concerns of its specific area, such as the City of Redondo Beach, but must also be consistent with the overall (statewide) goals, objectives, and policies of the California Coastal Act.

The LCP is comprised of the Coastal Land Use Plan (CLUP) and the Implementation Plan (IP). The LCP for the City of Redondo Beach has been developed over three phases. Phase I focused on the identification of issues and was accomplished during 1977 to 1978. Phase II consists of the CLUP, which was certified in 1981. The CLUP provides a detailed analysis of issues within the Coastal Zone regarding shoreline access, recreation, housing, sportfishing, and recreational boating. The CLUP also indicates the kinds, locations, and intensity of land and water uses; and outlines resource protection and development policies to accomplish California Coastal Act objectives. Phase III consists of implementation procedures of the CLUP through a series of amendments (IP) to the City of Redondo Beach Zoning Ordinance for the Coastal Zone certified by the Redondo Beach City Council in 2003.

Redondo Beach General Plan Land Use Element and Land Use/Zoning Designations

The current City of Redondo Beach General Plan Land Use Element was adopted on May 26, 1992 (amended May 6, 2008 by Resolution CC-0805-47) 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 10, of the Redondo Beach Municipal Code. The zoning ordinance consists of two main elements: 1) a map which 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, and so on. Title 10, Chapter 5 of the Municipal Code delineates the "Zoning Ordinance for the Coastal Zone" specifically and ensures compliance with the CLUP in addition to the General Plan.

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Redondo Beach Municipal Code

Environmental Review Pursuant to CEQA

Title 10, Chapter 3, Environmental Review Pursuant to CEQA, of the Redondo Beach Municipal Code establishes the specific procedures necessary to implement CEQA. Article 2, Evaluation of Significant Effects, establishes criteria for determining significant effects and provides guidance in making an evaluation whether or not a particular project may have a substantial adverse effect on the environment. Pursuant to the Municipal Code, if there are inconsistencies between the provisions contained in Title 10, Chapter 3, and the State's CEQA Guidelines, the State's CEQA Guidelines shall control. As established in Section 10-3.202, significant effects may be due to primary consequences immediately related to the project or may be due to secondary consequences related more to the primary consequences than the project itself. As established in Section 10-3.203(a)(u), with respect to land use and planning, a project will normally have a significant effect on the environment if it will conflict with adopted environmental plans and goals of the community where it is located and/or disrupt or divide the physical arrangement of an established community, respectively.

Specific Plans

Specific plans allow for flexibility in design and customized development standards tailored to specific needs and conditions. The Specific Plan is one of the most creative tools available for guiding and regulating development, but also requires considerable attention to detail and may be too involved for some situations. As specified by the California Government Code, a specific plan must be consistent with the General Plan and must respond to all the required General Plan topics to the extent that they apply to the area in question. The following are existing specific plans in the City:

- Harbor/Civic Center Specific Plan 2008 adopted

Other Types of Plans

Artesia and Aviation Corridors Area Plan

In recent years, several areas of Redondo Beach have undergone revitalization and enhancement that have made them unique experiences or special destinations in the City. However, Artesia Boulevard and Aviation Boulevard, which historically served as primary commercial areas, have not experienced the same level of reinvestment and transition. The Artesia and Aviation Corridors Area Plan was developed to revitalize the Artesia Boulevard and Aviation Boulevard corridors. Adopted in December 2020, it is intended to be used as a tool and as a starting point for the City to establish general policy direction, corridor objectives, and implementable actions along the two corridors. It serves as an interdepartmental tool and strategy document that helps to outline partnerships that are needed to accomplish a particular objective, and it also serves as a companion document to the City's General Plan and zoning ordinance.

Overlays

Overlay zones establish unique use and/or development regulations for certain geographic areas of the City to address special site conditions, protect resources, and/or address land use needs and opportunities in combination with the base zoning districts of the same parcels. Regulations for overlay zoning zones

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supplement the regulations that apply to the corresponding base zoning district. The following are overlay zones in Redondo Beach:

- Planned Development (PLD) Overlay Zone
- Mixed-Use (MU) Overlay Zone
- Riviera Village (RV) Overlay Zone
- Historic (H) Overlay Zone

5.10.1.2 EXISTING CONDITIONS

Redondo Beach is approaching the physical limits of its expansion ability with few undeveloped parcels remaining. The City is bounded on three sides by urban development, with the cities of Hermosa Beach, Manhattan Beach, El Segundo, and Hawthorne to the north; Torrance and Lawndale to the east; and the Palos Verdes Peninsula to the south. The Pacific Ocean forms the western boundary of the City. The existing General Plan provides for the maintenance of existing uses and future infill development

The current General Plan describes five basic land use categories, including residential, commercial, mixed residential and commercial, industrial, and public use to define the existing and intended character, form, and function of each part of the City and are differentiated by the specific uses and densities and intensities permitted. Each land use category, described below, is further organized into designations that provide direction on the intended range of uses, appropriate levels of density and intensity, and intended physical design character.

Residential Development

The current General Plan aims to maintain existing residential neighborhoods and provide opportunities for the development of additional housing to provide for the diverse needs of the population.

- Single-Family Residential Neighborhoods
- Low Density Multi-Family Residential Neighborhoods
- Medium Density Multi-Family Residential Neighborhoods
- High-Density Multi-Family Residential Neighborhoods

Commercial and Mixed-Use (Commercial and Residential) Development

The current General Plan aims to continue and enhance existing commercial districts which contribute revenue and services to the City and are compatible with adjacent residential neighborhoods. The General Plan divides commercial and mixed-use development into the following distinct clusters with their own permitted functions, forms, densities, and uses:

- Artesia Boulevard
- Pacific Coast Highway
- Torrance Boulevard
- Aviation Boulevard
- Riviera Village

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- North Catalina Avenue Corridor
- Galleria at South Bay
- Other Smaller and Isolated Highway and Community-Commercial Clusters

Additionally, the harbor and pier areas are designated as a commercial and recreational asset for both the City and the region in the CLUP. The CLUP is intended to allow for a wide range of regional-serving public and commercial recreational facilities and boating facilities and services. The CLUP encourages further expansion of coastal-dependent land uses where feasible. Since the harbor and pier areas are major local attractions and areas of activity, a major issue is ensuring a high quality of development and design. The current General Plan has also adopted policies requiring quality design that also enhances the area's seaside location. The current General Plan aims to maintain coastal-related commercial development in Redondo Beach Pier and King Harbor Marina, ensure compatibility with adjacent residential neighborhoods, and maintain a high level of quality and safety.

Industrial Development

Industrial development in Redondo Beach is primarily located in the northerly end of the City with a prevailing emphasis on high tech industries within an industrial park type of setting. The current General Plan states, "With the current reduction in the aerospace industry, however, there is an emerging trend to diversify the variety of uses within industrial areas." As a policy, the current General Plan aims to continue and enhance existing industrial areas.

Public and Institutional Development

The Public and Institutional designation consists of lands that are owned by public agencies, special use districts, and public utilities. This designation encompasses a range of different public and quasi-public uses. Because of this, no attempt has been made to establish specific development standards within the current General Plan. The City's Zoning Ordinance, however, implements the Public and Institutional designation through multiple zoning districts that focus on different classes of public and quasi-public uses and contain more specific development standards.

Target Revitalization Sites

The current General Plan also identifies a few areas of the City, listed below, that were developed before current zoning patterns were established and whose existing uses are inconsistent with the surrounding area. The current General Plan aims to promote the revitalization and more effective use of such areas.

- Ruxton Lane
- Meyer Lane Area
- 300 Block of South Catalina Avenue

Buildout Estimate

Buildout projections represent development likely to occur based on past trends and anticipated levels of density and intensity for each land use category. Table 3-3, *Summary of Current Land Uses*, in Section 3, *Project Description*, of this DEIR, reflects the amount of development anticipated by the current Land Use Plan. As

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shown in Table 5.10-1, below, development in accordance with the current Land Use Plan is estimated to result in a 7% increase in population (4,735 persons), 7% increase in dwelling units (2,073 dwelling units), 38% increase in non-residential square feet (4,486,610 square feet) and a 16% increase in employment (4,536 jobs) above existing conditions. These estimates represent the maximum amount of development which could occur if all properties in the City were to be developed for the uses and densities prescribed by the current Land Use Plan. These are theoretical maximums, as many parcels which are developed at densities below those permitted are occupied by physically stable and economically viable uses which are unlikely to be recycled.

Table 5.10-1 Summary of Current Land Uses

Scenario	Acres	Number of Housing Units	Total Population	Nonresidential Square Feet	Employment (Number of Jobs)
Existing Conditions	3,973	30,431	70,311	11,826,277	28,638
Current General Plan (1992)	3,973	32,504	75,046	16,312,887	33,174
Potential Growth	--	2,073 (7%)	4,735 (7%)	4,486,610 (38%)	4,536 (16%)

5.10.2 Thresholds of Significance

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

5.10.3 Proposed General Plan Goals and Policies

Land Use Element

Goal LU-1 Balance: A sustainable community with a range of land uses that meet the diverse needs of Redondo Beach residents, offer a variety of employment, commercial, recreational, and housing opportunities that make it possible for people of all ages and abilities to live, work, recreate, and maintain a high quality of life in Redondo Beach.

- **Policy LU-1.1 Balanced Land Use Pattern.** Preserve existing residential neighborhoods, while balancing development trends and state mandates, and provide for enhancement of focused planning areas to improve community activity and identity.
- **Policy LU-1.2 Inclusivity.** Provide for a mix of land uses to create a complete community where residents of all ages and abilities, employers, workers, and visitors have a broad range of choices of where they can live, work, shop and recreate within Redondo Beach.

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- **Policy LU 1.3 Diversity of Housing.** Collaborate with residents, housing providers and the development community to provide housing opportunities for every stage of life, and to plan for a variety of housing types and price points to support the local workforce and foster a balanced community.
- **Policy LU 1.4 Jobs-Housing Balance.** Create a place to live and a place to work that seeks to match its residents to jobs and promotes a workforce/ jobs balance.
- **Policy LU 1.6 Housing Incentives.** Allow for lot consolidation on Housing Element sites and Incentivize quality infill residential development that provides a diversity of housing types and accommodates all income levels and age groups.
- **Policy LU-1.7 Homeownership Opportunities.** Support innovative development policies to expand homeownership opportunities at all income levels.
- **Policy LU-1.8 Housing Affordability.** Protect existing affordable units from being converted into market rate housing or other uses.
- **Policy LU-1.9 Employment Opportunities.** Provide a broad spectrum of land uses and development that offer employment opportunities for current and future Redondo Beach residents.
- **Policy LU-1.10 Transit Oriented Development.** Encourage job centers with a potential affordable workforce housing component in close proximity (within ¼ mile) to the bus transit center and current and future light rail stations.
- **Policy LU-1.11 Creation And Distribution of Parkland.** Promote the creation of new open space and community serving amenities throughout Redondo Beach to achieve minimum parkland standards and to keep pace with the increase in multi-unit housing development. This policy includes specific prioritization of opportunities at the current power plant site and powerline right of ways. Additionally, the City will prioritize opportunities for parkland expansion in park-deficient areas.
- **Policy LU-1.12 Coastal Community.** Provide land uses which reflect and capitalize on the City's location along the Southern California coastline. Accommodate coastal-related recreation and commercial uses which serve the needs of residents and visitors and are attractive and compatible with adjacent residential neighborhoods and commercial districts.
- **Policy LU-1.13 Public and Institutional Uses.** Provide for the continuation of existing and expansion of governmental administrative and capital facilities, schools, libraries, hospitals and associated medical offices, public cultural facilities, and other public uses, ancillary parks, recreation, and open spaces and other public land uses and facilities to support the existing and future population and development of the City.
- **Policy LU-1.14 Existing Commercial Uses in Residential Designations.** Allow for the continuation of neighborhood serving business and institutional uses currently existing in residential designations. Incentivize investment in, and improvements to, these uses, including maintenance, remodels, or potential building additions.

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Goal LU-2 Identity: A dynamic, progressive City containing self-sufficient, health-oriented, neighborhoods and commercial districts that foster a positive sense of identity and belonging among residents, visitors, and businesses.

- **Policy LU-2.1 Beach Culture.** Ensure that new development and reuse projects protect existing Redondo Beach culture and identity and preserve and recognize unique neighborhoods and areas as the building blocks and character defining elements of the community.
- **Policy LU-2.4 City Image.** Encourage land uses, development projects (public and private), and public art installations that promote the City's image, identity, and history as a cultural, governmental, and business-friendly regional center.
- **Policy LU-2.8 Pedestrian access.** For new development, encourage pedestrian access and create strong building entries that are primarily oriented to the street.

Goal LU-3 Compatibility: Preserve and improve the character and integrity of existing neighborhoods and districts.

- **Policy LU-3.1: Compatible Uses.** Foster compatibility between land uses to enhance livability and promote healthy lifestyles.
- **Policy LU-3.5 Quality Design.** Ensure new single and multi-family residential projects are consistent with the provisions outlined in City's Objective Residential Standards and non-residential development along Artesia and Aviation Blvds. is consistent with the design guidance and policies within the AACAP.
- **Policy LU-3.6 Active Transportation.** Invest in active transportation connectivity between commercial corridors/job centers and residential neighborhoods to encourage healthy lifestyles.
- **Policy LU-3.7 Access to Transit.** Support the location of transit stations and enhanced stops near the Galleria (along Hawthorne Boulevard) and North Tech District to facilitate and take advantage of transit service, reduce vehicle trips and allow residents without private vehicles to access services.
- **Policy LU-3.8 Corridor Connectivity.** Recognize corridors as important cross-town thoroughfares that connect Redondo Beach, serve as transitions between neighborhoods, provide opportunities for local/neighborhood-serving retail and balance the needs of multiple transportation modes. Consider mid-block pass through between parking areas within the corridors and between the corridors and adjacent residential neighborhoods. Specifically target power line and transportation rights of way as pedestrian and bicycle corridors to connect amenities across the City and in nearby communities. Work with neighboring communities to integrate and connect these pedestrian and bicycle corridors across City boundaries.
- **Policy LU-3.9 Adequate Infrastructure.** Evaluate individual new development proposals to determine if the proposals are consistent with the General Plan and the existing and planned capacities of public facilities and infrastructure improvements. Where appropriate, require developers to pay the cost of studies needed to determine infrastructure capacity in conjunction with a proposed project and if there is a rational

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nexus that project impacts require additional capacity or upgrades of impacted infrastructure, require the physical improvements or their fair share contribution of necessary infrastructure.

- **Policy LU-3.10 Utility Corridors.** Develop plans and programs for the reuse of infrastructure and utility properties and easements as they are currently managed and should they no longer be required for their currently intended primary use and operations. In particular, the City shall target these corridors to provide active and passive uses and recreational amenities including bicycle and pedestrian paths to create connectivity to city-wide amenities and amenities located in neighboring cities.
- **Policy LU-3.11 Civic engagement.** Increase the amount and quality of community engagement throughout the planning, development, and operation of our developments throughout the City's varied communities.

Goal LU-4 Health and Vitality: A vibrant community that supports the healthy and active lifestyles of residents and visitors.

- **Policy LU-4.2 Health and Land Use.** Seek to incorporate health considerations into land use planning decisions in a manner that improves health and well-being.
- **Policy LU-4.4 New Open Space and Parkland Opportunities.** Preserve, invest in, and expand open space and parkland opportunities for active and passive recreational public and private open spaces. Work with future developments along commercial corridors and other nonresidential developments to create useable public open spaces to enhance the commercial neighborhood experience for residents and visitors alike.
- **Policy LU-4.6 Connectivity.** Facilitate bicycling and pedestrian linkages to parks, beaches, tourist destinations, recreational amenities, open spaces and parks, and commercial destinations via the City's street, pedestrian, bicycle, and transit networks in a way that is visually appealing and safe to encourage local residents and visitors to minimize the use of automobiles. Focus on expanding connectivity through the addition of pedestrian and bike paths on public utility and transportation rights of way. Create additional mid-block connections (pass throughs) from adjacent residential neighborhoods into commercial corridors and create connections between adjacent commercial businesses.

Goal LU-5 Environmental Sustainability: An environmentally aware community that utilizes tools, strategies and approaches that protect and minimizes the impacts to the City's environmental resources.

- **Policy LU5.7 Preserve and Expand Native Habitat and Encourage Use of Native Plants for Landscaping.** Continue to support the expansion of native bluff habitat along the waterfront. Continue to support reestablishment of native habitat in Wilderness Park. Continue to pursue wetlands and native habitat restoration at the power plant site and the adjacent powerline corridor. Ensure connectivity of native habitat, particularly habitat for the endangered El Segundo blue butterfly, with Torrance and Hermosa Beach. Redefine City plant and tree palettes to prioritize native plants. Apply the strategies and approaches to fund and incentivize expansion of native habitat and plants throughout the City on both public and private property.

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Goal LU-6 Economic Sustainability: A financially healthy City with a balanced mix of land uses and special funding and financing districts that increase resources to invest in public facilities and services.

- **Policy LU-6.14 Development Projects.** Require new development and redevelopment to create unique, high-quality places that add value to and are complimentary with the community.

Goal LU-7 Historic Preservation: Historic buildings, streets, landscapes and neighborhoods, as well as the story of Redondo Beach's people, businesses, and social and community organizations, are preserved and serve as a point of civic pride and identity for the community.

- **Policy LU-7.2 Protect designated landmarks and districts.** Continue to use the Certificate of Appropriateness process for reviewing applications to demolish or alter designated landmarks and for projects within designated historic districts and in proximity to landmark properties.

Open Space and Conservation Element

Goal OS-1 Quantity, Location, And Access: A comprehensive, accessible, and well-balanced network of high-quality parks, public spaces, and recreational facilities that enhances the livability, wellness, and connectivity of the community.

- **Policy OS-1.2 Service Area.** Prioritize development of new and expanded parks and recreational facilities and linkages to existing facilities in underserved areas of the City, defined as those with both a high population density and access to a limited number of park acres.
- **Policy OS-1.3 New Parkland and Recreational Facilities.** Acquire land to create additional high-quality, resident-serving parkland and recreational facilities, including regional, community, neighborhood, and ROW parks, parkettes, and recreational facilities. Continue investment in the Open Space Acquisition Fund. Prioritize opportunities on the AES site and SCE Right of Ways.
- **Policy OS-1.6 Nonresidential Development.** Encourage nonresidential development, including commercial centers, mixed-use projects, industrial uses, and public facilities, to provide on-site open space for public, employee, customer, and resident use to the maximum extent feasible.

Goal OS-2 High-Quality Open Spaces And Recreational Facilities: Parks, public spaces, and recreational facilities that are highly utilized by residents and visitors of all ages, abilities, and incomes and are well-maintained, safe, and meet the long and-short term needs of the Redondo Beach Community.

- **Policy OS-2.10 Conservation.** Preserve and enhance unique and valuable community resources as part of the planning and development of parks, public spaces, and recreation areas. Such resources include significant scenic and visual landmarks; cultural/historic resources; and natural resources such as coastal resources, wildlife habitats, and native vegetation.

Goal OS-8 Biological Resources: An enhanced ecosystem comprised of a thriving urban forest, protected habitats for biological resources, especially native, sensitive and special status wildlife species, to foster the well-being of the community and offer a reprieve from the built environment.

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- **Policy OS-8.1 Protect and Expand Critical Habitats.** Coordinate with the neighboring cities, Los Angeles County, regional agencies, and environmental and conservation communities/groups to ensure critical habitat areas are preserved, expanded and connected when feasible, and protected from natural and manmade threats, including potential impacts from development on adjacent sites.
- **Policy OS-8.2 Re-Introduce Native Species.** Coordinate with conservation groups and non-profit organizations to reestablish habitat areas with native plants and animals in areas of habitat rehabilitation; consider the feasibility of establishing, maintaining, and preserving new habitat areas in other parts of the City.
- **Policy OS-8.5 Continue Current Restoration Efforts.** Support continuation and expansion of current habitat restoration efforts on the Coastal Bluffs and at Wilderness Park.

5.10.4 Environmental Impacts

5.10.4.1 METHODOLOGY

The evaluation of impacts related to land use and planning is based on a review of existing policies, plans, and regulations that guide development and growth in the City. Information obtained from these sources was reviewed and summarized to describe existing conditions and identify environmental effects based on the proposed project's consistency with the regulatory background presented in this section. In determining the level of significance, the analysis assumes that future projects facilitated by the proposed project would comply with relevant federal, state, and local laws, ordinances, and regulations.

5.10.4.2 IMPACT ANALYSIS

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

Impact 5.10-1: Project implementation would not physically divide an established community. [Threshold LU-1]

Division of an established community commonly 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. In Redondo Beach, SR-1, a north-south highway, bisects the southern portion of the City. Other barriers in the City may include incomplete trails, cul-de-sacs, or noise walls in an existing neighborhood that all require use of an automobile to get around.

The Land Use Element of the proposed project provides policies designed to ensure the prevention of dividing communities. The proposed project includes Policy LU-1.1, which aims to preserve existing residential neighborhood patterns, while balancing development trends and state mandates, Policy LU-3.8, which recognizes corridors and the importance of connectivity throughout Redondo Beach, and Policy LU-4.6, which aims to facilitate linkages to parks, beaches, residential neighborhoods, and commercial destinations.

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As noted above, several policies of the proposed project would not only improve connectivity, but compatibility between existing and future development. A primary goal of the proposed project is to retain the City's current character, and several policies of the proposed project address consistency of new development with existing developments using materials, siting, and other design techniques, such as Policy LU-6.14, which requires new development and redevelopment projects to create unique, high-quality places that add value to and are complementary with the community, and Policy LU-3.1, which aims to foster compatibility between land uses to enhance livability and promote healthy lifestyles. Updates to the Zoning Ordinance and LCP would involve amendments to land-use and development standards that would be consistent with the General Plan Update.

No aspect of the proposed project would divide the existing City. To the contrary, the proposed project includes provisions that 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 5.11-1 would not be significant.

Impact 5.10-2: Project Implementation would conflict with applicable plans adopted for the purpose of avoiding or mitigating an environmental effect. [Threshold LU-2]

SCAG Connect SoCal Consistency

The proposed project would include climate benefits, land use patterns, and goals and policies that align with the RTP/SCS. Implementation of the proposed project would support a variety of land use types including high-density housing and mixed-use development that encourages better connectivity to employment and commercial uses, and in closer proximity to public transit. However, as discussed below in Table 5.10-2, *SCAG Connect SoCal Consistency Analysis*, the proposed General Plan Update would not be consistent with several of the goals of SCAG's 2024-2050 RTP/SCS at buildout. As discussed in Section 5.2, *Air Quality*, Section 5.8, *Greenhouse Gas Emissions*, and Section 5.15, *Transportation*, impacts associated with air quality, GHG and VMT would be significant. Therefore, the proposed project would conflict with SCAG's Connect SoCal goals aimed at improving air quality and reducing GHG emissions and impacts would be considered significant.

Table 5.10-2 SCAG Connect SoCal Consistency Analysis

Connect SoCal Goals	Project Consistency Analysis
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.	Inconsistent. Although the proposed project would include climate benefits, land use patterns, and goals and policies that align with the RTP/SCS, as discussed in Section 5.2, <i>Air Quality</i> , Section 5.8, <i>Greenhouse Gas Emissions</i> , and Section 5.15, <i>Transportation</i> , impacts associated with air quality, GHG and VMT would be significant and therefore, the proposed project would not be consistent with this goal.
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. See Section 5.15, <i>Transportation</i> , of this DEIR, which discusses transportation, mobility, and circulation and how the proposed project, including the proposed policies, would align with RTP/SCS goals and policies.
Support planning for people of all ages, abilities and backgrounds.	Consistent. The proposed project includes many policies throughout the General Plan Elements to support the health of its residents and ensure equitable access to resources, including

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Table 5.10-2 SCAG Connect SoCal Consistency Analysis

Connect SoCal Goals	Project Consistency Analysis
	Policy LU-3.1 through LU-4.6, which encourage compatibility between land uses to promote healthy lifestyles, active transportation, access to transit, new open space and parkland opportunities, and bicycle and pedestrian connectivity to recreational amenities. See also section 5.15, <i>Transportation</i> , of this DEIR, which discusses transportation, mobility, and circulation and how the proposed project, including the proposed policies, would align with RTP/SCS goals and policies.
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. See section 5.15, <i>Transportation</i> , of this DEIR, which discusses transportation, mobility, and circulation and how the proposed project, including the proposed policies, would align with RTP/SCS goals and policies.
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 High Density Residential, Residential Overlays, and mixed-use development to encourage better connectivity to employment and commercial uses. Policies LU-1.1 through LU 1.10 encourage a balanced land use pattern, a diversity of housing types, jobs-housing balance, and transit-oriented development. Therefore, the proposed project would be consistent with this policy.
Environment: Create a healthy region for the people of today and tomorrow.	
Develop communities that are resilient and can mitigate, adapt to and respond to chronic and acute stresses and disruptions, such as climate change.	Inconsistent. Although the proposed project would include climate benefits, land use patterns, and goals and policies that align with the RTP/SCS, as discussed in Section 5.2, <i>Air Quality</i> and Section 5.8, <i>Greenhouse Gas Emissions</i> , impacts associated with VMT, air quality and GHG, would be significant and therefore, the proposed project would not be consistent with this goal.
Integrate the region's development pattern and transportation network to improve air quality, reduce greenhouse gas emission and enable more sustainable use of energy and water.	Inconsistent. See section 5.15, <i>Transportation</i> , of this DEIR, which discusses transportation, mobility, and circulation and how the proposed project, including the proposed policies, would align with RTP/SCS goals and policies. Although the proposed project would include climate benefits, land use patterns, and goals and policies that align with the RTP/SCS, as discussed in Section 5.2, <i>Air Quality</i> and Section 5.8, <i>Greenhouse Gas Emissions</i> , impacts associated with VMT, air quality and GHG, would be significant and therefore, the proposed project would not be consistent with this goal.
Conserve the region's resources.	Consistent. The proposed project contains several policies in the Land Use and Open Space & Conservation Elements that would preserve and enhance areas that may provide habitat for special-status species (LU-5.7, OS-2.10, OS-8.1, OS-8.2, OS-8.5 and OS-8.6). Therefore, the proposed project would be consistent 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. This RTP/SCS goal focuses on adopting policies and investments in regional infrastructure in support of improving regional economic development and competitiveness. Proposed Land Use policies such as LU-1.4, LU-1.9, LU-1.14 and LU-3.9 encourage employment opportunities and infrastructure improvements. Therefore, the proposed project would not adversely affect the ability of SCAG to align plan investments and policies with economic development and competitiveness and would contribute to achieving this goal by advancing the other RTP/SCS goals.
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. This RTP/SCS goal focuses on adopting policies and investments in regional infrastructure in support of improving regional economic development and competitiveness. Proposed Land Use policies such as LU-1.4, LU-1.9, LU-1.14 and LU-3.9 encourage employment opportunities and infrastructure improvements. Therefore, the proposed project would not adversely affect the ability of SCAG to align plan investments and policies with economic development and competitiveness and would contribute to achieving this goal by advancing the other RTP/SCS goals.

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Consistency with City Land Use Plans and Regulations

The proposed project is a regulatory document that sets the framework for future growth and development in the City and does not directly result in development. As discussed in Chapter 1, *Executive Summary*, Section 1.2.2, *Type and Purpose of This DEIR*, use of this Program DEIR provides the City an opportunity to consider broad policy and program wide mitigation measures to address project-specific and cumulative environmental impacts on a comprehensive scale.

As discussed in Chapter 3, *Project Description* the amendments to the Zoning Ordinance will codify the community's vision as established in the Focused General Plan Update process, facilitate the implementation of key General Plan concepts related to land use, and implement required Zoning Map changes and programs pursuant to the City's existing Certified Housing Element as discussed in Chapter 3, *Project Description*. Table 3-7, *Summary of Zoning Map, Regulations and Standards Updates*, in Chapter 3, *Project Description*, summarizes the proposed amendments to the City's Zoning Map to align with the General Plan Update and implement the City's existing, Certified Housing Element. Table 3-8 *Administrative and Procedural Zoning Ordinance Updates to Align with State Laws*, summarizes the Zoning Ordinance updates that are procedural, administrative, or required to formally align the City's Municipal Code with state laws and it's Certified Housing Element inclusive of all its "Programs" followed by a summary of the required amendments to the Zoning Ordinance text.

Furthermore, to implement the changes proposed by the Focused General Plan Update and the proposed Zoning Ordinance Update within the coastal zone, the City must also amend portions of both the Coastal Land Use Plan (CLUP) and Implementation Plan (IP) of its Local Coastal Program (LCP). Proposed changes to the CLUP include updates to the Land Use Map consistent with the Land Use Map in the Focused General Plan Update. Proposed changes to the IP will include updates to the Zoning Map within the Coastal Zone to implement the Focused General Plan Update and updates to the Zoning Ordinance for the Coastal Zone that largely mirror the changes described in the tables 3-7 and 3-8, above. Therefore, the General Plan Update would not conflict with the City's Zoning Ordinance or the LCP.

Level of Significance Before Mitigation: Significant.

5.10.5 Cumulative Impacts

The cumulative setting is Los Angeles County; land uses within the area are regulated by individual agencies through their respective adopted general plans and zoning ordinances. Jurisdictional boundaries limit implementation of regional mitigation by any one city. Future development associated with the proposed project includes dwelling units, residents, employment, and industry. Updates to the Zoning Ordinance and LCP would involve land-use changes that would be consistent with the General Plan. Implementation of the proposed project would not combine with other development in the region to physically divide a community; however, increased growth in the City facilitated by the proposed project has potential to combine with regional projected growth to further conflict with SCAG's Connect SoCal goals that are aimed at improving air quality and reducing GHG emissions. Therefore, the proposed project's contribution to a cumulative effect would be significant.

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5.10.6 Level of Significance Before Mitigation

Upon implementation of regulatory requirements, and project goals and policies, the following impacts would be less than significant: 5.10-1.

The following impacts would be **potentially significant**:

- **Impact 5.10-2** Project implementation would conflict with applicable plans adopted for the purpose of avoiding or mitigating an environmental effect.

5.10.7 Mitigation Measures

See Mitigation Measures AQ-1, AQ-2, AQ-3, and GHG-1 in Section 5.2, *Air Quality* and Section 5.7, *Greenhouse Gas Emissions*, respectively.

5.10.8 Level of Significance After Mitigation

Impact 5.10-2

There are no feasible mitigation measures to fully reduce the proposed project's inconsistencies with the goals of SCAG's 2024–2050 RTP/SCS. As a result, future development in accordance with the proposed project would conflict with plans adopted for the purpose of avoiding or mitigating an environmental effect and project impacts, and cumulative impacts, would be ***significant and unavoidable***.

5.10.9 References

Southern California Association of Governments (SCAG). 2024, April 4. 2024–2050 Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS). <https://scag.ca.gov/connect-socal>.

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5.11 NOISE

This section of the Draft Program Environmental Impact Report (DEIR) discusses the fundamentals of sound; examines federal, state, and local noise guidelines, policies, and standards; reviews noise levels at existing receptor locations; and evaluates potential noise impacts associated with the Redondo Beach Focused General Plan Update, Zoning Ordinance Updates, and Local Coastal Program Amendment (proposed project) and provides mitigation to reduce noise impacts at sensitive residential and other sensitive locations, i.e., professional office. This evaluation uses procedures and methodologies specified by the City's current General Plan and Municipal Code, and applicable federal and State guidelines. The analysis and data presented in this section was prepared in coordination with *ECORP Consulting Services*.

- *Noise Monitoring and Modeling*, ECORP, July 2024

A copy of this study is provided in Appendix G of this Draft EIR.

5.11.1 Environmental Setting

5.11.1.1 SOUND FUNDAMENTALS

Noise can be generally defined as unwanted sound. Sound, traveling in the form of waves from a source, exerts a sound pressure level (referred to as sound level) that is measured in decibels (dB), which is the standard unit of sound amplitude measurement. The dB scale is a logarithmic scale that describes the physical intensity of the pressure vibrations that make up any sound, with 0 dB corresponding roughly to the threshold of human hearing and 120 to 140 dB corresponding to the threshold of pain. Pressure waves traveling through air exert a force registered by the human ear as sound.

Sound pressure fluctuations can be measured in units of hertz (Hz), which correspond to the frequency of a particular sound. Typically, sound does not consist of a single frequency, but rather a broad band of frequencies varying in levels of magnitude. When all the audible frequencies of a sound are measured, a sound spectrum is plotted consisting of a range of frequency spanning 20 to 20,000 Hz. The sound pressure level, therefore, constitutes the additive force exerted by a sound corresponding to the sound frequency/sound power level spectrum.

The typical human ear is not equally sensitive to all frequencies of the audible sound spectrum. Therefore, when assessing potential noise impacts, sound is measured using an electronic filter that de-emphasizes the frequencies below 1,000 Hz and above 5,000 Hz in a manner corresponding to the human ear's decreased sensitivity to extremely low and extremely high frequencies. This method of frequency weighting is referred to as A weighting and is expressed in units of A-weighted decibels (dBA). Frequency A-weighting follows an international standard methodology of frequency de-emphasis and is typically applied to community noise measurements.

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Noise Exposure and Community Noise

Noise exposure is a measure of noise over a period of time. Noise level is a measure of noise at a given instant in time. Community noise varies continuously over a period of time with respect to the contributing sound sources of the community noise environment. Community noise is primarily the product of many distant noise sources, which constitute a relatively stable background noise exposure, with the individual contributors unidentifiable. The background noise level changes throughout a typical day, but does so gradually, corresponding with the addition and subtraction of distant noise sources such as traffic and atmospheric conditions. What makes community noise constantly variable throughout a day, besides the slowly changing background noise, is the addition of short duration single event noise sources (e.g., aircraft flyovers, motor vehicles, sirens), which are readily identifiable to the individual receptor. These successive additions of sound to the community noise environment vary the community noise level from instant to instant, requiring the measurement of noise exposure over a period of time to legitimately characterize a community noise environment and evaluate cumulative noise impacts. This time-varying characteristic of environmental noise is described using statistical noise descriptors.

Several rating scales have been developed to analyze the adverse effect of community noise on people. Because environmental noise fluctuates over time, these scales consider that the effect of noise on people is largely dependent on the total acoustical energy content of the noise, as well as the time of day when the noise occurs. The noise descriptors most often encountered when dealing with traffic, community, and environmental noise include the average hourly noise level (in L_{eq}) and the average daily noise levels/community noise equivalent level (in $L_{dn}/CNEL$). The L_{eq} is a measure of ambient noise, while the L_{dn} and $CNEL$ are measures of community noise. Each is applicable to this analysis and defined as follows:

- **Equivalent Noise Level (L_{eq})** is the average acoustic energy content of noise for a stated period of time. Thus, the L_{eq} of a time-varying noise and that of a steady noise are the same if they deliver the same acoustic energy to the ear during exposure. For evaluating community impacts, this rating scale does not vary, regardless of whether the noise occurs during the day or the night.
- **L_{max}** is the instantaneous maximum noise level for a specified period of time.
- **L_{min}** is the minimum, instantaneous noise level experienced during a given period of time.
- **Day-Night Average (L_{dn})** is a 24-hour average L_{eq} with a 10-dBA “weighting” added to noise during the hours of 10:00 pm to 7:00 am to account for noise sensitivity in the nighttime. The logarithmic effect of these additions is that a 60 dBA 24-hour L_{eq} would result in a measurement of 66.4 dBA L_{dn} .
- **Community Noise Equivalent Level (CNEL)** is a 24-hour average L_{eq} with a 5-dBA weighting during the hours of 7:00 pm to 10:00 pm and a 10-dBA weighting added to noise during the hours of 10:00 pm to 7:00 am to account for noise sensitivity in the evening and nighttime, respectively

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Sound Measurement

As previously described, sound pressure is measured through the A-weighted measure to correct for the relative frequency response of the human ear. That is, an A-weighted noise level de-emphasizes low and very high frequencies of sound similar to the human ear's de-emphasis of these frequencies.

Unlike linear units such as inches or pounds, decibels are measured on a logarithmic scale, representing points on a sharply rising curve. On a logarithmic scale, an increase of 10 dBA is 10 times more intense than 1 dBA, 20 dBA is 100 times more intense, and 30 dBA is 1,000 times more intense. A sound as soft as human breathing is about 10 times greater than 0 dBA. The decibel system of measuring sound gives a rough connection between the physical intensity of sound and its perceived loudness to the human ear. Ambient sounds generally range from 30 dBA (very quiet) to 100 dBA (very loud). When the standard logarithmic dB is A-weighted (dBA), an increase of 10 dBA is generally perceived as a doubling in loudness. For example, a 70-dBA sound is half as loud as an 80-dBA sound and twice as loud as a 60-dBA sound. When two identical sources are each producing sound of the same loudness, the resulting sound level at a given distance would be three dB higher than one source under the same conditions (Federal Transit Administration 2018). For example, a 65-dBA source of sound, such as a truck, when joined by another 65 dBA source results in a sound amplitude of 68 dBA, not 130 dBA (i.e., doubling the source strength increases the sound pressure by three dBA). Under the decibel scale, three sources of equal loudness together would produce an increase of five dBA.

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 Leq), or alternately, as a statistical description of the sound level that is exceeded over some fraction of a given observation period. For example, the L50 noise level represents the noise level that is exceeded 50 percent of the time. Half the time the noise level exceeds this level and half the time it is less than this level. This level also represents the level exceeded 30 minutes in an hour. Similarly, the L2, L8 and L25 values represent the noise levels that are exceeded 2, 8, and 25 percent of the time, or 1, 5, and 15 minutes per hour. These "Ln" values are typically used to demonstrate compliance for stationary noise sources with a city's noise ordinance, as discussed below. Other values typically noted during a noise survey are the Lmin and Lmax. 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 requires 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 (Ldn). As described above, 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 Ldn descriptor uses the same methodology but only adds a 10 dBA increment between 10:00 p.m. and 7:00 a.m. Both descriptors give roughly the same 24-hour level, with the CNEL being only slightly more restrictive (i.e., higher).

Human Response to 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, not in terms of actual physiological damage,

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such as hearing impairment, but in terms of inhibiting general well-being and contributing to undue stress and annoyance. The health effects of noise in the community arise from interference with human activities, including sleep, speech, recreation, and tasks that demand concentration or coordination. Hearing loss can occur at the highest noise intensity levels.

Noise environments and consequences of human activities are usually well represented by median noise levels during the day or night or over a 24-hour period. Environmental noise levels are generally considered low when the CNEL or L_{dn} is below 60 dBA, moderate in the 60 to 70 dBA range, and high above 70 dBA. Examples of low daytime levels are isolated, natural settings with noise levels as low as 20 dBA and quiet, suburban, residential streets with noise levels around 40 dBA. Noise levels above 45 dBA at night can disrupt sleep. Examples of moderate-level noise environments are urban residential or semi-commercial areas (typically 55 to 60 dBA) and commercial locations (typically 60 dBA). People may consider louder environments adverse, but most will accept the higher levels associated with noisier urban residential or residential-commercial areas (60 to 75 dBA) or dense urban or industrial areas (65 to 80 dBA). Regarding increases in A-weighted noise levels (dBA), the following relationships should be noted in understanding this analysis:

- Except in carefully controlled laboratory experiments, a change of 1 dBA cannot be perceived by humans.
- Outside of the laboratory, a 3-dBA change is considered a just-perceivable difference.
- A change in level of at least 5 dBA is required before any noticeable change in community response is expected. An increase of 5 dBA 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

Hearing Loss

While physical damage to the ear from an intense noise impulse is rare, a degradation of auditory acuity can occur even within a community noise environment. Hearing loss occurs mainly due to chronic exposure to excessive noise but may be due to a single event such as an explosion. Natural hearing loss associated with aging may also be accelerated from chronic exposure to loud noise.

The Occupational Safety and Health Administration has a noise exposure standard that is set at the noise threshold where hearing loss may occur from long-term exposures. The maximum allowable level is 90 dBA, averaged over eight hours. If the noise is above 90 dBA, the allowable exposure time is correspondingly shorter.

Annoyance

Attitude surveys are used for measuring the annoyance felt in a community for noises intruding into homes or affecting outdoor activity areas. In these surveys, it was determined that causes for annoyance include interference with speech, radio and television, house vibrations, and interference with sleep and rest. Both the L_{dn} and CNEL as measures of noise have been found to provide a valid correlation of noise level and the percentage of people annoyed. People have been asked to judge the annoyance caused by aircraft noise and

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ground transportation noise. There continues to be disagreement about the relative annoyance of these different sources.

Psychological and Physiological Effects of Noise

Physical damage to human hearing begins at prolonged exposure to noise levels higher than 85 dBA. Exposure to high noise levels affects our entire system, with prolonged noise exposure in excess of 75 dBA increasing body tensions, and thereby affecting blood pressure, functions of the heart and the nervous system. In comparison, extended periods of noise exposure above 90 dBA could result in permanent hearing damage. When the noise level reaches 120 dBA, a tickling sensation occurs in the human ear even with short-term exposure. This level of noise is called the threshold of feeling. As the sound reaches 140 dBA, the tickling sensation is replaced by the feeling of pain in the ear. This is called the threshold of pain. 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		Food Blender at 3 feet
	80	Garbage Disposal at 3 feet
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 2013a.

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5.11.1.2 VIBRATION FUNDAMENTALS

Vibration is a trembling, quivering, or oscillating motion of the earth. Like noise, vibration is transmitted in waves, but in this case through the earth or solid objects. Unlike noise, vibration is typically of a frequency that is felt rather than heard.

Vibration can be either natural as in the form of earthquakes, volcanic eruptions, sea waves, landslides, or man-made as from explosions, the action of heavy machinery or heavy vehicles such as trains. Both natural and man-made vibration may be continuous such as from operating machinery, or transient as from an explosion.

As with noise, vibration can be described by both its amplitude and frequency. Amplitude may be characterized in three ways including displacement, velocity, and acceleration. Particle displacement is a measure of the distance that a vibrated particle travels from its original position and for the purposes of soil displacement is typically measured in inches or millimeters. Particle velocity is the rate of speed at which soil particles move in inches per second or millimeters per second. Particle acceleration is the rate of change in velocity with respect to time and is measured in inches per second or millimeters per second. Typically, particle velocity (measured in inches or millimeters per second) and/or acceleration (measured in gravities) are used to describe vibration. Table 5.11-2, *Human Reaction to Typical Vibration Levels*, presents the human reaction to various levels of peak particle velocity.

Table 5.11-2 Human Reaction to Typical Vibration Levels

Vibration Level Peak Particle Velocity (in/sec)	Human Reaction	Effect on Buildings
0.006–0.019	Threshold of perception, possibility of intrusion	Vibrations unlikely to cause damage of any type
0.08	Vibrations readily perceptible	Recommended upper level of vibration to which ruins and ancient monuments should be subjected
0.10	Level at which continuous vibration begins to annoy people	Virtually no risk of “architectural” (i.e., not structural) damage to normal buildings
0.20	Vibrations annoying to people in buildings	Threshold at which there is a risk to “architectural” damage to normal dwelling – houses with plastered walls and ceilings
0.4–0.6	Vibrations considered unpleasant by people subjected to continuous vibrations and unacceptable to some people walking on bridges	Vibrations at a greater level than normally expected from traffic, but would cause “architectural” damage and possibly minor structural damage

Source: ECORP 2024.

Vibrations also vary in frequency, and this affects perception. Frequency refers to the number of times a vibrating particle completes a full cycle of motion per second and is measured in hertz (Hz). One Hz is equivalent to one cycle per second. The frequency of vibration influences how it is perceived and its potential impact. 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; however, due to their suspension systems, buses often generate frequencies around 3 Hz at high vehicle speeds. It is less common, but possible, to measure traffic frequencies above 30 Hz.

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The way in which vibration is transmitted through the earth is called propagation. Propagation of earthborn vibrations is complicated and difficult to predict because of the endless variations in the soil through which waves travel. There are three main types of vibration propagation: surface, compression, and shear waves. Surface waves, or Raleigh waves, travel along the ground's surface. These waves carry most of their energy along an expanding circular wave front, similar to ripples produced by throwing a rock into a pool of water. P-waves, or compression waves, are body waves that carry their energy along an expanding spherical wave front. The particle motion in these waves is longitudinal (i.e., in a "push-pull" fashion). P-waves are analogous to airborne sound waves. S-waves, or shear waves, are also body waves that carry energy along an expanding spherical wave front. However, unlike P-waves, the particle motion is transverse or "side-to-side and perpendicular to the direction of 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 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

Noise is defined as unwanted sound and is known to have several adverse effects on people, including hearing loss, speech and sleep interference, physiological responses, and annoyance. Based on these known adverse effects, the federal government, State of California, and many local governments have established criteria to protect public health and safety and to prevent disruption of certain human activities.

The environmental impact of noise is a function of the sensitivity of the land use where noise is heard. In general, land use sensitivity to noise is a function of human annoyance and community reaction rather than health and safety considerations. Human annoyance takes place at sound levels that are much lower than the sound levels that could produce hearing loss.

Residents typically become annoyed when the noise level in their environment interferes with sleeping, talking, and listening to radio or television. People are particularly sensitive to nighttime noises that interfere with sleep. Interior noise levels of 45 dBA Ldn or CNEL or less are considered necessary for restful sleep (ECORP 2024).

To limit population exposure to physically and/or psychologically damaging as well as intrusive noise levels, the federal government, the State of California, various county governments, and most municipalities in the state have established standards and ordinances to control noise.

Federal Regulations

Federal Highway Administration

Proposed federal or federal-aided highway construction projects at a new location, or the physical alteration of an existing highway that significantly changes the horizontal or vertical alignment or increases the number of through-traffic lanes, require an assessment of noise and consideration of noise abatement per 23 Code of Federal Regulations Part 772, "Procedures for Abatement of Highway Traffic Noise and Construction Noise."

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The Federal Highway Administration (FHWA) has adopted noise abatement criteria for sensitive receivers—such as picnic areas, recreation areas, playgrounds, active sport areas, parks, residences, motels, hotels, schools, churches, libraries, and hospitals—when “worst-hour” noise levels approach or exceed 67 dBA Leq (Caltrans 2020a).

US Environmental Protection Agency

In addition to FHWA standards, the United States Environmental Protection Agency (EPA) has identified the relationship between noise levels and human response. The EPA has determined that over a 24-hour period, a Leq of 70 dBA will result in some hearing loss. Interference with activity and annoyance will not occur if exterior levels are maintained at a Leq of 55 dBA and interior levels at or below 45 dBA. These levels are relevant to planning and design and useful for informational purposes, but they are not land use planning criteria because they do not consider economic cost, technical feasibility, or the needs of the community; therefore, they are not mandated.

The USEPA also set 55 dBA Ldn as the basic goal for exterior residential noise intrusion. However, other federal agencies, in consideration of their own program requirements and goals, as well as the difficulty of actually achieving a goal of 55 dBA Ldn, have settled on the 65 dBA Ldn level as their standard. At 65 dBA Ldn, activity interference is kept to a minimum, and annoyance levels are still low. It is also a level that can realistically be achieved.

National Institute Occupational Health and Safety Administration

A division of the US Department of Health and Human Services, the National Institute for Occupational Safety and Health (NIOSH) has established a construction-related noise level threshold as identified in the Criteria for a Recommended Standard: Occupational Noise Exposure prepared in 1998. NIOSH identifies a noise level threshold based on the duration of exposure to the source. The NIOSH construction-related noise level threshold starts at 85 dBA for 8 hours of exposure per day; for every 3-dBA increase, the exposure time is cut in half. This reduction results in noise level thresholds of 88 dBA for 4 hours of exposure per day, 92 dBA for 1 hour of exposure per day, 96 dBA for 30 minutes of exposure per day, and up to 100 dBA for 15 minutes per day. The intention of these thresholds is to protect people from hearing losses resulting from occupational noise exposure.

US Department of Housing and Urban Development

The US Department of Housing and Urban Development (HUD) has set a goal of 65 dBA L_{dn} as a desirable maximum exterior standard for residential units developed under HUD funding. (This level is also generally accepted by the State of California.) While HUD does not specify acceptable interior noise levels, standard construction of residential dwellings constructed under Title 24 standards typically provides in excess of 20 dBA of attenuation with the windows closed. Based on this premise, the interior L_{dn} should not exceed 45 dBA.

Aircraft Noise Standards

The Federal Aviation Administration Advisory Circular Number 150 5020 2, “Noise Assessment Guidelines for New Helicopters,” recommends the use of a cumulative noise measure, the 24-hour equivalent sound level

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[Leq(24)], so that the relative contributions of the heliport and other sound sources within the community may be compared. The Leq(24) is similar to the Ldn used in assessing the impacts of fixed wing aircraft. The helicopter Leq(24) values are obtained by logarithmically adding the single-event level values over a 24-hour period.

Public Law 96 193 also directs the Federal Aviation Administration to identify land uses which are “normally compatible” with various levels of noise from aircraft operations. Because of the size and complexity of many major hub airports and their operations, Federal Aviation Regulation Part 150 identifies a large number of land uses and their attendant noise levels. These recommended noise levels are shown in Table 5.11-3, *Normally Compatible Community Sound Levels*.

Table 5.11-3 Normally Compatible Community Sound Levels

Type of Area	Leq(24)
Residential	
Suburban	57
Urban	67
City	72
Commercial	72
Industrial	77

Source: ECORP 2024.

State Regulations

State of California General Plan Guidelines

The State of California, through its General Plan Guidelines, discusses how ambient noise should influence land use and development decisions and includes a table of normally acceptable, conditionally acceptable, normally unacceptable, and clearly unacceptable uses at different noise levels. A conditionally acceptable designation implies new construction or development should be undertaken only after a detailed analysis of the noise reduction requirements for each land use and needed noise insulation features are incorporated in the design. By comparison, a normally acceptable designation indicates that standard construction can occur with no special noise reduction requirements. The General Plan Guidelines provide cities with recommended community noise and land use compatibility standards that can be adopted or modified at the local level based on conditions and types of land uses specific to that jurisdiction.

California Building Code

The State of California provides a minimum standard for building design through Title 24, Part 2, of the California Code of Regulations, commonly referred to as the “California Building Code” (CBC). The CBC is updated every three years. It is generally adopted on a jurisdiction-by-jurisdiction basis, subject to further modification based on local conditions. The City of Redondo Beach Building Regulations are presented in Title 9 of the City’s Municipal Code.

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The State of California's noise insulation standards for non-residential uses are codified in the California Code of Regulations, Title 24, Building Standards Administrative Code, Part 11, California Green Building Standards Code (CALGreen). CALGreen noise standards are applied to new or renovation construction projects in California to control interior noise levels resulting from exterior noise sources. Future individual projects may use either the prescriptive method (Section 5.507.4.1) or the performance method (5.507.4.2) to show compliance. Under the prescriptive method, a project must demonstrate transmission loss ratings for the wall and roof-ceiling assemblies and exterior windows when located within a noise environment of 65 dBA CNEL or higher. Under the performance method, a project must demonstrate that interior noise levels do not exceed 50 dBA Leq(1hr). In the absence of a local standard for a land use category where interior noise impacts would be expected to occur, the noise standards pursuant to the CalGreen Code would apply.

Airport Noise Standards

California Code of Regulations Title 21, Section 5012, establishes 65 dBA CNEL as the acceptable level of aircraft noise for persons living in the vicinity of airports. Noise-sensitive land uses are generally incompatible in locations where the aircraft exterior noise level exceeds 65 dBA CNEL unless an aviation easement for aircraft noise has been acquired by the airport proprietor. Assembly Bill 2776 requires any person who intends to sell or lease residential properties in an Airport Influence Area to disclose that fact to the person buying the property.

Regional Regulations

The Los Angeles County Airport Land Use Commission's Airport Land Use Plan (adopted in 1991 and revised in 2004) covers all of the public airports in Los Angeles County, including the Hawthorne Municipal Airport approximately two miles northeast of the City's northern boundary, the Torrance Municipal Airport approximately two miles southeast of the City's southern boundary, and the Los Angeles International Airport approximately three miles north of Redondo Beach. The Los Angeles County Airport Land Use Commission is responsible for promoting land use compatibility around the County's airports in order to minimize public exposure to excessive noise and safety hazards, and the Commission's Los Angeles County Airport Land Use Plan identifies noise compatibility zones in the form of airport noise contour graphics that are intended to prevent development that is incompatible with airport operations

Local Regulations

City of Redondo Beach General Plan

The City of Redondo Beach proposed General Plan Update goals and policies that are relevant to noise are primarily contained in the Noise Element. As part of the proposed General Plan Update, some existing General Plan goals and policies would be amended, substantially changed, or new policies would be added. Applicable goals and policies are identified and assessed for their effectiveness and potential to result in an adverse physical impact later in this chapter under Section 5.11.3, Impact Analysis.

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City of Redondo Beach Municipal Code

The City's Municipal Code includes various directives pertaining to noise. Title 4, Chapter 24, Noise Regulation, establishes regulations to protect the inhabitants of the City against all forms of nuisances. Article 3, Exterior Noise Limits, and Article 4, Interior Noise Standards, establishes permissible sound levels by land use category, as shown in Table 5.11-4, *Maximum Permissible Sound Levels by Land Use Category*.

Table 5.11-4 Maximum Permissible Sound Levels by Land Use Category

Receiving Land Use Categories (Where noise impacts are experienced)		Presumed Ambient Level		Allowable Interior Noise Level ⁶	
Category	General Plan Land Use ¹	10:00 pm–7:00 am	7:00 am–10:00 pm	10:00 pm–7:00 am	7:00 am–10:00pm
Residential	Low Density (R-1, R-1A, R- 2)	45 dB	50 dB	40 dB	45 dB
	Medium Density (R-3, RMD)	50 dB	55 dB		
	High Density(RH, - RO)	55 dB	60 dB		
Commercial	All Commercial (CN, CC, C-1, C-2, C-3, C-4, C-5)	60 dB	65 dB	N/A	
Mixed-Use	High Density Residential ² (MU-TC, MU-1, MU-2)	55 dB	60 dB	N/A	
	Commercial ² (MU-TC, MU-1, MU-2)	60 dB	65 dB	N/A	
Industrial	Mixed Industrial ³ (I-3, IF)	60 dB	65 dB	N/A	
	Light Industrial ³ (I-1, I-2)	70 dB	70 dB	N/A	
Public / Institutional / Open Space	Public / Institutional (PI) ⁴	Presumed ambient levels shall be consistent with that of the lowest adjacent land use district		School	
				N/A	45 dB
				Hospital	
				40 dB	
	Parks (OS) ⁴	Presumed ambient levels shall be consistent with that of the lowest adjacent land use district		N/A	
	Open Space (OS) ⁵	N/A	N/A	N/A	
	Public / Utility (U) ⁵	N/A	N/A	N/A	

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Table 5.11-4 Maximum Permissible Sound Levels by Land Use Category

Receiving Land Use Categories (Where noise impacts are experienced)	Presumed Ambient Level	Allowable Interior Noise Level ⁶
<p>Source: ECORP 2024.</p> <p>Notes: "Presumed Ambient Level" sets the maximum level allowed in each land use district unless actual measured ambient levels are available, in which case the higher level shall prevail.</p> <p>¹ The Noise Regulations list zoning categories that are no longer used in the City. As an implementation measure (IM-N-12), the City shall update the zoning ordinance to align standards with updated zoning designations that are also consistent with the General Plan. The values shown here have been extrapolated to show General Plan Land Use equivalents of the outdated zoning categories identified in the Noise Regulations.</p> <p>² The Noise Regulations do not include standards for mixed-use land use categories. The standards shown here are based on those established for high-density residential uses and commercial uses.</p> <p>³ The Noise Regulations reference Industrial P-D-I and Industrial P-I designations that no longer exist in the City's zoning code. This table shows the closest equivalent where standards for Industrial P-D-I apply to mixed industrial designations I-3 and IF, while the Industrial P-I standards apply to light industrial designations I-1 and I-2.</p> <p>⁴ The Noise Regulations do not include presumable ambient noise levels for Public, Institutional, or Park uses, but they do specify that areas designated as Planned Development or Civic Center shall be consistent with the ambient levels for the lowest adjacent land use district. Because Planned Development and Civic Center designations no longer exist, this has been extrapolated to apply to all public/institutional and park uses.</p> <p>⁵ The Noise Regulations do not include presumable ambient noise levels for open space or utility uses. Because these types of uses are not typically occupied, regulations for these land uses have not been established.</p> <p>⁶ In the absence of a local standard for a land use category where interior noise impacts would be expected to occur, the noise standards pursuant to the CalGreen Code would apply.</p>		

Provisions related to noise and vibration impacts are included in Article 5 of the Redondo Beach Municipal Code. Section 4-24-503 of Article 5 establishes the following requirements to protect the inhabitants of the City against construction noise as follows:

- a) All construction activity shall be prohibited, except between the hours of 7:00 a.m. and 6:00 p.m. on Monday, Tuesday, Wednesday, Thursday, and Friday and between the hours of 9:00 a.m. and 5:00 p.m. on Saturday. No construction activity shall be permitted on Sunday, or the days on which the holidays designated as Memorial Day, the Fourth of July, Labor Day, Thanksgiving Day, Christmas Day, and New Year's Day are observed.
- b) In the case of an emergency, the Building Officer may issue a permit for construction activity for periods during which construction activity is prohibited by subsection (a) of this section. Such permit shall be issued for only the period of the emergency. Where feasible, the Building Officer shall notify the residential occupants within 300 feet of any emergency construction activity of the issuance of any permit authorized by this subsection.
- c) If the Building Officer should determine that the peace, comfort, and tranquility of the occupants of residential property will not be impaired because of the location or nature of the construction activity, the Building Officer may issue a permit for construction activity for periods during which construction activity is prohibited by subsection (a) of this section.
- d) For purposes of this section, "construction activity" shall mean the erection, excavation, demolition, alteration, or repair of any building.
- e) Exemption. This section shall not be applicable to minor repairs or routine maintenance of residential dwelling units.

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Section 4-24-504 of Article 5 establishes requirements to protect the inhabitants of the City against ground borne vibration. Specifically, Section 4-24-504 of Article 5 states that the operation of any device which creates vibration which is above the vibration perception threshold of an individual at or beyond the property boundary of the source if on private property, or at 150 feet (46 meters) from the source if on a public space or public right-of-way, is prohibited. For the purposes of this section, "vibration perception threshold" means the minimum ground or structure-borne vibrational motion necessary to cause a normal person to be aware of the vibration by such direct means as, but not limited to, sensation by touch or the visual observation of moving objects. The perception threshold is presumed to be 0.001 gravity (g) in the frequency range from zero to 30 Hz and 0.003 g in the frequency range between 30 and 100 Hz.

Title 10, Chapter 3, Environmental Review Pursuant to CEQA, of the Redondo Beach Municipal Code establishes the specific procedures necessary to implement CEQA. Article 2, Evaluation of Significant Effects, establishes criteria for determining significant effects and provides guidance in making an evaluation whether or not a particular project may have a substantial adverse effect on the environment. Pursuant to the Municipal Code, if there are inconsistencies between the provisions contained in Title 10, Chapter 3, and the State's CEQA Guidelines, the State's CEQA Guidelines shall control. As established in Section 10-3.202, significant effects may be due to primary consequences immediately related to the project or may be due to secondary consequences related more to the primary consequences than the project itself. As established in Section 10-3.203(p), with respect to noise, a project will normally have a significant effect on the environment if it will substantially increase the ambient noise levels for adjoining areas.

5.11.1.4 EXISTING CONDITIONS

Existing Community Noise

To quantify existing ambient noise levels in the City, PlaceWorks conducted 16 short-term noise measurements (15 minutes) and two long-term noise measurements (51 hours and 53 hours) from September 12 to September 17, 2018. This sampling of the existing ambient noise environment was augmented in 2023 when ECORP Consulting conducted two additional long-term measurements (24 hours) from August 31 to September 1 and September 7 to September 8. The sound level meters used for noise monitoring consisted of Larson Davis SoundExpert LxT precision sound level meters, which satisfy the American National Standards Institute for general environmental noise measurement instrumentation. Prior to the measurements, the SoundExpert LxT sound level meter was calibrated according to the manufacturer's specifications with a Larson Davis CAL200 Class I Calibrator. The measurement locations, described below, are shown on Figure 5.11-1, *Existing Noise Measurement Locations*, and the results are in Table 5.11-5, *Existing (Baseline) Noise Measurements*.

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Table 5.11-5 Existing (Baseline) Noise Measurements

Location Number	Location Description	Leq dBA	Ldn dBA	Lmin dBA	Lmax dBA	Time
Short Term Measurements						
1	Commercial area near the Green Line Redondo Beach Station and the T-intersection of Redondo Beach Avenue and Marine Avenue. Approximately 40 feet south of Marine Avenue roadway centerline.	70.5	N/A	57.5	90.9	3:10 pm–3:25 pm
2	Manhattan Beach Boulevard east of Aviation Boulevard.	72.4	N/A	52.4	84.5	4:00 pm–4:15 pm
3	Aviation Boulevard, south of Graham Avenue.	71.2	N/A	49.9	87.3	4:43 pm–4:49 pm
4	Gates Avenue east of MacKay Lane, approximately 20 feet south of the Gates Avenue eastbound centerline.	54.1	N/A	42.0	69.3	5:01 pm–5:16 pm
5	Inglewood Avenue north of Gates Avenue.	71.2	N/A	52.7	82.9	5:24 pm–5:39 pm
6	At the split T-intersection of Kingsdale Avenue and Grant Avenue, approximately 30 feet west of Kingsdale Ave centerline.	68.9	N/A	58.3	88.9	5:55 pm–6:10 pm
7	Morgan Lane near Jefferson Elementary School's outdoor track.	52.8	N/A	39.7	73.8	6:36 pm–6:51 pm
8	Ripley Avenue between Blossom Lane and Rindge Lane	61.9	N/A	48.9	75.4	2:54 pm–3:09 pm
9	Middle of Dominguez Park, approximately 235 feet south of the W 190th Street centerline.	65.2	N/A	46.9	99.7	1:20 pm–1:35 m
10	Adjacent to Herondo Avenue across from the Electric Substation and fronting Herondo Street.	67.8	N/A	77.4	90.4	1:57 pm–2:12 pm
11	Del Amo Street, between N Lucia Avenue and N Maria Avenue and directly across from Redondo Union High School.	55.5	N/A	51.2	67.7	4:32 pm–4:47 pm

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Table 5.11-5 Existing (Baseline) Noise Measurements

Location Number	Location Description	Leq dBA	Ldn dBA	Lmin dBA	Lmax dBA	Time
12	The Redondo Beach Pier, behind the Village at Ocean Club.	63.7	N/A	50.7	78.3	5:07 pm–5:22 pm
13	Torrance Boulevard, between S Guadalupe Avenue and S Helberta Avenue.	64.0	N/A	48.3	75.5	5:37 pm–5:52 pm
14	Within Hopkins Wilderness Park at the last row of its outdoor amphitheater.	54.0	N/A	44.7	66.6	2:19 pm–2:34 pm
15	East of the Pacific Ocean on the Esplanade, between Avenue G and Avenue F.	52.9	N/A	48.4	65.3	6:07 pm–6:22 pm
16	Palos Verdes Boulevard, between Avenue E and S Gertruda Avenue.	62.8	N/A	43.9	77.9	6:30 pm–6:45 pm
Long-Term Measurements						
1	Artesia Boulevard, between Blossom Lane and Rindge Lane.	70.1	75.0	49.1	108.6, 8:00 a.m.	Sept 12, 2018, 8:00 am to Sept 14, 2018, 11:00 am
2	182nd Street, between S Inglewood Avenue and Mansel Avenue and at the northwest corner of El Nido Park. Immediately adjacent to proposed housing sites	64.5	65.5	41.5	107.2, 11:00 a.m.	Sept 07, 2023, 9:40 am to Sept 08, 2023, 9:40 am
3	W 190th Street, between Anza Avenue and S Inglewood Avenue.	71.4	70.0	40.4	103.0, 4:44 p.m.	Sept 12, 2018, 8:41 am to Sept 14, 2018, 1:31 pm
4	Highway 1, between Sapphire Street and Ruby Street.	73.6	77.9	40.7	106.3, 10:47 p.m.	Aug 31, 2023, 10:46 am to Sept 01, 2023, 10:46 am

Source: ECORP 2024.

- **Short-Term Location 1 (ST-1)** is in an industrial area near the Green Line Redondo Beach Station and the T-intersection of Redondo Beach Avenue and Marine Avenue. The measurement location was approximately 40 feet south of Marine Avenue roadway centerline and approximately 150 feet west of the elevated Redondo Beach Station. A 15-minute noise measurement was conducted, beginning at 3:09 pm on Wednesday, September 12, 2018. The noise environment of this site is characterized primarily by local traffic on Marine Avenue and traffic turning eastbound from Redondo Beach Avenue onto Marine Avenue.

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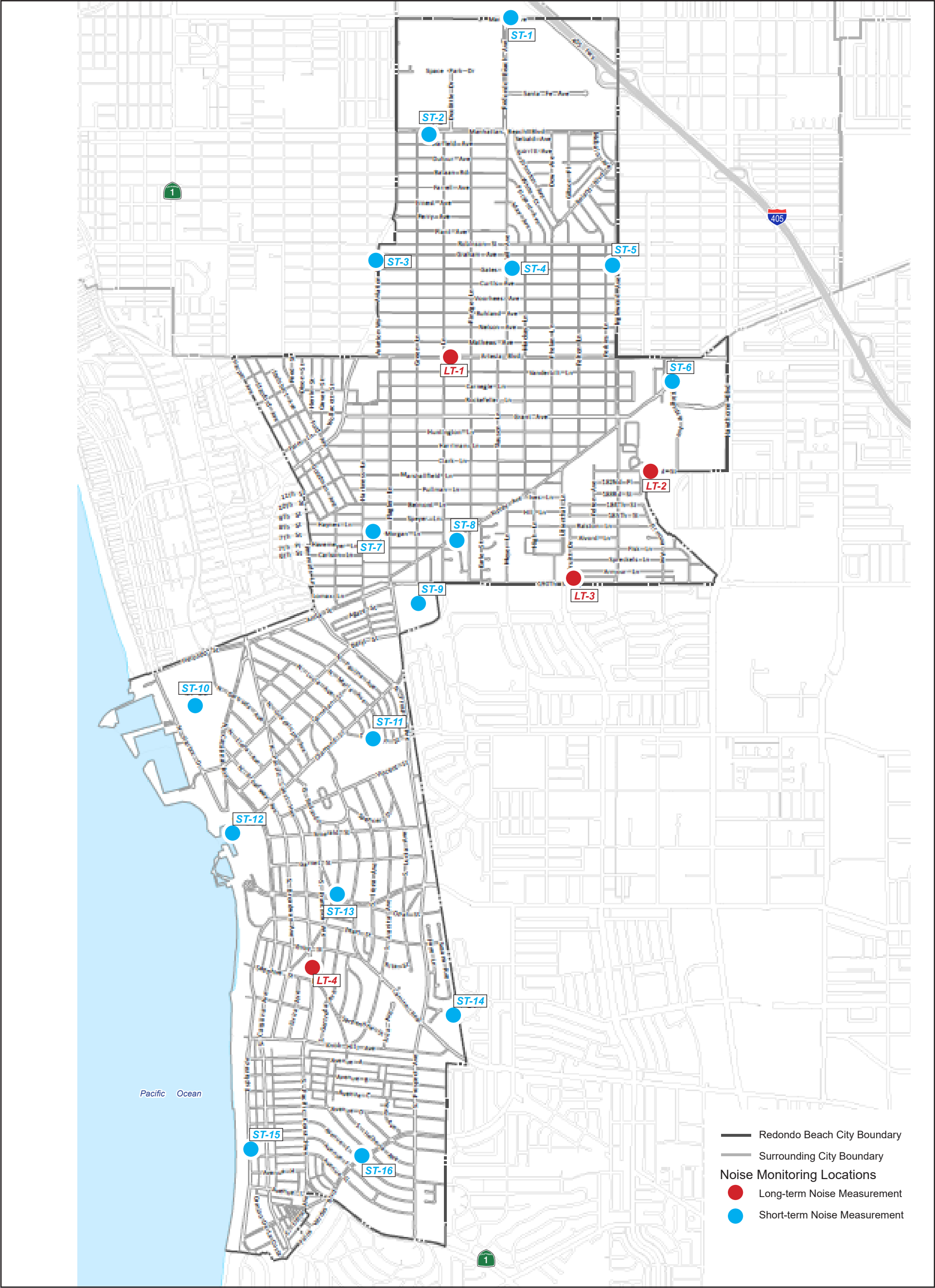
NOISE

A pass-by train and idle train were observed during the measurement but did not contribute to the existing traffic noise sound levels. A particular Volkswagen van was observed to reach 89 dB, the loudest noise emitter during measurement.

Short-Term Location 2 (ST-2) is in a residential and industrial area on Manhattan Beach Boulevard east of Aviation Boulevard. Residences were south of Manhattan Beach Boulevard, and industrial buildings were north of Manhattan Beach Boulevard. A 15-minute noise measurement was conducted, beginning at 4:00 PM on Wednesday, September 12, 2018. The measurement location was approximately 50 feet south of Manhattan Beach Boulevard centerline, between the cross streets of Green Lane and Blossom Lane. The noise environment of this site is characterized primarily by local traffic noise along Manhattan Beach Boulevard. A dump truck and semi-truck were observed near the noise measurement location.

- **Short-Term Location 3 (ST-3)** is in a residential area on Aviation Boulevard, south of Graham Avenue. A 15-minute noise measurement was conducted, beginning at 4:48 pm on Wednesday, September 12, 2018. The measurement location was approximately 40 feet west of the Aviation Boulevard centerline, near the Aviation Boulevard Right of Way at the intersection of Graham Avenue and Aviation Boulevard. The noise environment of this site is characterized primarily by a mix of local traffic noise (motorcycles).
- **Short-Term Location 4 (ST-4)** is in a residential area on Gates Avenue east of MacKay Lane. A 15-minute noise measurement was conducted, beginning at 5:00 pm on Wednesday, September 12, 2018. The measurement location was approximately 20 feet south of the Gates Avenue eastbound centerline. The noise environment of this site is characterized primarily by distant traffic and localized neighborhood noises such as dogs barking and children. There were very low traffic volumes noted during the noise measurement period.
- **Short-Term Location 5 (ST-5)** is in a residential area within the Inglewood Avenue right-of-way north of Gates Avenue. A 15-minute noise measurement was conducted, beginning at 5:23 pm on Wednesday, September 12, 2018. The noise environment of this site is characterized primarily by local traffic noise and localized neighborhood noises such as dogs barking.
- **Short-Term Location 6 (ST-6)** is near bordering commercial and residential areas at the split T-intersection of Kingsdale Avenue and Grant Avenue. A 15-minute noise measurement was conducted, beginning at 5:54 pm on Wednesday, September 12, 2018. The measurement location was on a traffic island approximately 30 feet west of Kingsdale Avenue centerline, 30 feet south of Grant Avenue south-westbound centerline, and 50 feet north of north-eastbound centerline of Grant Avenue. The noise environment of this site is characterized primarily by local traffic noise.
- **Short-Term Location 7 (ST-7)** is in a residential area on the eastbound side of Morgan Lane near Jefferson Elementary School's outdoor track. A 15-minute noise measurement was conducted, beginning at 6:35 pm on Wednesday, September 12, 2018. The measurement location was approximately 20 feet north of the Morgan Lane centerline. The noise environment of the site is characterized primarily by localized neighborhood noises such as after school activities, birds, and dogs barking.

Figure 5.11-1 - Noise Measurement Locations



Source: ECorp Consulting, 2024.

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- **Short-Term Location 8 (ST-8)** is in a residential area along the south side of Ripley Avenue between Blossom Lane and Rindge Lane. A 15-minute noise measurement was conducted, beginning at 2:54 pm on Wednesday, September 12, 2018. The measurement location was approximately 25 feet south of the Ripley Avenue centerline. The noise environment of this site is characterized primarily by local traffic noise.
- **Short-Term Location 9 (ST-9)** is in the middle of Dominguez Park. A 15-minute noise measurement was conducted, beginning at 1:20 pm on Wednesday, September 12, 2018. The measurement location was approximately 235 feet south of the W 190th Street centerline. The noise environment of this site is characterized primarily by local traffic noise and Little League baseball games.
- **Short-Term Location 10 (ST-10)** is in Kay Etow Park, across from the Electric Substation and fronting Herondo Street. A 15-minute noise measurement was conducted, beginning at 1:57 pm on Wednesday, September 12, 2018. The measurement location was approximately 100 feet north of the Herondo Street centerline. The noise environment of this site is characterized primarily by local traffic noise and typical park activity.
- **Short-Term Location 11 (ST-11)** is on the north side of Del Amo Street, between N Lucia Avenue and N Maria Avenue and directly across from Redondo Union High School. A 15-minute noise measurement was conducted, beginning at 4:32 pm on Wednesday, September 12, 2018. The noise environment of this site is characterized primarily by local traffic noise.
- **Short-Term Location 12 (ST-12)** is on the Redondo Beach Pier, behind the Village at Ocean Club. A 15-minute noise measurement was conducted, beginning at 5:07 pm on Wednesday, September 12, 2018. The noise environment of this site is characterized primarily by commercial and recreational activity on the Pier. The peak instantaneous sound was captured at 94.3 dBA at the time of 7:09 (and 26 seconds) p.m.
- **Short-Term Location 13 (ST-13)** is in a neighborhood commercial corridor with residential immediately adjacent along the north side of Torrance Boulevard, between S Guadalupe Avenue and S Helberta Avenue. A 15-minute noise measurement was conducted, beginning at 5:37 pm on Wednesday, September 12, 2018. The noise environment of this site is characterized primarily by local traffic on Torrance Boulevard and Highway 1 0.1 mile to the west.
- **Short-Term Location 14 (ST-14)** is in Hopkins Wilderness Park at the last row of its outdoor amphitheater. The park's entrance is off of Camino Real. The park is surrounded by residences. The nearest residential street from the amphitheater is Barbara Street, west of ST-14. A 15-minute noise measurement was conducted, beginning at 2:20 pm on Friday, September 14, 2018. The noise environment of this site is characterized primarily by hikers, children's camp activities in the park, birds, wind, and continuous aircraft overflights. Aircraft overflights included one helicopter and three airplanes flying directly over or around the measurement site with direct line of sight. The peak instantaneous sound was captured at 82.7 dBA at the time of 2:26 (and 30 seconds) p.m.
- **Short-Term Location 15 (ST-15)** is in a residential neighborhood just east of the Pacific Ocean on the Esplanade, between Avenue G and Avenue F on the east side of the street. A 15-minute noise measurement

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was conducted, beginning at 6:07 pm on Wednesday, September 12, 2018. The measurement location was approximately 50 feet east of the Esplanade centerline. The noise environment of this site is characterized primarily by local traffic and ocean waves.

- **Short-Term Location 16 (ST-16)** is in a residential area along Palos Verdes Boulevard, between Avenue E and S Gertruda Avenue on the north side of the street. A 15-minute noise measurement was conducted, beginning at 6:30 pm on Wednesday, September 12, 2018. The noise environment of this site is characterized primarily by a low level of local traffic noise.
- **Long-Term Location 1 (LT-1)** is in a commercial corridor with residential immediately adjacent and behind along the south side of Artesia Boulevard, between Blossom Lane and Rindge Lane. A 51-hour noise measurement was conducted, beginning at 8:00 am on Wednesday, September 12, 2018, and ending at 11:00 am on Friday, September 14, 2018. The noise environment of this site is characterized primarily by local traffic on Artesia Boulevard.
- **Long-Term Location 2 (LT-2)** is on the south side of 182nd Street, between S Inglewood Avenue and Mansel Avenue and at the northwest corner of El Nido Park. A 24-hour noise measurement was conducted, beginning at 9:40 am Thursday, September 07, 2023, and ending at 9:40 am on Friday, September 08, 2023. The noise environment of this site is characterized primarily by local traffic, commercial parking lot noise from the north, and typical park activities.
- **Long-Term Location 3 (LT-3)** is in a residential and commercial area (residential on the north side of W 190th Street and a neighborhood shopping center on the south side of W 190th Street) along the north side of W 190th Street, between Anza Avenue and S Inglewood Avenue. The measurement location was approximately 50 feet north of the W 190th Street centerline. An approximately 53-hour noise measurement was conducted, beginning at 8:41 am on Wednesday, September 12, 2018, and ending at 1:31 pm on September 14, 2018. The noise environment of this site is characterized primarily by local traffic.
- **Long-Term Location 4 (LT-4)** is in a mixed-use residential/commercial area along Highway 1, between Sapphire Street and Ruby Street. A 24-hour noise measurement was conducted, beginning at 10:46 am on Thursday August 31, 2023, and ending at 10:46 am on Friday September 1, 2023. The noise environment of this site is characterized primarily by local traffic. The measured L_{min} over this course of time equated to 40.7 dBA L_{min} and the measured L_{max} equated to 106.3 L_{max} .

As shown in Table 5.11-5 the range of the ambient recorded noise levels for the 16 short-term noise measurements was 52.8 dBA to 72.4 dBA Leq. The four long-term noise measurements range from 65.5 to 77.9 dBA Ldn. The most common noise in the City is produced by motor vehicles (e.g., cars, trucks, buses, motorcycles) on area roadways and highways. The City is also influenced by typical residential noise (people talking, dogs barking, heating and cooling units, etc.), commercial noise, and industrial noise.

Existing Traffic Noise

Traffic noise levels depend primarily on the speed of the traffic and the volume of trucks. The primary source of noise from automobiles is high-frequency tire noise, which increases with speed. Trucks and older

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automobiles produce engine and exhaust noise, and trucks can also generate wind noise. Tire noise from cars is produced at ground level (i.e., where the tire contacts the road), whereas truck noise can be generated at a height of 10 to 15 feet above the road, depending on the height of the exhaust pipe(s) and engine. As a result, sound walls are not as effective at reducing truck noise unless they are very tall.

The dominant noise source in Redondo Beach is vehicle traffic on its roadways, primarily Highway 1 and the City's major arterial streets such as Torrance Boulevard and Artesia Boulevard. (Interstate 405 is another major source of noise yet only traverses a small portion of the northwest corner of the City.) Existing roadway noise levels were calculated for roadway segments throughout Redondo Beach using the FHWA Highway Traffic Noise Prediction Model (FHWA-RD-77-108) (see Appendix D for detailed traffic noise modeling outputs) and traffic volumes from Fehr & Peers (2024). The model calculates the average noise level at specific locations based on traffic volumes, average speeds, roadway geometry, and site environmental conditions. The average vehicle noise rates (energy rates) used in the FHWA model have been modified to reflect average vehicle noise rates identified for California by the California Department of Transportation (Caltrans). The Caltrans data show that California automobile noise is 0.8 to 1.0 dBA higher than national levels and that medium and heavy truck noise is 0.3 to 3.0 dBA lower than national levels. The average daily noise levels along these roadway segments are presented in Table 5.11-6, *Existing Roadway Noise Levels*. Figure 5.11-2, *Existing Traffic Noise Contours*, illustrates the modeled roadways and existing noise contours for 60 dBA CNEL, 65 dBA CNEL, and 70+ dBA CNEL.

Table 5.11-6 Existing Roadway Noise Levels

Roadway Segment	Ldn at 50 Feet from Centerline	Distance to Ldn Contour (feet)		
		70 dBA	65 dBA	60 dBA
Highway 1/Pacific Coast Highway ¹				
South of Palos Verdes Boulevard	70.2	53	167	528
Between Palos Verdes Boulevard & Knob Hill Road	69.9	48	153	484
Between Knob Hill Road & Ruby Street	70.0	50	160	504
Between Ruby Street & Torrance Boulevard	71.0	63	200	634
Between Torrance Boulevard & Diamond Street	71.1	64	203	642
North of Diamond Street	71.4	69	217	686
Interstate 405				
Between Marine Boulevard & Redondo Beach Boulevard	85.8	1,890	5,976	18,897

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Table 5.11-6 Existing Roadway Noise Levels

Roadway Segment	Ldn at 50 Feet from Centerline	Distance to Ldn Contour (feet)		
		70 dBA	65 dBA	60 dBA
190 th Street/Anita Street				
Between Hawthorne Road & Blossom Lane	70.0	50	159	502
Between Blossom Lane & Prospect Avenue	66.6	-	73	231
Anita Street/Herondo Street				
Between Prospect Avenue & Highway 1	70.1	51	161	508
Between Highway 1 & Harbor Drive	59.2	-	-	41
Artesia Boulevard				
Between Harper Avenue & Kingsdale Avenue	69.2	-	133	420
Between Kingsdale Avenue & Hawthorne Boulevard	69.6	-	143	452
Aviation Boulevard				
Between Marine Boulevard & Manhattan Beach Boulevard	71.3	68	216	682
Between Manhattan Beach Boulevard & Artesia Boulevard	70.1	51	161	508
Between Artesia Boulevard & Harper Avenue	69.9	48	153	483
Beryl Street				
Between 190 th Street and Pacific Coast Highway	63.0	19	40	87
Between Pacific Coast Highway and North Prospect Avenue	60.3	12	27	57
Between North Prospect Avenue and City Limit	64.1	22	48	103
Blossom Lane				
Between Manhattan Beach & 190th Avenue	53.5	-	-	-
Catalina Avenue				
Between Highway 1 & Vista Del Mar	64.2	-	-	136
Camino Real				
Between Torrance Boulevard and South Prospect Avenue	60.1	12	26	56

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Table 5.11-6 Existing Roadway Noise Levels

Roadway Segment	Ldn at 50 Feet from Centerline	Distance to Ldn Contour (feet)		
		70 dBA	65 dBA	60 dBA
Between South Prospect Avenue and City Limit	64.4	23	50	107
Diamond Street				
Between Catalina Avenue & Prospect Avenue	58.9	-	-	39
Esplanade				
Between Catalina Avenue & Vista Del Mar	57.5	-	-	-
Felton Lane				
Between Robinson Street & Ripley Avenue	54.3	-	-	-
Grant Avenue				
Between Aviation Boulevard and Flagler Lane	63.9	22	46	100
Between Flagler Lane and Green Lane	63.8	21	46	99
Between Green Lane and Rindge Lane	63.9	21	46	99
Between Rindge Lane and Slauson Lane	63.5	20	43	94
Between Slauson Lane and Mackay Lane	63.5	20	44	94
Between Mackay Lane and Felton Lane	63.6	20	44	95
Between Felton Lane and Inglewood Avenue	63.7	21	45	97
Between 190 th Street and Kingsdale Avenue	61.4	15	31	68
Between Kingsdale Avenue and City Limit	61.4	15	32	68
Hawthorne Boulevard				
Between 182 nd Street & Redondo Beach Boulevard	77.8	299	946	2,990
Inglewood Avenue				
Between Marine Avenue & Manhattan Beach Boulevard	71.7	74	235	743
Between Manhattan Beach Boulevard & Faber Street	71.6	72	227	717
Between Faber Street & Artesia Boulevard	71.2	66	209	662
Between Artesia Boulevard and 182 nd Street	70.8	62	133	287
Between 182 nd Street and 190 th Street	68.4	43	93	200

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Table 5.11-6 Existing Roadway Noise Levels

Roadway Segment	Ldn at 50 Feet from Centerline	Distance to Ldn Contour (feet)		
		70 dBA	65 dBA	60 dBA
Marine Boulevard				
Between Inglewood Avenue & Aviation Boulevard	66.5	-	70	223
Manhattan Beach Boulevard				
Between Inglewood Avenue & Aviation Boulevard	70.4	54	172	544
Palos Verdes Boulevard				
Between Catalina Avenue & Pacific Coast Highway	68.1	41	88	190
Between Pacific Coast Highway and Prospect Avenue	64.5	24	52	111
Between Prospect Avenue and City Limit	64.4	24	52	112
Phelan Lane				
Between Robinson Street & Ripley Avenue	51.1	-	-	-
Prospect Avenue				
Between Anita Street & Knob Hill Avenue	66.0	-	63	199
Between Knob Hill Avenue and Highway 1	65.8	-	60	191
Redondo Beach Boulevard				
Between Hawthorne Boulevard & Artesia Boulevard	70.1	51	161	508
Ripley Avenue				
Between Flagler Lane and Inglewood Avenue	57.3	-	-	-
Torrance Boulevard				
Between Catalina Avenue & Prospect Avenue	64.2	-	-	132
Between Prospect Avenue and City Limit	68.1	41	88	189

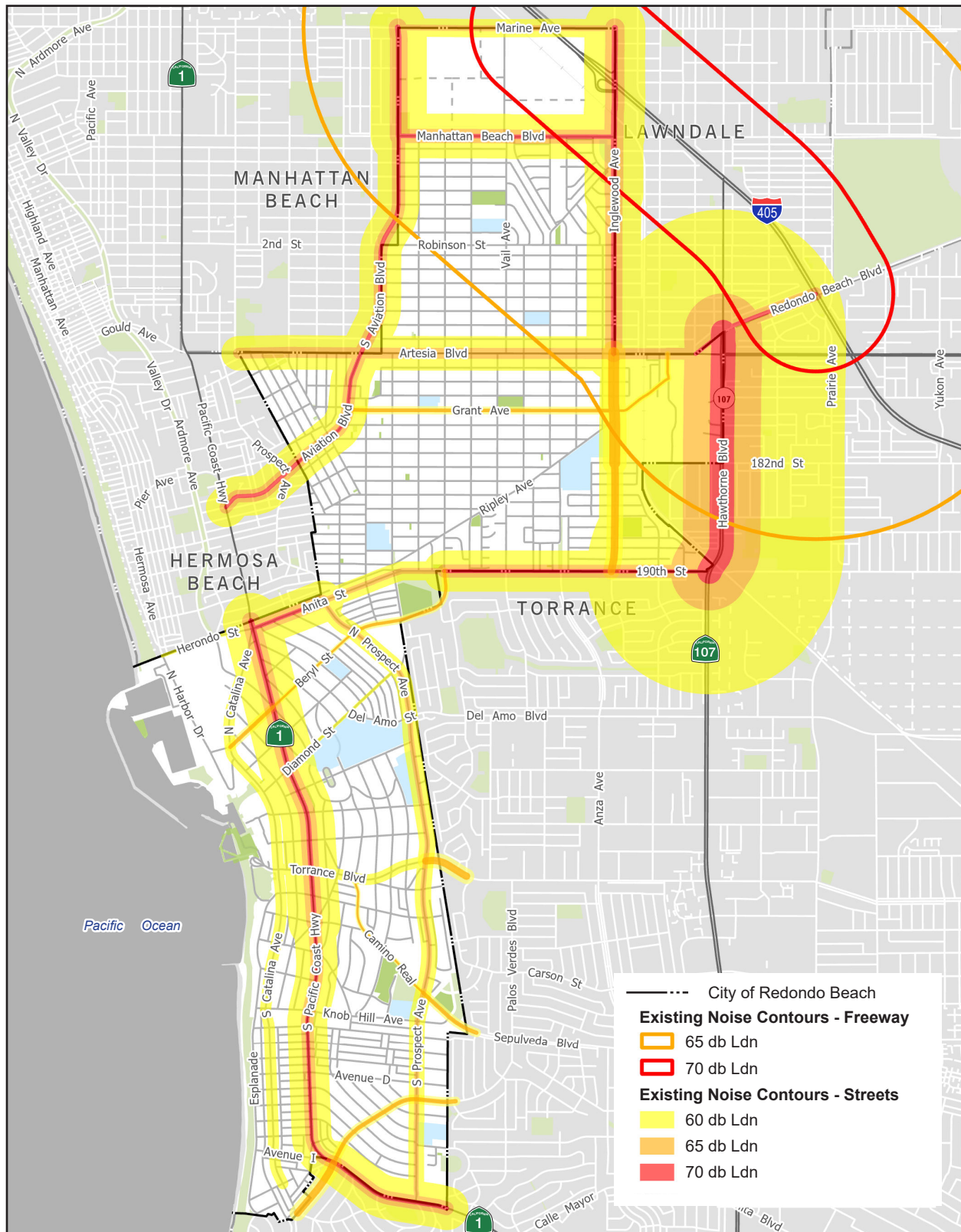
Source: Traffic noise levels were calculated using the FHWA Highway Noise Prediction Model in conjunction with the trip generation rate identified by Fehr & Peers.

¹ Distance to Ldn contours do not account for the noise attenuation attributable to intervening structures.

² These Highway 1 trip generation rates are identified by the California Department of Transportation Traffic Census Program (2022).

Refer to Attachment B for traffic noise modeling assumptions and results.

Figure 5.11-2 - Existing Traffic Noise Contours



Note: The City boundary extends 3 miles into the Pacific Ocean, which is not shown on this exhibit.

Source: ECorp Consulting 2024; PlaceWorks 2024.

0 0.75
Scale (Miles)



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Aircraft Noise

The City occasionally experiences noise from aircraft departing from and arriving at area airports (Hawthorne Municipal Airport, Torrance Municipal Airport, and Los Angeles International Airport). The Los Angeles County Airport Land Use Commission's Airport Land Use Plan (adopted in 1991 and revised in 2004) covers all of the public airports in Los Angeles County, including the Hawthorne Municipal Airport located approximately two miles northeast of the City's northern boundary, the Torrance Municipal Airport located approximately two miles southeast of the City's southern boundary, and the Los Angeles International Airport located approximately three miles north of Redondo Beach. The Los Angeles County Airport Land Use Commission is responsible for promoting land use compatibility around the County's airports in order to minimize public exposure to excessive noise and safety hazards, and the Commission's Los Angeles County Airport Land Use Plan identifies noise compatibility zones in the form of airport noise contour graphics that are intended to prevent development that is incompatible with airport operations. No portions of the City are located within the 65 dBA noise contours of any of these airports.

Train Noise

Freight and Metrolink trains are a mobile noise source at the northern and eastern edge of the City. The single freight railway corridor affecting the City enters Redondo Beach just north of the Hawthorne Boulevard/W 190th Street intersection and generally traverses north-south, skirting residences and El Nido Park before crossing 182nd Street. The corridor continues north-south past the Pacific Crest Cemetery, Target shopping center, and residences before crossing Artesia Boulevard and exiting the City. This rail corridor reenters the City at Inglewood Avenue, traversing an industrial-commercial area before once again exiting the City at Marine Avenue. The Metrolink railway currently ends west of the I-405 near the intersection of Marine Avenue and Redondo Beach Avenue.

According to the Los Angeles County Metropolitan Transportation Authority (Metro), combined freight and Metrolink rail traffic, including the periodic blasting of train horns at grade crossings, currently generates between 55.9 and 71.4 dBA Ldn at affected locations in Redondo Beach (Metro 2023). Metro predicts that the combined freight and Metrolink traffic affecting the City will reduce in the future to levels between 45.0 and 62.0 dBA Ldn after the implementation of various noise-reducing measures such as the strategic placement of sound walls at the edge of the tracks, the installation of low-impact frogs (crossing point of two rails) to reduce crossover impact noise, and the institution of Quiet Zones from north of Inglewood Avenue to south of 182nd Street.¹

Train Vibration

Passing trains create vibration events that last approximately two minutes, though it is extremely rare for vibration from train operations to cause substantial or even minor cosmetic building damage (FTA 2018). Older, historic buildings are often considered fragile and are the predominant source of concern from rail-related vibration (FTA 2018). According to the Federal Transit Administration, ground borne vibration from

¹ Quiet Zones are designated areas along a railroad where additional safety measures are implemented to maintain a high level of safety for motorists, pedestrians, and cyclists without relying on the traditional warning provided by train horns. In a typical railway Quiet Zone, various safety improvements are implemented at each railroad crossing to compensate for the absence or reduction of train horn use.

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“locomotive-powered passenger and freight rail” is readily perceptible at distances of less than 50 feet between the track and building foundations (85 VdB), while vibration from “rapid transit/light rail” is barely perceptible at that distance (75 VdB) (FTA 2018). While each building would have different characteristics relative to structure-borne vibration, in general, the heavier the building, the lower the levels of vibration. Additionally, community (human) response to vibration correlates with the frequency of events, and more-frequent low-vibration events may evoke the same response as fewer high-vibration events.

Table 5.11-7, *Representative Train Vibration Levels*, identifies train vibration levels at several distances within 200 feet, as determined by the Federal Transit Administration.

Table 5.11-7 Representative Train Vibration Levels

Distance to Source (Feet)	Locomotive-Powered Trains (VdB)	Rapid Transit/Light Rail (VdB)
10	95	82
25	90	78
50	85	74
75	82	70
100	79	68
125	78	66
150	78	64
175	73	62
200	71	60

Source: FTA 2018.

As shown in Table 5.11-7, a locomotive-powered train traversing at a distance of 10 feet from a receptor could be expected to result in 95 VdB at the receptor, which is the threshold at which there is a risk of architectural damage to older residential structures. There are no structures in Redondo Beach as near as 10 feet to the railway. The majority of structures adjacent to the railway are farther than 50 feet.

5.11.2 Thresholds of Significance

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

- N-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 general plan or noise ordinance, or applicable standards of other agencies.
- N-2 Generation of excessive ground borne vibration or ground borne noise levels.
- N-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.

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5.11.3 Proposed General Plan Goals and Policies

The following proposed General Plan goals and policy provisions would integrate noise considerations into land use planning decisions and require design strategies to minimize noise effects:

Goal N-1 Noise: An environment where public health and welfare are protected by reducing existing noise problems and preventing future degradation of the acoustic environment.

- **Policy N-1.1.Noise Compatibility.** Require mitigation to ensure existing and future land use compatibility as required by the City's Noise Ordinance (Table N-01), and interior and exterior noise standards identified in the building code.
- **Policy N-1.4 Residential Development.** When new residential development or redevelopment is proposed adjacent to land designated for mixed-, industrial, or commercial uses, require the developer to assess the potential noise impacts of the adjacent use on the proposed residential uses and fund feasible noise-related mitigation measures.
- **Policy N-1.5 Nonresidential Development.** When new nonresidential development project or redevelopment project including expansion of existing facilities, significant redevelopment, or a change in use that requires discretionary action is proposed adjacent to land designated for mixed or residential uses, including the residential overlay or is adjacent to existing sensitive receptors such as schools, religious institutions, public facilities, parks, open spaces, conservation areas, or offices, require the developer to assess the potential noise impacts of the nonresidential project on the adjacent use and include feasible on-site mitigation measures to reduce noise to an acceptable level.
- **Policy N-1.6 Noise from Businesses.** Mitigate persistent, periodic, or impulsive noise impacts of business operations on surrounding neighborhoods and nearby Sensitive Receptors.
- **Policy N-1.7 Transportation Noise.** Minimize potential transportation noise through roadway design, the enforcement of truck routes, the expansion of the City's pedestrian and bicycle networks, converting the City fleet vehicles to electric, implementing traffic control or abatement measures, and employing other transportation noise control strategies.
- **Policy N-1.8 Railroad Noise.** Minimize the noise effect of railroad transit (freight and passenger) on residential uses and other sensitive land uses.
- **Policy N-1.10 Construction Noise.** Minimize the impacts of construction noise on adjacent uses through the enforcement of mitigation requirements established in the City's Noise Ordinance, such as legal hours of operation, advance noticing of construction operations, incorporating physical barriers as necessary, and using tools and equipment properly outfitted with sound-dampeners.
- **Policy N-1.11 Coordination with Transportation Authorities.** Collaborate with transportation providers, neighboring jurisdictions, Caltrans, and regional entities in the preparation and maintenance of

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transportation-related plans to identify and minimize noise impacts and provide appropriate mitigation measures. Support efforts to electrify transit fleets.

- **Policy N-1.12 Metro Expansion.** Support and advocate plans for metro expansion that preserve or improve the existing interior and exterior noise environment of Redondo Beach residences and other sensitive land uses with consideration for volume of noise, level of vibration, location of future Metro operations, frequency of proposed metro operations compared to current rail operations, and metro operating hours compared to current rail operations. Oppose the use of the existing rail right-of-way for the extension of the Metro line and support the extension within the Hawthorne Boulevard right-of-way.
- **Policy N-1.13 Coordination with Railroad Operators.** Collaborate with railroad operators to ensure maintenance of rail lines, establish operational restrictions to reduce adverse noise impacts in residential areas and other noise sensitive areas, and install noise control features where operations impact existing or planned residential uses.

5.11.4 Environmental Impacts

5.11.4.1 METHODOLOGY

This is a program-level analysis that considers the potential impacts from adoption of the proposed General Plan Update by assessing its proposed policies and the development and activities that may occur under it. Impacts relative to noise and vibration are evaluated using the thresholds of significance identified in Section 5.11.2 above and based on information in the proposed General Plan Update and existing and future traffic volumes provided by Fehr & Peers (2024).

The proposed General Plan Update does not propose specific development projects but, for the purposes of environmental review, establishes the potential buildout of the proposed General Plan Update. This represents the maximum feasible development that the City has projected that can reasonably be expected throughout the proposed General Plan horizon. To capture the potential impact of future development under the proposed General Plan Update, this analysis utilizes the baseline existing conditions described above and analyzes the impacts of urban development through the projection period.

Roadside noise levels were calculated for the same roadways analyzed under existing conditions. The street segments selected for analysis are those forecast to experience the greatest percentage increase in traffic generated by future development under the proposed General Plan Update and are therefore expected to be most directly impacted. Transportation source noise levels have been calculated using the FHWA Highway Noise Prediction Model (FHWA-RD-77-108) with traffic counts provided by Fehr & Peers (2024). The model calculates the average noise level at specific locations based on traffic volumes, average speeds, roadway geometry, and site environmental conditions. The average vehicle noise rates (energy rates) used in the FHWA model have been modified to reflect average vehicle noise rates identified for California by Caltrans. The Caltrans data show that California automobile noise is 0.8 to 1.0 dBA higher than national levels and that medium and heavy truck noise is 0.3 to 3.0 dBA lower than national levels.

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Impacts of the Environment on a Project

Buildout of the proposed land use plan under the proposed project could result in siting sensitive uses (e.g., residential) near major sources of noise and vibration (freeways, rail lines, industrial uses, etc.). Developing new sensitive land uses near sources of noise emissions could expose persons that inhabit these sensitive land uses to potential noise levels that exceed the City's sound level standards or the Federal Transit Administration vibration standards. However, the purpose of this environmental evaluation is to identify the significant effects of the proposed project on the environment, not the significant effects of the environment on the proposed project. As a result of the California Supreme Court decision regarding the assessment of the environment's impacts on projects (*California Building Industry Association v. Bay Area Air Quality Management District*, 62 Cal. 4th 369 (No. S 213478) issued December 17, 2015), it is generally no longer the purview of the CEQA process to evaluate the impact of existing environmental conditions on any given project. Therefore, CEQA does not require an analysis of the potential environmental effects from siting sensitive receptors near existing sources, and this type of analysis is not provided in the impact analysis below. However, the proposed General Plan Update includes policies and implementation measures that would require design features to minimize noise and vibration impacts and to comply with the City's sound level standards.

5.11.4.2 IMPACT ANALYSIS

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

Impact 5.11-1: Construction activities associated with buildout of the proposed project would result in temporary noise increases at sensitive receptors. The proposed project would not result in the generation of substantial 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. [Threshold N-1]

The Noise Element of the proposed General Plan Update provides policy direction for minimizing noise impacts on the community and establishes noise control measures for construction and operation of land use projects. By identifying noise-sensitive land uses and establishing compatibility guidelines for those land uses, noise considerations would influence the general distribution, location, and intensity of future land uses. The result is that effective land use planning and project design can alleviate the majority of noise problems.

Temporary Construction Noise

Under the proposed General Plan Update, the primary source of temporary noise within the City would be demolition and construction activities associated with development projects and activities. Construction activities would involve both off-road demolition/construction equipment (excavators, dozers, cranes, etc.), general demolition/construction equipment (compressors, jack hammers, saws), and transport of workers and equipment to and from construction sites. Table 5.11-8, *Reference Construction Equipment Noise Levels (50 Feet from Source)*, shows typical noise levels produced by the types of demolition/construction equipment and off-road equipment that would likely be used during future construction within Redondo Beach. It is noted that future

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development under the General Plan Update could potentially require installation of pile foundations that utilize impact pile drivers or similar equipment that generates high noise levels.

Table 5.11-8 Reference Construction Equipment Noise Levels

Construction Equipment	Typical Max Noise Level at 50 feet (dBA L _{max}) ¹	Construction Equipment	Typical Max Noise Level at 50 feet (dBA L _{max}) ¹
Air Compressor	80	Pile-Driver (Impact)	101
Backhoe	80	Pile-Driver (Sonic)	95
Ballast Equalizer	82	Pneumatic Tool	85
Ballast Tamper	83	Pump	77
Compactor	82	Rail Saw	90
Concrete Mixer	85	Rock Drill	95
Concrete Pump	82	Roller	85
Concrete Vibrator	76	Saw	76
Crane, Derrick	88	Scarifier	83
Crane, Mobile	83	Scraper	85
Dozer	85	Shovel	82
Generator	82	Spike Driver	77
Grader	85	Tie Cutter	84
Impact Wrench	85	Tie Handler	80
Jack Hammer	88	Tie Inserter	85
Loader	80	Truck	84
Paver	85		

Source: FTA 2018.

Construction noise is currently a substantial source of temporary noise within Redondo Beach and will continue to be so regardless of whether the General Plan Update is adopted. Noise levels near individual construction sites associated with development and activities under the proposed General Plan Update would not be substantially different from what they would be under the existing 1992 City of Redondo Beach General Plan. Since specific future projects within the City are unknown at this time, it is conservatively assumed that the construction areas associated with these future projects could be within 50 feet of sensitive land uses. As depicted in Table 5.11-8, noise levels generated by individual pieces of construction equipment typically range from approximately 74 dBA to 101.3 dBA L_{max} at 50 feet and 67.7 dBA to 94.3 dBA Leq at 50 feet. Average hourly noise levels associated with construction projects can vary, depending on the activities performed. Short-term increases in vehicle traffic, including worker commute trips and haul truck trips, may also result in temporary increases in ambient noise levels at nearby receptors. During each stage of construction, a different mix of equipment would operate, and noise levels would vary based on the amount of equipment on-site and the location of the activity. Construction noise levels drop off at a rate of about 6 dBA per doubling of distance

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between the noise source and the receptor. Intervening structures or terrain would result in lower noise levels at distant receivers.

The City of Redondo Beach Municipal Code, Article 5, Section 4-24-503, states that all construction activity is prohibited, except between the hours of 7:00 a.m. and 6:00 p.m. on Monday, Tuesday, Wednesday, Thursday, and Friday and between the hours of 9:00 a.m. and 5:00 p.m. on Saturday. No construction activity is permitted on Sunday or the days on which the holidays designated as Memorial Day, the Fourth of July, Labor Day, Thanksgiving Day, Christmas Day, and New Year's Day are observed. It is common for cities to regulate construction noise in this manner because construction noise is temporary, short term, and intermittent in nature, and ceases upon completion of construction. Additionally, Noise Element Policy N-1.10 of the proposed General Plan addresses construction noise by minimizing the impacts of construction noise on adjacent uses through the enforcement of mitigation requirements established in the City's Noise Ordinance, such as legal hours of operation, advance noticing of construction operations, incorporating physical barriers as necessary, and using tools and equipment properly outfitted with sound-dampeners. Implementation would be as follows:

- **Implementation Measure N-20: Construction Noise.** Continue to implement best practices in controlling construction noise including designated work hours, noise dampening equipment, noise barriers, and public noticing. The City's Municipal Code Section 4-24-503 of Article 5 ensures that noise limitations are imposed to minimize temporary noise impacts associated with construction by restricting it to the daytime hours when many people are away from their residences. Through implementation of proposed General Plan Policy N-1.10, the City would require construction noise limits, including through limiting construction hours, consistent with the City Municipal Code. Lastly, Implementation Measure N-20 requires best practices be implemented at construction sites to control construction noise.

The City's Municipal Code Section 4-24-503 of Article 5 ensures that noise limitations are imposed to minimize temporary noise impacts associated with construction by restricting it to the daytime hours. Through implementation of proposed General Plan Policy N- 1.10, the City would require construction noise limits, including through limiting construction hours, consistent with the City Municipal Code. Lastly, Implementation Measure N-20 requires best practices be implemented at construction sites to control construction noise. However, because construction activities associated with any individual development may occur near noise-sensitive receptors and because, depending on the project type, equipment list, time of day, phasing and overall construction durations, noise disturbances may occur for prolonged periods of time or during the more sensitive nighttime hours, construction noise impacts associated with implementation of the proposed project are considered potentially significant.

Stationary Source Noise

The development of residential, automotive, industrial, or other uses and activities under the proposed General Plan Update could generate substantial stationary noise. Such sources could generate noise from heating, ventilation, and air conditioning (HVAC) mechanical equipment, back-up diesel generators in some cases, parking lot activity, backup beepers from internal truck and equipment maneuvering, and other sources. Table

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5.11-9, *Stationary Source Noise Levels*, identifies noise levels generally associated with common stationary noise sources.

Table 5.11-9 Stationary Noise Levels

Stationary Noise Source	Leq
Commercial Car Wash ¹	79.1 dBA
Drive Thru Activity (speaker) ²	89.1 dBA
Gasoline Dispensing Station ³	64.7 dBA
Generators ⁴	75.0 dBA
HVAC Mechanical Equipment ⁵	56.8 dBA
Parking Garage ⁶	52.6 dBA
Regional Shopping Center Parking Lot ⁷	61.1 dBA
Small Parking Lot ⁸	53.2 dBA
Tire and Lube Service Station ⁹	62.3 dBA
Truck Backup Beeper ¹⁰	79.0 dBA
Truck Yard/Warehouse ¹¹	62.4 dBA

¹ The average of two noise measurements conducted at typically sized commercial carwashes in 2019 and 2022.

² The average of six noise measurements conducted within fast food restaurant drive thru while drive thru speaker in use.

³ The average of five noise measurements conducted within the fuel canopy of gasoline dispensing stations in 2019 and 2021.

⁴ Generac Mobile Diesel Generator Set Specification Sheet 2020.

⁵ One noise measurement conducted at an operating HVAC unit in 2017.

⁶ One noise measurement conducted within a parking garage in 2019.

⁷ One noise measurement conducted within a Safeway parking lot in 2019.

⁸ The average of three noise measurements conducted within a strip mall parking lot in 2022, hotel parking lot in 2021, and medical facility parking lot in 2020.

⁹ The average of two noise measurements conducted at a Big O Tires in 2019 and a Jiffy Lube in 2022.

¹⁰ City of San Jose 2014 Midpoint at 237 Loading Dock Noise Study.

¹¹ The average of five noise measurements conducted at four truck yards and one distribution center in 2021.

Stationary source noise is currently a substantial source of noise within Redondo Beach and will continue to be so regardless of whether the proposed General Plan Update is adopted. Noise levels near individual sources under the proposed General Plan Update would not be substantially different from what they would be under the existing 1992 City of Redondo Beach General Plan. The Noise Element of the proposed General Plan addresses stationary noise with Policies N-1.1, N-1.4, N-1.5, and N-1.6 and the following implementation measures:

- **Implementation Measure N-1: Noise Evaluation.** Continue to evaluate the noise impacts of new projects during the development review process; begin evaluation of the impacts cumulative noise conditions may have on proposed noise-sensitive uses, including residential, during the development review process; consider requirements for noise analysis conducted by an acoustical specialist for projects involving land uses where operations are likely to impact adjacent noise sensitive land uses.
- **Implementation Measure N-3: Mitigate Existing Impacts.** Identify existing business operations that produce exterior noise above the maximum levels specified in the City's General Plan or noise ordinance

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for adjacent land uses. Reach out to those businesses to provide educational resources about best practices for noise prevention and mitigation. Assist businesses to implement mitigation strategies through permit assistance, expedited permitting, and other incentives. If the noise impact cannot be mitigated, provide site selection assistance to help businesses relocate to other areas of the City.

- **Implementation Measure N-4: Best practice.** Conduct a study of best practices for the prevention and mitigation of noise impacts on sensitive land uses caused by existing or new business operations.
- **Implementation Measure N-7. Site Design and Technology.** Require designs of parking structures, terminals, and loading docks for noise-generating land uses that minimize the potential noise impacts of vehicles on-site and on adjacent land uses. Encourage and/or require feasible technological options to reduce noise to acceptable levels.

Policy N-1.1 would require the integration of noise considerations into land use planning decisions to minimize new noise impacts, including noise impacts from stationary sources, from new development and new uses. Implementation Measure N-1 and Policies N-1.4 and N-1.5 would require an acoustical analysis for all new projects and consideration of identified noise-reducing measures. Implementation Measure N-3 would seek to identify existing business operations that produce exterior noise above the maximum levels specified in Table N-01 of the proposed General Plan and then to assist these businesses to implement noise-reduction mitigation strategies through permit assistance, expedited permitting, and other incentives. Implementation Measure N-4 would instigate an analysis of best practices for the prevention and mitigation of noise impacts on sensitive land uses caused by existing or new business operations while Policy N-1.6 requires the mitigation of identified noise impacts of business operations that are persistent, periodic, or impulsive on surrounding neighborhoods and nearby sensitive receptors. Similarly, Implementation Measure N-7 would require designs of parking structures, terminals, and loading docks for noise-generating land uses that minimize the potential noise impacts of vehicles on-site and on adjacent land uses. With implementation of the proposed General Plan policies and Implementation Measures identified above, future development and activities under the proposed General Plan Update would result in a less than significant impact related to stationary noise sources.

Rail Noise

Freight and Metrolink trains are a mobile noise source at the eastern edge of the City. The single railway corridor affecting the City enters Redondo Beach just north of the Hawthorne Boulevard/W 190th Street intersection and generally traverses north-south, skirting residences and El Nido Park before crossing 182nd Street. The corridor continues north-south past the Pacific Crest Cemetery, Target shopping center, and residences before crossing Artesia Boulevard and exiting the City. This rail corridor reenters the City at Inglewood Avenue, traversing an industrial-commercial area before once again exiting the City at Marine Avenue. The Metrolink railway currently ends west of the I-405 near the intersection of Marine Avenue and Redondo Beach Avenue.

Noise levels along the existing railroad under the proposed General Plan Update would remain the same as existing conditions; any changes to the frequency of trains or to train equipment would be initiated and implemented by the respective rail authority rather than the City of Redondo Beach, and they are not part of the proposed General Plan Update.

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No aspect of the proposed General Plan Update would increase railway noise levels along the existing railroad corridor. Adherence to the proposed General Plan policy provisions identified above would ensure that the noise environment in Redondo Beach does not increase in a manner that worsens existing noise compatibility or exposes noise-sensitive land uses to “unacceptable” noise levels. Therefore, this impact is less than significant.

Traffic Noise

Future development and activities under the proposed General Plan Update are expected to affect the community noise environment mainly by generating additional traffic. Transportation-source noise levels were calculated using the FHWA Highway Noise Prediction Model (FHWA-RD-77-108) with traffic counts provided by Fehr & Peers (2024). The model calculates the average noise level at specific locations based on traffic volumes, average speeds, roadway geometry, and site environmental conditions. The average vehicle noise rates (energy rates) used in the FHWA model have been modified to reflect average vehicle noise rates identified for California by Caltrans. The Caltrans data shows that California automobile noise is 0.8 to 1.0 dBA higher than national levels and that medium and heavy truck noise is 0.3 to 3.0 dBA lower than national levels. Future traffic noise contours are mapped on Figure 5.11-3, *Future Traffic Noise Contours*. Table 5.11-10, *Future Roadway Noise Levels*, shows the calculated off-site roadway noise levels under existing traffic levels compared to future buildout under the proposed General Plan Update.

As previously described in Section 5.11.1.1, a 5 dBA change is required before any noticeable change in community response is expected. Based on this fact, a significant increase in traffic noise is considered to be an increase in the existing ambient noise environment of at least 5 dBA Ldn. As reflected in Table 5.11-10, this analysis included a large sample of local roadways segments but did not include all roadways within Redondo Beach. The analyzed segments were selected to illustrate potential changes in roadway noise throughout Redondo Beach. Therefore, additional roadways segments in Redondo Beach may experience increased traffic noise.

Table 5.11-10 Future Roadway Noise Levels

Roadway Segment	Ldn at 50 Feet		Difference	Significant Increase	Distance to Ldn Contour (feet)		
	Existing	Existing plus Project			70 dBA	65 dBA	60 dBA
Highway 1/Pacific Coast Highway							
South of Palos Verdes Boulevard	70.2	70.4	+0.2	No	54	172	544
Between Palos Verdes Boulevard & Knob Hill Road	69.9	70.0	+0.1	No	50	158	499
Between Knob Hill Avenue & Ruby Street	70.0	70.2	+0.2	No	52	164	520
Between Ruby Street & Torrance Boulevard	71.0	71.2	+0.2	No	65	207	653
Between Torrance Boulevard & Diamond Street	71.1	71.2	+0.1	No	66	209	662
North of Diamond Street	71.4	71.5	+0.1	No	71	224	707

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Table 5.11-10 Future Roadway Noise Levels

Roadway Segment	Ldn at 50 Feet		Difference	Significant Increase	Distance to Ldn Contour (feet)		
	Existing	Existing plus Project			70 dBA	65 dBA	60 dBA
Interstate 405							
Between Marine Avenue & Redondo Beach Boulevard	85.8	85.8	0	No	1,903	6,018	19,029
190 th Street/Anita Street							
Between Hawthorne Boulevard & Blossom Lane	70.0	69.7	-0.3	No	-	148	467
Between Blossom Lane & Prospect Avenue	66.6	67.1	+0.5	No	-	81	257
Anita Street/Herondo Street							
Between Prospect Avenue & Highway 1	70.1	69.8	-0.3	No	-	149	472
Between Highway 1 & Harbor Drive	59.2	59.3	+0.1	No	-	-	43
Artesia Boulevard							
Between Harper Avenue & Kingsdale Avenue	69.2	69.4	+0.2	No	-	137	432
Between Kingsdale Avenue & Hawthorne Boulevard	69.6	69.7	+0.1	No	-	147	465
Aviation Boulevard							
Between Marine Avenue & Manhattan Beach Boulevard	71.3	71.0	-0.3	No	50	201	634
Between Manhattan Beach Boulevard & Artesia Boulevard	70.1	69.8	-0.3	No	-	149	472
Between Artesia Boulevard & Harper Avenue	69.9	69.5	-0.4	No	45	142	449
Beryl Street							
Between 190th Street and Pacific Coast Highway	63.0	63.1	+0.1	No	19	41	88
Between Pacific Coast Highway and North Prospect Avenue	60.3	60.4	+0.1	No	13	27	58
Between North Prospect Avenue and City Limit	64.1	64.2	+0.1	No	22	48	104
Blossom Lane							
Between Manhattan Beach Boulevard & 190th Street	53.5	53.6	+0.1	No	-	-	-
Camino Real							
Between Torrance Boulevard and South Prospect Avenue	60.1	60.2	+0.1	No	12	26	57
Between South Prospect Avenue and City Limit	64.4	64.5	+0.1	No	23	51	109
Catalina Avenue							
Between Highway 1 & Vista Del Mar	64.2	64.4	+0.2	No	-	-	139

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Table 5.11-10 Future Roadway Noise Levels

Roadway Segment	Ldn at 50 Feet		Difference	Significant Increase	Distance to Ldn Contour (feet)		
	Existing	Existing plus Project			70 dBA	65 dBA	60 dBA
Diamond Street							
Between Catalina Avenue & Prospect Avenue	58.9	59.2	+0.3	No	-	-	41
Esplanade							
Between Catalina Avenue & Vista Del Mar	57.5	57.6	+0.1	No	-	-	-
Felton Lane							
Between Robinson Street & Ripley Avenue	54.3	54.7	+0.4	No	-	-	-
Grant Avenue							
Between Aviation Boulevard and Flagler Lane	63.9	64.0	+0.1	No	22	47	102
Between Flagler Lane and Green Lane	63.8	63.9	+0.1	No	22	47	100
Between Green Lane and Rindge Lane	63.9	64.0	+0.1	No	22	47	101
Between Rindge Lane and Slauson Lane	63.5	63.6	+0.1	No	21	44	95
Between Slauson Lane and Mackay Lane	63.5	63.6	+0.1	No	21	44	96
Between Mackay Lane and Felton Lane	63.6	63.7	+0.1	No	21	45	97
Between Felton Lane and Inglewood Avenue	63.7	63.8	+0.1	No	21	46	99
Between 190th Street and Kingsdale Avenue	61.4	61.5	+0.1	No	15	32	69
Between Kingsdale Avenue and City Limit	61.4	61.5	+0.1	No	15	32	69
Hawthorne Boulevard							
Between 190th Street & Redondo Beach Boulevard	77.8	77.6	-0.2	No	290	918	2,903
Inglewood Avenue							
Between Marine Avenue & Manhattan Beach Boulevard	71.7	71.4	-0.3	No	69	218	691
Between Manhattan Beach Boulevard & Faber Street	71.6	71.2	-0.4	No	67	211	667
Between Faber Street & Artesia Boulevard	71.2	70.9	-0.3	No	62	194	615
Between Artesia Boulevard and 182nd Street	70.8	70.9	+0.1	No	63	136	292
Between 182nd Street and 190th Street	68.4	68.5	+0.1	No	44	94	203

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Table 5.11-10 Future Roadway Noise Levels

Roadway Segment	Ldn at 50 Feet		Difference	Significant Increase	Distance to Ldn Contour (feet)		
	Existing	Existing plus Project			70 dBA	65 dBA	60 dBA
Marine Avenue							
Between Inglewood Avenue & Aviation Boulevard	66.5	66.9	+0.4	NO	-	78	247
Manhattan Beach Boulevard							
Between Inglewood Avenue & Aviation Boulevard	70.4	70.1	-0.3	No	-	160	506
Palos Verdes Boulevard							
Between Catalina Avenue & Pacific Coast Highway	68.1	68.2	+0.1	No	41	89	193
Between Pacific Coast Highway and Prospect Avenue	64.5	64.6	+0.1	No	24	52	113
Between Prospect Avenue and City Limit	64.4	64.5	+0.1	No	24	52	113
Phelan Avenue							
Between Robinson Street & Ripley Avenue	51.1	51.3	+0.2	No	-	-	-
Prospect Avenue							
Between Diamond Street & Knob Hill Avenue	66.0	66.3	+0.3	No	-	67	212
Between Knob Hill Avenue and Highway 1	65.8	66.1	+0.3	No	-	65	204
Redondo Beach Boulevard							
Between Hawthorne Boulevard & Artesia Boulevard	70.1	69.8	-0.3	No	-	149	472
Ripley Avenue							
Between Flagler Lane and Inglewood Avenue	57.3	57.4	+0.1	No	-	-	-
Torrance Boulevard							
Between Catalina Avenue & Prospect Avenue	64.2	64.4	+0.2	No	-	-	136
Between Prospect Avenue and City Limit	68.1	68.2	+0.1	No	41	89	192

Source: Traffic noise levels were calculated using the FHWA Highway Noise Prediction Model in conjunction with the trip generation rate identified by Fehr & Peers.

¹ Distance to Ldn contours do not account for the noise attenuation attributable to intervening structures.

² These Highway 1 existing trip generation rates are identified by the California Department of Transportation Traffic Census Program (2022). General Plan Buildout trip generation rates are derived from the same percentage increase of traffic identified by Fehr & Peers for the segment of Highway between Knob Hill Road and Ruby Street.

Source: Traffic noise levels were calculated using the FHWA Highway Noise Prediction Model in conjunction with the trip generation rate identified by Fehr & Peers.

¹ Distance to Ldn contours do not account for the noise attenuation attributable to intervening structures.

² These Highway 1 existing trip generation rates are identified by the California Department of Transportation Traffic Census Program (2022). General Plan Buildout trip generation rates are derived from the same percentage increase of traffic identified by Fehr & Peers for the segment of Highway between Knob Hill Road and Ruby Street. Refer to Appendix G, attachment B for traffic noise modeling assumptions and results

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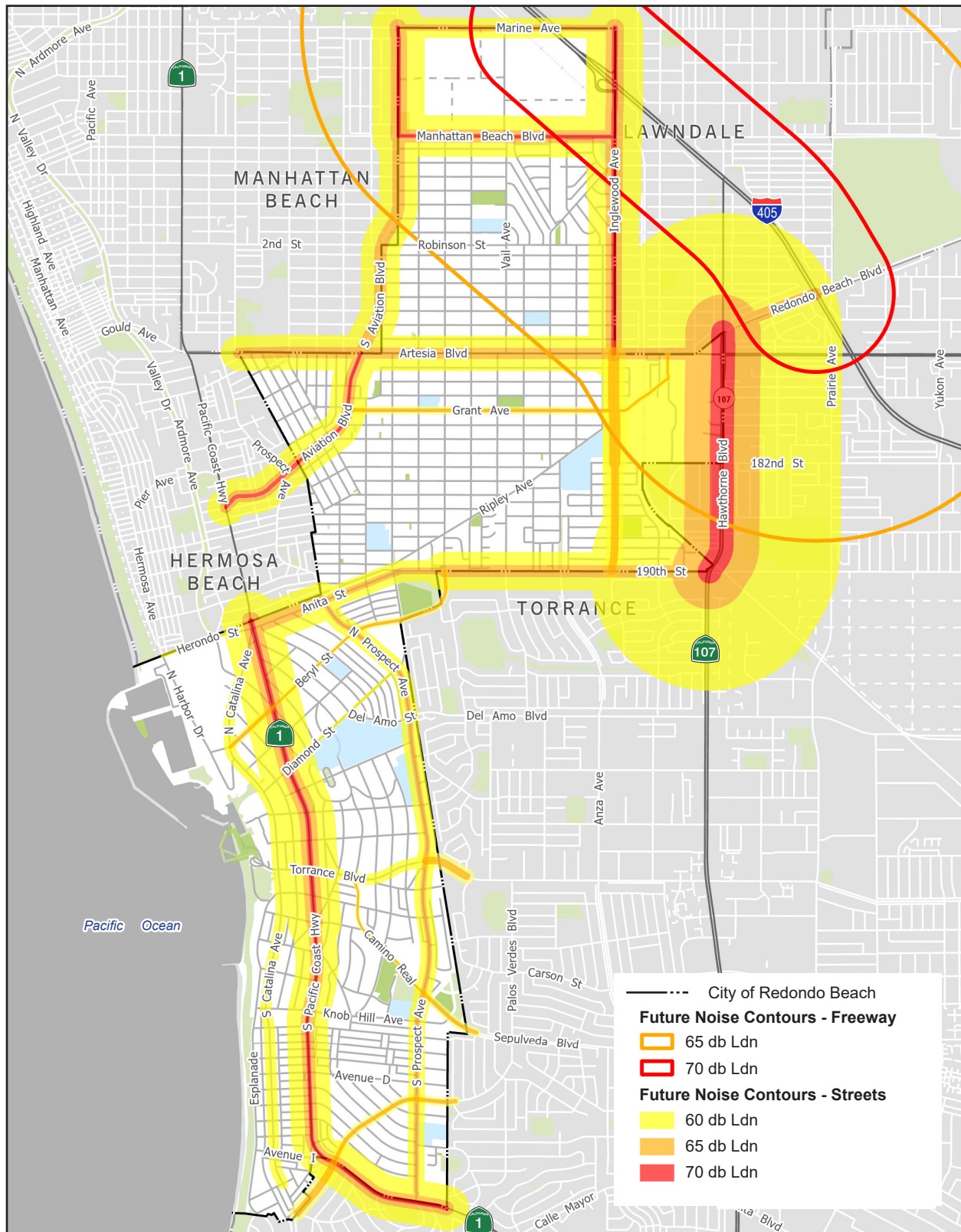
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As shown in Table 5.11-10, no City roadway segment would experience an increase of more than 5.0 dBA Ldn over existing conditions with buildout anticipated under the proposed General Plan Update. It is noted that despite projected increases in regional population in the Redondo Beach area, automobile traffic and thus traffic noise, is projected to decrease slightly over time on several roadways within Redondo Beach. The traffic modeling includes both the citywide and regional changes in housing units, employment and regional transportation projects that would occur over the life of the General Plan Update (Fehr & Peers, 2024). Changes in both citywide and regional land use patterns and transportation networks, such as the increased development of mixed-use areas or changing concentrations of job opportunities from certain locations to others, particularly those accessible to existing and planned public transit can result in a shift in traffic patterns thereby decreasing traffic on certain roadways.

The Noise Element of the proposed General Plan addresses traffic noise with Policies N-1.1, N-1.7, and N-1.11 and the following implementation measures:

- **Implementation Measure N-1: Noise Evaluation.** Continue to evaluate the noise impacts of new projects during the development review process; begin evaluation of the impacts cumulative noise conditions may have on proposed noise-sensitive uses, including residential, during the development review process; consider requirements for noise analysis conducted by an acoustical specialist for projects involving land uses where operations are likely to impact adjacent noise-sensitive land uses.
- **Implementation Measure N-15: Alternative Paving.** Evaluate the use of alternative paving materials that can reduce traffic noise, as feasible, depending on roadway conditions and cost-efficiency.
- **Implementation Measure N-16: Freeways.** Continue cooperation with Caltrans in the planning of noise attenuation along freeways and assist with outreach efforts to notify residents of major projects that may impact noise levels and aesthetics.
- **Implementation Measure N-17: Roadway Designations.** Periodically review major roadways and designated truck routes to reduce truck traffic through residential neighborhoods and near schools.
- **Implementation Measure N-21: Agency Coordination.** Continue to coordinate with the California Department of Transportation, the LA County Airport Land Use Commission, rail operators, and Metro to evaluate the need for sound barriers or other mitigation strategies along segments of the freeways, rail, and transit travel ways that impact existing noise-sensitive land uses.
- **Implementation Measure N-22: Regional Planning Efforts.** Continue to participate in and advocate for City priorities through regional planning processes related to roadway, rail, metro, and airport-related noise issues.

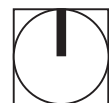
Figure 5.11-3 - Future Traffic Noise Contours



Note: The City boundary extends 3 miles into the Pacific Ocean, which is not shown on this exhibit.

Source: ECorp Consulting 2024; PlaceWorks 2024.

0 0.75
Scale (Miles)



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The proposed amendments to the Zoning Ordinance would facilitate the implementation of the General Plan updates related to land use and implement required Zoning Map changes and programs pursuant to the City's existing Certified Housing Element. The proposed project would also include amending portions of both the Coastal Land Use Plan (LUP) and Implementation Plan (IP) components of its Local Coastal Program (LCP). Proposed changes to the LUP include updates to the Land Use Map consistent with the Land Use Map in the Focused General Plan Update. With implementation of the proposed General Plan policies and implementation measures identified above, future development and activities under the proposed project would result in a less than significant impact related to traffic noise sources.

Level of significance Before Mitigation: Less than Significant.

Impact 5.11-2 Buildout of the proposed project may expose sensitive uses to excessive levels of groundborne vibration. [Threshold N-2]

Construction Vibration

Construction vibration is a potential occurrence within Redondo Beach and will continue to be so regardless of whether the General Plan Update is adopted. Construction-related vibration near individual construction sites associated with development and activities under the proposed General Plan Update would not be substantially different from what they would be under the existing 1992 City of Redondo Beach General Plan.

Construction activities will occur in a variety of locations throughout Redondo Beach and will most likely require the use of off-road equipment known to generate some degree of vibration. Construction activities that generate excessive vibration, such as blasting, would not be expected to occur from future development due to the geography of Redondo Beach and the small number of properties with potential development, which reduces the likelihood of blasting during construction.

Receptors sensitive to vibration include structures (especially older masonry structures), people (especially residents, the elderly, and the sick), and equipment (e.g., magnetic resonance imaging equipment, high resolution lithographic, optical and electron microscopes). Regarding the potential effects of ground borne vibration to people, except for long-term occupational exposure, vibration levels rarely affect human health. The majority of construction equipment is not situated at any one location during construction activities but spread throughout a construction site and at various distances from sensitive receptors. Since specific future projects under the proposed General Plan Update are unknown at this time, it is conservatively assumed that the construction areas associated with these future projects could be within 50 feet of sensitive structures. The primary vibration-generating activities would occur during grading, placement of underground utilities, and construction of foundations. Table 5.11-11, *Representative Vibration Source Levels for Construction Equipment*, shows the typical vibration levels produced by construction equipment at 50 feet.

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Table 5.11-11 Vibration Levels for Construction Equipment

Equipment	Peak Particle Velocity at 50 Feet (inches per second)	Vibration Level Vibration Velocity at 50 Feet (VdB)
Pile Driver (Impact)	0.225	95
Pile Driver (Sonic)	0.059	84
Vibratory Roller	0.073	85
Hoe Ram	0.031	78
Large Bulldozer	0.031	78
Caisson Drilling	0.031	78
Loaded Trucks	0.026	77
Jackhammer	0.012	70
Small Bulldozer	0.001	49

Source: ECORP 2024.

The City of Redondo Beach Municipal Code Section 4-24-503 of Article 5 states that all construction activity is prohibited, except between the hours of 7:00 a.m. and 6:00 p.m. on Monday, Tuesday, Wednesday, Thursday, and Friday and between the hours of 9:00 a.m. and 5:00 p.m. on Saturday. No construction activity is permitted on Sunday, or the days on which the holidays designated as Memorial Day, the Fourth of July, Labor Day, Thanksgiving Day, Christmas Day, and New Year's Day are observed. Furthermore, Section 4-24- 504 of Article 5 establishes requirements to protect the inhabitants of the City against ground borne vibration. Specifically, Section 4-24-504 states that the operation of any device which creates vibration which is above the vibration perception threshold of an individual at or beyond the property boundary of the source if on private property, or at 150 feet (46 meters) from the source if on a public space or public right of- way, is prohibited. For the purposes of this section, "vibration perception threshold" means the minimum ground or structure-borne vibrational motion necessary to cause a normal person to be aware of the vibration by such direct means as, but not limited to, sensation by touch or the visual observation of moving objects. Adherence to the City Municipal Code would ensure that vibration reduction is being provided to minimize temporary construction-related vibration impacts. However, as shown in the Table 5.11-11, vibration generated by construction equipment has the potential to be substantial, since it has the potential to exceed the FTA criteria for architectural damage (e.g., 0.12 inches per second [in/sec] PPV for fragile or historical resources, 0.2 in/sec PPV for nonengineered timber and masonry buildings, and 0.3 in/sec PPV for engineered concrete and masonry). Construction details and equipment for future project-level developments under the general plan buildout are not known at this time but may cause vibration impacts. Therefore, this would be a potentially significant impact.

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Operational Vibration Impacts

Industrial operations throughout the City would generate varying degrees of ground vibration, depending on the operational procedures and equipment. Such equipment-generated vibrations would spread through the ground and diminish with distance from the source. Because specific project-level information is not available at this time, it is not possible to quantify future vibration levels at vibration-sensitive receptors that may be near existing and future vibration sources. The proposed amendments to the Zoning Ordinance would facilitate the implementation of the General Plan updates related to land use and implement required Zoning Map changes and programs pursuant to the City's existing Certified Housing Element. The proposed project would also include amending portions of both the Coastal Land Use Plan (LUP) and Implementation Plan (IP) components of its Local Coastal Program (LCP). Proposed changes to the LUP include updates to the Land Use Map consistent with the Land Use Map in the Focused General Plan Update. Therefore, with the potential for sensitive uses to be exposed to annoying and/or interfering levels of vibration from industrial operations, operations-related vibration impacts associated with implementation of the proposed project are considered potentially significant.

Train Vibration

As discussed in Impact 5.11.4.2, the proposed project would not generate any new train trips through Redondo Beach. Vibration levels as a result of trains traveling along the existing railroad under the proposed General Plan Update would remain the same as existing conditions, unless otherwise changed by the respective rail authority. No impact would occur.

Level of Significance Before Mitigation: Potentially significant.

Impact 5.11-3: The proposed project would not expose people residing or working in the project area to excessive noise levels within the vicinity of a private airstrip or an airport land use plan. [Threshold N-2]

Aircraft overflight occurs regularly as the City is near the Hawthorne Municipal Airport (two miles northeast), Torrance Municipal Airport (two miles southeast), and Los Angeles International Airport (three miles north). As previously described, the Los Angeles County Airport Land Use Commission's Airport Land Use Plan (adopted in 1991 and revised in 2004) covers all of the public airports in Los Angeles County. The Los Angeles County Airport Land Use Commission is responsible for promoting land use compatibility around the County's airports in order to minimize public exposure to excessive noise and safety hazards, and the Commission's Los Angeles County Airport Land Use Plan identifies noise compatibility zones in the form of airport noise contour graphics that are intended to prevent development that is incompatible with airport operations. No portions of the City are within the 65 dBA noise contours, or any noise contours, of any of these airports. Therefore, people within Redondo Beach would not be exposed to excessive noise levels and there would be no impact.

Level of Significance Before Mitigation: No Impact.

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5.11.5 Cumulative Impacts

Cumulative Traffic Noise

The discussion of cumulative operational traffic noise impacts assesses whether future development under the proposed project, in conjunction with overall citywide growth and other cumulative projects, would significantly affect the roadway noise and, if so, whether the proposed project's contribution to the cumulative impact would be considerable. The analysis contained in Impact 5.11.4.2 above is largely a cumulative analysis in that the transportation modeling also includes the citywide and regional changes in housing units and employment that would occur through the General Plan horizon. Thus, Impact 5.11.4.2 considers the changes in travel demand projected to occur through the General Plan horizon due to land use growth, and the cumulative transportation and infrastructure projects anticipated to be completed both inside and outside Redondo Beach. As identified in Impact 5.11.4, no city roadway segment would experience an increase of more than 5.0 dBA Ldn over existing conditions with buildout anticipated under the proposed project and this impact would be less than significant.

Cumulative Construction Noise and Vibration

Construction noise impacts primarily affect the areas immediately adjacent to the construction site. Development that could occur with implementation of the proposed General Plan Update and cumulative development in surrounding cities could be constructed contemporaneously and could result in high construction-noise levels. As discussed above, noise levels generated by individual pieces of construction equipment typically range from approximately 74 dBA to 101.3 dBA Lmax at 50 feet and 67.7 dBA to 94.3 dBA Leq at 50 feet. The City of Redondo Beach has established and enforces noise standards for construction activity, including allowable hours for construction activity. Although the potential exists for construction projects under the proposed project and other foreseeable development to occur simultaneously and in proximity to one another, construction equipment operations would operate within the constraints of the City of Redondo Beach Municipal Code. As details of individual development projects in the plan area are currently unknown, it cannot be determined whether Mitigation Measure N-1, listed below, would reduce potentially significant impacts to less than significant. The proposed project would therefore contribute to cumulatively considerable construction-related noise, and the cumulative impact would be significant and unavoidable.

The potential for a cumulative vibration-related damage impact is minimal because vibration impacts are based on approximate VdB levels. Thus, worst-case ground borne vibration levels from construction are determined by whichever individual piece of equipment generates the highest vibration levels. Unlike the analysis for average noise levels, in which noise levels of multiple pieces of equipment can be combined to generate a maximum combined noise level, approximate vibration levels do not combine in this manner. Vibration from multiple construction sites, even if they are close to one another, would not combine to raise the maximum VdB. Impact 5.11-2 would be less than significant with Mitigation Measures N-2 and N-3. Specifically, Mitigation Measure N-2 would reduce potential vibration impacts during construction below the pertinent thresholds, and Mitigation Measures N-3 (operations-related vibration) would reduce potential vibration impacts from commercial/industrial uses and facilities to less than significant levels. No significant cumulative vibration impacts would remain. Therefore, vibration impacts resulting from construction of future

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development under the proposed General Plan Update would not combine with vibration effects from cumulative projects in the vicinity, and the impact would be less than significant.

Cumulative Stationary Source Noise

Long-term stationary noise sources associated with the development and activities under the proposed General Plan Update, combined with other cumulative projects, could cause local noise level increases. Noise levels associated with the proposed General Plan Update and cumulative development combined could result in higher noise levels than considered separately. However, as described above, proposed General Plan Policies N-1.1, N-1.4, N-1.5, and N-1.6 as well as Implementation Measures N-3, N-4, and N-7 would protect the inhabitants of the City against all forms of nuisances, including stationary source noise. With implementation and adherence to the previously listed proposed policies and implementation measures, future development under the proposed General Plan Update and cumulative development combined would not create cumulatively considerable stationary noise sources, and the impact would be less than significant.

5.11.6 Level of Significance Before Mitigation

The following impacts would be **no impact**:

- **Impact 5.11-3** The proposed General Plan Update would not expose people residing or working in the project area to excessive noise levels within the vicinity of a private airstrip or an airport land use plan.

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

- **Impact 5.11-1** Construction activities associated with buildout of the proposed project would result in temporary noise increases at sensitive receptors, and potentially contribute to significant cumulative impacts.
- **Impact 5.11-2** Buildout of the proposed project may expose sensitive uses to excessive levels of ground borne vibration.

5.11.7 Mitigation Measures

The following mitigation measures would be required.

Impact 5.11-1

N-1 **Construction Noise Measures.** Construction contractors shall implement the following measures for construction activities conducted in the City of Redondo Beach. Construction plans submitted to the City shall identify these measures on demolition, grading, and construction plans. The City of Redondo Beach Planning and Building Divisions shall verify that grading, demolition, and/or construction plans submitted to the City include these notations prior to issuance of demolition, grading, and/or building permits.

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- During the entire active construction period, equipment and trucks used for project construction shall use the best-available noise control techniques (e.g., improved mufflers, equipment redesign, use of intake silencers, ducts, engine enclosures, and acoustically attenuating shields or shrouds), wherever feasible.
- Impact tools (e.g., jack hammers and hoe rams) shall be hydraulically or electrically powered wherever possible. Where the use of pneumatic tools is unavoidable, an exhaust muffler on the compressed air exhaust shall be used along with external noise jackets on the tools.
- Stationary equipment, such as generators and air compressors, shall be located as far as feasible from nearby noise-sensitive uses.
- Stockpiling shall be located as far as feasible from nearby noise-sensitive receptors.
- Construction traffic shall be limited, to the extent feasible, to approved haul routes established by the City Engineering, Planning, and Building Divisions.
- At least 10 days prior to the start of construction activities, a sign shall be posted at the entrance(s) to the job site, clearly visible to the public, that includes permitted construction days and hours, as well as the telephone numbers of the City's and contractor's authorized representatives that are assigned to respond in the event of a noise or vibration complaint. If the authorized contractor's representative receives a complaint, he/she shall investigate, take appropriate corrective action, and report the action to the City.
- Signs shall be posted at the job site entrance(s), within the on-site construction zones, and along queueing lanes (if any) to reinforce the prohibition of unnecessary engine idling. All other equipment shall be turned off if not in use for more than 5 minutes.
- During the entire active construction period and to the extent feasible, the use of noise-producing signals, including horns, whistles, alarms, and bells, shall be for safety warning purposes only. The construction manager shall use smart back-up alarms, which automatically adjust the alarm level based on the background noise level or switch off back-up alarms and replace with human spotters in compliance with all safety requirements and laws.
- If construction is anticipated for prolonged periods, as required by the Community Development Director, or their assigned designee, erect temporary noise barriers (at least as high as the exhaust of equipment and breaking line-of-sight between noise sources and sensitive receptors), as necessary and feasible, to maintain construction noise levels at or below the performance standard of 80 dBA Leq. Barriers shall be constructed with a solid material that has a density of at least 4 pounds per square foot with no gaps from the ground to the top of the barrier.

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Impact 5.11-2

N-2 **Noise and Vibration Analysis.** Prior to issuance of a building permit for a project requiring pile driving during construction within 135 feet of fragile structures, such as historical resources, within 100 feet of nonengineered timber and masonry buildings (e.g., most residential buildings), or within 75 feet of engineered concrete and masonry (no plaster); or a vibratory roller within 25 feet of any structure, the project applicant shall prepare a noise and vibration analysis to assess and mitigate potential noise and vibration impacts related to these activities. This noise and vibration analysis shall be conducted by a qualified and experienced acoustical consultant or engineer. The vibration levels shall not exceed Federal Transit Administration (FTA) architectural damage thresholds (e.g., 0.12 inches per second [in/sec] peak particle velocity [PPV] for fragile or historical resources, 0.2 in/sec PPV for nonengineered timber and masonry buildings, and 0.3 in/sec PPV for engineered concrete and masonry). If vibration levels would exceed these thresholds, alternative uses shall be used, such as drilling piles instead of pile driving and static rollers instead of vibratory rollers. If necessary, construction vibration monitoring shall be conducted to ensure vibration thresholds are not exceeded.

N-3 **Vibration Analysis.** Prior to discretionary approval by the City of Redondo Beach for development projects subject to review under the California Environmental Quality Act (CEQA) (i.e., nonexempt projects), that utilize equipment that has the potential to result in vibration (e.g., pile drivers, jack hammers, and vibratory rollers), a vibration analysis shall be conducted to assess and mitigate potential vibration impacts. This vibration analysis shall be conducted by a qualified and experienced acoustical consultant or engineer and shall follow the latest CEQA guidelines, practices, and precedents

5.11.8 Level of Significance After Mitigation

Impact 5.11-1

Implementation of Mitigation Measure N-1 would reduce potential noise impacts during construction to the extent feasible through implementation of construction best management practices. However, due to the potential for proximity of construction activities to sensitive uses, the number of construction projects occurring simultaneously, and the potential duration of construction activities, Impact 5.11-1 (construction noise) could result in a temporary substantial increase in noise levels above ambient conditions. Therefore, project impacts, and cumulative impacts, would remain ***significant and unavoidable***. It should be noted that the identification of this program-level impact does not preclude the finding of less-than-significant impacts for subsequent projects analyzed at the project level.

Impact 5.11-2

Implementation of Mitigation Measures N-2 and N-3 would reduce Impact 5.11-3 to less-than-significant levels. Specifically, Mitigation Measure N-2 would require use of alternative construction techniques for construction activities proximate to historic resources to reduce potential vibration impacts during construction

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below the pertinent thresholds, and Mitigation Measures N-3 (operations-related vibration) would require that stationary sources reduce potential vibration impacts from commercial/industrial uses to less-than-significant levels. No significant and unavoidable vibration impacts would remain.

5.11.9 References

- California Department of Transportation (Caltrans). 2002. California Airport Land Use Planning Handbook.
- . 2020a. Traffic Noise Analysis Protocol for New Highway Construction, Reconstruction, and Retrofit Barrier Projects.
- . 2020b. Transportation and Construction Vibration Guidance Manual.
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- Federal Aviation Administration (FAA). 1983. Noise Control and Compatibility Planning for Airports. Advisory Circular Number 150 5020 2.
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- . 2017a. Construction Noise Handbook.
https://www.fhwa.dot.gov/Environment/noise/construction_noise/handbook/handbook02.cfm.
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- Fehr & Peers Transportation Consultants. 2024. City of Redondo Beach Traffic Data. Appendix G.
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- Los Angeles County Airport Land Use Commission. 2004. Los Angeles County Airport Land Use Plan.
<https://planning.lacounty.gov/airport-land-use-planning/>.
- Los Angeles County Metropolitan Transportation Authority (Metro). 2023. C Line (Green) Extension to Torrance Draft Environmental Impact Report.
- Western Electro-Acoustic Laboratory, Inc. 2000. Sound Transmission. Sound Test Laboratory Report No. TL 96-186.

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5.12 POPULATION AND HOUSING

This section of the Draft Program Environmental Impact Report (DEIR) examines the potential for population and housing impacts of the proposed Redondo Beach Focused General Plan Update, Zoning Ordinance Updates, and Local Coastal Program Amendment (proposed project) on the City of Redondo Beach, including changes in population, employment, and demand for housing, particularly housing cost/rent ranges defined as “affordable.”

5.12.1 Environmental Setting

5.12.1.1 REGULATORY BACKGROUND

State

California Housing Element Law

California Government Code Section 65300 describes the scope and authority of local jurisdictions to prepare, adopt, and amend general plans. The housing element of the general plan is expected to analyze existing and protected housing needs, examine special needs, evaluate the effectiveness of current goals and policies, identify constraints to providing affordable housing, identify land available in the jurisdiction to accommodate the jurisdiction’s share of the regional housing needs, and identify opportunities to incorporate energy and conservation measures into the housing stock. The City of Redondo Beach General Plan Housing Element was updated in 2022 for the 2021 to 2029 eight-year plan period.

California Health and Safety Code

In addition to the regulations in the California Government Code, provisions related to housing and local policy are in Health and Safety Code Division 13, Housing, and Division 24, Community Development and Housing. Division 13 and Division 24 provides rules and regulations related to employee housing, manufactured housing, mobile home parks, elderly housing, access for physically handicapped persons, and building standards for new, existing, and historic structures to ensure the health, safety, and welfare of all California residents.

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 (MPO) 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 MPO, SCAG cooperates with the South Coast Air Quality Management District, the California Department of Transportation, and other agencies in preparing

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regional planning documents. The City of Redondo Beach is within the South Bay Cities Council of Governments (SBCCOG) subregion of SCAG.

Regional Transportation Plan/Sustainable Community Strategy

SCAG has developed regional plans to achieve specific regional objectives. On April 4, 2024, SCAG adopted the 2024-2050 Regional Transportation Plan/Sustainable Communities Strategy (2024-2050 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 the 2024-2050 RTP/SCS 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 the 2024-2050 RTP/SCS, see Section 5.10, *Land Use and Planning*, of this DEIR.

Local

Redondo Beach Municipal Code

Title 10, Article 2, Zoning Districts, of the Redondo Beach Municipal Code serves as the implementation component of the policies and land use map of the City's General Plan, and to protect and promote public health, safety, and general welfare. The Zoning Ordinance establishes standards and procedures for development in each zoning district, including height, setback, housing density, yard, parking, walls, landscaping, and land use standards.

Title 9, Building Regulations, and Title 10, Planning and Zoning, of the Redondo Beach Municipal Code include development standards in the various zoning districts in the City.

Title 10, Chapter 3, Environmental Review Pursuant to CEQA, of the Redondo Beach Municipal Code establishes the specific procedures necessary to implement CEQA. Article 2, Evaluation of Significant Effects, establishes criteria for determining significant effects and provides guidance in making an evaluation whether or not a particular project may have a substantial adverse effect on the environment. Pursuant to the Municipal Code, if there are inconsistencies between the provisions contained in Title 10, Chapter 3, and the State's CEQA Guidelines, the State's CEQA Guidelines shall control. As established in Section 10-3.202, significant effects may be due to primary consequences immediately related to the project or may be due to secondary consequences related more to the primary consequences than the project itself. As established in Section 10-3.203(k)(m), with respect to population and housing, a project will normally have a significant effect on the environment if it will include substantial growth or concentration of population and/or displace a large number of people.

Redondo Beach 2021-2029 Housing Element

The City of Redondo Beach's 6th Cycle Housing Element was adopted on July 5, 2022. The Housing Element includes policies and goals that guide housing throughout the City:

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- Conserve and improve affordable housing
- Provide adequate housing sites
- Assist in the development of affordable housing
- Remove governmental and other constraints to housing development
- Promote equal housing opportunities
- Preserve the character of existing single-family residential neighborhoods

5.12.1.2 EXISTING CONDITIONS

Population and Housing

The City of Redondo Beach was incorporated in 1892. The City's population boomed in the 1950s and 1960s, more than quadrupling from 13,092 in 1940 to 54,772 by 1965. This period of rapid population growth, however, was followed by a period of slower growth from 1970 to the present. Since 1990, the City's population has increased by approximately 5 percent every decade, with an annual average increase of 0.22 percent. Furthermore, about one-half of the reported population growth during the 1980s was the result of the annexation of the Clifton Heights area in 1982.

For informational purposes, Table 5.12-1 shows population and housing trends in the City based on population and housing estimates from the Department of Finance (DOF) between 2012 -2022. Over the ten-year period the City population generally increased from 2012 to 2016, decreased from 2016 to 2019, then increased dramatically in 2020 (which could partially and reasonably be attributed to the COVID-19 pandemic). Housing units increased between 2015 through 2021. Vacancy rates varied over the same period while the persons per unit gradually increased. The ratio of single family to multiple family homes remained consistent, with a ratio of approximately 54 percent to 46 percent, as shown below in Table 5.12-1. (DOF 2020, 2022).

Table 5.12-1 Population and Housing Trends in the City of Redondo Beach

Year	Percentage Change in Population (Year to Year)	Percentage Change in Housing Units (Year to Year)	Percentage of Single-Family Residences	Percentage of Multi-Family Family Units	Vacancy	Persons per Unit
2012	--	--	53%	46%	5.5%	2.31
2013	0.64%	0.08%	53%	46%	5.5%	2.33
2014	-0.02%	-0.06%	53%	46%	5.7%	2.33
2015	0.13%	0.09%	53%	46%	5.7%	2.33
2016	-0.01%	0.08%	53%	46%	5.7%	2.33
2017	-0.10%	0.12%	54%	46%	5.7%	2.33
2018	-0.55%	0.05%	54%	46%	6.1%	2.32
2019	-0.31%	0.45%	54%	46%	6.3%	2.31
2020	4.32%	0.43%	54%	46%	4.9%	2.37
2021	-0.72%	0.09%	54%	46%	5.3%	2.36
2022	-1.12%	-0.02%	54%	45%	5.3%	2.33

Source: DOF 2020, 2022.

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Regional Housing Needs Assessment

State law requires that a community provide adequate sites with residential development potential to allow for and facilitate production of the City's regional share of housing needs. To determine whether the City has sufficient land to accommodate its share of regional housing needs for all income groups, the City must identify "adequate vacant and underutilized sites." Under State law (California Government Code section 65583[c][1]), adequate sites are those with appropriate zoning and development standards, and services and facilities to facilitate and encourage the development of a variety of housing for all income levels. Redondo Beach's Regional Housing Needs Allocation (RHNA) for the 2021-2029 planning period has been determined by SCAG to be 2,490 housing units—936 units for very low-income households, 508 units for low-income households, 490 units for moderate income households, and 556 units for above moderate-income households. Changes in State law (SB 166 and SB 1333) require local jurisdictions to continue to monitor their ability to accommodate their RHNA as development occurs on available sites at an intensity or income level not consistent with the assumptions used in the Housing Element. To address this requirement, the City's sites inventory for the RHNA includes a 10 percent buffer for the lower income RHNA. The Housing Element identified four projects that were in progress that would count toward the City's RHNA:

- South Bay Galleria Project in north Redondo Beach
- Legado Mixed Use Project in south Redondo Beach
- Alcast Foundry in north Redondo Beach
- The Moonstone (Project Homekey) in south Redondo Beach

As shown in Table 5.12-2, *2020-2021 Regional Housing Needs Assessment in Redondo Beach*, the City's RHNA allocation for the 2021-2029 planning period is 2,490 housing units. This number was calculated by SCAG based on the City's share of the region's employment growth, migration and immigration trends, and birth rates.

Table 5.12-2 2021-2029 Regional Housing Needs Assessment in Redondo Beach

Income Category	Number of Units	Percentage
Very Low	936	37.6%
Low	508	20.4%
Moderate	490	19.7%
Above Moderate	556	22.3%
Total	2,490	100%

Source: Redondo Beach 2022.

Employment

For informational purposes, Table 5.12-3, *Employment Trends in Redondo Beach*, shows that employment has steadily increased in varying rates from 2012 to 2022 based on data provided by the California Employment Development Department (EDD). There was a noticeable decline of approximately 12 percent in the number of persons employed from 2019 to 2020, which could partially and reasonably be attributed to the COVID-19 pandemic, but employment rebounded slightly by approximately 4.1 percent in the following year.

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Table 5.12-3 Employment Trends in Redondo Beach

Year	Percent Change
2012	--
2013	2.16%
2014	1.85%
2015	0.79%
2016	2.31%
2017	2.26%
2018	0.00%
2019	0.50%
2020	-13.60%
2021	4.08%
2022	4.42%

Source: EDD 2024.

Table 5.1-4, *Redondo Beach Industry by Occupation (2022)*, shows the City's total workforce by occupation and industry in 2022 and is presented for informational purposes in order to show a general breakdown of employment industries within the City. The three largest occupational categories in this year were educational services, health care, and social assistance; professional, scientific, management, administrative, and waste management services; and manufacturing, comprising approximately 20 percent, 18 percent, and 12 percent of the workforce, respectively.

Table 5.12-4 Redondo Beach Industry by Occupation (2022)

Industry/Occupation	Percent
Agriculture, forestry, fishing and hunting, and mining	0.3%
Construction	5.8%
Manufacturing	12.5%
Wholesale Trade	1.5%
Retail trade	5.8%
Transportation and warehousing, and utilities	8.1%
Information	6.8%
Finance and insurance, and real estate and rental and leasing	6.7%
Professional, scientific, and management, and administrative and waste management services	17.8%
Educational services, and health care and social assistance	21.8%
Arts, entertainment, and recreation, and accommodation and food services	7.6%
Other services, except public administration	2.9%
Public administration	2.5%
Total	100%

Source: US Census 2024.

Note: Figures were rounded up to the nearest whole number/one decimal place. Employment figures count civilian employees 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 measured by comparing the total number

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of jobs compared to either 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 a resource for community planning best practices, and has provided the following recommendations for assessing jobs-housing balance (Weitz 2003):

- 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

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). The ratio of jobs to housing is a means of determining the general economic health of a region. SCAG applies the jobs-housing ratio at the regional and subregional levels to analyze the fit between jobs, housing, and infrastructure. A focus of SCAG's regional planning efforts has been to improve this balance; however, jobs-housing goals and ratios are only advisory. As shown below in Table 5.12-5, based on existing conditions, the City's jobs-housing ratio is 0.94, which is considered imbalanced using the APA's recommended range target of 1.5 jobs per housing unit, or recommended range: 1.3 to 1.7 jobs per housing unit

Table 5.12-5 Existing Jobs-Housing Ratio

Scenario	Existing Conditions
Housing Units	30,431
Jobs	28,638
Jobs-Housing Ratio	0.94

Source: Appendix B, Buildout Methodology

Growth Projections

Southern California Association of Governments

SCAG undertakes comprehensive regional planning with an emphasis on transportation, producing an RTP/SCS. The 2024–2050 RTP/SCS provides projections of population, households, and total employment for Redondo Beach. Based on its share of California's and the region's employment growth, migration and

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immigration trends, and birth rates, SCAG projects the population, households¹, and employment will grow at an increasing rate in Redondo Beach. These projections are summarized in Table 5.12-6, *SCAG Growth Projections for Redondo Beach*. Based on SCAG's projects an increase of 2,789 (4%) in population, 2,003 (6%) in households, and 2,462 (8%) in jobs as compared to existing conditions.

Table 5.12-6 SCAG Growth Projections for Redondo Beach

	Existing Conditions ¹	City of Redondo Beach 2050 Projections ²	Net Difference (Percent)
Population	70,311	73,100	2,789 (4%)
Households	28,945	30,948	2,003 (6%)
Employment	28,638	31,100	2,462 (8%)

Source:

¹ Appendix B, Buildout Methodology

² SCAG 2023

5.12.2 Thresholds of Significance

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

- P-1 Induce substantial 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).
- P-2 Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere.

5.12.3 Proposed General Plan Goals and Policies

Goal LU-1.Balance: A sustainable community with a range of land uses that meet the diverse needs of Redondo Beach residents, offer a variety of employment, commercial, recreational, and housing opportunities that make it possible for people of all ages and abilities to live, work, recreate, and maintain a high quality of life in Redondo Beach.

- **Policy LU-1.1 Balanced Land Use Pattern.** Preserve existing residential neighborhoods, while balancing development trends and state mandates, and provide for enhancement of focused planning areas to improve community activity and identity.

¹ A household consists of all the people who occupy a housing unit. A household includes the related family members and all the unrelated people, if any, such as lodgers, foster children, wards or employees who share the housing unit. A person living alone in a housing unit, or a group of unrelated people sharing a housing unit, such as partners or roomers, is also counted as a household (SCAG 2024)

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- **Policy LU -1.2 Inclusivity.** Provide for a mix of land uses to create a complete community where residents of all ages and abilities, employers, workers, and visitors have a broad range of choices of where they can live, work, shop and recreate within Redondo Beach.
- **Policy LU -1.4 Jobs-Housing Balance.** Create a place to live and a place to work that seeks to match its residents to jobs and promotes a workforce/ jobs balance.

Goal LU-6 Economic Sustainability: A financially healthy City with a balanced mix of land uses and special funding and financing districts that increase resources to invest in public facilities and services.

- **Policy LU-6.3 Business Incubator.** Develop and implement land use strategies that facilitate the creation and development of new businesses, capture of current businesses searching for new facilities, and retention of existing businesses in Redondo Beach. Specifically target businesses and uses that would reduce the workforce/jobs imbalance. Identify and take advantage of new business trends in surrounding communities.
- **Policy LU-6.9 Desired Development.** Establish, review, and update standards as necessary to ensure desired development in Special Policy Areas is economically viable, reflects community desires, addresses Redondo Beach's jobs/workforce imbalance,, and maintains or enhances the fiscal well-being of the City.
- **Policy LU-6.21 Job centers, corporate campuses, and transit-oriented job centers.** Address jobs/workforce imbalance by creating opportunities and an environment that attracts new high end business campuses and job centers, thus reducing the number of Redondo Beach workforce population who commute to other cities to work and providing weekday customers to frequent Redondo Beach business corridors.

5.12.4 Environmental Impacts

5.12.4.1 METHODOLOGY

The project area's demographics are examined in the context of existing and projected populations and housing units for Los Angeles County and the City of Redondo Beach. Information on population, housing, and employment for the project area is available from the following sources:

- **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.

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- **California Department of Finance.** The DOF prepares and administers California's annual budget. Other duties include estimating population demographics and enrollment projections.
- **California Employment Development Department.** The EDD 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 the RTP/SCS.

5.12.4.2 IMPACT ANALYSIS

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

Impact 5.12-1: The proposed project would directly result in population growth in the project area. [Threshold P-1]

One of the purposes of a general plan is to adequately plan for and accommodate future growth. As shown in Table 5.12-7, *Buildout Comparison of Existing Conditions to the Redondo Beach General Plan*, implementation of the proposed project would allow for an increase of 4,956 housing units, 8,667 residents, and 7,989 jobs over approximately 20 years (see Appendix B, Buildout Methodology). Population projections are a conservative/reasonable estimate based on full buildout of the 2050 proposed project for the purpose of the CEQA analysis; however, it is worth noting that the current general plan failed to reach its population projection during the plan period.

Table 5.12-7 Buildout Comparison of Existing Conditions to the Redondo Beach General Plan 2050

Scenario	Existing Conditions	Redondo Beach General Plan	Net Difference
Population	70,311	78,978	8,667
Housing Units	30,431	35,387	4,956
Households	28,945	33,314	4,369
Jobs	28,638	36,327	7,689
Jobs-Housing Ratio	0.94	1.02	0.08

Source: Appendix B, Buildout Methodology

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Housing and Population Growth

At the projected buildout, there would be 33,314 households and 78,978 people in Redondo Beach. As shown in Table 5.12-8, *Buildout Comparison of the Redondo Beach General Plan to SCAG Projections*, the forecast population and households (78,978 persons and 33,314 households) at proposed project buildout would exceed the SCAG growth projections (73,100 persons and 30,948 households) by 8 percent and 8 percent, respectively.

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 buildout of the parcels in the City. The proposed project is a regulatory document that sets the framework for future growth and development in the City and does not directly result in development. SCAG projections are based on annual increments in order to develop regional growth projections for land use and transportation planning over a 20-year horizon to 2050.

Table 5.12-8 Buildout Comparison of the Redondo Beach General Plan to SCAG Projections

Scenario	SCAG Projections (2050) ¹	Redondo Beach General Plan (2050) ²	Net Difference (Percent)
Population	73,100	78,978	5,878 (8%)
Households	30,948	33,314	2,366 (8%)
Jobs	31,100	36,327	5,227 (17%)

Source:
¹ SCAG 2023
² Appendix B, Buildout Methodology

A comparison of the proposed project 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. In 2019, Governor Newsom signed several bills to address the need for more housing, including the Housing Crisis Act of 2019 (SB 330). As discussed in Section 3, Project Description, of this DEIR, the buildout of the proposed project is consistent with other elements of the General Plan update and includes growth in the areas identified in the certified Housing Element as suitable for housing development by 2029. The proposed Land Use designations target change in areas essential to satisfy the City's State-mandated obligation to demonstrate it could meet its RHNA requirements for housing. The Redondo Beach Housing Element and the Land Use Element of the proposed project include policies to support a variety of housing types and densities. For example, Policies LU-1.1 and 1.2 of the Land Use Element require the City to provide a diversity of residential densities, product types, lot sizes, and designs to meet the community's demand. Thus, increases to population and housing units would be greater than SCAG's regional forecasts for 2050.

Employment Growth

The proposed project would allow for 5,681,999 square feet of additional nonresidential development. The development would consist of job-generating land uses, such as commercial, office, industrial, and institutional uses. These uses are estimated to generate a total of 36,327 jobs, approximately 7,989 more jobs compared to existing conditions. This is considered a substantial increase in employment and an increase that would

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indirectly induce population growth. The forecast for employment (36,327 jobs) in the City at proposed project buildout would exceed the SCAG growth projections (31,100 jobs) by 17 percent. The Land Use Element identifies several policies aimed at promoting employment growth for Redondo Beach residents, such as Policy LU-6.3, LU-6.9, and LU-6.21. Nonetheless, buildout of the proposed project would directly and indirectly induce population and employment growth

Jobs-Housing Balance

As stated above, implementation of the proposed project would create up to 36,327 jobs and 35,387 residential units in Redondo Beach. This would result in the City's job-housing ratio increasing from 0.94 to 1.02 which would below APA's recommended range target of 1.5 jobs per housing unit and recommended range of 1.3 to 1.7 jobs per housing unit. The proposed project would introduce more job-generating land uses than are currently available. In general, the land uses identified in the proposed project would provide opportunities for residents to both live and work in the City rather than commuting to other areas. The Land Use Element identifies several policies aimed at promoting workforce/job balance for Redondo Beach residents, such as Policies LU-1.4, -6.2, -6.3, -6.9, and -6.21. Therefore, though buildout of the proposed project would directly and indirectly induce population and employment growth, the jobs-housing ratio in the City would improve the job-housing balance with implementation of the proposed project compared to both existing conditions and SCAG projections.

Conclusion

Implementation of the proposed project would directly induce population and employment growth in the area but would slightly improve the jobs-housing balance. The proposed project would accommodate 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*). Proposed policies under the Redondo Beach General Plan's Housing and Land Use Elements would ensure the City supports a variety of housing types and densities and provides job growth to accommodate Redondo Beach residents. Updates to the City's Zoning Ordinance and Zoning Ordinance for the Coastal Zone would include modifications for consistency with the proposed Focused General Plan Update, recently adopted Housing Element, and in the context of State laws such as Senate Bills 35 and 330. Updates to the Local Coastal Program (LCP) would include revisions to the Coastal Land Use Plan and Implementing Plan. These modifications would not involve land-use changes that would cause a greater increase in population and employment growth than what is considered under the Focused General Plan Update. Nonetheless, as the proposed project's buildout projections are greater than the projected growth through SCAG, implementation of the proposed project would result in a potentially significant impact related to population and employment growth.

Level of Significance Before Mitigation: Impact 5.12-1 would be potentially significant.

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Impact 5.12-2: Project implementation would not result in displacing people and/or housing. [Threshold P-2]

Redondo Beach is developed with a variety of land uses, and the proposed project includes minor changes in land use. Changes would occur on lands that offer opportunities for enhancement and in areas where business prosperity, job opportunities, and civic activity can be strengthened. These land use changes are intended to shape future development to protect existing residential neighborhoods, economically successful commercial and industrial districts, and parks and open spaces. Additionally, some of these land use changes also seek to support transit-oriented development (TOD) principles and revitalization efforts of some commercial centers. Updates to the City's Zoning Ordinance, Zoning Ordinance for the Coastal Zone, and LCP would include modifications for consistency with the proposed Focused General Plan Update and would not involve land-use changes that would cause a greater increase in population and employment growth than what is considered under the Focused General Plan Update.

Land use changes under the proposed project would increase opportunities for housing in the City—for example, by converting commercial designations to mixed-use and increasing residential density in existing residential areas. The proposed Land Use Plan would provide land use designations for a variety of housing types and provide for additional residential opportunities throughout Redondo Beach. The proposed project would accommodate 4,956 new housing units compared to existing conditions, exceeding the RHNA goal of 2,490 new units. Therefore, impacts to the displacement of people and/or housing would be less than significant as a result of the proposed project implementation as existing residential uses within proposed commercial zones shall be considered legally conforming.

Level of Significance Before Mitigation: Less than significant.

5.12.5 Cumulative Impacts

The context considered for cumulative impacts is the region covered by SCAG. As discussed above, development under the proposed project would not displace housing in the City. Because the City of Redondo Beach has no control over development in other areas in the region, it would not contribute to the displacement of housing on other sites in the region. The proposed project would encourage development on land already proposed for development, as well as intensification and infill projects rather than the annexation of land for development. The projected change in the jobs-housing ratio is intended to encourage the creation of jobs for more of the City's residents who currently commute elsewhere for employment. Development under the proposed project would be more balanced compared to existing conditions, by increasing employment opportunities as well as residential options for residents at various income levels.

Although the goals and policies of the proposed project would support the projected growth within the City boundaries, the proposed project would exceed the growth projections in SCAG's RTP/SCS growth forecasts for population, employment, and housing growth. Therefore, the proposed project's impact would result in a cumulatively considerable contribution to growth in the region. Therefore, impacts would be potentially significant.

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5.12.6 Level of Significance Before Mitigation

The following impact would be less than significant: 5.12-2.

The following impacts would be **potentially significant**:

- **Impact 5.12-1** Implementation of the proposed project would directly result in population growth in the project area and result in a cumulatively considerable contribution to growth in the region.

5.12.7 Mitigation Measures

There are no feasible mitigation measures to reduce the proposed project's impacts to population growth.

5.12.8 Level of Significance After Mitigation

Impact 5.12-1

There are no feasible mitigation measures to reduce the proposed project's impacts to population growth. As a result, impacts to population growth, and cumulative impacts, as a result of future development in accordance with the proposed General Plan Update, are *significant and unavoidable*.

5.12.9 References

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5.13 PUBLIC SERVICES

This section of the Draft Program Environmental Impact Report (Draft EIR) evaluates the potential impacts of the Redondo Beach Focused General Plan, Zoning Ordinance Updates, and Local Coastal Program Amendment (proposed project) to public services, specifically 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*.

5.13.1 Fire Protection and Emergency Services

5.13.1.1 ENVIRONMENTAL SETTING

Regulatory Background

State

California Building Code

The State of California provides a minimum standard for building design through the California Building Code (CBC) (California Code of Regulations, Title 24, Part 2). The CBC is based on the International Building Code but has been modified for California conditions. It is generally adopted on a jurisdiction-by-jurisdiction basis, subject to further modification based on local conditions. Commercial and residential buildings are plan-checked by local city building plan check engineers for compliance with the CBC. Typical fire safety requirements of the CBC include the installation of sprinklers in all high-rise buildings; the establishment of fire resistance standards for fire doors, building materials, and particular types of construction; and the clearance of debris and vegetation within a prescribed distance from occupied structures in wildfire hazard areas.

California Government Code

Section 65302 of the California Government Code requires general plans to include a safety element, which must include an assessment of wildland and urban fire hazards. The Safety Element in the proposed General Plan Focused Update satisfies this requirement.

California Fire Code

The California Fire Code (CFC) (California Code of Regulations, Title 24, Part 9) contains fire-safety-related building standards that are referenced in other parts of Title 24 of the California Code of Regulations. The CFC is updated once every three years.

California Health and Safety Code

Sections 13000 et seq. of the California Health and Safety Code include fire regulations for building standards (also in the California Building Code), fire protection and notification systems, fire protection devices such as extinguishers and smoke alarms, high-rise building and childcare facility standards, and fire suppression training.

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Regional

Los Angeles County Unit Strategic Fire Plan

The Los Angeles County Fire Department is a contract county with the State of California to provide fire protection on State Responsibility Areas and therefore functionally operates as a CAL FIRE unit and is responsible for implementing all Strategic Fire Plan activities within the County. The Los Angeles County Unit Strategic Fire Plan outlines methods to implement the 2018 Strategic Fire Plan for California. The plan identifies and prioritizes pre- and post-fire management strategies and tactics meant to reduce the loss of values at risk within the unit.

Local Hazards Mitigation Plan

The 2020 Local Hazards Mitigation Plan (LHMP) provides a comprehensive assessment of natural and man-made threats in the City of Redondo Beach and a coordinated strategy to reduce these threats. The LHMP provides resources and information for community members, City staff, and local officials in the event of a hazardous threat. The LHMP can also support increased coordination and collaboration between the City, other public agencies, local employers, service providers, community members, and other key stakeholders. The LHMP outlines six key goals:

- Encourage resiliency within city plans and process to reduce threats to life and property;
- Maintain basic local government operations and services during and following a hazardous event;
- Sustain public outreach and education of hazards risks and proper mitigation activities;
- Improve interdepartmental and interjurisdictional partnerships for greater cooperation;
- Foster a culture of respect and protection for natural systems and the local environment; and
- Enhance post-disaster response capacity through civic leadership of local businesses, community organizations, and city residents.

Local

City of Redondo Beach General Plan Environmental Hazards and Safety Elements

The City of Redondo Beach General Plan Environmental Hazards and Safety Elements delineate and analyze various local hazards and their potential impacts as well as goals, policies, and implementation programs. Hazards analyzed in these Elements include geologic and seismic hazards, noise, flooding hazards, toxic wastes and materials, and fire hazards.

City of Redondo Beach Municipal Code

The City of Redondo Beach Municipal Code, Title 9, Adoption of 2022 California Building Code, identifies amendments, deletions, and additions to the CBC. The Adoption of the 2022 CBC outlines conditions

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regarding building design and development including maintenance of public ways, protection of pedestrians, blockage of driveways, disruption of traffic and protection from construction activities.

The following provisions from the Redondo Beach Municipal Code focus on fire service impacts associated with new development projects and are relevant to the proposed project:

- **Chapter 3-4.101.** The City adopts and incorporates by reference into the Redondo Beach Municipal Code 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.

Existing Conditions

Fire protection and prevention, emergency medical, rescue, and hazardous materials response services are provided by the Redondo Beach Fire Department (RBFD). The RBFD employs approximately 60 full-time employees, including 56 sworn firefighters and officers, who provide fire suppression, emergency medical response, code enforcement, and marine safety services to more than 71,000 residents over approximately 6.2 square miles in and around the City limits. The RBFD deploys its resources from its three fire stations—Fire Station #1 at 401 S Broadway, Fire Station #2 at 2400 Grant Avenue, and Fire Station #3 at 280 Marina Way. Fire Station #3 in particular serves as the base for the Harbor Patrol unit providing services to all boaters in the Marina (see Figure 5.13-1, *Public Services within City of Redondo Beach*) (Redondo Beach 2024).

The local fire suppression system includes 929 operating fire hydrants distributed along the community's public rights-of-way and within the sites of larger projects and private land areas. Services are called and dispatched through the local telephone emergency system (dialing 911); because of the increasingly high incidence of false alarms in the past, all fire alarm boxes in the City have been removed (Redondo Beach 2024).

Services

The RBFD provides for the public's safety by deploying and staffing a variety of emergency response vehicles. In addition to firefighting, the RBFD cross-trains its staff to provide special services such as emergency medical care, hazardous materials management, and special rescue operations.

The RBFD is also responsible for local hazardous materials responses and inspections. The department employs an environmental scientist as a hazardous materials specialist to coordinate the City's hazardous waste program, manages the local hazardous disclosure system, and conducts local business and industrial safety inspections.

The RBFD also has automatic aid agreements with the neighboring agencies in Manhattan Beach, Torrance, and El Segundo.

The Redondo Beach Police Department staffs and operates the City's independent Communications Center, which provides call-taker and dispatch services to both the City's fire and police departments.

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Response Activity and Time

In 2020, the RBFD responded to 7,305 incidents, including 2,472 medical incidents and 2,833 fire-related incidents. Additional fire-related incidents included assistance for hazardous spills, fire alarm system activations, investigations, and public service calls. Many of these incidents required more than one responding unit, resulting in more than 10,000 total responses by emergency apparatus (Redondo Beach 2024).

RBFD Service Agreements

RBFD has service agreements with several entities that provide enhanced services throughout the City of Redondo Beach. Additional service agreements include:

- City of Manhattan Beach
- City of Torrance
- City of El Segundo
- Los Angeles County Fire Department (Regan 2023)

5.13.1.2 THRESHOLDS OF SIGNIFICANCE

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

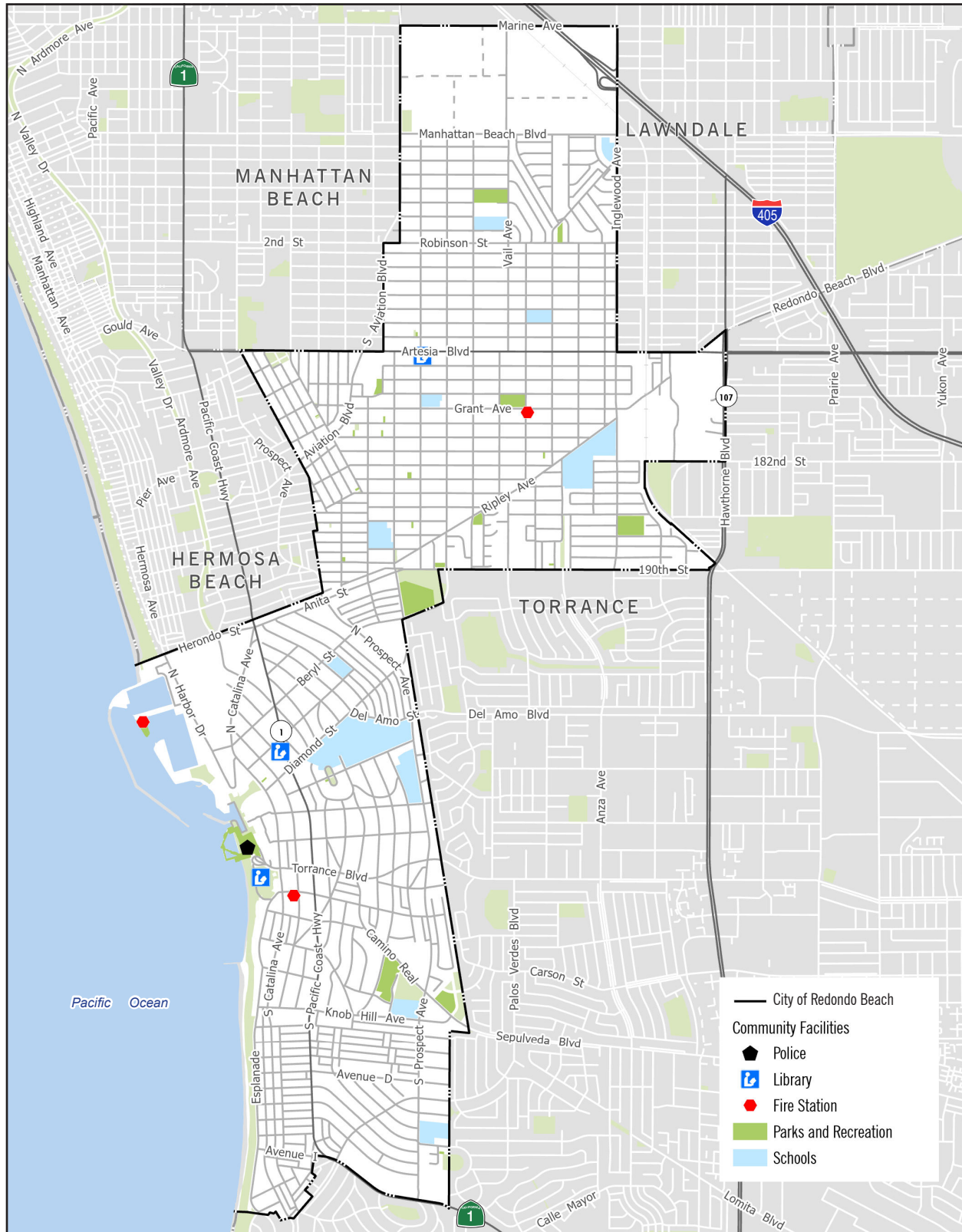
- FP-1 Result in a substantial adverse physical impact associated with the provisions of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for fire protection services.

5.13.1.3 PROPOSED GENERAL PLAN GOALS AND POLICIES

Goal S-9 Fire Hazards: Minimal risk of injuries, property damage, and economic loss due to fire emergencies.

- **Policy S-9.1.** Fire Services to Protect from Fire and Fire-Related Emergencies. Provide fire prevention, protection, and emergency preparedness services that adequately protect residents, employees, visitors, and structures from fire and fire-related emergencies.
- **Policy S-9.2.** Fire Protection Staffing and Equipment. Maintain staffing and equipment for fire protection services throughout the City to quickly respond to emergencies.
- **Policy S-9.3.** Agency Coordination to Implement Regional Fire Protection Agreement. Continue to cooperate with fire, paramedic, and emergency operations personnel in adjacent municipalities and the County of Los Angeles to assist each other in carrying out the existing regional fire protection agreement.

Figure 5.13-1 - Public Services within City of Redondo Beach



Source: Generated using ArcMap, 2021.

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- **Policy S-9.4.** New Development Standards to Reduce Fire Hazard Risk. Continue to enforce and, as necessary, adopt new development standards to reduce fire hazard risks for new and existing development to minimize property damage and loss of life.
- **Policy S-9.5.** Programs to Reduce Potential of Urban Fires. Continue to support public and private programs assisting in the further reduction of potential urban fires and associated prevention or protection efforts.
- **Policy S-9.6.** Local Water System and Supply and Facilities. Continue to monitor, maintain, and upgrade the condition and operation of the local water system and supply, the distribution and operation of local fire hydrants, fire alarm boxes, and fire hose cabinets on the Municipal Pier.

5.13.1.4 ENVIRONMENTAL IMPACTS

Methodology

Evaluation of impacts related to fire protection and emergency services is based on a review of existing policies, documents, and a questionnaire filled out by the Redondo Beach Fire Department (see Appendix E). Information obtained from these sources was reviewed and summarized to describe existing conditions and to identify environmental effects based on the standards of significance presented in this section. In determining the level of significance, the analysis assumes that future projects facilitated by the proposed project measures and actions would comply with relevant federal, state, and local laws, ordinances, and regulations.

Impact Analysis

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

Impact 5.15-1: The proposed project would introduce new structures and residents into the Redondo Beach Fire Department service boundaries, thereby increasing the requirement for fire protection equipment and personnel. [Threshold FP-1]

The proposed project is a regulatory document that sets the framework for future growth and development in the City and does not directly result in development. Future development and population growth in the City accommodated by the proposed project would increase the demand for the provision of local fire services including new fire apparatuses and personnel to maintain adequate response times. The proposed project would result in an increase of 8,667 people by 2050 buildout, resulting in a total of 78,978 people in the City.

RBFD did not identify any deficiencies in its department, and there are no intended improvements or expansions of the existing fire stations within Redondo Beach (Regan 2023). Implementation of the proposed project would require additional staffing at Stations #1 through #3 to continue delivering the current level of service to existing and new residents and businesses. Implementation of Policy S-9.2 will ensure that equipment and personnel keep pace with service demand.

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Funds for facilities, equipment, and service personnel come from the City's property taxes. Funding from property taxes, would be expected to grow roughly proportional to any increase in residential units, businesses, and/or industrial/manufacturing in Redondo Beach. The additional demand for fire services and protection generated in the City would be satisfied through property taxes. Development in the City would also be reviewed by RBFD for compliance with applicable provisions of the California fire and residential codes.

Furthermore, policies S-9.1 through S-9.6 in the Safety Element of the Redondo Beach General Plan would ensure adequate protection of public health and safety related to fire and emergency services, by adopting new development standards to reduce fire hazard risks and support programs that assist in the reduction of fires. Compliance with these policies will ensure that the implementation of the proposed project would result in a less than significant impact. Funding for additional staff, equipment, and facilities to serve the City's future growth in residential/commercial/industrial developments and population would come from the City's property taxes. Therefore, impacts to fire protection and emergency services and facilities would be less than significant.

Level of Significance Before Mitigation: Impact 5.13-1 would be less than significant.

5.13.1.5 CUMULATIVE IMPACTS

The geographic area for the cumulative impact analysis of fire protection services is the entire service boundary for the RBFD, which is the City. Future development in the City based on buildout of the proposed project, is expected to increase demand for fire protection services and would contribute to the need to construct new facilities, increase staffing, and add equipment. Increased demands for fire protection and other emergency services result from increases in population but can also be related to the size and height of buildings and the different types of land uses.

Implementation of the proposed project would introduce new structures and additional residents to the City, thereby increasing the demand for fire protection services. Although the RBFD service area is in the City, in the event of an emergency that required more resources than the current fire stations could provide, the RBFD would direct resources to the City from nearby stations and, if needed, would request assistance from nearby fire departments. Additionally, taxes generated from the proposed development and population increase would ensure that new developments are contributing to their fair share of services. Therefore, the proposed project's contribution to cumulative impacts would be less than cumulatively considerable.

5.13.1.6 LEVEL OF SIGNIFICANCE BEFORE MITIGATION

Upon implementation of regulatory requirements and goals and policies from the proposed project, the following impacts would be less than significant: 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 Redondo Beach General Plan Environmental Hazards and Safety Elements

The City of Redondo Beach General Plan Environmental Hazards and Safety Elements delineate and analyze various local hazards and their potential impacts as well as goals, policies, and implementation programs. Hazards analyzed in this section include geologic and seismic hazards, noise, flooding hazards, toxic wastes and materials, and fire hazards.

Local Existing Conditions

The Redondo Beach Police Department (RBPD) staffs and operates the City's independent Communications Center, which provides call-taker and dispatch services to both the City's fire and police departments. The RBPD dispatches calls for service from its police station at 401 Diamond Street in South Redondo, as shown in Figure 5.13-1 (Sprengel 2024).

Staffing and Equipment

The RBPD employs 99 staff including 73 deployable officers. Additionally, the police station is equipped with 30 police vehicles. The City's goal for police officers is 1 officer for every 700 residents. Based on current staffing levels, the City provides one officer for every 710 residents. Additionally, the RBPD has a full time Community Base Police Officer (CBO) who meets regularly with community watch groups and business owners to make suggestions to help reduce crime (Sprengel 2024).

Performance Standards

RBPD's response time target for all calls is 30 seconds from the time of call to dispatch, which includes Priority One calls and Priority Two calls. According to the service letter provided by RBPD, the average time for Priority One calls was 2:54 minutes, and the average time for Priority Two calls was approximately 4:31 minutes (Sprengel 2024).

5.13.2.2 THRESHOLDS OF SIGNIFICANCE

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

- PP-1 Result in a substantial adverse physical impact associated with the provisions of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain

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acceptable service ratios, response times or other performance objectives for police protection services.

5.13.2.3 PROPOSED GENERAL PLAN GOALS AND POLICIES

Goal S-4 Seismic and Geologic Hazards: Reduce Death, injury, property damage, economic and social dislocation, and disruption of vital services resulting from seismic and geologic related events.

- **Policy S-4.6.** Police, Fire and Public Works Coordination. Coordinate with fire, police, and public works departments to ensure effective preparation, response, and recovery services are available throughout the community before, during, and after a seismic event.

5.13.2.4 METHODOLOGY

Evaluation of impacts related to police protection services is based on a review of existing policies, documents, and studies that address these services in the City. Information obtained from these sources was reviewed and summarized to describe existing conditions and to identify environmental effects based on the standards of significance presented in this section. In determining the level of significance, the analysis assumes that future projects facilitated by the proposed project measures and actions would comply with relevant federal, state, and local laws, ordinances, and regulations.

5.13.2.5 ENVIRONMENTAL IMPACTS

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

Impact 5.13-2: The proposed project would introduce new structures, businesses, and residents into the Redondo Beach Police Department service boundaries, thereby increasing the requirement for police protection equipment and personnel. [Threshold PP-1]

As the City's population and employment growth increases, the need for police services is expected to grow. The Redondo Beach General Plan would result in an increase of 8,667 people by 2050 buildout, resulting in total of 78,978 people in the City.

RBPD's response time target to all calls is 30 seconds from the time of call. As noted above, the average time for Priority One calls was 2:54 minutes, and the average time for Priority Two calls was approximately 4:31 minutes. Increases in population in Redondo Beach have the potential to further impact service response times below the target goal established by the RBPD. If calls for service increase and exceed the capacity of RBPD's existing workforce, additional staff would be needed, and ongoing revenue would be needed to fund additional staff. The additional officers would not be hired all at the same time because the growth in population would occur over time. Moreover, the hiring of additional officers would be dependent on the department's assessed needs, based primarily on the growing number of calls for service or decreases in average response times in the future.

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Funds for facilities, equipment, and service personnel come from the City's property taxes, the City's general fund, and are supplemented by State and Federal grant programs. Funding would be expected to grow roughly proportional to any increase in residential units, businesses, and/or industrial/manufacturing businesses in Redondo Beach. The additional demand for police services and protection generated within the City would be satisfied through property taxes and the general fund. Additionally, as identified in the service letter provided by RBPD, there are no existing deficiencies in the police department and the General Plan Update would not affect RBPD's ability to provide service (Sprengel 2024). Therefore, impacts to police services and facilities would be less than significant.

Level of Significance Before Mitigation: Impact 5.13-2 would be less than significant.

5.13.2.6 CUMULATIVE IMPACTS

The geographic area for the cumulative impact analysis of police protection services is the entire service boundary for the RBPD, which is the City. Future development in the City, based on buildout of the City's proposed project, is expected to increase demand for police protection services and would contribute to the need to construct new facilities, increase staffing, and add equipment. Increased demands for police protection would result from increases in business and population but can also be related to the size of buildings and the different types of land uses.

Implementation of the proposed project would introduce new structures, businesses, and additional residents to the City, thereby increasing the demand for police protection services. The City's future growth would enable the funding of police facilities, land acquisition, staffing, and equipment through taxes generated by the increase in new development and population. Therefore, the proposed project's contribution to cumulative impacts would be less than cumulatively considerable.

5.13.2.7 LEVEL OF SIGNIFICANCE BEFORE MITIGATION

Upon implementation of regulatory requirements and goals and policies from the proposed project, , the following impacts would be less than significant: 5.15-2.

5.13.2.8 MITIGATION MEASURES

No mitigation measures are required.

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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; and 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 mitigate the impacts of new development on school facilities fully.

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.

Local

City of Redondo Beach Municipal Code

Title 10, Chapter 3, Environmental Review Pursuant to CEQA, of the Redondo Beach Municipal Code establishes the specific procedures necessary to implement CEQA. Article 2, Evaluation of Significant Effects, establishes criteria for determining significant effects and provides guidance in making an evaluation whether or not a particular project may have a substantial adverse effect on the environment. Pursuant to the Municipal Code, if there are inconsistencies between the provisions contained in Title 10, Chapter 3, and the State's CEQA Guidelines, the State's CEQA Guidelines shall control. As established in Section 10-3.202, significant effects may be due to primary consequences immediately related to the project or may be due to secondary consequences related more to the primary consequences than the project itself. As established in Section 10-

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3.203(w), with respect to schools, a project will normally have a significant effect on the environment if it conflicts with established recreational, educational, religious or scientific uses of the area.

Redondo Beach Unified School District School Impact Fees

Pursuant to SB 50, Redondo Beach Unified School District (RBUSD) has the authority to charge development impact fees. Revenue generated from these impact fees would be used to accommodate the student population generated from the new development projects by expanding and improving school facilities. Table 5.13-1, *Redondo Beach Unified School District School Impact Fees*, shows the current school impact fees (RBUSD 2020).

Table 5.13-1 Redondo Beach Unified School District School Impact Fees

Development Type	Impact Fee per Square Foot
Single Family Residential	\$4.21
Multifamily Residential	\$7.01
Retail and Services	\$1.348
Office	\$2.107
Research and Development	\$1.831
Industrial/Warehouse/Manufacturing	\$1.624
Hospital	\$1.674
Hotel/Motel	\$0.682
Self-Storage	\$0.039

Source: RBUSD 2020.

Existing Conditions

Primary public education services are provided primarily by RBUSD, which consists of eight elementary schools, two middle schools, two high schools, one adult school, and one alternative education school (see Figure 5.13-1 and Table 5.13-2, *Redondo Beach Unified School District 2022-2023 School Enrollment*). Over the past 10 years, RBUSD has maintained a steady districtwide enrollment, as shown in Table 15-3, *Redondo Beach Unified School District Enrollment from 2015 to 2023*. As of 2019/2020, the districtwide capacity for RBUSD is approximately 10,384 students, which the district has not surpassed in the last 10 years (RBUSD 2020).

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Table 5.13-2 Redondo Beach Unified School District 2022–2023 School Enrollment

School	2022–2023 Enrollment
ELEMENTARY SCHOOLS	
Alta Vista School 815 Knob Hill	569
Beryl Heights School 920 Beryl Street	445
Birney School 1600 Green Lane	437
Jefferson School 600 Harkness Lane	551
Lincoln School 2223 Plant Avenue	592
Madison School 2200 Mackay Lane	471
Tulita School 1520 Prospect Avenue	431
Washington School 1100 Lilienthal Lane	800
MIDDLE SCHOOLS	
Adams Middle School 2600 Ripley Avenue	1,073
Parras Middle School 200 North Lucia Avenue	1,049
HIGH SCHOOLS	
Redondo Union High School One Sea Hawk Way	3,005
Patricia Dreizler Continuation High School 1000 Del Amo Street	50
ALTERNATE EDUCATION SCHOOLS	
RBUSD Independent Study 1000 Del Amo Street	49
South Bay Adult School (SBAS) 3401 Inglewood Avenue	n/a
Source: CDE 2024.	

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Table 5.13-3 Redondo Beach Unified School District Enrollment from 2015 to 2023

School Year	Enrollment
2015-2016	9,529
2016-2017	9,788
2017-2018	9,937
2018-2019	10,041
2019-2020	10,123
2020-2021	9,803
2021-2022	9,682
2022-2023	9,570

Source: RBUSD 2024.

Table 5.13-4 RBUSD Student Generation Factors

School Levels	Single Family Detached Units	Multi-family Attached Units
Elementary School	0.2004	0.1524
Middle School	0.0972	0.0693
High School	0.1396	0.0981
Total	0.4372	0.3198

Source: RBUSD 2020.

5.13.3.2 THRESHOLDS OF SIGNIFICANCE

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

- SS-1 Result in a substantial adverse physical impact associated with the provisions of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for school services.

5.13.3.3 PROPOSED GENERAL PLAN GOALS AND POLICIES

Goal LU-1 Balance: A sustainable community with a range of land uses that meet the diverse needs of Redondo Beach residents, offer a variety of employment, commercial, recreational, and housing opportunities that make it possible.

- **Policy LU-1.5 Education and Life-Long Learning.** Sustain and support a quality educational system for all ages and career paths, including coordination of new development with the provision of adequate schools. Also work with local partners, including but not limited to the Redondo Beach Unified School

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District (RBUSD), who provide life-long learning opportunities to ensure that the City's residents and workforce have access to education at all stages of life.

- **Policy LU-1.13 Public and Institutional Uses.** Provide for the continuation of existing and expansion of governmental administrative and capital facilities, schools, libraries, hospitals and associated medical offices, public cultural facilities, and other public uses, ancillary parks, recreation and open spaces and other public land uses and facilities to support the existing and future population and development of the City.

5.13.3.4 METHODOLOGY

Evaluation of impacts related to school facilities is based on a review of existing policies, documents, and a questionnaire filled out by the RBUSD (see Appendix E). Information obtained from these sources was reviewed and summarized to describe existing conditions and to identify environmental effects based on the standards of significance presented in this section. In determining the level of significance, the analysis assumes that future projects facilitated by the proposed project measures and actions would comply with relevant federal, state, and local laws, ordinances, and regulations.

5.13.3.5 ENVIRONMENTAL IMPACTS

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

Impact 5.15-3: The proposed project would generate new students who would impact the school enrollment capacities of area schools. [Threshold SS-1]

The proposed project is a regulatory document that sets the framework for future growth and development in the City and does not directly result in development. Implementation of the proposed project would result in the development of additional dwelling units and an increase in population, resulting in an increase in student population in the City, which is served by RBUSD.

School districts use district-specific rates to project the number of students that will be generated by new residential development so they can plan for future facilities expansions or constructions. According to the Fee Justification Study prepared for RBUSD, by the 2028/2029 school year, the district is projected to have surplus capacity available throughout the school district.

The proposed project would result in an increase of 4,956 residential dwelling units. Of the 4,956 dwelling units, 1,408 would accommodate single family dwelling units and 3,548 would accommodate multi-family dwelling units. Therefore, based on RBUSD's established student generation rates shown in Table 13-4, implementation of the proposed project would result in approximately 1,751 students, which would include 823 elementary students, 383 middle school students, and 545 high school students. The City is served by eight elementary schools, two middle schools, two high schools, one adult school, and one alternative education school; these existing schools could likely serve these new students because districtwide, RBUSD has available capacity for additional students and historically the enrollment capacity has remained consistent (see Table 5.15-8). Additionally, RBUSD expressed that it may increase classrooms at the existing elementary schools to

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accommodate full-day kindergarten programs, which would continue to increase school and districtwide capacity (Naile 2023).

If RBUSD needs to expand and construct new facilities to accommodate the growth generated by buildout of the Redondo Beach General Plan, funding for new schools would be obtained from the fee program pursuant to SB 50, and state and federal funding programs. Pursuant to Section 65996 of the Government Code, payment of school fees is deemed to provide full and complete school facilities mitigation. 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 school facilities since specific sites and time frames for development are unknown. When specific projects are necessary to meet the growth demands from buildout of the proposed project, the appropriate level of analysis required under CEQA would be conducted by the RBUSD. Furthermore, policies in the Land Use Element would ensure adequate school services, including Policies LU-1.5 and LU-1.13. Therefore, buildout of the proposed Redondo Beach General Plan would result in a less-than-significant impact related to schools.

Level of Significance Before Mitigation: Impact 5.13-3 would be less than significant.

5.13.3.6 CUMULATIVE IMPACTS

The geographic area for the cumulative impact analysis of school services is the attendance boundaries of RBUSD schools in Redondo Beach. Under the proposed project, population growth would further contribute to the need for new or expanded facilities. At the time future development of schools is required, project-specific analyses would be conducted. Pursuant to California Government Code Section 65995(h), payment of the impact fees fully mitigates impacts to schools. As a result, cumulative impacts to schools would be considered less than significant.

5.13.3.7 LEVEL OF SIGNIFICANCE BEFORE MITIGATION

Upon implementation of regulatory requirements and standard conditions of approval, the following impacts would be less than significant: 5.15-3.

5.13.3.8 MITIGATION MEASURES

No mitigation measures are required.

5.13.4 Library Services

5.13.4.1 ENVIRONMENTAL SETTING

Regulatory Background

City of Redondo Beach Municipal Code

Article 12, Library Commission, establishes a library commission of seven members who plan programs for development, extension, and improvement of library facilities within the City.

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Chapter 36, City Library and Meeting Facilities, sets rules for the use of City libraries and meeting facilities. These rules ensure that libraries and meeting facilities serve their primary purposes. In the case of libraries, this includes the provision of a quiet and orderly environment in which community members may read, study, use library materials and equipment.

Existing Conditions

The Redondo Beach Public Library System consists of two libraries: the Main Library in the Civic Center complex and the North Branch Library on Artesia Boulevard, as shown on Figure 5.13-1. The library system employs 13 full-time employees and approximately 45 part-time employees. The library system has a collection of over 190,000 items and provides services including use of public computers, free WiFi, and wireless printing. The libraries also provide programming and special events for youth year-round. The Redondo Beach Main Library is 49,387 square feet and contains 161,867 books. The Redondo Beach North Branch Library is 12,900 square feet and contains 45,149 books (Vinke 2023).

The Library Services Department collects monthly and annual data on the number of visitors to each library, the number of physical materials checked out, and the number of library program attendees. Utilizing this data, the Redondo Beach Public Library staff responds to meet service demands and follow the City's strategic planning process to determine gaps or needs and how to address areas for improvement in terms of collections, services, programs, and facilities (Vinke 2023).

There are no prescriptive standards established for public libraries by the American Library Association, Public Library Association, or the State of California that can be used to determine the amount of library space and number of volumes, or collection size, needed to serve a given population. However, these organizations recommend an outcomes-based assessment process based on the fact that each library serves a diverse community with a variety of needs and that libraries should reflect the needs of the communities they serve (Vinke 2023).

5.13.4.2 THRESHOLDS OF SIGNIFICANCE

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

- LS-1 Result in a substantial adverse physical impact associated with the provisions of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for library services.

5.13.4.3 PROPOSED GENERAL PLAN GOALS AND POLICIES

Goal LU-1 Balance: A sustainable community with a range of land uses that meet the diverse needs of Redondo Beach residents, offer a variety of employment, commercial, recreational, and housing opportunities that make it possible.

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- **Policy LU -1.13.** Public and Institutional Uses. Provide for the continuation of existing and expansion of governmental administrative and capital facilities, schools, libraries, hospitals and associated medical offices, public cultural facilities, and other public uses, ancillary parks, recreation and open spaces and other public land uses and facilities to support the existing and future population and development of the City.

5.13.4.4 METHODOLOGY

Evaluation of impacts related to library facilities is based on a review of existing policies, documents, and a questionnaire filled out by the Redondo Beach Public Library. Information obtained from these sources was reviewed and summarized to describe existing conditions and to identify environmental effects based on the standards of significance presented in this section. In determining the level of significance, the analysis assumes that future projects facilitated by the proposed project measures and actions would comply with relevant federal, state, and local laws, ordinances, and regulations.

5.13.4.5 ENVIRONMENTAL IMPACTS

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

Impact 5.15-4: The proposed project would generate new residents who would impact the library capabilities of the City. [Threshold LS-1]

The buildout of the proposed project would result in an increase in population and thus, a demand for library services. As described by Redondo Beach Library personnel, the two libraries are approximately 62,000 square feet and have a collection of 207,000 items. The Redondo Beach Library continues to assess the use of its materials and prepares a strategic plan. Therefore, any new increase in library uses would be assessed and addressed in the strategic plan (Vinke 2023).

Funding for library services comes primarily from the City's property taxes as well as library fines; fees collected from patrons; and state, federal, or local government aid. Therefore, as development occurs, property taxes would grow proportionally with the proposed new residents. Additionally, access to online resources, including e-books and audiobooks, are available at the Redondo Beach Libraries. Therefore, impacts to library facilities would be less than significant.

Level of Significance Before Mitigation: Less than significant impact.

5.13.4.6 CUMULATIVE IMPACTS

The geographic area for the cumulative impact analysis of library services is the Redondo Beach Library, which is the City. Future development in the City, based on buildout of the City's proposed project, is expected to increase demand for library services and would contribute to the need to construct new facilities, increase staffing, and add resources. Although project-specific details about future library facilities, if needed, are unknown at this time, prior to the development of these facilities, an environmental analysis would be conducted to ensure impacts of development are reduced. Therefore, the proposed project's contribution to cumulative impacts would be less than cumulatively considerable.

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5.13.4.7 LEVEL OF SIGNIFICANCE BEFORE MITIGATION

Upon implementation of regulatory requirements and standard conditions of approval, the following impacts would be less than significant: 5.15-4.

5.13.4.8 MITIGATION MEASURES

No mitigation measures are required.

5.13.5 References

California Department of Education. 2024. Data Quest. 2022-2023 Enrollment for Charter and Non-Charter Schools, Redondo Beach Unified Report (19-75341).

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Vinke, Dana. 2023, September. Library Service Letter Response. (Appendix E)

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5.14 RECREATION

This section of the Program Draft Environmental Impact Report (DEIR) evaluates the potential for implementation of the proposed Redondo Beach General Plan, Zoning Ordinance Update, and Local Coastal program Amendment (proposed project) to impact public parks and recreational facilities in Redondo Beach.

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. The City of Redondo Beach has a Quimby Cap Fee of 25,000 dollars per new residential unit.

Mitigation Fee Act

The California Mitigation Fee Act (Government Code §§ 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 a 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. The City of Redondo beach has established mitigation impact fees for wastewater capital facilities (sewer) and storm drains, per the City of Redondo Beach Municipal Code Sections 5-4.502 and 5-7.107 respectively.

California Public Park Preservation Act

The primary instrument for protecting and preserving parkland is California's Public Park Preservation Act of 1971. Under the Public Resource Code, cities and counties may not acquire any real property that is in use as a public park for any nonpark use unless compensation, land, or both are provided to replace the parkland acquired. This provides no net loss of parkland and facilities.

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California Landscaping and Lighting Act

The California Landscaping and Lighting Act of 1972 authorizes local legislative bodies to establish benefit related assessment districts, or landscaping and lighting districts, and to levy assessments for the construction, installation, and maintenance of certain public landscaping and lighting improvements. Landscaping and lighting districts may be established to maintain local public parks.

Regional

Los Angeles County General Plan

Parks and Recreation Element

The purpose of the Los Angeles County General Plan Parks and Recreation Element is to plan and provide for an integrated parks and recreation system that meets the needs of residents. The element delineates classifications of parkland, identifies general issues, provides goals and policies as well as implementation programs for the maintenance and expansion of the County's parks and recreation system.

Conservation and Natural Resources Element

The Conservation and Natural Resources Element of the Los Angeles County General Plan guides the long-term conservation of natural resources and preservation of available open space areas and addresses numerous conservation areas, including Open Space Resources; Biological Resources; Local Water Resources; Agricultural Resources; Mineral and Energy Resources; Scenic Resources; and Historical, Cultural, and Paleontological Resources. The Open Space Resources section in particular addresses open space and natural area resources, including County parks and open spaces such as beaches.

Safe Neighborhood Parks Proposition of 1992, 1996, Proposition A

Proposition A created the Los Angeles County Regional Park and Open Space District (District) whose boundaries are coterminous with Los Angeles County. The proposition authorized an annual assessment on nearly all the 2.25 million parcels of real property in Los Angeles County. Proposition A funded \$540 million for the acquisition, restoration, or rehabilitation of real property for parks and park safety, senior recreation facilities, gang prevention, beaches, recreation, community or cultural facilities, trails, wildlife habitats, or natural lands and maintenance and servicing of those projects. In 1996, voters approved another Proposition A to fund an additional \$319 million for parks and recreation projects and additional funds for maintenance and to service those projects. Proposition A funds may be used to fund the development, acquisition, improvement, restoration, and maintenance of parks; recreational, cultural and community facilities; and open space lands. The District has allocated funds to the City of Redondo Beach to improve, acquire, and develop necessary park and recreation facilities within the City.

County of Los Angeles Trails Manual

In May 2011, the Los Angeles County Board of Supervisors adopted the County of Los Angeles Trails Manual (Trails Manual), which provides guidelines and standards for trail planning, design, development, and maintenance of Los Angeles County trails. The Trails Manual sets the guidelines for reviewing plans and specifications for trails that are provided in conjunction with land use planning and the entitlement process for

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projects proposed for development within the County. Proposed developments are reviewed for consistency with the Trails Manual.

Local

Redondo Beach General Plan Recreation and Parks Element

The current (1992) City of Redondo Beach General Plan Recreation and Parks Element sets forth policies and implementation of measures to support ongoing maintenance and facilitate expansion and improvement of parkland, recreational facilities, and programs. The Recreation and Parks element describes and categorizes existing park and recreation resources and current conditions, discusses future needs and funding considerations, and establishes goals, objectives, and policies related to parks and recreation.

Redondo Beach Municipal Code

Dedications and In-Lieu Fees for Park and Recreation Purposes

The City of Redondo Beach Municipal Code Title 10, Chapter 1, Article 14 Dedications and In-Lieu Fees for Park and Recreation Purposes, provides for the means to finance parks and recreational facilities made necessary by the impacts created by new residential subdivision development in the City. As a condition of approval of a final map or parcel map, developers are required to dedicate land, pay a fee in lieu thereof, or a combination of both, for neighborhood and community park or recreational purposes. Section 10-1.1404 requires that three acres of property be dedicated for each 1,000 persons residing within the City to be devoted to neighborhood and community park and recreational purposes. Fee revenue must be used to mitigate the impacts the additional residents will have on existing infrastructure. Additionally, the fees must accurately and proportionately reflect the cost of mitigating the impacts to which they are related.

City of Redondo Beach Municipal Code

Title 10, Chapter 3, Environmental Review Pursuant to CEQA, of the Redondo Beach Municipal Code establishes the specific procedures necessary to implement CEQA. Article 2, Evaluation of Significant Effects, establishes criteria for determining significant effects and provides guidance in making an evaluation whether or not a particular project may have a substantial adverse effect on the environment. Pursuant to the Municipal Code, if there are inconsistencies between the provisions contained in Title 10, Chapter 3, and the State's CEQA Guidelines, the State's CEQA Guidelines shall control. As established in Section 10-3.202, significant effects may be due to primary consequences immediately related to the project or may be due to secondary consequences related more to the primary consequences than the project itself. As established in Section 10-3.203(w), conflict with established recreational, educational, religious or scientific uses of the area.

5.14.1.2 EXISTING CONDITIONS

The City of Redondo Beach includes 33 parks and one beach covering 149 acres that serve the residents of Redondo Beach and surrounding communities. The public park system includes regional parks, community parks, neighborhood parks, parkettes, and right-of-way parks that are differentiated by scale, population served, and recreational facilities. See Figure 5.14-1, *Existing Parks, Beaches, and Recreation Facilities*, and Table 5.14-1, *Existing Parks, Beaches, and Recreational Facilities*.

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Table 5.14-1 Existing Parks, Beaches, and Recreational Facilities

Regional Parks	22.2 Acres
Hopkins Wilderness Park (Includes Education Center)	10.9 Acres
Seaside Lagoon	4.0 Acres
Veterans Park (Includes Senior Center and Historic Library)	7.3 Acres
Community Parks	51.7 Acres
Alta Vista Park (Includes Community Center & Tennis Center)	8.3 Acres
Anderson Park (Includes Scout Houses; Senior Center, located on school district property south of the park)	6.0 Acres
Aviation Park (Includes Gymnasium, Track, Field, and Redondo Beach Performing Arts Center)	13.7 Acres
Dominguez Park (Includes Historical Museum and Morrell House Museum)	19.6 Acres
Perry Park (Includes Teen Center and Senior Center)	4.1 Acres
Neighborhood Parks	15.1 Acres
Andrews Park	1.0 Acres
Czuleger Park (Includes Plaza)	3.1 Acres
Dale Page Park	1.2 Acres
Franklin Park	3.7 Acres
Fulton Playfield	1.2 Acres
Lilienthal Park	1.4 Acres
Moonstone Park	1.8 Acres
Perry Allison Playfield	0.6 Acres
Vincent Park	1.1 Acres
Parkettes (includes parkettes adopted by City Council Ordinance)	3.2 Acres
Beverly Parkette	0.2 Acres
Bike Path Parkette	0.1 Acres
Ensenada Parkette	0.2 Acres
Flagler & Ripley Parkette	0.3 Acres
Ford Parkette	0.1 Acres
General Eaton Parkette	0.5 Acres
Gregg Parkette	0.3 Acres
Huntington Parkette	0.2 Acres
La Paz Parkette	0.2 Acres
Massena Parkette	0.2 Acres
Mathews Parkette	0.2 Acres
McNeill / Jaycee Parkette	0.1 Acres
Sneary Parkette	0.1 Acres
Townsend Parkette	0.2 Acres
Wylie Parkette	0.3 Acres
Right-of-Way Parks	14.6 Acres
North Redondo Beach Bike Path (Includes portions of the SCE ROW that are licensed for City use, publicly accessible, and contain improvements such as bike lanes and landscaping; Excludes Dominguez and Dale Page Parks)	14.6 Acres
Beaches	42.0 Acres
County Beach (Excludes Bluffs and Esplanade)	42.0 Acres
Parks and Beaches Total	148.8 Acres
Source: Redondo Beach 2024.	

Figure 5.14-1 - Existing Parks, Beaches, and Recreation Facilities



Source: City of Redondo Beach, 2019.



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Parks

Regional Parks

Regional parks are generally between 4 and 11 acres but are defined by distinctive recreational opportunities that are unique to each park and the large area that is served by the facilities rather than by the size of the park itself. They provide public access to unique resources for City residents as well as visitors. Currently, the City has three regional parks:

- **Veterans Park** is a 7.4-acre park that links the beach, Pier, and Esplanade. The park includes a Senior Center and the Community Center, which hosts banquets, weddings, and other special events.
- **Seaside Lagoon** is a 4-acre saltwater facility that offers a protected beach, play structures, and picnic areas in addition to public swimming and water play opportunities.
- **Hopkins Wilderness Park** is an 11-acre natural preserve that includes four ecological habitats as well as walking trails, camping facilities, picnic areas with outdoor cooking, a visitor center, and an amphitheater. Native plant species restoration and natural resource education are also unique activities at this park.

Community Parks

Community parks are typically larger than four acres and have a service area radius of three-miles. They provide opportunities for passive and active recreational uses and typically feature larger and more numerous amenities such as sports fields, senior centers, tennis and basketball courts, and other recreation facilities that may be rented out for special events or organized sports and recreational programs. Community parks include Alta Vista Park, Anderson Park, Aviation Park, Dominguez Park, and Perry Park.

Neighborhood Parks

The City's nine neighborhood parks are generally 0.5 to 4 acres in size and have a service area radius of a half-mile. These parks provide spaces for nearby residents to experience community and neighborhood gatherings, spend time outdoors, enjoy play equipment, and partake in active recreation such as sports. Amenities may include picnic areas, playgrounds, sports fields, and walking paths. Neighborhood parks in Redondo Beach include Andrews Park, Czuleger Park, Dale Page Park, Franklin Park, Fulton Playfield, Lilienthal Park, Perry Allison Playfield, Vincent Park, and Moonstone Park.

Parkettes

Parkettes are 0.1 to 0.5 acres, typically occupying one residential-sized lot, and have a service area within a quarter mile. Parkettes provide residents with convenient access to park facilities and open spaces, including play areas for children. The City currently has 15 existing parkettes.

Right-of-Way Parks

Like parkettes, ROW parks provide residents convenient access to parks and recreational facilities and have a service area within a quarter mile. They occupy utility rights-of-way, and they are typically long and narrow.

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However, they differ from a trail by offering additional features such as benches, nighttime lighting, landscaping, areas to relax, and other amenities.

Public Spaces and Other Open Spaces

Beaches

The beach area of the City consists of approximately 1.4 linear miles of uninterrupted expanse of sand which varies in width according to season and tidal conditions. About two-thirds of the City's beach coastline is open to direct public view from the Esplanade. The beaches in Redondo Beach are under the jurisdiction of and operated by the County of Los Angeles. They are, however, the most-visited public open space in the City, offering numerous amenities, including bike and pedestrian paths, restrooms, lifeguard facilities, sand volleyball courts, and outdoor showers.

Redondo Beach Municipal Pier

Between the marina and the County beaches to the south, the Pier is a public space that provides a variety of amenities, including public fishing, benches, overlooks, and opportunities for residents and visitors to enjoy the City's unique coastal resources. The Pier bike path connects the Esplanade bike path to the class I protected bike path on Harbor Drive. Surface parking and an underground parking garage are adjacent to the Pier and are used to access the Pier, beach, and harbor/marina. In addition to the public spaces, the Pier includes unique commercial areas that offer dining and commercial goods and services, including supportive recreational services to residents and visitors.

King Harbor

King Harbor includes 1,400 boat slips and covers approximately 48 acres of land, deck, and water. Recreational amenities include a private boat hoist for public use and private boat marinas. Two parks, Seaside Lagoon and Moonstone Park, are within the Harbor area. The Harbor also includes several restaurants, hotels, and other commercial recreation facilities.

Boardwalk, Seawall, and Public Plazas

The boardwalk is primarily a pathway for bikers, walkers, and joggers that connects the Pier to King Harbor. It serves as part of the California Coastal Trail and the South Bay Bicycle Trail, linking Redondo to neighboring communities and the greater California coastline.

The seawall extends from the boardwalk to the north, connecting the Pier, boardwalk, and coastal plazas to Seaside Lagoon, one of the City's regional parks.

Public plazas in Redondo Beach vary in scale and character. Those adjacent to indoor civic functions, such as libraries and government centers, function as neighborhood meeting places and can encourage more public life to activate in the outdoor environment. Plazas adjacent to coastal resources provide a different type of access to the waterfront, allowing more people of different ages and abilities to appreciate the City's seaside culture and programmed events at these venues.

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Esplanade

The Esplanade serves as a link in the California Coastal Trail, which connects the City to other coastal communities from the Mexican border to Oregon. While the Esplanade is primarily an expanded sidewalk, it also serves as an extension of the City's coastal open spaces, augmenting the beaches, and providing another unique way for residents and visitors to view and enjoy the City's coastline. The Esplanade also offers viewing access to the City's coastal bluffs and bluff habitat areas.

Streetlets

Streetlets are typically segments of the public right-of-way that have been temporarily or permanently closed off and converted to usable public space. They are often protected from vehicular traffic by large planters or other physical barriers and may include seating, active play areas, public art, and a variety of other programming appropriate to the location. Streetlets are often located adjacent to commercial corridors, and they work hand-in-hand with streetscape improvements to soften and activate those areas. The City's General Plan encourages the development of new streetlets to supplement traditional parks and expand the City's public space network.

Other Open Spaces

Conservation areas include the Coastal Bluffs, and "Public Spaces" portions of Redondo Beach Pier, King Harbor, the Boardwalk, Seawall & Plazas, and the Esplanade. Conservation areas are further discussed in Section 5.3, *Biological Resources*, of this DEIR.

Recreation Facilities

- **Alta Vista Community Center / Tennis, Pickleball, and Racquet Ball Courts.** Alta Vista Park contains a community center and tennis, pickleball, and racquetball courts, all of which are located at 715 Julia Avenue. The community center covers 4,000 sq. ft. and features a 2,000 sq. ft. multipurpose room with a kitchen and an outdoor picnic shelter. The Alta Vista Tennis, Pickleball, and Racquetball Courts includes eight lighted tennis and pickleball courts and two indoor racquetball courts.
- **Aviation Park Gymnasium / Track and Field.** Aviation Park, located at 1935 Manhattan Beach Boulevard, offers a gymnasium and track and field. The gymnasium includes a large gym (12,000 sq. ft.), small gym (6,300 sq. ft.), dance room (1,221 sq. ft.), locker room, and restrooms. It also provides space for numerous recreational programs. The Aviation Track and Field consists of a lighted, 440-yard, five-lane running track that surrounds a regulation-size football/soccer field. It is used for City and private events as well as the public.
- **Perry Park Teen Center.** Perry Park Teen Center, located at 2301 Grant Avenue, is a 5,000-sq.-ft. center that is specifically designed for teenagers residing in Redondo Beach or those who attend a Redondo Beach school. It provides activities including pool tables, gaming systems, and other recreational activities. It hosts several recreational programs for teenagers as well.

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- **Redondo Beach Performing Arts Center.** Redondo Beach Performing Arts Center, located at 1935 Manhattan Beach Boulevard, is a 40,000-sq.-ft. special events and programming center. It features a 1,453-seat theater and offers a variety of entertainment and cultural events.
- **Veterans Park Community Center.** Veterans Park Community Center, located at 309 Esplanade, is part of Veterans Park. It is an 11,400-sq.-ft. historic building constructed in 1930 and is listed on the National Register of Historic Places. It contains an office, grand ballroom/ banquet room, mezzanine, meeting rooms, fully equipped catering kitchen, bridal room, restrooms, and storage.
- **Senior Centers.** The City has three senior centers: Anderson Park Senior Center, Perry Park Senior Center, and Veterans Park Senior Center. They all include several recreational amenities and programs for seniors.

Recreation Programs

The City's Community Services Department provides a variety of programs and services to Redondo Beach residents. This includes community classes, community involvement programs, meetings and event space reservations, adult and youth sports, special events, volunteer opportunities, cultural and performing arts events, programs for individuals with special needs, childcare and playschool, afterschool programs, summer programs, senior recreation programs, and reservations for facilities. An abbreviated list of the types of recreation programs and services offered in Redondo Beach by the Community Services Department are as follows:

- **Classes/Activities/Camps.** The City offers a variety of recreational programs for all ages. Events include adults' sports leagues, yoga classes, tennis lessons, afterschool programs, summer camps, sailing lessons, community special events, family events, and teen programs, among others.
- **Cultural Arts.** The Redondo Beach Performing Arts Center provides a world-class venue that hosts a variety of performances and programming and is available for event rentals. It also hosts corporate meetings and offers a variety of special event services. The City also manages the Redondo Beach Historical Museum, which is free and open to the public; and the Public Art Program.
- **Senior and Family Services.** The City offers programs, services, and activities for seniors including information referrals, resources guides, special events, senior clubs, classes, an annual health fair, and special needs programs for adults, among others. The City has three senior centers: Anderson, Perry, and Veterans Senior Center.
- **Housing.** The City provides housing services for individuals, families, and seniors. These include homelessness services and the L.A. Air Force Base Housing Program to help military members and their families find attainable housing and rental options that meet their needs.
- **Volunteers.** The City offers volunteer opportunities at different City institutions and departments including the City's libraries, City Clerk's Office, Community Services Department, Community Development Department, Police Department, as well as various non-City organizations.

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5.14.2 Thresholds of Significance

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

- R-1 Would increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated.
- R-2 Includes recreational facilities or requires the construction or expansion of recreational facilities which might have an adverse physical effect on the environment.

5.14.3 Proposed General Plan Goals and Policies

Goal LU-1 Balance: A sustainable community with a range of land uses that meet the diverse needs of Redondo Beach residents, offer a variety of employment, commercial, recreational, and housing opportunities that make it possible for people of all ages and abilities to live, work, recreate, and maintain a high quality of life in Redondo Beach.

- **Policy LU -1.11.** Creation And Distribution of Parkland. Promote the creation of new open space and community serving amenities throughout Redondo Beach to achieve minimum parkland standards and to keep pace with the increase in multi-unit housing development. This policy includes specific prioritization of opportunities at the current power plant site and powerline right of ways. Additionally, the City will prioritize opportunities for parkland expansion in park-deficient areas.
- **Policy LU -1.13.** Public and Institutional Uses. Provide for the continuation of existing and expansion of governmental administrative and capital facilities, schools, libraries, hospitals and associated medical offices, public cultural facilities, and other public uses, ancillary parks, recreation and open spaces and other public land uses and facilities to support the existing and future population and development of the City.

Goal LU-4 Health And Vitality: A vibrant community that supports the healthy and active lifestyles of residents and visitors

- **Policy LU-4.4.** New Open Space and Parkland Opportunities. Preserve, invest in, and expand open space and parkland opportunities for active and passive recreational public and private open spaces. Work with future developments along commercial corridors and other nonresidential developments to create useable public open spaces to enhance the commercial neighborhood experience for residents and visitors alike.
- **Policy LU-4.8.** Health and the Built Environment. Look for opportunities to map and analyze the equal distribution of parks, open space and recreational activities to encourage physical activity and to ensure that people have equitable access to parks and open spaces within walking or biking distances.

Goal LU-6 Economic Sustainability: A financially healthy city with a balanced mix of land uses and special funding and financing districts that increase resources to invest in public facilities and services

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- **Policy LU-6.19. Assessment Districts.** Encourage the use of special assessments as a way to address public improvements (i.e., parks, undergrounding of utilities, landscape, lighting, signage, street furniture, or other public improvements) in concert with new development.

Goal OS-2 High-Quality Open Spaces and Recreational Facilities: Parks, public spaces, and recreational facilities that are highly utilized by residents and visitors of all ages, abilities, and incomes and are well-maintained, safe, and meet the long and-short term needs of the Redondo Beach Community.

- **Policy OS-2.1. Park Types.** Develop, maintain, and implement a Parks Master Plan to provide a range of high-quality park types, recreational facilities, and public spaces to meet active and passive recreational needs of Redondo Beach residents of all ages, abilities, and incomes.
- **Policy OS-2.5. Adaptive Facilities.** Upgrade existing parks, public spaces, and recreational facilities to reflect changing community needs and to respond to changes in demographics, climate, and technology.

Goal OS-5 Funding: A consistent and diverse collection of funding sources to finance the acquisition, improvement, and maintenance of the City's open spaces, recreational facilities, programs, and events.

- **Policy OS-5.1. Development Fees.** Require new residential subdivision developments dedicate land for parkland and recreation facilities and/or pay an equivalent in-lieu fee to be used to enhance, expand, acquire, and/or improve parkland and recreational facilities. Collect public art development impact fees on qualifying new development projects that can be used to improve recreational placemaking, create free cultural experiences by incorporating public art into accessible open spaces and enhancing the City's cultural identity.
- **Policy OS-5.2. User Fees.** Regularly analyze user fees to ensure recreation programs are affordable for residents and self-sustaining.
- **Policy OS-5.3. Financing Districts.** As specific opportunities and needs arise, allow the establishment of financing districts to fund the acquisition, development, and maintenance of parkland and recreational facilities.
- **Policy OS-5.4. Private Funding Sources.** Establish creative partnerships with corporations, private developers, and the local business community to provide additional land dedication, ongoing public access to open spaces on private property, and funding for parks, public spaces, and recreational facilities.
- **Policy OS-5.5. Grants and Other Funding Sources.** Pursue parks, recreation, conservation, and habitat-related grants.
- **Policy OS-5.6. Federal and State Funding Programs.** Regularly review and pursue state and federal funding opportunities to improve, expand, enhance, and protect the City's parks, public spaces, other open spaces, and recreational opportunities for future generations.

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5.14.4 Environmental Impacts

5.14.4.1 METHODOLOGY

The Quimby Act standard requires a minimum of three acres of parkland per 1,000 residents. Local parkland includes active, passive, special use, neighborhood, community parks, and regional parks but does not include open space, National Forest land, or the beaches.

Parks, recreation, and open space resources in the City range from vibrant community and regional parks to natural areas, trails, and open spaces. Active and passive recreation facilities are available at the parks, including but not limited to athletic fields, playgrounds, picnic areas, water activities, camping, and multiuse trails for walking/jogging, and biking. These facilities also offer many sports, special interests, and educational classes. For the purposes of this analysis, parks are identified as either local or regional, which are defined as follows:

- **Local Park.** Local park spaces typically provide facilities for active recreation and gathering that meet neighborhood needs, offer opportunities for daily recreation, and are highly utilized. Local parks have facilities such as picnic areas and playgrounds, and they can accommodate a variety of organized sports, including soccer, baseball, tennis, pickleball, volleyball, basketball, and skateboarding.
- **Regional Park.** Regional Park facilities typically contain active amenities such as athletic courts and fields, playgrounds, and swimming pools. They may also offer opportunities for wildlife viewing, beautiful scenery, conservation, and outdoor recreation, including hiking, biking, and equestrian trails, which serve residents and visitors throughout the County. Other types of regional facilities besides parks in the Planning Area may include trails, trailheads, staging areas, equestrian parks, natural areas, and golf courses.

Additionally, for purposes of this analysis, active and passive recreation facilities are defined as follows:

- **Active.** Active recreation includes organized play areas such as sports facilities for softball, baseball, football, and soccer fields; volleyball, tennis, and basketball courts, swimming pools, and/or forms of playground equipment.
- **Passive.** Passive recreation typically does not require organized play areas or sports facilities and such parks are often irregular in shape. Passive recreation often includes open space areas and trails; it also includes facilities for walking, picnicking, and water sports such as fishing or rowing.

School facilities may also provide land and facilities for recreational use on a limited basis through a joint-use agreement between the City and school districts. In general, public school recreational facilities are open to the public during non-school hours. Elementary schools may provide adjunct recreation opportunities to surrounding neighborhoods during non-school hours. Junior high schools and high schools may provide adjunct community-wide facilities for public use.

This analysis section evaluates the potential impacts of the proposed project's policies on existing parks and recreational facilities within the City using the State CEQA Guidelines' thresholds of significance. This impact analysis evaluates if the proposed goals and policies would result in significant environmental impacts as a result

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of use, construction, expansion, or interference with existing parks, open space, and recreational resources in the project area.

5.14.4.2 IMPACT ANALYSIS

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

Impact 5.14-1: The proposed project would generate additional residents that would increase the use of existing park and recreational facilities. [Threshold R-1]

The proposed project is a regulatory document that sets the framework for future growth and development in the City and does not directly result in development. Updates to the Zoning Ordinance and LCP would involve land-use changes that would be consistent with the General Plan Update. Buildout of the proposed project would allow for the development of up to 4,956 dwelling units, which would result in an estimated population of 8,667 residents. The proposed project would increase the existing population in the City from 70,311 residents to 78,978 residents by buildout. 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 66472 of the California Government Code, commonly referred to as the Quimby Act, which allows a City to require a standard of 3 acres of parkland per 1,000 residents. Currently, Redondo Beach has 148.8 acres of developed parkland. This excludes recreational opportunities at schools and other private facilities. As shown in Table 5.14-2, *Demand for Public Parks in the City at General Plan Buildout*, based on its current population of approximately 70,311, there are 2.12 acres of existing park land per 1,000 people; as a result, the City currently does not meet the recommended standard of 3 acres per 1,000 people. The proposed project would result in an anticipated increase of 8,667 people which results in a demand for approximately 26 additional acres of parks to accommodate Redondo Beach's population at buildout.

Table 5.14-2 Demand for Public Parks in the City at General Plan Buildout

Existing Parkland Acres	Proposed Park Standard (Acres/1,000 People)	Existing Demand			Proposed Redondo Beach General Plan Demand			Increase in Demand (Acres)
		Population	Park Demand Acre	Existing Park Ratio (Acres/1,000 People)	Population	Park Demand Acre	Project Park Ratio at Buildout (Acres/1,000 People) ¹	
148.8	3.0	70,311	210.9	2.12	78,978	236.9	1.88	26

¹ Parkland ratio if no new parks were constructed.

The proposed project identifies two future opportunities to develop park facilities, totaling 38 acres, which include 34 acres associated with Southern California Edison Right-of-Way (includes portions used for nursery and turf areas that are not accessible to the public) and 3.2 acres of green spaces such as Wylie Sump, Don Owens Parkette and Edward P Greene Parkette. In addition, the AES Powerplant site may be redeveloped with

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non-industrial uses as it represents the largest opportunity for the City to reclaim land for parks and open space. While the powerplant is no longer operational, demolition, clean up, and other site mitigation could take time to achieve, and as a result, the site may not be available for conversion to public parkland during the 20-year planning horizon of this element. Furthermore, new residential subdivision development would be required to dedicate parkland or pay an in-lieu fee, as included in Policy OS-5.1, and OS-5.3, which would allow for the establishment of financing districts to fund the acquisition, development, and maintenance of parkland and recreational facilities. The availability of new facilities would prevent the accelerated physical deterioration of existing facilities. Additionally, there are a number of other potential park and recreational facilities in the City, such as trails, recreational programs and amenities, and joint-use school facilities, to serve the proposed residents. Additionally, the proposed project includes several policies, OS-2.1, OS-2.5, OS-5.5, and OS-5.6, which support development of a variety of park types, upgrade existing facilities, and finding alternate funding to build new facilities. Therefore, with development of additional park facilities on the aforementioned opportunity sites, dedicated parkland or in-lieu fees as well as the goals, policies and implementation actions included as part of the proposed project, impacts would be less than significant.

Level of Significance Before Mitigation: Impact 5.14-1 would be less than significant.

Impact 5.14-2: Project implementation would not result in environmental impacts from new and expanded recreational facilities. [Threshold R-2]

Based on the City's population growth and availability of funds, portions of undeveloped land would be improved as parks and recreational facilities to provide residents with new recreational opportunities while meeting the parkland standard of 3 acres per 1,000 residents. Parks are also a permitted use under other land use designations (e.g., residential land uses), which could result in the development of additional parkland opportunities outside of park-designated parcels.

The proposed project identifies two future opportunities to develop park facilities, which include 34 acres associated with Southern California Edison Right-of-Way (includes portions used for nursery and turf areas that are not accessible to the public) and 3.2 acres of green spaces such as Wylie Sump, Don Owens Parkette and Edward P Greene Parkette. Development and operation of future new or expanded parks and recreational facilities 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. Construction-related air quality and noise impacts of the proposed project are described in Section 5.3, *Air Quality*, and Section 5.13, *Noise*. Addressing the site-specific impacts of these parks at this time is beyond the scope of this EIR. Subsequent environmental review for individual park developments would be required. Further, potentially adverse impacts to the environment that may result from the expansion of parks and recreational facilities pursuant to buildout of the proposed land use plan would be less than significant upon the implementation of the Redondo Beach General Plan policies, such as Policy OS-2.1 and OS-2.5, and existing federal, state, and local regulations. Consequently, the proposed project would not result in significant impacts relating to new or expanded recreational facilities, and impacts would be less than significant.

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Level of Significance Before Mitigation: Impact 5.14-2 would be less than significant.

5.14.5 Cumulative Impacts

While some of the City's recreational facilities could be used by people not residing in Redondo Beach, the geographic area for the cumulative analysis of recreational facilities and parks is the City of Redondo Beach. Currently, there are 148.8 acres of existing parkland in the City, which excludes joint-use facilities, multiuse trails (Esplanade), conserved lands (the Bluffs), and other open space land.

Based on the demand for parkland and recreational facilities, future residential development in the City would contribute to the cumulative need for more recreational open space and park facilities generated by the increase in residents. Future development would be required to construct or pay in-lieu fees for parklands, as well as pay development impact and public art fees, as required by Policy OS-5.1 and OS-5.3. Therefore, as development occurs and the population increases, the City would expand and/or construct new park facilities. Construction or expansion of future park facilities would be required to comply with existing state and local regulations which would reduce potential adverse impacts to the environment that may result from new facilities. As such, the proposed project's contribution for an increase in parks and recreational services would not be cumulatively considerable and would be less than significant.

5.14.6 Level of Significance Before Mitigation

Upon implementation of regulatory requirements, and goals and policies from the proposed project, the following impacts would be less than significant: 5.14-1 and 5.14-2.

5.14.7 Mitigation Measures

No mitigation measures are required.

5.14.8 Level of Significance After Mitigation

All impacts are less than significant.

5.14.9 References

Redondo Beach, City of. 2024, January. Draft City of Redondo Beach General Plan, Open Space & Conservation Element.

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5.15 TRANSPORTATION

This section of the Program Draft Environmental Impact Report (DEIR) details the evaluation of the potential transportation impacts associated with the implementation of the City of Redondo Beach Focused General Plan Update, Zoning Ordinance Updates, and Local Coastal Program Amendments (proposed project). This section presents the applicable regulatory background, existing conditions, methodology for determining potential impacts, proposed measures to mitigate any significant or potentially significant impacts if such impacts are identified, and an analysis of potential cumulative impacts. Consistent with CEQA Guidelines, impacts associated with bicycle, pedestrian, and transit facilities; the generation of vehicle miles traveled (VMT); geometric hazards; and emergency access are evaluated as part of this analysis. The analysis and data presented in this section was prepared in coordination with Fehr & Peers (2023).

5.15.1.1 REGULATORY BACKGROUND

State Regulations

Senate Bill 743: Transportation Impacts

To further the State's commitment to the goals of Senate Bill (SB) 375, Assembly Bill (AB) 32, and AB 1358, Governor Brown signed SB 743 on September 27, 2013. SB 743 adds Chapter 2.7, Modernization of Transportation Analysis for Transit-Oriented Infill Projects, to Division 13 (Section 21099) of the Public Resources Code (PRC). Key provisions of SB 743 included the elimination of vehicle delay and level of service (LOS) as metrics that can be used for assessing transportation impacts under CEQA. With the elimination of LOS as a metric for impacts in CEQA, the California Office of Planning and Research (OPR) recommended the evaluation of transportation impacts using vehicle miles traveled (VMT). The requirements of SB 743 went into full effect as of July 1, 2020.

The intent of SB 743 is to balance the needs of congestion management, infill development, public health, and greenhouse gas reductions. VMT measures the number of trips and the lengths of those trips for the total number of miles that vehicles will travel on a roadway system. VMT is a means to assess traffic impacts on greenhouse gas emissions, air quality, and energy. Instead of measuring the effects of projects on the average delay and level of service (LOS) experienced by drivers at particular intersections, projects will be evaluated based on how many total miles employees and residents drive. Projects located in existing urbanized areas, near a variety of land uses, and/or in proximity to public transit tend to have both shorter trip lengths, and more choice in using transportation modes other than driving alone. VMT is either calculated in total for a project or calculated on a per resident or per employee (or both) as a calculation of VMT efficiency.

Assembly Bill 32: Global Warming Solutions Act

The Global Warming Solutions Act (AB 32) was signed into law on September 27, 2006. AB 32 established a comprehensive program to reduce greenhouse gas emissions to combat climate change. This bill requires the California Air Resources Board (CARB) to develop regulations to reduce greenhouse gas emissions to 1990 levels by 2020. On January 1, 2012, the greenhouse gas rules and market mechanisms, adopted by CARB, took effect and became legally enforceable.

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The reduction goal for 2020 was to reduce greenhouse gas emissions by 25 percent of the current rate in order to meet 1990s level, and a reduction of 80 percent of current rates by 2050. The AB 32 Scoping Plan contains the main strategies California will use to reduce greenhouse gases. The scoping plan has a range of greenhouse gas reduction actions, which include direct regulations, alternative compliance mechanisms, monetary and non-monetary incentives, voluntary actions, market-based mechanisms (such as a cap-and-trade system), and an AB 32 program implementation regulation to fund the program.

CARB recognizes cities as “essential partners” in reducing greenhouse gas emissions. CARB has developed a Local Government Toolkit with guidance for GHG reduction strategies such as improving transit, developing bicycle/pedestrian infrastructure, increasing city fleet vehicle efficiency, and other strategies.

SB 375: Sustainable Communities and Climate Protection Act

On December 11, 2008, CARB adopted its proposed Scoping Plan for AB 32, the Global Warming Act. This scoping plan included the approval of SB 375 as the means for achieving regional transportation related GHG targets. SB 375 provides guidance on how curbing emissions from cars and light trucks can help the State comply with AB 32.

There are five major components to SB 375. First, SB 375 addresses regional GHG emission targets. CARB’s Regional Targets Advisory Committee guides the adoption of targets to be met by 2020 and 2035 for each metropolitan planning organization (MPO) in the State. These targets, which MPOs may propose themselves, are updated every eight years in conjunction with the revision schedule of housing and transportation elements. Redondo Beach is located within the Southern California Association of Governments (SCAG) MPO.

Second, MPOs are required to create a sustainable communities strategy (SCS) that provides a plan for meeting regional targets. The SCS and the regional transportation plan (RTP) must be consistent with each other, including action items and financing decisions. If the SCS does not meet the regional target, the MPO must produce an Alternative Planning Strategy that details another plan to meet the target.

Third, SB 375 requires that regional housing elements and transportation plans be synchronized on eight-year schedules. In addition, Regional Housing Needs Assessment allocation numbers must conform to the SCS. If local jurisdictions are required to rezone land as a result of changes in the housing element, rezoning must take place within three years plus 120 days from October 15, 2021.

Fourth, SB 375 provides CEQA streamlining incentives for preferred development types. Residential or mixed-use projects qualify if they conform to the SCS. Transit-oriented developments also qualify if they 1) are at least 50 percent residential, 2) meet density requirements, and 3) are within one-half mile of a transit stop. The degree of CEQA streamlining is based on the degree of compliance with these development preferences.

Fifth and finally, MPOs must use transportation and air emission modeling techniques consistent with guidelines prepared by the California Transportation Commission. Regional transportation planning agencies, cities, and counties are encouraged, but not required, to use travel demand models consistent with the commission’s guidelines.

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AB 1358: California Complete Streets Act of 2008

The California Complete Streets Act of 2008 was signed into law on September 30, 2008. Beginning January 1, 2011, AB 1358 required circulation elements to address the transportation system from a multimodal perspective. The bill states that streets, roads, and highways must “meet the needs of all users... in a manner suitable to the rural, suburban, or urban context of the general plan.” Essentially, this bill requires a circulation element to plan for all modes of transportation where appropriate—including walking, biking, car travel, and transit.

The Complete Streets Act also requires circulation elements to consider the various users of the transportation system, including children, adults, seniors, and the disabled. For further clarity, AB 1358 tasked the Office of Planning and Research to release guidelines for compliance, which it did in December 2010.

Caltrans Complete Streets Directive

Caltrans enacted Complete Streets: Integrating the Transportation System (Complete Streets Directive) in October 2008, which required cities to plan for a “balanced, multimodal transportation network that meets the needs of all users of streets” (Caltrans 2008). A complete street is a transportation facility that is planned, designed, operated, and maintained to provide safe mobility for all users, including bicyclists, pedestrians, transit vehicles, trucks, and motorists, appropriate to the function and context of the facility. Every complete street looks different, according to its context, community preferences, the types of road users, and their needs.

Senate Bill 99

SB 99 (Section 65302(g)(5) of the California Government Code) requires jurisdictions to review and update the safety element to include information identifying residential developments in hazard areas that do not have at least two emergency evacuation routes.

Assembly Bill 747

AB 747 added Section 65302.15 to the California Government Code (amended by AB 1409), which went into effect in January 2022. AB 747 requires local governments to identify the capacity, safety, and viability of evacuation routes and locations in their general plan safety element or local hazard mitigation plan.

Regional Regulations

SCAG RTP/SCS

The Southern California Association of Governments (SCAG) updates its long-range (i.e., minimum 20 years) Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS) every four years, per federal law (23 U.S.C.A. §134 et seq) and state law (SB 375). SCAG’s 2024–2050 RTP/SCS “Connect SoCal 2024” was adopted in April 2024¹. The SCS is a required element of the RTP that provides a plan for meeting GHG emissions reduction targets set forth by the CARB. It provides growth forecasts that are used in the

¹ While the 2024–2050 RTP/SCS was adopted in 2024, the proposed project’s NOP was 2023, and at the time of VMT analysis conducted in this EIR, the 2020–2045 RTP/SCS regional travel model was the most recent regional model available for use.

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development of air quality-related land use and transportation control strategies by the South Coast Air Quality Management District.

Several of the 2024–2050 RTP/SCS goals/subgoals are applicable to transportation:

- **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
 - Ensure that reliable, accessible, affordable and appealing travel options are readily available, while striving to enhance equity in the offerings in high-need communities
 - Support planning for people of all ages, abilities and backgrounds
- **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
- **Environment:** Create a healthy region for the people of today and tomorrow
 - 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
 - Conserve the region’s resources
- **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
 - 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

Metro Long-Range Transportation Plan

The Los Angeles County Metropolitan Transportation Authority (Metro) adopted the 2020 LRTP, “Our Next LA,” in September 2020 (Metro 2020b). It is the first update to the LRTP since 2009 and provides a vision for transportation in Los Angeles County through 2047. The plan aims to address population growth, changing mobility needs and preferences, technological advances, equitable access to opportunity, and adaptation to a changing environment. The plan details construction of an additional 100 miles of fixed-guideway transit, investments in arterial and freeway projects to reduce congestion, and construction of regional-scale bicycle and pedestrian projects to increase active transportation. Other efforts detailed in the plan include traffic management practices for congested roadways (e.g., Express Lanes and toll lanes); maintaining and upgrading the existing transportation system for all modes; and partnering with local, state, and federal agencies and the private sector. Our Next LA includes transit and highway improvements funded by Measure M; expansion of

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off-peak transit service, of the active transportation network, and of programs such as Express Lanes; partnerships to provide bus only lanes and freight management policies; and bold policy proposals, including more affordable transit, faster bus trips, and subregional congestion pricing. In the City of Redondo Beach, Metro is planning the extension of the C Line light rail line.

Metro Vision 2028 Plan

The Metro Vision 2028 Plan is a strategic plan that lays the foundation for transforming mobility across the county over the 10-year period ending in 2028 (Metro 2022). The plan seeks to increase prosperity for all by removing mobility barriers, provide swift and easy mobility anytime throughout Los Angeles County, and accommodate more trips through a variety of high-quality mobility options. The plan seeks to increase mobility across the County by reducing the number of people who drive alone and increasing the number of trips people take by transit, walking, rolling modes such as biking and scootering, shared rides, and carpooling. It also seeks to improve the customer experience by reducing maximum wait times for any transit trip to 15 minutes or less, even during peak periods, improving bus travel speeds by 30 percent, and providing reliable, convenient options for users to bypass congestion.

Metro Active Transportation Strategic Plan

Adopted in 2016, the ATSP sets goals and objectives for implementing active transportation improvements across Los Angeles County (Metro 2016). The plan established existing conditions and defined implementation steps, funding strategies, and performance metrics for the countywide active transportation network. Relevant goals of the ATSP include the following:

- Improve access to transit.
- Establish active transportation modes as integral elements of the countywide transportation system.
- Enhance safety, remove barriers to access, or correct unsafe conditions in areas of heavy traffic, high transit use, dense bicycle and pedestrian activity.
- Promote multiple clean transportation options to reduce criteria pollutants, greenhouse gas emissions, and improve air quality.
- Improve public health through traffic safety, reduced exposure to pollutants, design and infrastructure that encourage residents to use active transportation as a way to integrate physical activity into their daily lives.
- Foster healthy, equitable, and economically vibrant communities where all residents have greater transportation choices & access to key destinations, such as jobs, medical facilities, schools, and recreation.

Metro NextGen Bus Plan

Adopted in 2020, Metro's NextGen Bus Plan reimagines its bus network to be more relevant, reflective of, and attractive to the diverse customer needs within Los Angeles County (Metro 2020a). The plan proposes major bus service changes across the Metro service area, including the development of a new bus network to improve

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service to current customers, attract new customers, and win back past customers. The NextGen Bus Plan represents the first major overhaul to Metro bus service in more than a quarter century. The plan's five main goals include:

1. Doubling the number of frequent Metro bus lines.
2. Providing more than 80 percent of current bus riders with 10-minute or better frequencies.
3. Expansion of midday, evening, and weekend service, creating an all-day, 7-days-a-week service.
4. Ensuring a ¼-mile walk to a bus stop for 99 percent of current riders.
5. Creating more comfortable and safer transit stops.

Additional plan strategies include:

- Align travel patterns with travel propensity.
- Develop service tiers.
- Establish seamless connectivity with local municipal operators.
- Increase the number of routes operating frequently.
- Ensure all fixed-route services provide headways of 30 minutes or better.
- Create standardized frequencies by service tier.
- Make the network easier for riders to understand.
- Align schedules with midday, evening, and weekend riders.
- Consolidate Rapids/Locals into a single service.
- Consolidate stops.
- Apply all strategies through an equity lens.

Many service changes have been implemented and are incorporated into the description of transit routes described below.

Local Regulations

South Bay Bicycle Master Plan

The South Bay Bicycle Master Plan (SBBMP) is a multicity bicycle master plan adopted in 2012 by the Los Angeles County Bicycle Coalition (LACBC) and the South Bay Bicycle Coalition (SBBC) with the common goal of improving the safety and convenience of bicycling in the South Bay Region (LACBC and SBBC 2012). Seven member cities of the South Bay Cities Council of Government were involved in the development of the SBBMP, including El Segundo, Gardena, Hermosa Beach, Lawndale, Manhattan Beach, Redondo Beach, and Torrance. Relevant policies include:

- **Policy 1.1.4.** Review and encourage implementation of policies and facilities proposed in the SBBMP whenever planning new bicycle facilities or capital improvement projects that may be related to bicycle improvements.
 - **Objective 1.3.** Increased mobility through bicycle-transit integration

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- **Policy 1.3.1.** Support the development of bicycle facilities that provide access to regional and local public transit services.
- **Policy 1.3.2.** Coordinate with transit providers to ensure bicycles can be accommodated on all forms of transit vehicles and that adequate space is devoted to their storage on board whenever possible.
- **Policy 1.3.3.** Coordinate with transit agencies to install and maintain convenient and secure short-term and long-term bike parking facilities – racks, on-demand bike lockers, in-station bike storage, and staffed or automated bicycle parking facilities – at transit stops, stations, and terminals.
- **Policy 1.4.8.** Work with Metro to provide bicycle parking in proximity to bus stops and other transit facilities.

City of Redondo Beach General Plan Transportation and Circulation Element

The Redondo Beach General Plan Transportation and Circulation Element was adopted in 2009 and revised in 2021 (Redondo Beach 2021a). The Transportation and Circulation Element provides goals and policies for transportation development. Relevant goals of the Element include:

- **Goal G1:** Address the root causes of trip generation rather than simply reacting to the consequences.
- **Goal G4:** Allow for safe and convenient walking, biking, or taking transit.
- **Goal G13:** Link existing and proposed facilities.
- **Goal G14:** Increase the provision of bike lockers, bike racks, and lighting for bike facilities.
- **Goal G15:** Ensure that residents will be able to walk or bicycle to destinations such as the beach, the Civic Center, Redondo Beach Pier, Riviera Village, and other activity centers.
- **Goal G16:** Provide reliable, safe fixed-route transit.

Relevant policies which address those goals include:

- **Policy P22.** Connect North Redondo Beach and South Redondo Beach with bike facilities.
- **Policy P23.** Focus on access at transit stations, the waterfront, South Bay Galleria (South Bay Social District), Artesia Boulevard, Riviera Village, Pacific Coast Highway retail zones, and school zones.
- **Policy P25.** Conduct walkability and bikeability audits to identify inconvenient or potentially unsafe routes, prioritize infrastructure improvements, and generate community support for active modes of transportation.
- **Policy P31.** Extend Metro's Green Line.
- **Policy P32.** Create multi-modal transit hubs.

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- **Policy P33.** Enhance transit wayfinding and signage at transit stops.

City of Redondo Beach Municipal Code

California Building Code

The City of Redondo Beach Municipal Code, Title 9, Adoption of 2022 California Building Code (CBC), identifies amendments, deletions and additions to the CBC. The Adoption of the 2022 CBC outlines conditions regarding building design and development including maintenance of public ways, protection of pedestrians, blockage of driveways, disruption of traffic and protection from construction activities. It is generally adopted on a jurisdiction-by-jurisdiction basis, subject to further modification based on local conditions. Commercial and residential buildings are plan-checked by local city plan check engineers and the building official for compliance with the CBC.

Transportation Demand Management

Article 11, Transportation Demand Management, sets requirements for new applicable nonresidential developments to provide facilities and/or programs that encourage and accommodate the use of ridesharing, transit, and pedestrian/bicycle commuting as alternatives to single-occupant vehicle trips. The purpose is to reduce VMT to mitigate transportation impacts and reduce traffic congestion, air pollution and energy consumption impacts related to employment growth generated by new development. Prior to approval of any development project that meets or exceeds the threshold for triggering Transportation Demand Management strategies, the applicant is required to comply with the applicable transportation demand management and trip reduction standards set forth by this article.

Environmental Review Pursuant to CEQA

Title 10, Chapter 3, Environmental Review Pursuant to CEQA, of the Redondo Beach Municipal Code establishes the specific procedures necessary to implement CEQA. Article 2, Evaluation of Significant Effects, establishes criteria for determining significant effects and provides guidance in making an evaluation whether or not a particular project may have a substantial adverse effect on the environment. Pursuant to the Municipal Code, if there are inconsistencies between the provisions contained in Title 10, Chapter 3, and the State's CEQA Guidelines, the State's CEQA Guidelines shall control. As established in Section 10-3.202, significant effects may be due to primary consequences immediately related to the project or may be due to secondary consequences related more to the primary consequences than the project itself. As established in Section 10-3.203(l)(z), with respect to transportation, a project will normally have a significant effect on the environment if it will conflict or be inconsistent with CEQA Guidelines Section 15064.3 Subdivision (b) related to a project's increase in vehicle miles traveled, and/or interfere with emergency response plans or emergency evacuation plans.

City of Redondo Beach Public Right-of-Way Administrative Policies

The Public Right-of-Way Administrative Policies (adopted 2006) regulate construction or modifications that impact the Public Right-of-Way. With respect to circulation and accessibility, these policies aim to improve pedestrian safety and access and improve traffic safety. Pursuant to the policies, traffic mitigation is required as

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needed for any development project requiring a discretionary entitlement to correct existing deficiencies, or for projects of any size where required as a mitigation measure pursuant to CEQA.

City of Redondo Beach Artesia & Aviation Corridors Area Plan

The 2020 Artesia & Aviation Corridors Area Plan (AACAP) is a vision-driven plan that provides analysis, strategies and implementable actions aimed at revitalizing the Corridors through creating place, connectivity, and character within North Redondo (Redondo Beach 2020a). Initiatives include adding pedestrian and bike friendly paths, creating mid-block access from adjacent high density residential neighborhoods, creating shared private parking lots, reducing parking standards for preferred uses (restaurants and office), allowing more flexible parking options (valet, tandem, mechanical lifts), outdoor dining, and other gathering spaces, and making storefronts bigger to encourage active communities and draw new businesses into the area.

City of Redondo Beach Harbor/Civic Center Specific Plan

The City of Redondo Beach Harbor/Civic Center Specific Plan is the fundamental community development policy document that governs and determines the future development and character of the Harbor/Pier and Civic Center areas of the City of Redondo Beach (Redondo Beach 2020b). Relevant policies of the Element include:

- Improve and/or modify the physical conditions and route of the existing shoreline bicycle path to maximize safety, functionality, and appearance, to further promote its use and attract additional riders.
- Encourage development configuration and urban design improvements which will serve to promote pedestrian circulation and elevate the Diamond Street corridor as a major crossing east-to-west across Pacific Coast Highway and through to the harbor/pier area.
- Encourage the development and use of Torrance Boulevard as the primary regional and local mass transportation entrance to the harbor/pier area (for both local residents and visitors).

5.15.1.2 EXISTING CONDITIONS

Street Descriptions

This section presents a description of the existing street system serving the City, including regional highways arterials and local streets.

Regional Highways

Primary regional access to the City is provided by the I-405, SR 1, SR 91, and SR 107. Brief descriptions of the highways are provided below:

Interstate 405

Interstate 405 is a major regional freeway that runs in the northwest-southeast orientation through the northeast corner of the City. The freeway connects with other freeways to provide access to the entire Los Angeles basin.

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Freeway exits within and closest to the City include Rosecrans Avenue, Inglewood Avenue, Hawthorne Boulevard, Redondo Beach Boulevard, and Artesia Boulevard.

Pacific Coast Highway (State Route 1, PCH)

Pacific Coast Highway is a four-lane north/south major arterial within the City. On-street parking is prohibited along short sections of PCH at Torrance Boulevard, Catalina Avenue, and Diamond Street, but is generally permitted elsewhere. PCH provides connectivity to the other Beach Cities and Torrance.

Artesia Boulevard

Artesia Boulevard is a four-lane east/west major arterial with a raised median present throughout the study area. On-street parking is permitted west of Kingsdale Avenue within City limits.

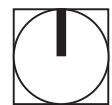
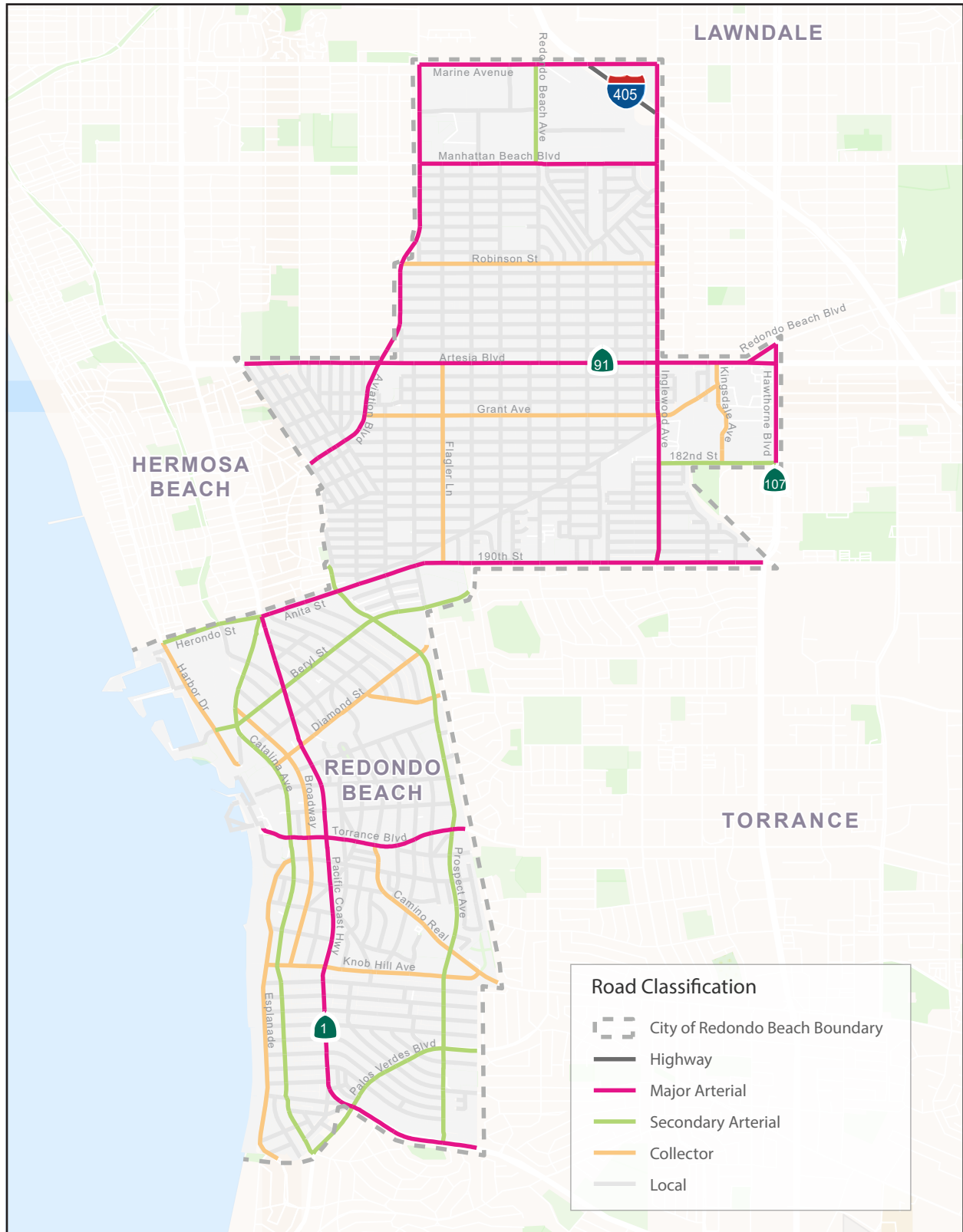
Hawthorne Boulevard (State Route 107)

Hawthorne Boulevard provides eight through lanes with a raised median along the eastern boundary of the City and is designated as a north/south major arterial. On-street parking is generally prohibited on Hawthorne Boulevard.

Local Street Classification System

Functional classifications of roadway networks categorize streets by purpose, location, and typical land uses which they support. In the City of Redondo Beach, the local street system is organized into a hierarchy of four classifications according to the Redondo Beach General Plan Transportation and Circulation Element. The four types are major arterial, secondary arterial, local, and collector. Figure 5.15-1, *Roadway Classifications* illustrates roadway classifications. Brief descriptions of the principal roadways serving the City are provided below (Redondo Beach 2021b).

Figure 5-15.1 - Roadway Classifications



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Major Arterial

- **Anita Street.** Anita Street is a four-lane east-west major arterial, running between Pacific Coast Highway and Flagler Lane. There is a continuous left turn lane present on Anita Street. On-street parking is permitted along the north curb.
- **190th Street.** 190th Street is a four-lane major arterial that continues easterly from Flagler Lane. A continuous left turn lane is present on 190th Street. West of Hawthorne Boulevard, on-street parking is generally permitted.
- **Aviation Boulevard.** Aviation Boulevard is a four-lane north-south major arterial that curves in the southwest direction south of Artesia Boulevard, ending at Pacific Coast Highway in Hermosa Beach. Parking is prohibited on both sides of the street between Marine Avenue and Manhattan Beach Boulevard. On the east side, no parking is allowed from Manhattan Beach Boulevard to Ruhland Avenue.
- **Inglewood Avenue.** Inglewood Avenue is a north-south major arterial providing four through lanes north of 190th Street. A raised median exists north of Grant Avenue. Parking is prohibited on the east side of the street between Marine Avenue and Manhattan Beach Boulevard, from Artesia Boulevard to Vanderbilt Lane, and from Rockefeller Lane to 190th Street. On the west side, parking is prohibited between Marine Avenue and Faber Street and from Grant Avenue to 190th Street.
- **Manhattan Beach Boulevard.** Manhattan Beach Boulevard is an east-west major arterial providing five through lanes (three westbound and two eastbound) with a raised median. On-street parking is permitted on the south side between Aviation Boulevard and Vail Avenue.
- **Marine Avenue.** Marine Avenue is a four lane east-west major arterial, the southern half of which lies in the City of Redondo Beach between Aviation Boulevard and Inglewood Avenue. A painted median is provided, and parking is prohibited west of the I-405 underpass; east of the underpass, parking is permitted.
- **Redondo Beach Boulevard.** Redondo Beach Boulevard is a four-lane northeast-southwest major arterial that ends at Artesia Boulevard. On-street parking is permitted in the study area.
- **Torrance Boulevard.** Torrance Boulevard is a four-lane east-west major arterial that ends in a cul-de-sac west of Catalina Avenue at the Redondo Beach Pier. On-street parking is permitted along most of its length in the area.

Secondary Arterial

- **Herondo Street.** Herondo Street is a two-lane east-west second arterial, running between Harbor Drive and Pacific Coast Highway. Metered angled parking is provided on both sides west of Francisca Avenue. A raised median exists on Herondo Street.
- **Beryl Street.** Beryl Street is a southeast-northwest secondary arterial that runs from Harbor Drive to 190th Street. Between Prospect Street and Catalina Avenue, Beryl Street is one lane in each direction with a center

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turning lane. Beryl Street narrows to two lanes east of Flagler Lane. On-street parking is permitted between Catalina Avenue and Flagler Lane.

- **Catalina Avenue.** Catalina Avenue is a four-lane north-south secondary arterial that runs from Pacific Coast Highway near the northern City boundary to Palos Verdes Boulevard at the southern City boundary. On-street parking is metered on the west side from Carnelian Street to Torrance Boulevard and on the east side from Emerald Street to Pearl Street. A raised median exists between Beryl Street and Torrance Boulevard.
- **Palos Verdes Boulevard.** Palos Verdes Boulevard is a four-lane northeast-southwest secondary arterial with a raised median present in the study area. On-street parking is prohibited on the east side between PCH and Avenue G.
- **Prospect Avenue.** Prospect Avenue is a four-lane north-south secondary arterial that runs from Anita Street to Pacific Coast Highway. On-street parking is prohibited on the east side between Anita Street and Del Amo Street, between Barbara Street and Camino Real, and between Irena Avenue and Avenue E. On the west side of Prospect Avenue, parking is mostly prohibited between Anita Street and Diamond Street, as well as between Helberta Avenue and Avenue F.
- **Redondo Beach Avenue.** Redondo Beach Avenue is a four-lane north-south secondary arterial that runs from Marine Avenue to Manhattan Beach Boulevard. On-street parking is prohibited on the west side between Santa Fe Avenue and Manhattan Beach Boulevard. A raised median is also provided.
- **182nd Street.** 182nd Street is a two-lane east/west secondary arterial running eastward from Inglewood Avenue. On-street parking is generally prohibited in the study area. Only limited Metro Bus parking is permitted on the north side of 182nd Street near Hawthorne Blvd.

Collector

- **Broadway.** Broadway is a two-lane north-south collector that runs from Catalina Avenue to Knob Hill Avenue with on-street parking permitted.
- **Camino Real.** Camino Real is a four-lane northwest-southeast collector that runs from Torrance Boulevard past Prospect Avenue. East of the City limits, this facility continues east as Sepulveda Boulevard. On-street parking is provided along this facility.
- **Del Amo Street.** Del Amo Street is a two-lane east-west collector that runs from Diamond Street to Prospect Avenue. On-street parking is permitted on the north side.
- **Diamond Street.** Diamond Street is a two-lane northeast-southwest collector. Diamond Street runs from Catalina Avenue to Prospect Avenue. This street has one lane in each direction with a center turn lane and bicycle lanes and parking on both sides.
- **Esplanade.** Esplanade is a two-lane north-south collector that runs from Catalina Avenue to Vista Del Mar. On-street parking is permitted, with meter control on the west side between Avenue A and Avenue I

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as well as the entire east side of Esplanade. From Knob Hill Avenue south, Esplanade has two lanes with a center turn lane and bike lanes on both sides of the street.

- **Flagler Lane.** Flagler Lane is a residential street that currently functions as a north-south collector street, providing two travel lanes and no parking between Artesia Boulevard and Anita Street. Between Anita Street and Beryl Street, Flagler Lane provides two lanes with a center turn lane and on-street parking (angled on the east side and parallel on the west side).
- **Grant Avenue.** Grant Avenue is a two-lane collector. Grant Avenue travels east-west and runs from Aviation Boulevard to Kingsdale Avenue. This street has one lane in each direction with a center turn lane, bicycle lanes, and parking on both sides.
- **Harbor Drive.** Harbor Drive is a two-lane north-south collector between Herondo Street and Beryl Street. North of Herondo Street, this facility continues north as Hermosa Avenue. Metered on-street parking and bike lanes are provided.
- **Kingsdale Avenue.** Kingsdale Avenue is a north-south collector providing two lanes between Artesia Boulevard and 182nd Street. On-street parking is permitted along the west side of Kingsdale Avenue between Grant Avenue and 177th Street.
- **Knob Hill Avenue.** Knob Hill Avenue is a two-lane east-west collector that runs from Esplanade to Camino Real. A continuous left-turn lane exists west of Pacific Coast Highway, and on-street parking is permitted.
- **Robinson Street.** Robinson Street is a residential street that currently functions as an east-west collector between Aviation Boulevard and Inglewood Avenue. Two lanes are provided with parking on the south curb west of Vail Avenue. Between Green and Aviation Place, Robinson Street has been modified to a one-way street in the westbound direction.

Existing Vehicle Miles Traveled

As further detailed in Section 5.15.3.1, the SCAG 2020 RTP/SCS travel model is the tool used in the City of Redondo Beach for assessing VMT². Table 5.15-1, *Existing VMT for the City of Redondo Beach and the South Bay Cities Council of Governments (SBCCOG) Region* details baseline population, employment, and service population (population plus employment) used as inputs to the SCAG model, and the resulting VMT per service population.

² While the 2024-2050 RTP/SCS was adopted in 2024, the proposed project's NOP was 2023, and at the time of VMT analysis conducted in this EIR, the 2020-2045 RTP/SCS regional travel model was the most recent regional model available for use.

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Table 5.15-1 Existing VMT for the City of Redondo Beach and the SBCCOG Region

Metric	City of Redondo Beach	SBCCOG Region
Population	70,311	1,149,433
Employment	28,638	544,640
Service Population	98,949	1,694,073
VMT per Service Population	28.3	28.8

Source: Fehr & Peers 2023. Appendix B, Buildout Methodology Memorandum

Existing and Planned Transit Network

Public transportation is a vital part of the circulation system within the City of Redondo Beach. Transit expands mobility options to citizens who may not be able to afford or physically operate other means of travel, while some choose not to drive. Figure 5.15-2, *Existing and Planned Transit Network*, shows the existing and planned transit options in the City. To improve regional mobility and link local transit systems with other regional transit providers, the City of Redondo Beach began the strategic planning process for a new transit center in early 2000. The construction phase was completed in February 2023. The Redondo Beach Transit Center (RBTC), the new modernized multimodal transportation facility, is located at Kingsdale Ave in the northeast of the City (Redondo Beach n.d.).

The following section introduces the existing and planned transit system, including local and regional buses, and Metro Rail service.

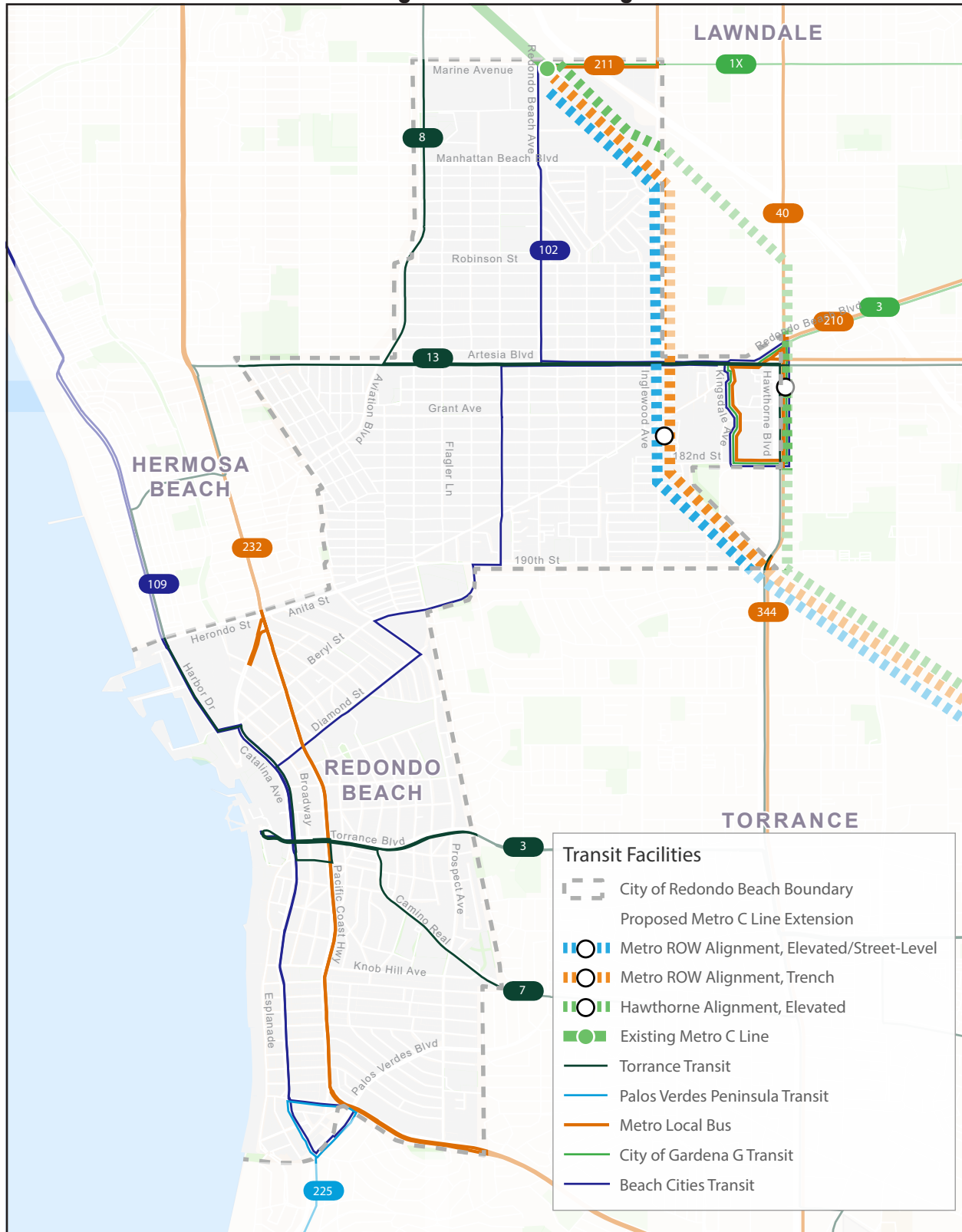
Bus

Beach Cities Transit

Beach Cities Transit (BCT) is operated by the Transit Division of the City of Redondo Beach Community Services Department. BCT serves the Beach Cities and provides connections to other cities including El Segundo, Lawndale, Hermosa Beach, and Manhattan Beach (CSD 2024). Presently, BCT oversees the operations of two bus lines: 102 and 109, both of which are integral to the transportation network within the City of Redondo Beach.

- **Line 102.** Line 102 runs weekdays and weekends daily between Redondo Beach Pier and the Metro C (Green) Line Redondo Beach Station every 30 to 50 minutes during weekdays.
- **Line 109.** Line 109 runs weekdays and weekends daily between Redondo Beach Riviera Village and LAX City Bus Center every 30 to 50 minutes during weekdays. It also serves the Metro C (Green) Line Aviation/LAX Station.

Figure 5-15.2 - Existing and Planned Transit Network



Source: Los Angeles County, 2022; Fehr & Peers, 2023

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Scale (Mile)



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GTrans

GTrans serves Gardena and surrounding Los Angeles County communities including the City of Redondo Beach. Specifically, GTrans Lines 1X and 3 are operational within the City of Redondo Beach (Gardena n.d.). These lines support internal travel within the City and provide connections to downtown Los Angeles and Compton.

- **Line 1X.** Line 1X runs weekdays and weekends daily between Redondo Beach Metro C (Green) Line Station and Harbor Freeway C Line (green) and J Line (Silver) Station every 40 to 50 minutes during weekdays.
- **Line 3.** Line 3 runs weekdays and weekends daily between Redondo Beach Transit Center and MLK Transit Center every 30 minutes during weekdays.

Metro Bus

The Metropolitan Transportation Authority of Los Angeles County, or Metro, operates local, rapid, express and BRT (bus rapid transit) services throughout the Greater Los Angeles area. Metro Line 40, 210, 211, 232, 344 serve the City of Redondo Beach. These routes connect Downtown Los Angeles, Long Beach, LAX, and the surrounding cities (Metro 2024b). Beginning in December 2020, Metro began a phased rollout of the NextGen Bus Plan, which includes planned changes to lines serving the City of Redondo Beach.

- **Line 40.** Line 40 runs weekdays and weekends daily between Redondo Beach Transit Center and Broadway/7th every 15 to 30 minutes and every hour in early morning hours (12–4am). The NextGen Bus Plan will discontinue early morning service and run every 10 to 30 minutes on weekdays and 15 to 30 minutes on weekends.
- **Line 210.** Line 210 runs weekdays and weekends daily between Hollywood/Vine B Line Station and Redondo Beach Transit Center. Line 210 operates every 20 to 50 minutes on weekdays and weekends and every hour in early morning hours. The NextGen Bus Plan will discontinue early morning service and run every 10 to 30 minutes on weekdays and weekends.
- **Line 211.** Line 211 runs weekdays daily between Redondo Beach Transit Center and South Bay Galleria every 38 minutes during weekday peak hours. The NextGen Bus Plan will run service every 40 to 60 minutes during weekdays and weekends.
- **Line 232.** Line 232 runs weekdays and weekends daily between Downtown Long Beach and LAX City Bus Center every 20 to 50 minutes. The NextGen Bus Plan will run service every 15 to 30 minutes during weekdays and weekends.
- **Line 344.** Line 344 runs weekdays and weekends daily between Harbor Gateway Transit Center and Rancho Palos Verdes, passing the City via Hawthorne Boulevard. The NextGen Bus Plan will maintain current line service.

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Palos Verdes Peninsula Transit

Palos Verdes Peninsula Transit is operated by the Palos Verdes Peninsula Transit Authority (PVPTA). Palos Verdes Peninsula Transit provides bus service within and to the Palos Verdes Peninsula. PVPTA line 225 starts from Palos Verdes at Via Valencia on the south limits of the City of Redondo Beach, connecting to San Pedro (PVPTA n.d.).

- **Line 225.** Line 225 runs weekdays daily between Palos Verdes at Via Valencia and Pacific/7th every 60 minutes during weekdays.

Torrance Transit

Torrance Transit is operated by the City of Torrance Transit Department. Torrance Transit's network coverage includes the City of Torrance itself and many areas in the South Bay region, including the City Redondo Beach. Torrance Transit Lines 3, 8, and 13 serve the City of Redondo Beach and provides connectivity to Long Beach, LAX and Compton (Torrance Transit n.d.).

- **Line 3.** Line 3 runs weekdays daily between Redondo Beach Pier and Downtown Long Beach Station every 15 to 35 minutes during weekdays.
- **Line 8.** Line 8 runs weekdays daily between Hawthorne Boulevard at Pacific Coast Hwy and LAX City Bus Center passing the City via Hawthorne Boulevard. Line 8 operates approximately every 35 to 45 minutes during weekdays.
- **Line 13.** Line 13 runs weekdays daily between Artesia Station and Torrance Bl at Broadway approximately every 30 minutes during weekdays.

Rail

Metro C (Green) Line

Metro operates light and heavy rail service in Los Angeles County. The Metro C (Green) Line serves the City of Redondo Beach. The C Line runs in an east-west direction, beginning at Norwalk and ending at Redondo Beach, notably making a southern curve near LAX. During peak commuting hours, the service runs at headways of seven to eight minutes, which increases to 15 minutes during off-peak hours. The Redondo Beach Station, an elevated light rail station located over Marine Avenue, is the primary station within the City limits. This station offers parking for riders, as well as acts as a hub connecting several bus transit routes, including BCT 102 and GTrans 1X.

With a vision to further expand light rail services in the South Bay, Metro embarked on the C Line (Green) Extension to Torrance project. The project would extend the light rail route from the existing Redondo Beach Station to the under-construction Torrance Transit Center. The project would be 4.5 miles in length and provide two new stations, including one in the City of Redondo Beach (Metro 2024a). The project is in the environmental review and advanced conceptual engineering phase, with a Draft EIR released publicly. There are two primary alignment alternatives. Within the City of Redondo Beach, one alignment alternative would run primarily within the existing freight rail right-of-way located between Inglewood Avenue and Firmona

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Avenue / Kingsdale Avenue. The proposed station would be located at the Redondo Beach Transit Center, southwest of South Bay Galleria (South Bay Social District). The other primary alignment alternative would operate along Hawthorne Boulevard on the border of the cities of Redondo Beach and Torrance. The proposed station serving the City of Redondo Beach would be located in the middle of Hawthorne Boulevard just south of Artesia Boulevard, just to the east of South Bay Galleria (South Bay Social District).

Existing and Planned Bicycle Facilities

Figure 5.15-3, *Existing and Planned Bicycle Facilities* shows the existing and proposed bicycle facilities in the City (LACBC and SBBC 2012). Bicycle facilities are classified based on the Caltrans Highway Design Manual (2006) terminology:

- **Class I Bikeway (Bike Path).** A completely separate ROW for the exclusive use of bicycles and pedestrians, with vehicle and pedestrian crossflows minimized.
- **Class II Bikeway (Bike Lane).** A restricted ROW designated for the use of bicycles, with a striped lane on a street or a highway. Vehicle parking along with vehicle and pedestrian crossflows are permitted.
- **Class III Bikeway (Bike Route).** A ROW designated by signs or pavement markings for shared use with pedestrians and motor vehicles.
- **Class IV Bikeway (Separated Bikeway).** A ROW for the exclusive use of bicycles which provides a required separation between the bikeway and through vehicular traffic.

Existing Bikeways

Bike Paths (Class I)

- Coastal trail from Redondo Beach's southern City limit to Redondo Beach Pier
- Trail within Southern California Edison (SCE) right-of-way between Felton Lane and Phelan Lane from Rockefeller Lane to Robinson Street
- Diamond Street from Prospect Avenue to Flagler Lane

Bike Lanes (Class II)

- Esplanade from Redondo Beach's southern City limit to Knob Hill Avenue
- Diamond Street from Catalina Avenue to Prospect Avenue
- Grant Avenue from Aviation Boulevard to Kingsdale Avenue
- Beland Boulevard from Johnston Avenue to Inglewood Avenue
- Redondo Beach Avenue from Manhattan Beach Boulevard to Marine Avenue
- Catalina Avenue from Torrance Boulevard to Pacific Avenue
- Herondo Street from Pacific Coast Highway to Harbor Drive
- Torrance Boulevard from Francisca Avenue to beyond City Limits

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- Beryl St from 190th Street to Flagler Lane

Bike Routes (Class III)

- The City has a variety of existing Class III bicycle routes as designated in the South Bay Bicycle Master Plan.

Separated Bikeway (Class IV)

- Harbor Drive from Yacht Club Way to Pacific Avenue
- Redondo Beach Boulevard—The City of Redondo Beach and Metro currently have a planned bicycle facility within the Redondo Beach Boulevard corridor. The project would consist of a mixture of Class I and Class IV sections, with some Class II sections. The corridor would run along Redondo Beach Boulevard from El Camino College to the South Bay Galleria, and then would transition to Grant Avenue/Ripley Avenue to Lilienthal Lane and 190th Street, terminating at Dominguez Park.

Proposed Bikeways

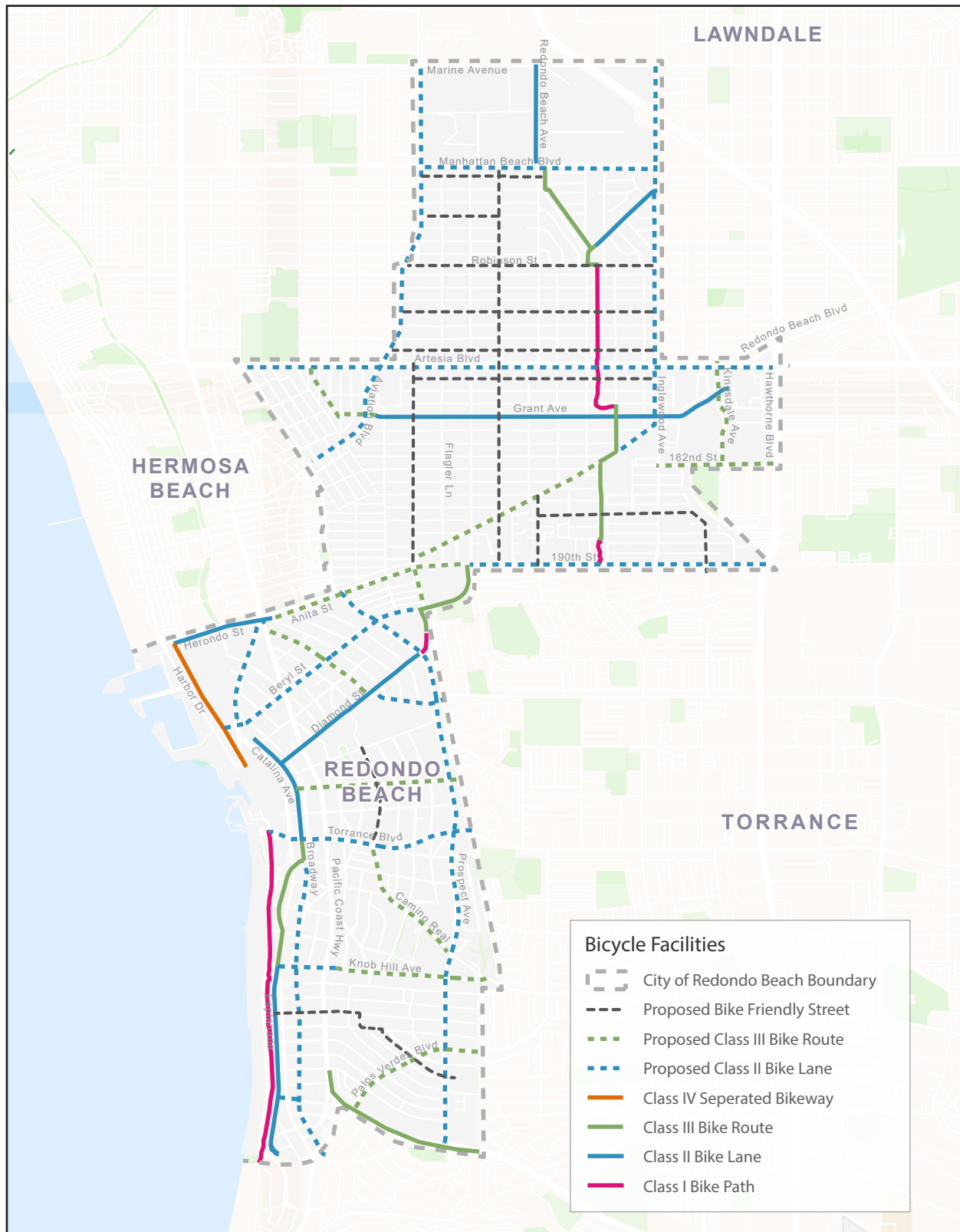
Proposed Bike Lanes (Class II)

- Knob Hill Avenue from Esplanade Avenue to Pacific Coast Highway
- Catalina Avenue from Torrance Boulevard to Palos Verdes Boulevard
- Avenue I from Esplanade Avenue to Catalina Avenue
- Torrance Avenue from the west end to east City limits
- Prospect Avenue from Pacific Coast Highway to north City limits
- Juanita Avenue – Del Amo Boulevard from Diamond Street to east City limits
- Beryl Street from Harbor Drive to 1 Flagler Lane
- Catalina Avenue from Pacific Coast Highway to Beryl Street
- 190th Street from Blossom Lane to East City Limits
- Artesia Boulevard from west City limits to Hawthorne Boulevard
- Ripley Avenue from Lilienthal Land to Inglewood Avenue
- Inglewood Avenue from Marine Avenue to Ripley Avenue
- Manhattan Beach Boulevard from Aviation Boulevard to Inglewood Avenue
- Aviation Boulevard from Marine Avenue to Harper Avenue

Proposed Bike Routes (Class III)

- The City has a variety of proposed Class III bicycle routes as designated in the South Bay Bicycle Master Plan.

Figure 5-15.3 - Existing and Planned Bicycle Facilities



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Scale (Mile)



Source: Los Angeles County, 2022; Fehr & Peers, 2023

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Additional Active Transportation Improvements

As a condition of approval, the South Bay Galleria Project is required to study pedestrian/ bicycle improvements from the Galleria across Kingsdale Avenue to enhance pedestrian and bicycle connections for safe access to schools.

Additionally, the South Bay Cities Council of Governments (SBCCOG) developed a proposed Local Travel network (LTN) intended to be used by slower speed zero emissions vehicles, such as neighborhood electric vehicles, e-bikes, e-scooters, and pedal-powered bicycles. The LTN provides design guidance for implementation, including wayfinding, for cities considering implementing proposed LTN corridors.

Proposed Bike-Friendly Routes

The City has a variety of proposed bike-friendly routes as designated in the South Bay Bicycle Master Plan.

Existing Pedestrian Facilities

The City of Redondo Beach has a robust network of existing pedestrian facilities consisting of sidewalks, marked and unmarked pedestrian crossings with curb ramps, and pedestrian pushbutton and phasing at signalized intersections. While sidewalks are present on both sides of the street on most roadways within the City, there are select locations where sidewalks are included on only one side of the street.

Roadway Safety Conditions

A traffic collision is any event where a moving vehicle or a cyclists strikes another vehicle, a fixed object, or a pedestrian or cyclist.

The Transportation Injury Mapping System (TIMS) was reviewed for collision data within the City of Redondo Beach. The TIMS system receives collision data reported by local, county, and state public safety agencies. The most recent five-year collision data set available is from 2018 to 2022. Within this five-year period, there were a total of 1,150 collisions reported in the City of Redondo Beach. The top three cited factors contributing to collisions in the City were automobile right of the way violation (25.1 percent), unsafe speed (20.8 percent), and improper turning (12.4 percent) (Safe Transportation Research and Education Center n.d.).

The number of vehicle collisions of any type during the five-year period ranged from 177 to 262 per year. During the same time period, the percentage of collisions involving people walking was 10.6 percent and the percentage of collisions involving people biking was 12.4 percent. A total of 11 fatalities and 56 victims severely injured occurred within the five-year period.

As shown in Figure 5.15-4, *Vehicle Collisions*, during the five-year period evaluated, vehicle collision density was spread out across the City but with major arterial intersections experiencing the most collisions, generally corresponding with locations where vehicular volumes are highest. The intersections that showed the highest number of vehicle collisions were Manhattan Beach Boulevard and Inglewood Avenue, Rindge Lane and Artesia Boulevard, Diamond Street and Pacific Coast Highway, and Beryl Street and Pacific Coast Highway.

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The distribution of bicycle and pedestrian collisions is similarly spread out across the City, but with a slightly greater concentration in South Redondo, as shown on Figure 5.15-5, *Pedestrian and Bicycle Collisions*. The intersections with the highest number of pedestrian bicycle collisions were at Herondo Street and Harbor Drive, Beryl Street and Harbor Drive, and Gertruda Avenue and Pacific Coast Highway.

5.15.2 Thresholds of Significance

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

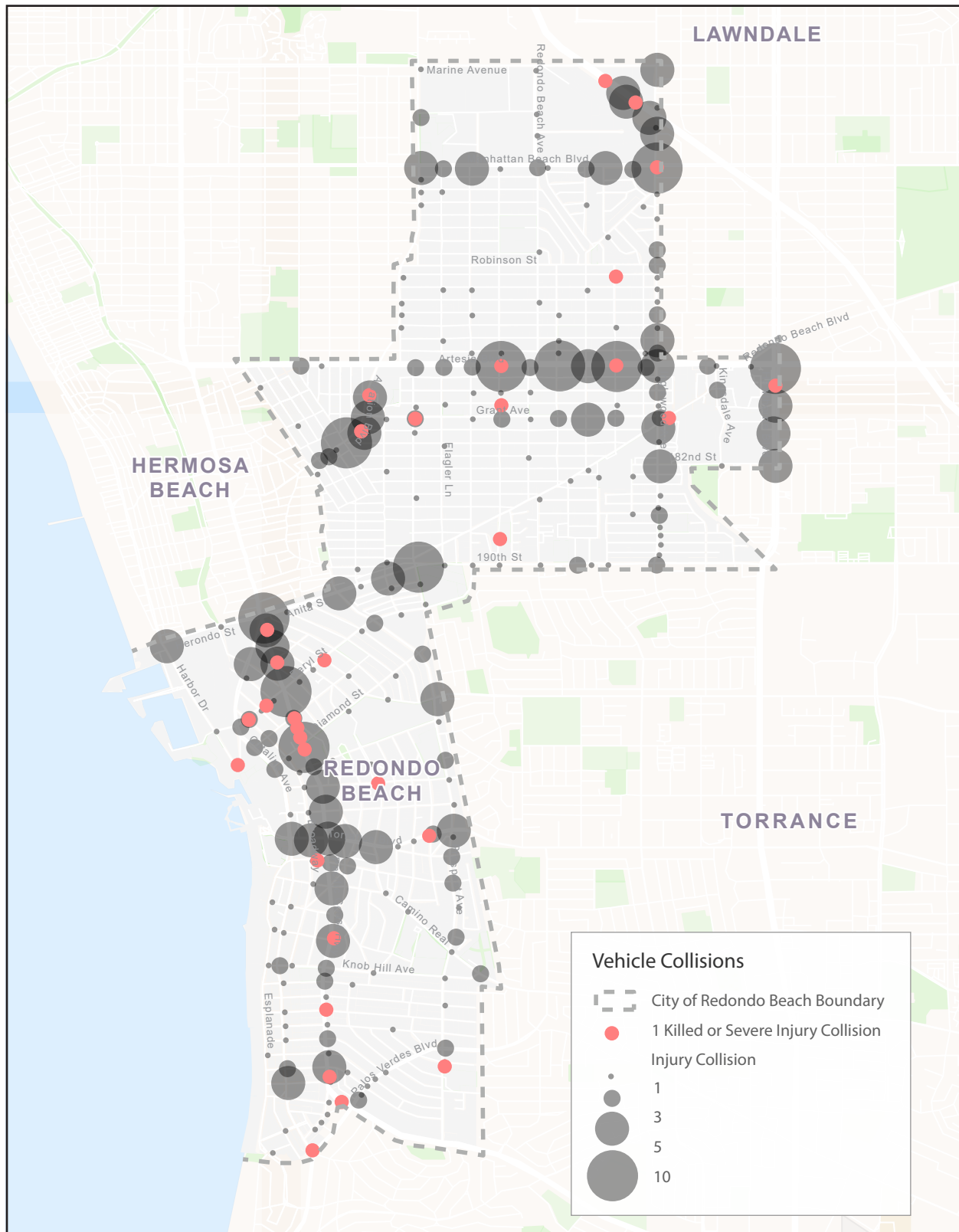
- T-1 Conflict with a program, plan, ordinance, or policy addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities.
- T-2 Conflict or be inconsistent with CEQA Guidelines § 15064.3, subdivision (b).
- T-3 Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment).
- T-4 Result in inadequate emergency access.

5.15.3 Proposed General Plan Goals and Policies

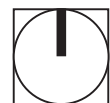
The following proposed Land Use, Open Space and Conservation, Safety, and Noise Element policies are relevant to the analysis of potential transportation impacts:

- **Policy LU -1.3 Diversity of Housing.** Collaborate with residents, housing providers and the development community to provide housing opportunities for every stage of life, and to plan for a variety of housing types and price points to support the local workforce and foster a balanced community.
- **Policy LU -1.4 Jobs-Housing Balance.** A place to live and a place to work that seeks to match its residents to jobs and promotes a workforce/jobs balance.
- **Policy LU-1.6 Housing Incentives.** Allow for lot consolidation on Housing Element sites and Incentivize quality infill residential development that provides a diversity of housing types and accommodates all income levels and age groups.
- **Policy LU -1.9 Employment Opportunities.** Provide a broad spectrum of land uses and development that offer employment opportunities for current and future Redondo Beach residents.
- **Policy LU-1.10 Transit Oriented Development.** Encourage job centers with a potential affordable workforce housing component in close proximity (within ¼ mile) to the bus transit center and current and future light rail stations.

Figure 5-15.4 - Vehicle Collisions



0 1
Scale (Mile)



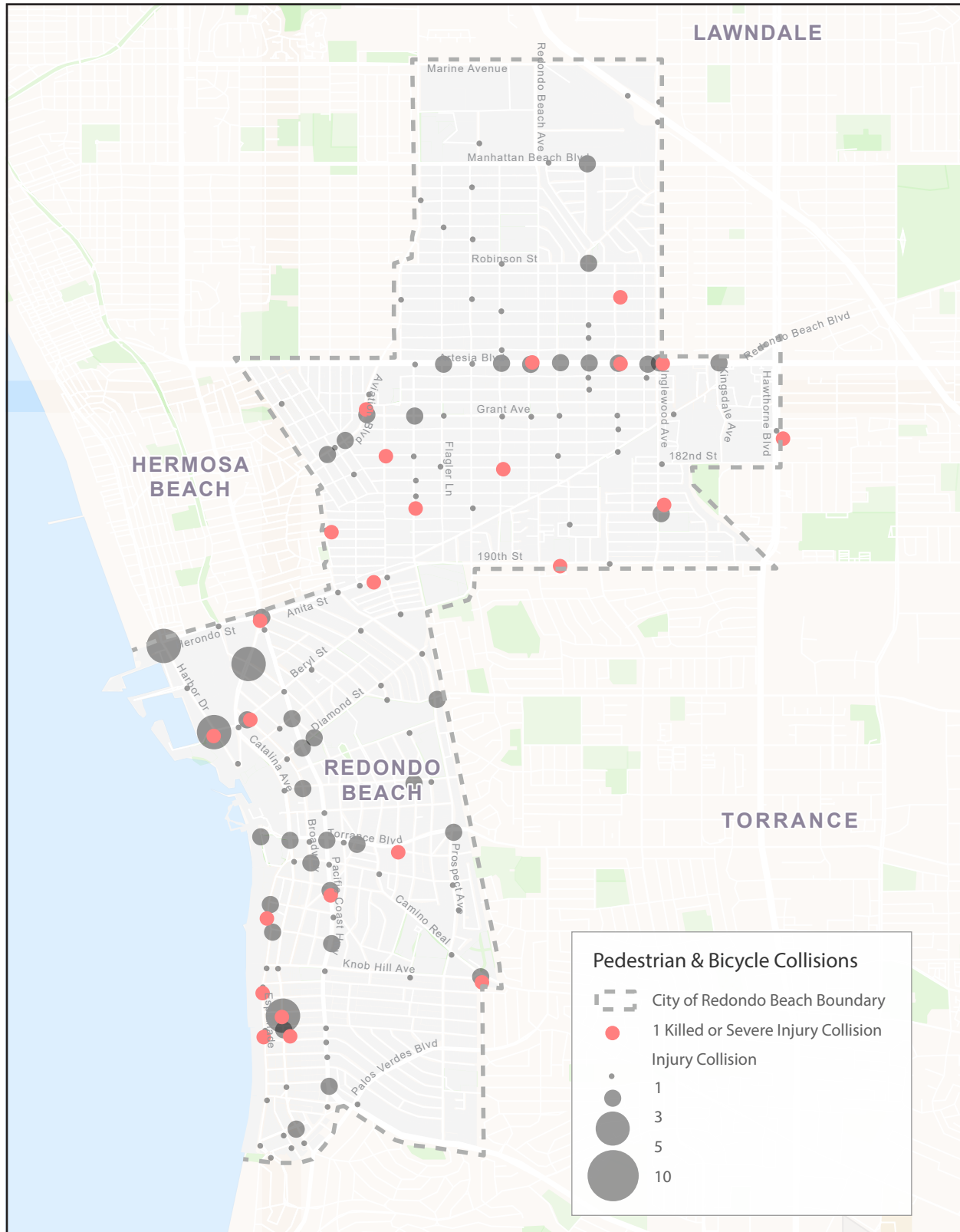
Source: TIMS, 2018 to 2022; Fehr & Peers, 2023

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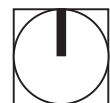
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Figure 5-15.5 - Pedestrian & Bicycle Collisions



0 1
Scale (Mile)



Source: TIMS, 2018 to 2022; Fehr & Peers, 2023

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- **Policy LU-1.13 Public and Institutional Uses.** Provide for the continuation of existing and expansion of governmental administrative and capital facilities, schools, libraries, hospitals and associated medical offices, public cultural facilities, and other public uses, ancillary parks, recreation and open spaces and other public land uses and facilities to support the existing and future population and development of the City.
- **Policy LU-2.7 Streetscape enhancements.** Facilitate streetscape improvements, add pedestrian amenities that attract new uses, and revitalize the corridors.
- **Policy LU-2.8 Pedestrian access.** For new development, encourage pedestrian access and create strong building entries that are primarily oriented to the street.
- **Policy LU-3.6 Active Transportation.** Invest in active transportation connectivity between commercial corridors/job centers and residential neighborhoods to encourage healthy lifestyles.
- **Policy LU-3.7 Access to Transit.** Support the location of transit stations and enhanced stops near the Galleria (South Bay Social District) and North Tech District to facilitate and take advantage of transit service, reduce vehicle trips and allow residents without private vehicles to access services.
- **Policy LU-3.8 Corridor Connectivity.** Recognize corridors as important cross-town thoroughfares that connect Redondo Beach, serve as transitions between neighborhoods, provide opportunities for local-serving retail and balance the needs of multiple transportation modes. Consider mid-block pass through between parking areas within the corridors and between the corridors and adjacent residential neighborhoods. Specifically target power line and transportation rights of way as pedestrian and bicycle corridors to connect amenities across the City and in nearby communities. Work with neighboring communities to integrate and connect these pedestrians and bicycle corridors across city boundaries.
- **Policy LU-4.5 Increase physical activity.** Establish new opportunities for outdoor and indoor recreation as part of a comprehensive, integrated, and interconnected network of spaces and facilities, with a focus on underserved areas.
- **Policy LU-4.6 Connectivity.** Facilitate bicycling and pedestrian linkages to parks, beaches, tourist destinations, recreational amenities, open spaces and parks, and commercial destinations via the City's street, pedestrian, bicycle, and transit networks in a way that is visually appealing and safe to encourage local residents and visitors to minimize the use of automobiles. Focus on expanding connectivity through the addition of pedestrian and bike paths on public utility and transportation rights of way. Create additional mid-block connections (pass throughs) from adjacent residential neighborhoods into commercial corridors and create connections between adjacent commercial businesses.
- **Policy LU-5.6 Reduce Greenhouse Gas Emissions.** Apply the strategies and approaches identified in the City's Climate Action Plan to help reduce Greenhouse Gas Emissions.
- **Policy LU-6.21 Job centers, corporate campuses, and transit oriented job centers.** Address jobs/workforce imbalance by creating opportunities and an environment that attracts new high end business campuses and job centers, thus reducing the number of Redondo Beach workforce population

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who commute to other cities to work and providing weekday customers to frequent Redondo Beach business corridors.

- **Policy OS-1.8 Access.** Provide safe, convenient, and enjoyable routes for residents of all ages, abilities, and income to access the City's open spaces and recreational facilities on foot, bike, and public transit. Provide appropriate bicycle and vehicular parking for all parks, coastal open spaces, and public spaces.
- **Policy OS-1.10 Regional Trails.** Coordinate with neighboring jurisdictions and other agencies to connect new and existing parks and public spaces to other desirable destinations beyond City boundaries via pedestrian, bicycle, and other urban trails that are part of the larger regional trail network, including the Manhattan and Hermosa Beach Greenbelt and the Strand bicycle and pedestrian connections, creating a greenbelt to the sea.
- **Policy S-4.7 Upgrade of Major Roadway Corridors in Liquefaction-Prone Areas.** Require new development to upgrade major roadway corridors in liquefaction-prone areas, identified in Figure 4.4 of the General Plan, to reduce damage and disruptions from potential damage to transportation and evacuation routes.
- **Policy S-4.3 Evacuation and Access.** Ensure that new development, especially high-occupancy facilities, allow for evacuation of occupants through stabilized corridors and access points if buildings are damaged by seismic activity.

5.15.4 Environmental Impacts

5.15.4.1 METHODOLOGY

The proposed project is qualitatively evaluated to determine if it is expected to conflict with relevant programs, plans, ordinances, or policies addressing the circulation system, safety, and emergency access, related to the *Regulatory Background* in Section 5.15.1.1, and in comparison, to areas within the City where development and growth would primarily occur as facilitated by the proposed project. Future residential development facilitated by the proposed project would be primarily located around housing element sites and planned projects, clustered within the residential overlay areas, integrated throughout the R-2 and R-3 zones, and located within major project areas like the South Bay Galleria (South Bay Social District). Non-residential development would primarily occur along Artesia Boulevard and Aviation Boulevard Special Policy Areas (SPA) and areas designated as I-1 and I-3 in the land use plan. A conflict could occur if the proposed project would preclude the ability of the City of Redondo Beach, and regional jurisdictions such as Metro and SCAG to implement programs, plans, ordinances, goals, or policies related to the circulation system, increase hazards or incompatible uses, and/or impede emergency access.

VMT Impact Thresholds

The City of Redondo Beach adopted the required methodologies and threshold of significance related to VMT in the City's Transportation Impact Study (TIS) Guidelines (Redondo Beach 2021b). Fehr & Peers completed a VMT impact assessment for the proposed project in accordance with CEQA. First, the socioeconomic data

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inputs for the transportation analysis zones of the City of Redondo Beach were updated in the SCAG ABM based on the General Plan land use buildout scenario (see Appendix B). The existing Baseline socioeconomic data by parcel were also verified and updated based on current conditions within the City. The VMT included in this impact analysis includes all VMT associated with trips that have an origin or destination (or both) within the City of Redondo Beach. The VMT per service population metric takes total VMT divided by the service population and compares it to the total VMT per service population of the SBCCOG baseline. In order to have a less than significant impact, projects would need to generate less VMT than the baseline (at least 16.8% less VMT than the baseline is the threshold of significance). Projects that generate more VMT than the threshold of significance would be considered to have a significant impact. That is, if projects (reported as VMT per capita, per employee, or per service population) are more than 83.2 percent of the baseline VMT, they would be considered to have a significant VMT impact. The type of VMT calculations associated with the impact criteria vary and are described below. The City of Redondo Beach has defined the SBCCOG region as the geographic area to be used as the Baseline for the impact analysis of VMT.

The VMT thresholds for several types of projects and plans in the City of Redondo Beach are summarized below:

- **Land Use Plans.** Plan generates more VMT than the threshold of significance (defined as 16.8 percent below SBCCOG Baseline VMT) for Total VMT (including trucks) per service population (which is defined as population plus employment).
- **Residential Projects.** Project generates more VMT than the threshold of significance (defined as 16.8 percent below SBCCOG Baseline VMT) for home-based VMT per capita.
- **Employment (Commercial or Industrial) Projects.** Project generates more VMT than the threshold of significance (defined as 16.8 percent below SBCCOG Baseline VMT) for home-based work VMT per employee.
- **Locally-Serving Retail Project.** For locally serving retail project between 10,000 and 50,000 square feet, the project generates more VMT than the threshold of significance (defined as 16.8 percent below SBCCOG Baseline VMT) for home-based work VMT per employee. Locally serving retail projects less than 10,000 square feet can be screened out from requiring a VMT analysis and can be presumed to be less than significant.
- **Regional Retail Projects.** Project results in a net increase in total VMT in comparison to the SBCCOG Baseline VMT.
- **Mixed-Use Projects.** Evaluate each project land use component separately using the criteria above. If either the residential or office/commercial component of a mixed-use project fails to meet the Low VMT screening criteria, VMT analysis must be completed for all components of the project.
- **Other Land Use Types.** Project generates more VMT than the threshold of significance (defined as 16.8 percent below SBCCOG Baseline VMT). For land use types not listed above, the City can determine the appropriate VMT metric depending on the project characteristics. For projects that are generally producing

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job-related travel, the employment generating VMT (home-based work VMT per employee) can be compared to the baseline. For other projects, the total VMT per service population can be compared to the SBCCOG baseline, or the net change in total VMT can be estimated.

Pursuant to the City's TIS Guidelines for projects that do not meet any of the screening criteria, a VMT analysis is required to rely on the best available data to inform trip generation and trip length estimates for the project uses.

For land use plans (e.g., Specific Plan or General Plan) and projects consisting of residential, office, or retail land uses, the VMT analysis is conducted using the most recently available SCAG RTP/SCS travel demand model. For other project types, such as a performing arts center or special event venues, the VMT analysis is customized to determine the unique trip generation and trip length characteristics of the proposed uses.

Consistent with the TIS Guidelines, the most recent version of the SCAG travel model was used to evaluate VMT impacts associated with the proposed project. The Southern California Association of Governments (SCAG) travel demand model from the 2020 RTP/SCS Activity Based Model ("the SCAG ABM") was the best available tool to estimate VMT in the City of Redondo Beach and the surrounding region at the time of the issuance of the NOP.

The SCAG ABM represents a major change in the type and sophistication of the regional travel model compared with the 2016 RTP/SCS travel model. Some key model characteristics of the SCAG ABM include:

- The SCAG ABM creates rich socioeconomic characteristics for each person and for each household in the SCAG region, which is a substantial increase in data and sophistication compared with the 2016 trip-based model.
- It simulates daily activities and travel patterns of all individuals in the region, as affected by the transportation system performance, and links travel made by individuals and households over the day. The 2016 trip-based model could not link individual trips to defined individuals and households.

Because the TIS Guidelines were developed using the 2016 RTP/SCS Travel Model, which was the best available travel model at the time, it is now necessary to calculate new thresholds of significance using the SCAG ABM. While it is currently the best tool available, it represents a substantial change in the model structure so VMT numbers cannot be compared between the two models. However, the same baseline geography (SBCCOG subregion) and the same reduction percent (16.8 percent) were used to calculate thresholds of significance. Using the SCAG ABM, Fehr & Peers calculated existing average VMT per service population for the SBCCOG region and the corresponding threshold of significance, as shown in Table 5.15-2, *VMT for the SBCCOG Region and Thresholds of Significance*.

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Table 5.15-2 VMT for the SBCCOG Region and Thresholds of Significance

VMT Metric	SBCCOG Region	Threshold of Significance
Total Network VMT	21,878,376 (Cumulative)	Any increase in VMT relative to Cumulative Baseline
Total VMT per service population	28.8 (Existing)	24.0 (16.8% below Existing Baseline)

Source: Fehr & Peers 2023; SCAG 2020.

Cumulative Threshold

Consistent with the TIS Guidelines, for large planning efforts such as land use plans or regional development projects that may result in changes to regional travel patterns, the evaluation of VMT related impacts should also be estimated under Cumulative Conditions to determine if VMT in the study area would be higher/lower in the future with the project in place. To evaluate a project's effect on VMT, the future year travel demand model should be updated to reflect the project and determine if regional VMT increases with the project.

A significant impact would occur if the proposed project caused Total VMT within the SBCCOG region to be higher than under Cumulative without Project Conditions. Cumulative regional VMT and the associated threshold of significance are in Table 5.15-2. This methodology and threshold of significance will be used to assess the potential for project-related significant impacts under Cumulative Conditions.

5.15.4.2 IMPACT ANALYSIS

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

Impact 5.15-1: The proposed project would conflict with a program, plan, ordinance, or policy addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities. [Threshold T-1]

The purpose of this section is to determine whether the proposed project conflicts with transportation-related programs, plans, ordinances, or policies addressing the circulation system. The proposed project is evaluated against the documents detailed in Section 5.15.1.1, *Regulatory Background*. In general, those documents focus on promoting multimodal transportation, reducing greenhouse gas emissions, and improving accessibility and safety for all users. Furthermore, the focus on complete streets, promotion of active transportation (e.g., walking, biking), and enhancing transit systems are relatively consistent across the policies and plans.

Table 5.15-3, *Programs, Plans, Ordinance, and Policy Consistency Review*, details an evaluation of the regional and local plans and policies with which the proposed General Plan would have the potential to be inconsistent. As summarized in Table 5.15-3, several potential conflicts are identified with respect to SCAG's 2024-2050 RTP/SCS.

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Table 5.15-3 Programs, Plans, Ordinance, and Policy Consistency Review

Description	Relevant Goals, Policies and/or Objectives	Consistency
SCAG Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS)		
<p>Every 4 years, SCAG updates its RTP/SCS for the 191-city SCAG region. The SCS is a required element of the RTP that provides a plan for meeting GHG emissions reduction targets set forth by the CARB. It provides growth forecasts that are used in the development of air quality-related land use and transportation control strategies by the South Coast Air Quality Management District (SCAQMD). CARB has determined SCAG's reduction target for per capita vehicular emissions to be 8% by 2020 and 19% by 2035 relative to the 2005 baseline. Successfully meeting these targets will require substantial effort to reduce VMT.</p>	<p>Mobility: Support investment and programs that are well-maintained and operated, coordinated, and resilient, and result in improved safety and air quality and minimized greenhouse gas emissions.</p>	<p>Inconsistent. As it is primarily a land use plan, the proposed project does not directly affect mobility infrastructure, nor does it preclude any proposed improvements to mobility. Section 5.10, <i>Land Use and Planning</i>, of this DEIR, discusses how the proposed project, including proposed goals and policies, would align with RTP/SCS goals and policies. As further discussed below under Impact 5.15-2, buildout facilitated by the proposed project would increase VMT per service population beyond the threshold (16.8% below SBCCOG Baseline Conditions) and would result in a significant impact. Accordingly, the proposed project would generate long-term emissions that would exceed South Coast AQMD's regional significance thresholds and cumulatively contribute to the nonattainment designations of the SoCAB (see Section 5.2, <i>Air Quality</i>). Additionally, given the growth in population and employment within the City and the magnitude of GHG emissions reductions needed to achieve the GHG reduction target, GHG emissions are considered significant (See Section 5.7, <i>Greenhouse Gas Emissions</i>). Although the proposed project would include climate benefits and land use patterns that align with the RTP/SCS, impacts associated with VMT, Air Quality and GHG, would be significant and therefore, the proposed project would not be consistent with this goal.</p>
	<p>Mobility: Ensure that reliable, accessible, affordable and appealing travel options are readily available, while striving to enhance equity in the offerings in high-need communities.</p>	<p>Consistent. The proposed project would place growth near planned or existing transit stations and areas, commercial retail service areas, and active transportation corridors and proposed Metro station stops. For example, Land Use Element Policies LU-1.10, LU-2.8, and LU-6.21 encourage job centers be located near public transportation and encourage development to create pedestrian accessibility to the street. See also Section 5.10, <i>Land Use and Planning</i>, of this DEIR, discusses how the proposed project, including proposed goals and policies, would align with RTP/SCS goals and policies.</p>
	<p>Mobility: Support planning for people of all ages, abilities, and backgrounds.</p>	<p>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 and would therefore, be consistent with this goal. See also Section 5.10, <i>Land Use and Planning</i>, of this DEIR, discusses how the proposed project, including proposed goals and policies, would align with RTP/SCS goals and policies.</p>

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Table 5.15-3 Programs, Plans, Ordinance, and Policy Consistency Review

Description	Relevant Goals, Policies and/or Objectives	Consistency
	Communities: Create human-centered communities in urban, suburban and rural settings to increase mobility options and reduce travel distances.	Consistent. The proposed project objectives include focusing housing and commercial development in existing commercial corridors and centers and in proximity to transit; prioritizing local businesses and improving streetscapes that promote a more active pedestrian environment. Special Policy Areas identified in the Land Use Element focus on activity centers, connectivity and implementation of mobility strategies. See also Section 5.10, <i>Land Use and Planning</i> , of this DEIR, discusses how the proposed project, including proposed goals and policies, would align with RTP/SCS goals and policies.
	Communities: Produce and preserve diverse housing types in an effort to improve affordability, accessibility and opportunities for all households.	Consistent. The proposed Land Use Element includes policies to support a variety of housing types and densities. For example, Policies LU-1.1 and 1.2 of the Land Use Element require the City to provide a diversity of residential densities, product types, lot sizes, and designs to meet the community's demand. Additionally, buildout of the proposed project is consistent with other elements of the General Plan update and includes growth in the areas identified in the certified Housing Element as suitable for housing development by 2029. The proposed Land Use designations target change in areas essential to satisfy the City's State-mandated obligation to demonstrate it could meet its RHNA requirements for housing. As such, the proposed project would be consistent with this goal. See also Section 5.10, <i>Land Use and Planning</i> , of this DEIR, discusses how the proposed project, including proposed goals and policies, would align with RTP/SCS goals and policies.
	Environment: 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.	Inconsistent. The proposed project anticipates that one of the main areas of growth in population and employment is in the northeast portion of the City such as the North Tech District and the South Bay Galleria (South Bay Social District), where the existing and proposed Metro C Line Extension would operate, thereby serving an integrated regional development pattern and providing additional travel choices for residents and employees of the City. However, buildout facilitated by the proposed project would increase VMT per service population beyond the threshold (16.8% below SBCCOG Baseline Conditions) and would result in a significant impact, as further discussed below under Impact 5.15-2.

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Table 5.15-3 Programs, Plans, Ordinance, and Policy Consistency Review

Description	Relevant Goals, Policies and/or Objectives	Consistency
		Accordingly, the proposed project would generate long-term emissions that would exceed South Coast AQMD's regional significance thresholds and cumulatively contribute to the nonattainment designations of the SoCAB (see Section 5.2, <i>Air Quality</i>). Additionally, given the growth in population and employment within the City and the magnitude of GHG emissions reductions needed to achieve the GHG reduction target, GHG emissions are considered significant (See Section 5.7, <i>Greenhouse Gas Emissions</i>). Although the proposed project would include climate benefits, land use patterns, and goals and policies that align with the RTP/SCS, impacts associated with VMT, Air Quality and GHG, would be significant and therefore, the proposed project would not be consistent with this goal.
Metro Long Range Transportation Plan (LRTP)		
The LRTP aims to address population growth, changing mobility needs and preferences, technological advances, equitable access to opportunity, and adaptation to a changing environment. The plan details construction of an additional 100 miles of fixed-guideway transit, investments in arterial and freeway projects to reduce congestion, and construction of regional-scale bicycle and pedestrian projects to increase active transportation.	<ul style="list-style-type: none"> 1.1) Expansion of Metro rail network 1.2) Improve bus frequency, speed, reliability 3.1) Implement complete streets policy 3.2) Enhance transit access 3.3) Prioritize active transportation improvements 4.3) Implement Transit Oriented Communities Policy and leverage Metro-owned parcels 	Consistent. As it is primarily a land use plan, the proposed project does not directly affect mobility infrastructure, nor does it preclude any proposed improvements to mobility. Additionally, the proposed project does anticipate that one of the main areas of growth in population and employment is in the northeast portion of the City such as the North Tech District and the South Bay Galleria (South Bay Social District), where the existing and proposed Metro C Line Extension would operate, thereby aligning with the proposed expansion of Metro Rail within the City of Redondo Beach as envisioned in the LRTP. Additional LRTP alignment is found in the proposed project's land use policies encouraging transit-oriented development (LU-1.10, LU-6.21) and transit access (LU-3.7). See also Section 5.10, <i>Land Use and Planning</i> , of this DEIR, discusses how the proposed project, including proposed goals and policies, would align with RTP/SCS goals and policies.
Metro Active Transportation Strategic Plan (ATSP)		
Adopted in 2016, the ATSP sets goals and objectives for implementing active transportation improvements across Los Angeles County. The plan established existing conditions and defined implementation steps, funding strategies, and performance metrics for the countywide active transportation network.	<ul style="list-style-type: none"> 1) Improve access to transit 2) Establish active transportation modes as integral elements of the countywide transportation system 3) Enhance safety, remove barriers to access, or correct unsafe conditions in areas of heavy traffic, high transit use, dense bicycle, and pedestrian activity 4) Promote multiple clean transportation options to reduce criteria pollutants, greenhouse gas emissions, and improve air quality 	Consistent. As it is primarily a land use plan, the proposed project is consistent with the Metro ATSP because it does not directly affect mobility infrastructure, nor does it preclude any proposed improvements to mobility. Additionally, the proposed Land Use Element policies promote access to transit and active transportation and connectivity between commercial corridors/job centers and residential neighborhoods (LU-1.10, LU-2.8, LU-3.6, LU-3.7, LU-4.6).

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Table 5.15-3 Programs, Plans, Ordinance, and Policy Consistency Review

Description	Relevant Goals, Policies and/or Objectives	Consistency
Metro Vision 2028 Plan		
The Metro Vision 2028 Plan is a strategic plan that lays the foundation for transforming mobility across the county over the 10-year period ending in 2028.	<ol style="list-style-type: none"> 1) increase prosperity for all by removing mobility barriers 2) improve the customer experience by reducing maximum wait times for any transit trip 3) increase mobility across the County by reducing the number of people who drive 	Consistent. As it is primarily a land use plan, the proposed project is consistent with the Metro Vision Plan because it does not directly affect mobility infrastructure, nor does it preclude any proposed improvements to mobility. The proposed Land Use Element policies are consistent with the Metro Vision 2028 Plan with its goals to improve access to transit where the existing and proposed Metro C Line Extension would operate, such as near the South Bay Galleria (South Bay Social District) and North Tech District (LU-3.7, LU-6.21).
Metro Next Gen Bus Plan		
Adopted in 2021, the Metro NextGen Bus Plan proposes major bus service changes across the Metro Service Area, including development of a new bus network to improve service to current customers, attract new customers, and win back past customers.	<ol style="list-style-type: none"> 1) Double the amount of frequent bus lines 2) Provide 80% of current users with headways under 15 mins 3) Create all-day, every day bus service 4) ensure one quarter-mile walk to bus stop for 99% of current riders 5) Increase safety at transit stops 	Consistent. As it is primarily a land use plan, the proposed project is consistent with the Next Gen Bus Plan because it does not directly affect transit routes nor does it preclude any proposed improvements to transit. The proposed Land Use Element policies are consistent with the goals of providing more transportation choices for residents and employees of Redondo Beach (LU-3.7, LU-6.21).
South Bay Bicycle Master Plan		
The SBBMP is a multi-city bicycle master plan developed in 2011 by the LACBC and the SBBC with the common goal of improving the safety and convenience of bicycling in the South Bay Region. Seven member cities of the SBCCOG were involved in the development of the SBBMP, including the City of Redondo Beach.	<ol style="list-style-type: none"> 1) Policy 1.1.4 – Review and encourage implementation of policies and facilities proposed in the SBBMP whenever planning new bicycle facilities or capital improvement projects that may be related to bicycle improvements 2) Objective 1.3 – Increased mobility through bicycle-transit integration 3) Policy 1.3.1 – Support the development of bicycle facilities that provide access to regional and local public transit services 4) Policy 1.3.2 – Coordinate with transit providers to ensure bicycles can be accommodated on all forms of transit vehicles and that adequate space is devoted to their storage on board whenever possible 5) Policy 1.3.3 – Coordinate with transit agencies to install and maintain convenient and secure short-term and long-term bike parking facilities – racks, on-demand bike lockers, in-station bike storage, and staffed or automated bicycle parking facilities – at transit stops, stations, and terminals 6) Policy 1.4.8 – Work with Metro to provide bicycle parking in proximity to bus stops and other transit facilities 	Consistent. As it is primarily a land use plan, the proposed project is consistent with the South Bay Bicycle Master Plan because it does not directly affect mobility infrastructure, nor does it preclude any proposed improvements to mobility. The proposed Land Use and Open Space Element policies are consistent with the South Bay Bicycle Master Plan by encouraging the improvement to bicycle mobility particularly for commercial corridors/job centers and residential neighborhoods, and the local transit system (LU-3.7, LU-3.8, LU-4.5, LU-4.6, OS-1.8, OS-1.10).

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Table 5.15-3 Programs, Plans, Ordinance, and Policy Consistency Review

Description	Relevant Goals, Policies and/or Objectives	Consistency
City of Redondo Beach Redondo Beach General Plan Transportation and Circulation Element		
The Redondo Beach General Plan Transportation and Circulation Element was adopted in 2009 and revised in 2021.	1) Goal G1 – Address the root causes of trip generation rather than simply reacting to the consequences 2) Goal G4 – Allow for safe and convenient walking, biking, or taking transit 3) Goal G16 – Provide reliable, safe fixed-route transit 4) Policy P31 – Extend Metro’s Green Line 5) Policy P32 – Create multi-modal transit hubs 6) Policy P33 – Enhance transit wayfinding and signage at transit stops	Consistent. The proposed Land Use Element policies align with the Redondo Beach General Plan Circulation Element policies, particularly those that are focused on pedestrian access, active transportation, access to transit, and corridor connectivity (LU-2.8, LU-3.6, LU-3.7, LU-3.8, LU-4.6).
City of Redondo Beach Artesia & Aviation Corridors Area Plan		
The 2020 Artesia & Aviation Corridors Area Plan (AACAP) is a vision-driven plan that provides analysis, strategies and implementable actions aimed at revitalizing Artesia & Aviation Corridors Area.	Revitalizing the Corridors through creating place, connectivity, and character within North Redondo.	Consistent. The proposed project is consistent with the City of Redondo Beach Artesia & Aviation Corridors Area Plan because it implements the land use plan and zoning changes needed to revitalize the corridors. The proposed Land Use Element policies are consistent with the AACAP’s connectivity and corridor enhancement goals (LU-3.8, LU-4.6).
City of Redondo Beach Harbor/Civic Center Specific Plan		
The City of Redondo Beach Harbor/Civic Center Specific Plan is the fundamental community development policy document that governs and determines the future development and character of the Harbor/Pier and Civic Center areas of the City of Redondo Beach.	Improve and/or modify the physical conditions and route of the existing shoreline bicycle path to maximize safety, functionality, and appearance, to further promote its use and attract additional riders. Encourage development configuration and urban design improvements which will serve to promote pedestrian circulation and elevate the Diamond Street corridor as a major crossing east-to-west across Pacific Coast Highway and through to the harbor/pier area. Encourage the development and use of Torrance Boulevard as the primary regional and local mass transportation entrance to the harbor/pier area (for both local residents and visitors).	Consistent. The proposed project is consistent with the mobility aspects of the City of Redondo Beach Harbor/Civic Center Specific Plan. As it is primarily a land use plan, the proposed Project is consistent with the Harbor/Civic Center Specific Plan and does not directly affect mobility infrastructure, nor does it preclude any proposed improvements to mobility.

Source: Fehr & Peers 2023.

Summary

As shown above, the proposed project would conflict with some policies from SCAG’s 2024–2050 RTP/SCS, as buildout facilitated by the proposed project would increase VMT per service population beyond the threshold (16.8% below SBCCOG Baseline Conditions) and would result in a significant impact, as further discussed below under Impact 5.15-2. Accordingly, the proposed project would generate long-term emissions that would

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exceed South Coast AQMD's regional significance thresholds and cumulatively contribute to the nonattainment designations of the SoCAB (see Section 5.2, *Air Quality*). Additionally, given the growth in population and employment within the City and the magnitude of GHG emissions reductions needed to achieve the GHG reduction target, GHG emissions are considered significant (See Section 5.7, *Greenhouse Gas Emissions*). Although the proposed project would include climate benefits, land use patterns, and goals and policies that align with the RTP/SCS, and would otherwise be consistent with implementation of programs, plans, ordinances, and policies addressing the circulation system, including transit, roadway, and bicycle and pedestrian facilities, impacts associated with VMT, Air Quality and GHG, would be significant and therefore, the proposed project would not be consistent with SCAG's 2024–2050 RTP/SCS and impacts would be significant.

Level of Significance Before Mitigation: Significant.

Impact 5.15-2: The proposed project would conflict or be inconsistent with CEQA Guidelines § 15064.3, subdivision (b). [Threshold T-2]

Table 5.15-4, *VMT per Service Population Summary and Impact Assessment* shows the total population, employment, and resulting service population that were coded into the SCAG ABM to reflect the General Plan land use buildout scenario. As shown in the Table 5.15-4 below, the proposed project exceeds the threshold of significance, and therefore is expected to have a significant impact.

Table 5.15-4 VMT per Service Population Summary and Impact Assessment

Metric	Proposed General Plan Update
Population	78,978
Employment	36,627
Service Population	115,605
VMT per Service Population	28.8
<i>Threshold of Significance: (16.8% below SBCCOG Baseline Conditions)</i>	24.0
Significant Impact?	Yes

Source: Fehr & Peers 2023.

Table 5.15-5, *Cumulative VMT Impact Analysis* summarizes the proposed project's cumulative effect on regional VMT, consistent with the City's TIS Guidelines. Compared with the impact assessment per service population, above, which is focused on Total VMT with an origin or destination (or both) in the City of Redondo Beach, the Cumulative VMT impact assessment is calculated based on the VMT on roadways within the City as well as the SBCCOG, inclusive of trips that simply pass through each geography without stopping. This assessment accounts for the rerouting of trips that may occur due to shifting travel patterns and changes in congestion levels or other factors associated with travel as a result of the proposed project.

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Table 5.15-5 Cumulative VMT Impact Analysis

Scenario	SBCCOG Region (All Vehicles)
Cumulative No Project (RTP/SCS)	21,878,376
Cumulative Plus Project	22,022,218
Change	143,842
Significant Impact?	Yes

Source: Fehr & Peers 2023.

As shown in Table 5.15-5, the proposed project is forecast to result in 143,842 higher Total Daily VMT within the SBCCOG region. Additional VMT is generated in the SBCCOG region because of the forecast growth in the City of Redondo Beach. Because the proposed project would result in an increase in regional VMT, it is expected to result in a significant impact under cumulative conditions.

In order to mitigate the Total VMT per service population impacts to a level less than significant, the proposed project's 28.8 Total VMT per service population would need to be reduced by 16.8 percent to be lower than 24.0 Total VMT per service population. The types of mitigation measures that can reduce VMT are primarily those that reduce the number of single-occupant vehicles trips, as well as reduce their overall trip lengths. This can be accomplished by implementing certain land use patterns, such as balancing housing and employment and local services, and by implementing Transportation Demand Management (TDM) strategies, including those identified in the Land Use Element policies, the AACAP, and in the City's TDM Ordinance.:

Land Use Element Policies

- **Policy LU -1.3 Diversity of Housing.** Collaborate with residents, housing providers and the development community to provide housing opportunities for every stage of life, and to plan for a variety of housing types and price points to support the local workforce and foster a balanced community.
- **Policy LU -1.4 Jobs-Housing Balance.** A place to live and a place to work that seeks to match its residents to jobs and promotes a workforce/jobs balance.
- **Policy LU-1.6 Housing Incentives.** Incentivize quality infill residential development that provides a diversity of housing types and accommodates all income levels and age groups.
- **Policy LU -1.9 Employment Opportunities.** Provide a broad spectrum of land uses and development that offer employment opportunities for current and future Redondo Beach residents.
- **Policy LU -1.10 Transit Oriented Development.** Encourage job centers with a potential affordable workforce housing component in close proximity (within ¼ mile) to the bus transit center and current and future light rail stations.

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- **Policy LU-2.8 Pedestrian access.** For new development, encourage pedestrian access and create strong building entries that are primarily oriented to the street.
- **Policy LU -3.6 Active Transportation.** Invest in active transportation connectivity between commercial corridors/job centers and residential neighborhoods to encourage healthy lifestyles.
- **Policy LU-3.7 Access to Transit.** Support the location of transit stations and enhanced stops near the Galleria (South Bay Social District) and North Tech District to facilitate and take advantage of transit service, reduce vehicle trips and allow residents without private vehicles to access services.
- **Policy LU-3.8 Corridor Connectivity.** Recognize corridors as important cross-town thoroughfares that connect Redondo Beach, serve as transitions between neighborhoods, provide opportunities for local-serving retail and balance the needs of multiple transportation modes. Consider mid-block pass through between parking areas within the corridors and between the corridors and adjacent residential neighborhoods. Specifically target power line and transportation rights of way as pedestrian and bicycle corridors to connect amenities across the City and in nearby communities. Work with neighboring communities to integrate and connect these pedestrians and bicycle corridors across city boundaries.
- **Policy LU-4.6 Connectivity.** Facilitate bicycling and pedestrian linkages to parks, beaches, tourist destinations, recreational amenities, open spaces and parks, and commercial destinations via the City's street, pedestrian, bicycle, and transit networks in a way that is visually appealing and safe to encourage local residents and visitors to minimize the use of automobiles. Focus on expanding connectivity through the addition of pedestrian and bike paths on public utility and transportation rights of way.
- **Policy LU-6.21 Job centers, corporate campuses, and transit-oriented job centers.** Address jobs/workforce imbalance by creating opportunities and an environment that attracts new high end business campuses and job centers, thus reducing the number of Redondo Beach workforce population who commute to other cities to work and providing weekday customers to frequent Redondo Beach business corridors.

The proposed amendments to the Zoning Ordinance would facilitate the implementation of the General Plan updates related to land use and implement required Zoning Map changes and programs pursuant to the City's existing Certified Housing Element. The proposed project would also include amending portions of both the Coastal Land Use Plan (LUP) and Implementation Plan (IP) components of its Local Coastal Program (LCP). Proposed changes to the LUP include updates to the Land Use Map consistent with the Land Use Map in the Focused General Plan Update.

AACAP Strategies

The AACAP provides land use, transportation and mobility strategies that can work together to reduce VMT relative to projects that would not provide for these improvements. These types of enhancements would improve non-auto access to and through the Artesia and Aviation corridors and would reduce reliance on auto trips to each use along the corridor by facilitating a "park once" strategy.

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- Enhanced pedestrian and bicycle connections to adjacent neighborhoods (e.g. full block pass throughs)
- Sidewalk & crossing improvements
- Right size parking provision
- Park once parking strategy

Article 11 TDM Requirements

Future non-residential development facilitated by the proposed project would be required to comply with applicable TDM development standards pursuant to Article 11 of the City's Municipal Code. Although TDM strategies have been determined to be among the most effective VMT mitigation measures, they need to be tailored to the characteristics of each future development project, and their effectiveness analyzed and documented as part of the environmental review process. As some TDM strategies are linked to a specific land use and not a particular development, their effectiveness can diminish if the land use changes. TDM measures could be available and appropriate for implementation at the project level as project design features or mitigation measures. Examples of these measures include:

- Optimize residential & employment density to reduce VMT per service population
- Price workplace parking
- Provide pedestrian network improvements
- Provide bicycle facility improvements
- Implement carshare or other shared use mobility programs (such as bikeshare or scootershare)
- Implement the revitalization measures, preferred uses, and mobility enhancements envisioned within the adopted AACAP
- Adjust or implement market-based pricing for on-street parking spaces (e.g. metered parking)
- Extend the transit network, service hours and/or improve service frequency
- Reduce transit fares or increase transit fare subsidies to a broader population

Implementation of the aforementioned proposed General Plan goals and policies, AACAP strategies and TDM requirements would reduce VMT impacts. However, because the proposed project is a regulatory document that sets the framework for future growth and development in the City and does not directly result in development use of VMT reduction strategies would need to be assessed on a project-by-project basis. Therefore, VMT impacts are concluded to be significant.

Level of Significance Before Mitigation: Significant.

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Impact 5.15-3: The proposed project would not result in a substantial increase in hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment). [Thresholds T-3]

The proposed project has been prepared at a programmatic level and does not propose any incompatible uses that would significantly increase hazards. Future development would undergo an extensive review process at the City to ensure consistency with adopted standards, including site plan review, and environmental review. Therefore, future development projects will be subject to the detailed project-level reviews, and any potential for hazards associated with geometric design features would be addressed through the environmental and site plan review of individual projects to include the provision of safe access for vehicles, pedestrian, and bicyclists, which would incorporate standards for adequate sight distance, sidewalks, crosswalks, and pedestrian movement controls to protect pedestrian and enhance bicycle safety. Furthermore, the SBBMP safety policies target bicycle safety, bicycle facility improvements and bicycle-transit integration. This impact is considered to be less than significant for the proposed project and no mitigation is required.

Level of Significance Before Mitigation: Less than significant.

Impact 5.15-4: The proposed project would not result in inadequate emergency access [Threshold T-4]

The proposed project has been prepared at a programmatic level and does not include elements that would impede emergency vehicle access. Future development projects would be required to be reviewed and evaluated for emergency access, and other project-level reviews in the context of design and environmental review. Policy S-4.3 of the Safety Element would ensure that new development, especially high-occupancy facilities, allow for evacuation of occupants through stabilized corridors and access points in the event of an emergency. Public roadways and buildings would require conformance to City and Fire Code standards for access. Additionally, a review of emergency access is included as part of the City's Design Review process. At that time, any specific improvements needed to maintain adequate emergency access would be identified and required of the development. Since all future projects will undergo such reviews and requirements to assess the potential for effects to emergency access, this impact is considered less than significant for the proposed project, and no mitigation is required.

Level of Significance Before Mitigation: Less than significant.

5.15.5 Cumulative Impacts

Compliance with local and state standards would ensure that all cumulative development in the City would be consistent with transportation-related programs, plans, ordinances, or policies addressing the circulation system, would provide adequate emergency access and would not result in roadway hazards. However, increased growth in the City facilitated by the proposed project has potential to combine with regional projected growth to further conflict with SCAG's Connect SoCal goals that are aimed at improving air quality and reducing GHG emissions. Additionally, as discussed above, the proposed project would result in a net increase in Total VMT from Existing Baseline. While the proposed project would result in benefits from a VMT efficiency perspective for a substantial share of the anticipated growth by clustering near transit, implementation of mitigation measures

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such as TDM strategies are not guaranteed to reduce levels to less than significant. Therefore, cumulative impacts are **significant and unavoidable**.

5.15.6 Level of Significance Before Mitigation

Upon implementation of regulatory requirements and standard conditions of approval, the following impacts would be less than significant: 5.15-3, and 5.15-4.

The following impacts would be **significant and unavoidable** at full buildout of the proposed project:

- **Impact 5.15-1** Conflict with a program, plan, ordinance, or policy addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities.
- **Impact 5.15-2** Conflict or be inconsistent with CEQA Guidelines § 15064.3, subdivision (b).

5.15.7 Mitigation Measures

Impact 5.15-1

See Mitigation Measure AQ-1, AQ-2, AQ-3, and GHG-1 in Section 5.2, *Air Quality* and Section 5.7, *Greenhouse Gas Emissions*, respectively.

Impact 5.15-2

There are no feasible mitigation measures that can fully reduce VMT impacts at full buildout of the proposed project. Specific TDM measures and VMT mitigation strategies that align with the General Plan goals and policies would need to be tailored to the characteristics of each future development project under the proposed project, and their effectiveness would need to be analyzed and documented as part of the environmental review process to determine if impacts could be mitigated or if they would remain significant and unavoidable. Given that research on the effectiveness of TDM strategies is continuing to evolve, feasible mitigation measures should be considered based on the best data available at the time a project is being considered by the City.

The types of mitigation measures that can reduce VMT are primarily those that reduce the number of single-occupant vehicles trips, as well as reduce their overall trip lengths. This can be accomplished by implementing certain land use patterns, such as balancing housing and employment and local services, and by implementing Transportation Demand Management (TDM) strategies. Several of the Land Use Element policies, AACAP strategies, and Article 11 TDM requirements detailed in Section 5.15-4 align with these types of measures. TDM strategies have been determined to be among the most effective VMT mitigation measures.

Consistent with the City's TIS Guidelines, the estimated effectiveness of identified TDM strategies is based primarily on research documented in the *Handbook for Analyzing Greenhouse Gas Emission Reductions, Assessing*

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Climate Vulnerabilities, and Advancing Health and Equity, California Air Pollution Control Officers Association (CAPCOA), December 2021.³

CAPCOA offers methodology based on empirically derived research literature with substantial evidence, to estimate the potential VMT reduction benefit of a wide variety of TDM strategies. Some TDM strategies are complementary to each other (e.g., rideshare matching and preferred parking for carpools), and so do not result in a simple additive benefit in reducing VMT. Using CAPCOA, Fehr & Peers estimates the VMT reduction benefit of TDM strategies to avoid double counting of VMT benefit. Additionally, some TDM strategies may be more effective in dense urban areas with access to high-quality transit, and less effective in more suburban environments, and so the selection of TDM mitigation measures takes into account the context of the City of Redondo Beach.

As previously stated, the Baseline Total VMT per service population is 28.8 for SBCCOG region, with the threshold of significance being 16.8 percent below the Baseline at 24.0 Total VMT per service population.

In order to mitigate the Total VMT per service population impacts to a level less than significant, the proposed Project's 28.8 Total VMT per service population would need to be lower than 24.0 Total VMT per service population.

The following are example mitigation measures that could be considered to be implemented at the Citywide level in order to mitigate the significant impacts associated with the proposed Project, as well as project-level CEQA clearances for future development projects.

- **Integrate Affordable and Below Market Rate Housing:** This mitigation measure provides greater opportunity for lower income families to live closer to job centers and achieve a jobs/housing match near transit. The quantification method for this measure accounts for VMT reductions achieved for multifamily residential projects that are deed restricted or otherwise permanently dedicated as affordable housing. For the purposes of quantification of the VMT reduction benefit of this measure, the Regional Housing Needs Assessment (RHNA) for very low- and low-income units (1,395) derived from the Redondo Beach Housing Element⁴ are assumed to be implemented within the plan horizon and integrated within the net new housing delivered in the City. This would result in an 1.2% reduction in Home Based VMT, and an 0.6% reduction in Total VMT per Service Population.
- **Implement Commute Trip Reduction Program:** The City would require conditions of approval to reduce any future projects' VMT that exceed the significance thresholds for future developments with employment. Implement a mandatory commute trip reduction (CTR) program covering at least 25% of future employees. This would result in a 1.4% reduction in the work VMT (or home-based work attraction trips), or 0.3% Total VMT per Service Population. The following elements shall be included to be effective:
 - Carpooling encouragement

³ *Handbook for Analyzing Greenhouse Gas Emission Reductions, Assessing Climate Vulnerabilities, and Advancing Health and Equity*, California Air Pollution Control Officers Association (CAPCOA), December 2021.

⁴ *City of Redondo Beach 2021-2029 Housing Element*, City of Redondo Beach, July 5, 2022. Accessed November 22, 2023 from <https://www.redondo.org/civicax/filebank/blobdload.aspx?BlobID=40957>

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- Ride-matching assistance
 - Preferential carpool parking
 - Flexible work schedules for carpools
 - Half-time transportation coordinator
 - Vanpool assistance
 - Bicycle end-trip facilities (e.g., parking, showers, and lockers)
- **Implement Subsidized or Discounted Transit Program:** The City would require conditions of approval for all future housing developments to reduce VMT through the provision of a discounted transit program provided to residents. For the purposes of this calculation, 25% of new residents are assumed to qualify for this program and would be provided free monthly transit passes funded by the developer. The program could be administered via a community-based travel planning entity as detailed below, or another entity as defined by the City. This would result in an 0.1% reduction in the Home Based VMT or 0.05% Total VMT per Service Population
- **Assembly Bill (AB) 2097 Requirements to Limit Residential Parking Supply in Transit Priority Areas:** AB 2097 is an act of the California Assembly that circumvents local zoning control over off-street parking standards within transit priority areas (TPAs). TPAs are areas within one-half mile of rail transit, bus-rapid transit, or ferry stations, or within one-half mile of bus stops with two intersecting bus lines of 15-minute or better service frequencies. AB 2097 prohibits local jurisdictions from imposing off-street parking standards on developments within TPAs, meaning that developments can be built with less than (or zero) off street parking compared with what would otherwise be required by a local jurisdiction. CAPCOA research indicates that the elimination of parking minimums for residential projects reduces VMT. For the purposes of this calculation, all net-new residential development forecast to occur within the TPA around the existing C Line Marine Station, and the future C Line Station (either at the Redondo Beach Transit Center or the South Bay Galleria), would be built with no off-street parking for residential units. This would result in an 0.5% reduction in the Home Based VMT or 0.2% Total VMT per Service Population.
- **Provide Community Based Travel Planning:** This measure would target new residences in the plan horizon with community-based travel planning (CBTP) support. CBTP is a residential-based approach to outreach that provides households with customized information, incentives, and support to encourage the use of transportation alternatives in place of single occupancy vehicles, thereby reducing household VMT and associated GHG emissions. For the purposes of this calculation, 25% of new residents are assumed to qualify for this program. This would result in an 0.06% reduction in the Home Based VMT or 0.03% Total VMT per Service Population.

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5.15.8 Level of Significance After Mitigation

Impact 5.15-1

There are no feasible mitigation measures to fully reduce the proposed project's inconsistencies with the goals of SCAG's 2024–2050 RTP/SCS. As a result, future development in accordance with the proposed General Plan Update would conflict with programs and plans addressing the circulation system and project and cumulative impacts would be ***significant and unavoidable***.

Impact 5.15-2

There are no feasible mitigation measures that could fully mitigate the proposed project to levels less than significant, and VMT impacts would be significant and unavoidable. Implementation of proposed General Plan goals and policies, AACAP strategies and TDM requirements would reduce VMT impacts. However, because the proposed project is a regulatory document that sets the framework for future growth and development in the City and does not directly result in development, and thus VMT, use of VMT reduction strategies would need to be assessed on a project-by-project basis. Therefore, project and cumulative impacts would remain ***significant and unavoidable***.

5.15.9 References

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5.16 TRIBAL CULTURAL RESOURCES

Tribal cultural resources include landscapes, sacred places, or objects with a cultural value to a California Native tribe. This section of the Draft Program Environmental Impact Report (DEIR) evaluates the potential for the proposed project to impact tribal cultural resources in the City of Redondo Beach.

The analysis in this section is based in part on the following information:

- *Cultural and Paleontological Resources Assessment for the City of Redondo Beach General Plan Update Project*, Cogstone, June 2024.

A complete copy of this study is provided in Appendix D of this Draft EIR. Additionally, a compilation of Senate Bill 18 (SB 18) and Assembly Bill 52 (AB 52) tribal consultation letter correspondences received by the City from Native American tribes is provided in Appendix H.

5.16.1 Environmental Setting

5.16.1.1 REGULATORY BACKGROUND

Federal Regulations

National Historic Preservation Act

The National Historic Preservation Act of 1966 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 act 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.

Archaeological Resources Protection Act

The Archaeological Resources Protection Act became law on October 31, 1979, and has been amended four times (US Code, Title 16, Sections 470aa–mm). It regulates the protection of archaeological resources and sites that are on federal and Indian lands.

Native American Graves Protection and Repatriation Act

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

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State Regulations

California Public Resources Code

Archaeological, paleontological, and historical sites are protected 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 the California Environmental Quality Act (CEQA).

PRC Section 5097.9–5097.991 provides protection to Native American historical and cultural resources and sacred sites and identifies the powers and duties of the Native American Heritage Commission (NAHC). It also requires notification to descendants of discoveries of Native American human remains and provides for treatment and disposition of human remains and associated grave goods.

PRC Section 5097.993 establishes that a person who unlawfully and maliciously excavates, removes, destroys, or defaces a Native American historic, cultural, or sacred site that is listed or may be eligible for listing in the California Register of Historical Resources is guilty of a misdemeanor if the act was committed with specific intent to vandalize, deface, destroy, steal, convert, possess, collect, or sell a Native American artifact, art object, inscription, feature, or site. Civil penalties include imprisonment and fines up to \$50,000 per violation.

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 sites, 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). The law requires local jurisdictions to provide opportunities for involvement of California Native American tribes in the land planning process for the purpose of preserving traditional tribal cultural places. The Final Guidelines recommend that the NAHC provide written information as soon as possible but no later than 30 days after receiving a request 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 the consultation duration. Forty-five days before the action is publicly considered, 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.

SB 18 is triggered before the adoption, revision, amendment, or update of a city’s or county’s general plan. In addition, SB 18 provides a new definition of TTCP requiring a traditional association of the site with Native American traditional beliefs, cultural practices, or ceremonies, or the site must be shown to actually have been used for activities related to traditional beliefs, cultural practices, or ceremonies (previously, the site was defined to require only an association with traditional beliefs, practices, lifeways, and ceremonial activities). SB 18 also

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amended Civil Code Section 815.3 and adds California Native American tribes to the list of entities that can acquire and hold conservation easements for the purpose of protecting their cultural places.

Assembly Bill 52

AB 52 took effect July 1, 2015, and requires inclusion of a new section in CEQA documents for impacts to tribal cultural resources, which include heritage sites. Under AB 52, a tribal cultural resource is defined as similar to TTCPs under SB 18—sites, features, places, cultural landscapes, sacred places, and objects with cultural value to a California Native American tribe that are either included or eligible for inclusion in the California Register or included in a local register of historical resources. Or the lead agency, supported by substantial evidence, chooses at its discretion to treat the resources as a tribal cultural resource.

Also similar to SB 18, AB 52 requires consultation with tribes at an early stage to determine whether a project would have an adverse impact on a tribal cultural resource (TCR) and defines 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 to respond if it wishes to engage in consultation. The lead agency must initiate consultation within 30 days of receiving a request for consultation. Consultation concludes when both parties have agreed on measures to mitigate or avoid a significant effect to a tribal cultural resource, or a third 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 TCRs and discuss feasible alternatives or mitigation that avoid or lessen the impact.

Local Regulations

City of Redondo Beach Municipal Code

10, Chapter 3, Environmental Review Pursuant to CEQA, of the Redondo Beach Municipal Code establishes the specific procedures necessary to implement CEQA. Article 2, Evaluation of Significant Effects, establishes criteria for determining significant effects and provides guidance in making an evaluation whether or not a particular project may have a substantial adverse effect on the environment. Pursuant to the Municipal Code, if there are inconsistencies between the provisions contained in Title 10, Chapter 3, and the State's CEQA Guidelines, the State's CEQA Guidelines shall control. As established in Section 10-3.202, significant effects may be due to primary consequences immediately related to the project or may be due to secondary consequences related more to the primary consequences than the project itself. As established in Section 10-3.203(j), with respect to cultural resources, a project will normally have a significant effect on the environment if it will disrupt or adversely affect a prehistoric or historic archaeological site or a property of historic or cultural significance to a community or ethnic or social group; or a paleontological site except as a part of a scientific study.

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5.16.1.2 EXISTING CONDITIONS

Prehistoric Setting and Ethnography

As discussed in the Cultural and Paleontological Resources Assessment (see Appendix D), the latest cultural revisions for the City define traits for time phases of the Topanga pattern of the Encinitas Tradition applicable to coastal Los Angeles and Orange counties. This pattern is replaced in the City by the Angeles pattern of the Del Rey Tradition. Topanga Pattern groups were relatively small and highly mobile. Sites known are temporary campsites, not villages and tend to be along the coast in wetlands, bays, coastal plains, near-coastal valleys, marine terraces, and mountains. The Topanga toolkit is dominated by manos and metates with projectile points scarce.

The Angeles VI phase reflects the ethnographic mainland Gabrielino of the post-contact period. One of the first changes in Gabrielino culture after contact was undoubtedly population loss due to disease, coupled with resulting social and political disruption. The Gabrielino are considered to have been one of the wealthiest tribes and to have greatly influenced tribes they traded with. Houses were domed, circular structures thatched with tule or similar materials. The best-known artifacts were made of steatite and were highly prized. Many common everyday items were decorated with inlaid shells or carvings reflecting an elaborately developed artisanship.

The area within the City was not home to any known major villages. The closest known named villages are Tevaaxa'anga, 5.9 miles east-southeast of the City and Saa'anga located 6.65 miles northwest of the City. However, smaller villages and seasonal camps may have been present closer to the City.

The underlying geology of the City is mapped as Pleistocene (2.58 million years ago – 11,700 years ago) sedimentary deposits; middle to late Pleistocene (774,000 – 11,700 years ago) old eolian deposits and old alluvium, undivided; and late Holocene (less than 4,200 years ago) unconsolidated shelf sediments, eolian deposits, beach deposits, and artificial fill. The Middle to Late Pleistocene sediments found in the far northeast corner of the City predate documented human populations in the area and are considered to have low sensitivity for archaeological sites. All but one of the prehistoric archaeological sites and multicomponent archaeological sites are in the southern part of the City near the beach. Historic-aged archaeological sites are found in most of the City but are concentrated in the south. The area in the southern half of the City within one-half mile of the beach is considered highly sensitive for buried historic-aged and prehistoric archaeological deposits. Because this area of the City has sediments capable of preserving archaeological resources, most resources are concentrated near the coast. All other areas of the City except the northeast corner are considered to have low to moderate sensitivity for buried historic-aged and prehistoric archaeological deposits.

Native American Heritage Commission

The NAHC conducted a Sacred Lands File search for the project site and identified 15 local representatives from Native American groups as potentially having local knowledge:

- Gabrieleno Band of Mission Indians–Kizh Nation
- Gabrieleno/Tongva San Gabriel Band of Mission Indians
- Gabrielino /Tongva Nation

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- Gabrielino Tongva Indians of California Tribal Council
- Gabrielino-Tongva Tribe
- Quechan Tribe of the Fort Yuma Reservation
- San Fernando Band of Mission Indians
- San Manuel Band of Mission Indians
- Serrano Nation of Mission Indians
- Santa Rosa Band of Cahuilla Indians
- Soboba Band of Luiseno Indians
- Fernandeno Tataviam Band of Mission Indians
- Morongo Band of Mission Indians
- Torres Martinez Desert Cahuilla Indians
- Scientific Resource Surveys, Inc. (Tribal Liaison)

The City notified all the tribal representatives about the proposed project on June 1, 2023, and asked for information about potential resources at or near the project site. The City received responses from the Quechan Indian Tribe and Gabrielino Band of Mission Indians–Kizh Nation. The Quechan Indian Tribe did not wish to comment on the project, and the Gabrielino Band of Mission Indians–Kizh did not request updates relating to the proposed project but did request consultation for all future discretionary projects within the City.

5.16.2 Thresholds of Significance

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

- 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 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.

5.16.3 Proposed General Plan Goals and Policies

Goal LU-4 Health and Vitality: A vibrant community that supports the healthy and active lifestyles of residents and visitors.

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- **Policy LU -4.3 Coastal Amenities.** Promote and enhance the City's coastal amenities such as its beaches, King Harbor, and the Redondo Beach Pier that serve as landmarks and distinguishing features unique to the City and also provide coastal access and coastal recreational opportunities for the community at large.
- **Policy LU-4.4 New Open Space and Parkland Opportunities.** Preserve, invest in, and expand open space and parkland opportunities for active and passive recreational public and private open spaces. Work with future developments along commercial corridors and other nonresidential developments to create useable public open spaces to enhance the commercial neighborhood experience for residents and visitors alike.

Goal LU-7 Historic Preservation: Historic buildings, streets, landscapes and neighborhoods, as well as the story of Redondo Beach's people, businesses, and social and community organizations, are preserved and serve as a point of civic pride and identity for the community.

- **Policy LU-7.1 Historic landmarks and districts.** Encourage the voluntary designation of potentially historic resources as landmarks or historic districts.
- **Policy LU-7.2 Protect designated landmarks and districts.** Continue to use the Certificate of Appropriateness process for reviewing applications to demolish or alter designated landmarks and for projects within designated historic districts and in proximity to landmark properties.
- **Policy LU-7.3 Public and institutional facilities.** Consider the designation of potentially historic public or institutional resources under threat of demolition or deterioration.
- **Policy LU-7.4 Adaptive reuse and sustainable development.** Promote historic preservation as sustainable development and encourage adaptive reuse of historic or older properties.
- **Policy LU-7.5 Historic resources as cultural tourism.** Promote historic places and cultural tourism as an economic development strategy.
- **Policy LU-7.6 History and cultural heritage.** Support and encourage efforts to document and share the cultural heritage and history of Redondo Beach.
- **Policy LU-7.7 Culturally inclusive planning.** Ensure that historic preservation planning is culturally inclusive and reflective of the unique background and diversity of neighborhoods in the City.
- **Policy LU-7.8 Incentives and technical assistance.** Provide assistance to owners of potentially eligible and designated historic properties with tools and incentives to maintain historic resources. Consider providing restoration assistance to owners of historic sites and/or structures in return for agreements or deed restrictions prohibiting their destruction or alteration inconsistent with their historic character. Continue to provide Mills Act Agreements to owners of historic sites to maintain, rehabilitate, and preserve the character defining features of historic properties.

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Open Space and Conservation Element

Goal OS-2 High-Quality Open Spaces and Recreational Facilities: Parks, public spaces, and recreational facilities that are highly utilized by residents and visitors of all ages, abilities, and incomes and are well-maintained, safe, and meet the long and-short term needs of the Redondo Beach Community.

- **Policy OS-2.10 Conservation.** Preserve and enhance unique and valuable community resources as part of the planning and development of parks, public spaces, and recreation areas. Such resources include significant scenic and visual landmarks; cultural/historic resources; and natural resources such as coastal resources, wildlife habitats, and native vegetation.

5.16.4 Environmental Impacts

5.16.4.1 METHODOLOGY

A records search of the California Historical Resources Information System from the South Central Coastal Information Center (SCCIC) at California State University, Fullerton was requested on August 18, 2023, which included the entire City. In addition to the SCCIC records search, a variety of sources were consulted in September 2023 to obtain information regarding the cultural context of the City including the National Register of Historic Places, California Register of Historical Resources, Built Environment Resource Directory (BERD), California Historical Landmarks, and California Points of Historical Interest.

In addition to the SCCIC and BERD record search results, Cogstone submitted a Sacred Lands File search request to the NAHC on August 18, 2023. The NAHC responded on October 3, 2023 and indicated that the search was negative for sacred lands or resources.

In accordance with AB 52 and SB 18 requirements, the City sent invitation letters on June 1, 2023, to the Native American contacts provided by the NAHC and tribes who had previously requested consultation, 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 (see also Appendix H).

5.16.4.2 IMPACT ANALYSIS

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

Impact 5.16-1: The proposed project would 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). [Threshold TCR-1]

The proposed project is a regulatory document that sets the framework for future growth and development in the City and does not directly result in development. Updates to the Zoning Ordinance and LCP would involve land-use changes that would be consistent with the General Plan Update. Before any development or

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redevelopment activities would occur in the City, all such activities would be required to be analyzed for conformance with the General Plan, zoning requirements, and other applicable local, state, and federal requirements and obtain all necessary clearances and permits. Therefore, adoption of the proposed project in itself would not lead to the disturbance of TCRs.

Although the proposed project includes policies that would minimize impacts to TCRs, such as OS-2.10, long-term implementation of the proposed project could allow development (e.g., infill development, redevelopment, and revitalization/restoration), including grading, of unknown sensitive areas. Grading and construction activities of undeveloped areas or redevelopment that requires more intensive soil excavation than in the past could potentially cause the disturbance of TCRs. Therefore, future development could potentially unearth previously unknown/unrecorded TCRS resources, and impacts could be potentially significant.

Level of Significance Before Mitigation: Potentially significant.

5.16.5 Cumulative Impacts

The context for the analysis of impacts to tribal cultural resources is generally site specific rather than cumulative in nature, because each project site has a different set of geologic and historic considerations that would be subject to further assessments depending on existing site conditions, location, and sensitivity to tribal cultural resources. Therefore, the potential for cumulative impacts is limited. Because the mitigation measures are able to bring the impacts to less than significant, cumulative effects of future development on tribal cultural resources are considered less than significant.

5.16.6 Level of Significance Before Mitigation

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

- **Impact 5.16-1** Tribal cultural resources could be adversely impacted by grading activities associated with the proposed project.

5.16.7 Mitigation Measures

See Mitigation Measure CUL-2 and CUL-3 in Section 5.6, *Cultural Resources*.

5.16.8 Level of Significance After Mitigation

Implementation of regulatory requirements and Mitigation Measures CUL-2 and CUL-3 would reduce potential impacts associated with TCRs to a level that is less than significant. Therefore, no significant unavoidable adverse impacts relating to tribal cultural resources have been identified.

5.16.9 References

Cogstone. 2024 June. *Cultural and Paleontological Resources Assessment for the City of Redondo Beach General Plan Update Project*. Appendix D.

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5.17 UTILITIES AND SERVICE SYSTEMS

This section of the Draft Program Environmental Impact Report (DEIR) evaluates the potential for implementation of the General Plan and Zoning Ordinance Updates, and Local Coastal Program (LCP) amendment (proposed project) to impact utility and service systems that serve the City of Redondo Beach. 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 report:

- *City of Redondo Beach General Plan Update Infrastructure Report for Water, Sewer, Storm Drainage, and Water Quality*, Fuscoe Engineering Inc., July 2024.

A complete copy of this report is included in Appendix F of this Draft EIR.

5.17.1 Wastewater Treatment and Collection

5.17.1.1 ENVIRONMENTAL SETTING

Regulatory Background

Federal

Clean Water Act and National Pollution Elimination Discharge System

The Clean Water Act establishes regulations to control the discharge of pollutants into the waters of the United States and regulates water quality standards for surface waters (US Code, Title 33, Sections 1251 et seq.). Under the act, the US Environmental Protection Agency (EPA) is authorized to set wastewater standards and runs the National Pollutant Discharge Elimination System (NPDES) permit program. Under the NPDES program, permits are required for all new developments that discharge directly into Waters of the United States. The federal Clean Water Act requires wastewater treatment of all effluent before it is discharged into surface waters. NPDES permits for such discharges in the project region are issued by the Los Angeles Regional Water Quality Control Board (LA RWQCB) (Region 4).

National Pollutant Discharge Elimination System

The NPDES permit program was established in the CWA to regulate municipal and industrial discharges to surface waters of the United States. 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 contained in the discharge; set prohibitions on discharges not specifically allowed under the permit; and establish provisions that describe required actions by the discharger, including industrial pretreatment, pollution prevention, self-monitoring, and other activities. Wastewater discharge is regulated under the NPDES permit program for direct discharges into receiving waters and by the National Pretreatment Program for indirect discharges to a sewage treatment plant.

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State

State Water Resources Control Board: Statewide General Waste Discharge Requirements

In order to provide a statewide regulatory approach to address sanitary sewer overflows, the State Water Resources Control Board (SWCRB) adopted Statewide General Waste Discharge Requirements for sanitary sewer systems (Order No. 2006-0003- DWQ) in 2006. The Statewide General Waste Discharge Requirements were readopted in December 2022 (Order No. 2022-0103-DWQ). 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 which 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 system management plan (SSMP). The SSMP evaluates existing sewer collection systems and provides a framework for undertaking the construction of new and replacement facilities to maintain proper levels of service. It 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."Provision 14 of Order 2006-003-DWQ requires the SSMP be updated every five years and shall include any significant program changes. Recertification by the City Council is required when significant updates to the SSMP are made.

General Pretreatment Regulations for Existing and New Sources of Pollution

The General Pretreatment Regulations establish the responsibilities of federal, state, and local governments; industry; and the public to implement National Pretreatment Standards to control pollutants that pass through or interfere with treatment processes in publicly owned treatment works or that may contaminate sewage sludge. Pretreatment standards are pollutant discharge limits that apply to industrial users.

Assembly Bill 885 (AB 885)

The SWRCB implements regulations to reduce the impact of wastewater sources on groundwater quality in accordance with Assembly Bill (AB) 885 through its water quality control policy for siting, design, operation, and maintenance of on-site wastewater treatment systems (OWTS) (septic systems) (Resolution No. 2012-0032). This policy establishes a statewide, risk-based, tiered approach for the regulation and management of OWTS installations and replacements that have affected, or will affect, groundwater or surface water to a degree that makes it unfit for drinking water or other uses or cause a health or public nuisance condition. RWQCBs incorporated the standards in the OWTS policy or standards that are more protective of the environment and public health into their water quality control plans. Implementation is overseen by the State and regional water quality boards and local agencies (e.g., county and city departments and independent districts).

Regional

Los Angeles County Sanitation District Connection Fees

Capital improvements to the Los Angeles County Sanitation Districts' (LACSD) water reclamation plants are funded from connection fees charged to new developments, redevelopments, and expansions of existing land uses. The connection fee is a capital facilities fee used to provide additional conveyance, treatment, and disposal

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facilities (capital facilities) required by new users connecting to the LACSD's sewerage system or by existing users who significantly increase the quantity or strength of their wastewater discharge. The Connection Fee Program ensures that all users pay their fair share for any necessary expansion of the system. Estimated wastewater generation factors used in determining connection fees in LACSD's 22 member districts are in the Connection Fee Ordinance for each respective district, available on LACSD's website. The City of Redondo Beach is in District 5 of the Sanitation Districts (LACSD 2022).

Los Angeles County Sanitation Districts Wastewater Ordinance

LACSD's Wastewater Ordinance was adopted on April 1, 1972 and amended on July 1, 1998. The Wastewater Ordinance was enacted to protect the environment and public health; to provide for the maximum possible beneficial public use of the LACSD's sewerage facilities through adequate regulation of sewer construction, sewer use, and industrial wastewater discharges; to provide for equitable distribution of the District's costs; and to provide procedures for complying with requirements placed upon the District by other regulatory agencies (LACSD 1998).

Enhanced Watershed Management Plan for Beach Cities

Following adoption of the Municipal Separate Storm Sewer System (MS4) permit, the Cities of Hermosa Beach, Manhattan Beach, Redondo Beach, and Torrance (Beach Cities), together with the Los Angeles County Flood Control District, agreed to collaborate in the development of the Enhanced Watershed Management Plan (EWMP) for the Santa Monica Bay and Dominguez Channel Watershed. The EWMP is intended to facilitate effective, watershed-specific permit implementation strategies in accordance with permit Part VI.C., Watershed Management Program. The EWMP summarizes watershed-specific water quality priorities identified by the Beach Cities Watershed Management Group; outlines the program plan, including specific strategies, control measures, and best management practices (BMP) necessary to achieve water quality targets; and describes the quantitative analyses completed to support target achievement and Permit compliance (WMG 2018).

National Pollution Discharge Elimination Permits for Wastewater Treatment Plants

Wastewater from the City of Redondo Beach is treated by the Joint Water Pollution Control Plant (JWPCP) (also known as the A.K Warren Water Resource Facility) which is located at 24501 South Figueroa Street in Carson. The JWPCP is permitted under NPDES No. CA0053813 (Order No. R4-2023-0181), which includes the waste discharge requirements that the plant is subject to.

Local

City of Redondo Beach General Plan

The City of Redondo Beach's existing General Plan includes a Utilities Element that describes the sewer infrastructure within the City and contains goals, objectives, policies, and implementation programs that guide the City's management of sewer utilities. The following goals, objectives, and policies are relevant to wastewater impacts under the proposed project.

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Goal 6A: Establish and maintain adequate planning, construction, maintenance, and funding for sanitary sewer collection and treatment facilities to support and serve the various land uses and intensities of development in the City and protect public health and safety; upgrading existing deficient systems, and expanding the system, where necessary. The services shall be provided and system operated in an ecologically-sensitive manner.

Objective 6.1: Provide a comprehensive and modern system of sanitary sewer collection and treatment facilities which will adequately collect, convey, and treat sewerage generated by existing and future development in the City. The services shall be provided and system operated in an ecologically-sensitive manner.

- **Policy 6.1.1.** Improve and enhance cooperation and communication with the Los Angeles County Sanitations Districts officials to promote effective planning and ensure the most efficient operation and maintenance of the City's sanitary sewer collection and treatment system and facilities.
- **Policy 6.1.2.** Provide for the adequate operation and maintenance of existing sanitary sewer collection and treatment facilities serving the City.
- **Policy 6.1.3.** Provide for the improvement of sanitary sewer collection and treatment facilities (i.e., through replacement of old mains, construction of parallel lines, etc.) where existing systems are deficient.
- **Policy 6.1.4.** Provide for the construction of upgraded and expanded sanitary sewer and treatment improvements to adequately support new and existing development throughout the City.
- **Policy 6.1.5.** Require that the approval of new development in the City be contingent upon the ability of the project to be served with adequate sanitary sewer infrastructure and service.
- **Policy 6.1.6.** Update and complete a comprehensive master plan for sanitary sewer system operation, maintenance, and improvements based on the Preliminary Sewer Master Plan, prepared for the City by Donald G. Rosenberg and Associates, Incorporated and implement all appropriate recommendations where feasible.
- **Policy 6.1.7.** Pursue, through the Public Works Department, the creation and adoption of an ordinance that would establish a mandatory sewer impact fee (per unit or per square foot) for new development projects (above and beyond the existing sewer connection fees presently charged by the City and the county) to finance the capital improvements within the sanitary sewer system that have been or will be identified as necessary in the future to support such additional development.
- **Policy 6.1.8.** Review and modify local sewer connection fees and monthly service charges, as necessary, to ensure that adequate amounts of fees and charges are collected to fund the operation and maintenance of existing sanitary sewer collection and treatment facilities.
- **Policy 6.1.9.** Apply collected sewer impacts fees, sewer connection fees, and monthly service charges associated with sanitary sewer collection and treatment services towards the operation, maintenance, repair, and replacement of existing sanitary sewer facilities and construction of new facilities.

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- **Policy 6.1.10.** Examine the feasibility and potential for the use of reclaimed water for irrigation and cleaning purposes, in both public and private facilities.
- **Policy 6.1.11.** Wherever applicable and feasible, the City of Redondo Beach shall require that major water users in the community install systems for the collection of and use of reclaimed water as an irrigation and cleaning source.

City of Redondo Beach Municipal Code

The City of Redondo Beach Municipal Code (RBMC) Title 5, Chapter 4, Wastewater System, contains provisions for sewer construction and connection. For example, Section 5-4.304, Sewer Connection Requirements, requires that connections to the City's sewer system obtain a permit and that every connection made with any public sewer of the City be made in accordance with the Engineering and Public Works Department's Standard Plans and Specifications. Additionally, Section 5-4.303, Sanitary Sewer Installation Policy, requires that a wastewater capital facility charge be collected for each lot or parcel of land proposed to be connected to the sewer. Section 5-4.504, Wastewater Sewer User Fees, further delineates the sewer user fees levied on development in the City.

Title 10, Chapter 3, Environmental Review Pursuant to CEQA, of the Redondo Beach Municipal Code establishes the specific procedures necessary to implement CEQA. Article 2, Evaluation of Significant Effects, establishes criteria for determining significant effects and provides guidance in making an evaluation whether or not a particular project may have a substantial adverse effect on the environment. Pursuant to the Municipal Code, if there are inconsistencies between the provisions contained in Title 10, Chapter 3, and the State's CEQA Guidelines, the State's CEQA Guidelines shall control. As established in Section 10-3.202, significant effects may be due to primary consequences immediately related to the project or may be due to secondary consequences related more to the primary consequences than the project itself. As established in Section 10-3.203(s), with respect to wastewater, a project will normally have a significant effect on the environment if it will extend a sewer trunk line with capacity to serve new development.

Sewer System Management Plan

The City's SSMP was originally approved by the City Council in 2010 and was readopted most recently in August 2022. The purpose of the SSMP was to provide a plan and schedule that would enable the City to properly manage and maintain all parts of its sanitary sewer system. Goals of the SSMP are to prevent sewer system overflows by implementing the following actions.

- Perform systematic and timely condition evaluation of all sanitary sewer mains to ensure a high level of system serviceability is maintained at all times.
- Perform sewer system repairs and replacement to the greatest degree possible prior to street surface reconstruction.
- Implement effective sewer main-line cleaning/flushing program to ensure the full capacity of the collection system is maintained to the furthest extent possible.
- Perform timely repairs and replacements of sewer collection system as identified by system evaluation.

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- Maintain a pump station Supervisory Control and Data Acquisition system to ensure timely response to pump station failures so that sewer system overflow does not occur, and to provide system operational data to make timely and appropriate decisions on equipment repairs and replacements.
- Provide sufficient emergency electric power generation to ensure no pump station will cause a sewer system overflow due to the loss of electrical power from the service provider.
- Perform routine pump station system maintenance to ensure the system does not fail to operate due to foreseeable mechanical, electrical, and control equipment malfunction.
- Perform systematic and timely evaluation of pump station systems (condition and capacity) to ensure a high level of system serviceability is maintained at all times.
- Conduct timely capacity evaluation of the entire wastewater collection system to ensure adequate dry weather flow capacity is provided for customer service demands, and surplus capacity is provided for inflow and infiltration during wet weather.
- Minimize the sources of inflow and infiltration cost-effectively.
- Provide all necessary training of personnel to ensure they have the skills and knowledge to operate and maintain the system to the highest standards.
- Implement the fats, oils, and grease control program to minimize the entry of these substances into the collection system.
- Establish proper legal authority for implementing the above.
- Maintain the necessary level of funding and staffing for providing proper operation, maintenance, and repair of the system as detailed in the Operation and Maintenance Program; and provide adequate capacity as detailed in the System Evaluation and Capacity Assurance Plan through periodic reviews of the rate structure.
- Install citywide “smart manhole cover” devices to monitor the sewer system’s operation and provide a real-time warning and notification of any upsets, thereby preventing potential overflows. (Redondo Beach 2022)

Existing Conditions

The following existing conditions information is from the *City of Redondo Beach General Plan Update Infrastructure Report for Water, Sewer, Storm Drainage, and Water Quality* (see Appendix F for additional information and citations).

Wastewater Collection System

The City owns, operates, and maintains the majority of the sewer collection system within its boundary. The City’s system consists of approximately 113 miles of 8-inch to 39-inch sewer lines. The majority of the lines are gravity mains (97 percent) and force mains (2 percent), with the remaining consisting of laterals (less than

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1 percent) and siphons (less than 1 percent). Most of the lines are made from vitrified clay (94 percent) and reinforced concrete (2 percent). A majority of the lines are owned and maintained by the City (85 percent), and remaining lines are owned and maintained by the LACSD District No. 5 (13 percent); Los Angeles County (1 percent); and private entities, City of Hermosa Beach, and City of Torrance (less than 1 percent). Most lines are maintained throughout the year from one to five times. In the City there are also 22 pump stations—16 are owned and operated by the City, and the remaining 6 are owned by LACSD. Other infrastructure includes 22 cleanout structures—12 are privately owned and managed, 8 are the City's, and the remaining 2 are owned by Hermosa Beach. The City's Public Works Department is largely responsible for the cleaning and maintenance of the City's sewer collection system and works closely with the Engineering Services and Operations Division to ensure the sewer system is functioning effectively within the City boundary. Cal Water, which serves the City's potable water, relies on LACSD and the West Basin Municipal Water District (WBMWD) for wastewater treatment. The City's existing sewer infrastructure is shown on Figure 5.17-1, *Sewer Infrastructure*.

Wastewater Treatment

Los Angeles County Sanitation Districts

Sewer flows from the City ultimately connect to LACSD sewer trunk lines, which convey wastewater to LACSD's regional treatment plants. Within the City, LACSD owns, operates, and maintains six wastewater pumping plants that serve the local community.

Wastewater generated by the City and the California Water Services–Hermosa Redondo District (Cal Water) service area is treated at the JWPCP (now called the A.K. Warren Water Resource Facility). The JWPCP is in the City of Carson and has a treatment capacity of 400 million gallons per day (mgd) and currently processes an average flow of 243.1 mgd, which leaves approximately 156.9 mgd in remaining treatment capacity. The JWPCP disinfects treated wastewater with chlorine before releasing it into the Pacific Ocean through outfalls off the Palos Verdes Peninsula.

West Basin Municipal Water District

Recycled water is provided to the Cal Water Hermosa Redondo District service area by WBMWD. The source of the recycled water is treated effluent from the City of Los Angeles' Hyperion Wastewater Treatment Plant. The Hyperion plant primarily disposes of treated effluent through ocean outfalls, but around 6 percent of its treated effluent is directed to the Edward C. Little Water Recycling Facility owned by WBMWD.

Existing Sewer Flows

Sewer flows throughout the Cal Water Hermosa Redondo District are driven by population and service growth linked to SCAG projections. SCAG utilizes a detailed modeling framework covering multiple Southern California counties, including Los Angeles County and the City. The population, household size, and employment projections used by Cal Water to forecast service area population and service connections tie back to the SCAG census tract land use and growth projections. Cal Water estimated that in 2020 the volume of

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wastewater collected from the Hermosa-Redondo District service area and treated by the Edward C. Little Water Recycling Facility was 8,594 acre-feet (af) (2,800 mgd) (Fusco 2024)¹.

Existing Sewer Capacity Assessment

Sewer System Management Plan

By implementing the recommendations and recertifications of the City's SSMP, the City has endeavored to accomplish the goals of preventing sewer system overflows by performing systematic and timely condition evaluation of the sewer mains to ensure a high level of system serviceability. Where needed, the City has identified deficiencies and performed sewer repairs and replacements to the greatest degree possible. These improvements include upgrades and replacements to sewer mains as well as upgrades to and maintenance of pump station systems. Timely repairs and replacements of sewer collection systems identified by system evaluations have been performed over the years in addition to systematic and timely evaluations of pump station systems.

The City hopes to maintain the necessary level of funding and staffing required to provide proper operation, maintenance, and repair of the system, as detailed in the Operation and Maintenance Program, and provide adequate capacity as detailed in the System Evaluation and Capacity Assurance Plan through periodic reviews of the rate structure. Financing for maintenance of existing facilities and upgrades to existing facilities that may be required with new development are supported through the implementation of Section 5-4.502 which requires wastewater capital facility fees be paid for new development and Section 5-4.504 which requires wastewater sewer user fees in support of maintaining existing sewer facilities.

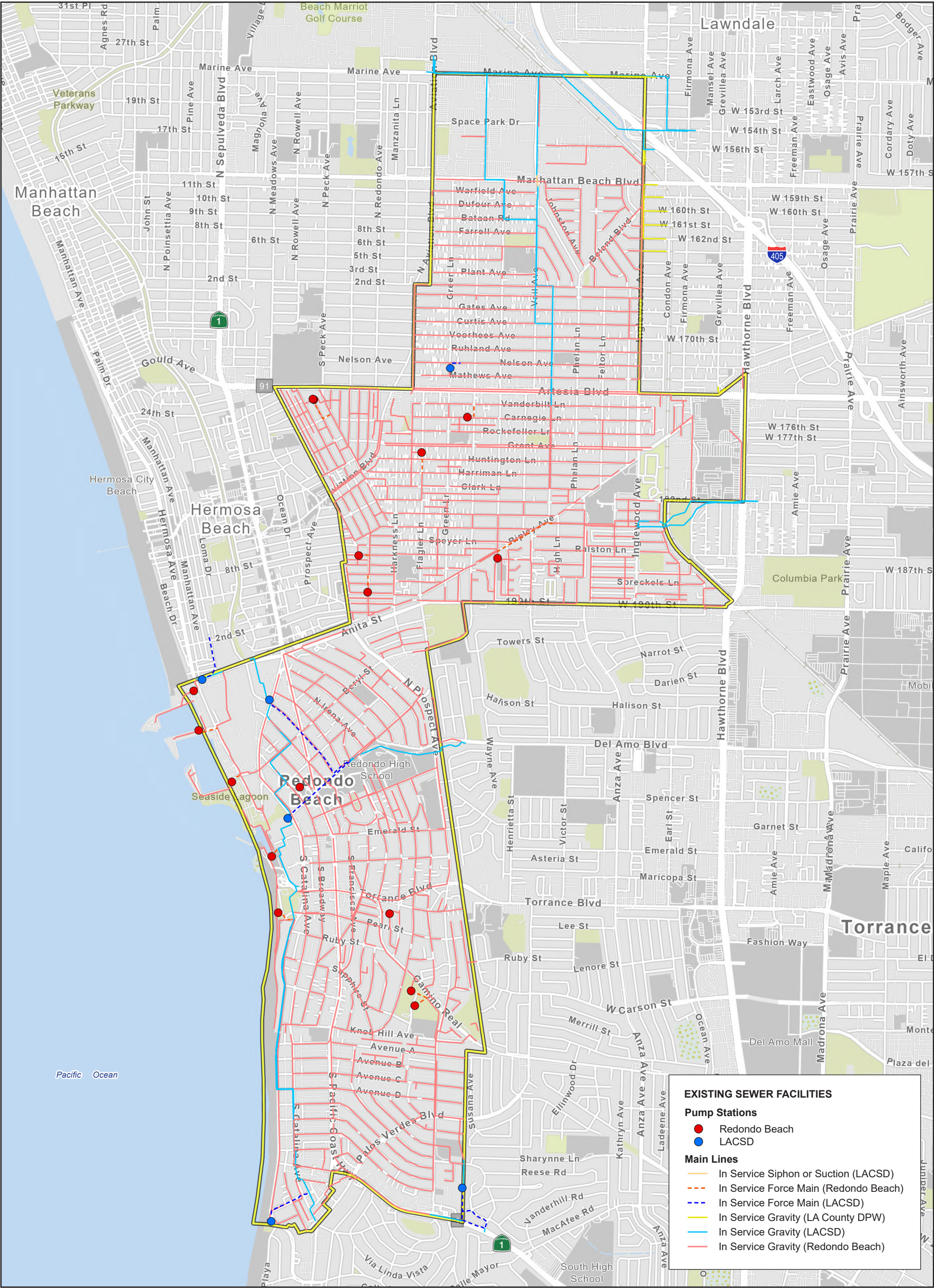
The City is working on developing strategies to better monitor the status of the sewer flows. It has prepared plans to install "smart manhole cover" devices to monitor the sewer system's operation and provide a real-time warning and notification of any upsets, thereby preventing potential overflows. Additionally, to minimize the impact of any sanitary sewer overflows that may occur, the City has been authorized to prepare an Overflow Emergency Response Plan, train staff in its implementation, and implement the plan when needed.

In 2015, the City conducted an audit of its sewer program. The effectiveness of the SSMP was evaluated by individually addressing the elements in Provision 13 of the Order 2006-0003-DWQ. The audit reviewed elements of the SSMP, specifically the requirements of Order 2006-0003- DWQ and implementation of SSMP requirements, and made recommendations for updating or improving the existing SSMP. All recommendations for improving the SSMP were implemented and incorporated into the City's SSMP. The following are the programs that were assessed in the 2015 SSMP audit and the dates at which they were adopted or implemented.

- Sewer Overflow Emergency Response Plan (May 2009)
- Sewer System Management Plan (September 2009)
- System Evaluation and Capacity Assurance Plan and Rehabilitation and Replacement Program (December 2010)

¹ The Hermosa-Redondo District serves the cities of Hermosa Beach, Redondo Beach, and portions of Torrance.

Figure 5.17-1 - Sewer Infrastructure



City of Redondo Beach

0 2,400
Scale (Feet)



Source: FUSCOE, 2024.

Flood Hazard Zones

Zones AE, AH, & VE: 1% Annual Chance Flood Hazard (AE with Base Flood Elevations Determined)

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- Operation and Maintenance Program (February 2011)
- Wastewater System SSMP Audit (May 2011)
- Conveyance System Condition Assessment Report (May 2015)
- Redondo Beach Municipal Code, Title 5, Chapter 4, Wastewater System (October 2000)
 - Section 5-4.502 requires wastewater capital facility fees be paid for new development to support new and upgraded facilities as development occurs
 - Section 5-4.504 requires wastewater sewer user fees in support of maintaining existing sewer facilities
- Sewer Maintenance Files from the Water Program (Maintenance Management System) (May 2015)
- GIS Files (May 2015)
- Sewer Hydraulic Model (May 2015)
- Sanitary Sewer Overflow Reports (May 2015)
- Training Records (May 2015)
- Sewer System Management Plan (December 2015)

The City's SSMP was re-approved on August 2, 2022, by City Council, as reflected in the City's Administrative Report. The report confirmed that the City had made significant improvements in the management of the sanitary sewer system since original adoption and implementation of the SSMP in 2010, as reflected in the reduced number of sanitary sewer overflows to only a single incident during the previous five years. The City's SSMP was recertified, and City staff were directed to continue to implement the recommended actions included in the plan. Near-term anticipated work at that time included constructing significant upgrades to the Portofino and Yacht Club Way lift stations, continuation of the pipe lining program, and a citywide video inspection of the system to assess further rehabilitation needs.

The 2022 Administrative Report stated that the SSMP would be coordinated by the City's Public Works Department. Further, the report added that there would be no fiscal impact associated with the action, and that improvements to and operation of the City sewer system would be funded by residential property fees that accrue to the City's Wastewater Fund (Redondo Beach 2022).

Capital Improvements

As detailed in the 2022 SSMP certification, the City has implemented a number of improvements through its Capital Improvement Program (CIP) in order to meet the goals of the SSMP. LACSD also has an active CIP to ensure the addition and repair of sewer infrastructure and facilities as needed. Table 5.17-1, *Sewer System Capital Improvement Plans*, describes the sewer system CIP projects in the City.

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Table 5.17-1 Sewer System Capital Improvement Plans

CIP Project Name	Phase/ FY Completion	Project Description
LACSD - El Nido Trunk Sewer Rehabilitation	Construction Ongoing	The project will rehabilitate approximately 12,228 feet of existing corroded 12-inch through 21-inch diameter nonreinforced concrete pipe (NRCP) with cured-in-place pipe liner and approximately 46 manholes with a protective coating system on the El Nido Trunk Sewer. The project location consists of the Cities of Redondo Beach and Torrance.
Basin 2 Marine Vessel Sewer Pump Out Station	Construction Ongoing	Replacing deficient and damaged pumphouse, discharge and suction pipes, valves, controls, electronics, mechanical components, and related dock system for the two existing vessel pump-outs.
Portofino Way Sewer Pump Station	Construction Ongoing FY 23-24	Replace deficient and damaged pump house, discharge and suction pipes, valves, wet and dry wells, controls, electronics, and mechanical components.
City-wide Sanitary Sewer SCADA Installation	Construction Ongoing	Repairing and upgrading the citywide SCADA hardware and software components as well as upgrade existing deficient pump station equipment and communications networks, which will reduce and prevent the risk of sanitary sewage overflows.
Sanitary Sewers Facilities Rehabilitation	Construction Ongoing	Maintaining and improving the City's sewer infrastructure to meet existing and future sewer demands.
Yacht Club Way Sewer Pump Station	Construction Ongoing FY 23-24	Replace deficient and damaged pump house, discharge and suction pipes, valves, wet and dry wells, controls, electronics, and mechanical components.
Morgan Sewer Pump Station	Design/ Construction FY 24-25	Replace deficient and damaged pump house, discharge and suction pipes, valves, wet and dry wells, controls, electronics, and mechanical components.
City-Wide Sanitary Sewer System Camera Inspection	Design FY 24-25	Maintain and improve the City's sewer infrastructure to meet existing and future sewer demands.
Source: Fuscoe 2024. SCADA = Supervisory Control and Data Acquisition		

In addition to the Capital Improvement Program, LACSD also tracks the peak flows from sewer trunks and facilities in its service area and determined that presently there are no deficiencies in LACSD's facilities that serve the City of Redondo Beach. The most recent data demonstrate that peak flows throughout the City are well below the design capacity of the LACSD trunk lines, indicating that there is sufficient capacity for growth.

Sewer Management Trends and Updates

According to discussions with City staff, local and state land use policies have resulted in an increase of low-density residential to high-density residential conversions and the construction of accessory dwelling units on single-family lots in the City over the last two decades. The evaluation and associated potential upgrades to the City's sewer infrastructure improvements to accommodate the increased sewer flows has not been able to keep pace with this growth.

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5.17.1.2 THRESHOLDS OF SIGNIFICANCE

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

- U-1 Requires or results in the relocation or construction of new or expanded wastewater treatment, the construction or relocation of which could cause significant environmental effects.
- U-3 Results in a determination by the waste water treatment provider which serves or may serve the project that it does not have adequate capacity to serve the project's projected demand in addition to the provider's existing commitments.

5.17.1.3 PROPOSED GENERAL PLAN GOALS AND POLICIES

The proposed General Plan Update does not include any goals, objectives, policies, or actions relevant to wastewater treatment impacts. The analysis below references policies from the existing General Plan Utilities Element.

5.17.1.4 ENVIRONMENTAL IMPACTS

Methodology

The following analysis is based on the information and analyses presented in the *City of Redondo Beach General Plan Update Infrastructure Report for Water, Sewer, Storm Drainage, and Water Quality*, prepared by Fuscoe Engineering in July 2024. (See Appendix F) This technical report includes an assessment of the City's existing wastewater conveyance and treatment infrastructure, recommendations for addressing identified infrastructure deficiencies, calculations of the net increase in sewer generation under buildout of the proposed project, and a summary of existing regulatory procedures that reduce impacts to wastewater infrastructure. In determining the level of significance, the analysis assumes that future projects facilitated by the proposed project would comply with applicable federal, state, and local laws, ordinances, and regulations.

Impact Analysis

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

Impact 5.17-1: Existing and/or proposed facilities would be able to accommodate project-generated wastewater infrastructure demands and not require or result in the relocation or construction of new or expanded wastewater treatment, the construction or relocation of which could cause significant environmental effects. [Threshold U-1]

Implementation of the proposed project would require construction of new sewer infrastructure where existing sewer lines are not sufficient to accommodate the increased demand. These determinations would be made on a project-by-project basis, including site-specific sewer flow monitoring and hydraulic sewer analysis. Although the City's SSMP does not include criteria for determination of hydraulic capacity, typical criteria include D/d (flow depth over diameter ratio) of not greater than 50 to 75 percent. The CIP process along with the City's

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sewer impact and sewer user fees facilitates and funds City-constructed upgrades to sewer pipelines based on flow depth assumptions.

As noted above, the City's sewer infrastructure has struggled to meet the demand of new ADUs and higher density housing conversions. Preparation of a Sewer Master Plan would help prioritize future sewer upgrades and support the buildout of the City. Part of this process would include obtaining current sewer flow conditions to assist with capacity evaluations. All development or redevelopment projects resulting in changes to existing sewer flows would be required to perform sewer flow monitoring tests at specific manholes approved by the Public Works Department to confirm existing flow depths, D/d values and impacts of the proposed development on the existing sewer system.. The developer or applicant would be responsible for any sewer upgrades needed to support the project while maintaining the sewer capacity for existing customers (Fusco 2024). As directed by Policies 6.1.7, 6.1.8, and 6.1.9 in the existing Utilities Element, the Sewer Master Plan should include a sewer rate study that would review existing sewer impact and user fees and connection fees (capital facility fee) to determine if adjustments and changes are required in order for the City to collect the adequate fees to maintain existing service and plan accordingly for future regional improvements.

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. Any work that may affect services to the existing sewer lines would be coordinated with the City and LACSD. LACSD shall review all future developments within the City to determine whether sufficient trunk sewer capacity exists to serve each development and if the LACSD's facilities would be impacted by the development. This review is accomplished through the LACSD's Will-Serve Program. A Will-Serve letter from LACSD would include information regarding the anticipated wastewater flows that would be generated by the proposed development, along with a statement of whether the LACSD's trunk sewer system would have capacity to accept the flows. The most recent data demonstrates that peak flows throughout the City are well below the design capacity of the LACSD trunk lines, indicating that there is sufficient capacity for growth, as stated in LACSD's response to the NOP for the proposed project (see Appendix A). The City also requires the approval of new development to be contingent upon the ability of the proposed development to be served by sewer infrastructure under Policy 6.1.5 in the existing Utilities Element.

Septic systems in the City are regulated under Section 5-7.111, of Title 5, Chapter 7, of the RBMC. While septic systems are permitted in the City, it is unlawful to leave, deposit, discharge, dump, or otherwise expose any chemical or septic waste to precipitation in an area that discharges to City streets or MS4. Septic systems are also regulated by the 2022 Plumbing Code (Title 24, Part 5 of the California Code of Regulations), which is adopted with amendments into the RBMC as Title 9, Chapter 5.

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. Title 3, Chapter 14 of the RBMC requires construction activities in the right-of-way to obtain an encroachment permit. Compliance with LACSD procedures and City policy would

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ensure that impacts associated with the potential future construction of wastewater infrastructure would be less than significant.

Level of Significance Before Mitigation: Less than significant.

Impact 5.17-2: Project-generated wastewater could be adequately treated by the wastewater service provider for the project. [Threshold U-3]

Buildout of the proposed project would result in the addition of 4,956 dwelling units and 5,681,999 square feet of nonresidential uses. In lieu of City-specific sewer generation factors, the City of Los Angeles' "Sewerage Facilities Charge and Sewage Generation Factors for Residential and Commercial Categories" was used to estimate the net increase in sewer flows as a result of the General Plan buildout. Table 5.17-2, *Proposed Project Sewer Generation*, shows how the increases in dwelling units and nonresidential square footage under the proposed land use plan would increase sewer flows.

Table 5.17-2 Proposed Project Sewer Generation

General Plan Update Land Use	Land Use Buildout (du or sf) ^{1,2}	Sewer Use Factor (gpd/du or gpd/sf)	Sewer Flows (gpd)	Sewer Flows (afy)
Residential				
MFR: 2 to 3	1,404	131	184,228	206
MFR: 4 or More	742	131	97,404	109
Institutional	(96)	70	(6,720)	(8)
Mixed Use Res/Com	2,631	131	345,271	387
SFR	(602)	185	(111,293)	(125)
ADU	624	75	46,800	52
Senior Housing	253	110	27,830	31
Total	4,956		583,520	654
Nonresidential				
Commercial	3,251,895	0.05	162,595	182
Industrial	2,147,114	0.05	107,356	120
Institutional	(148,107)	0.12	(17,773)	(20)
Mixed Use Res/Com	431,558	0.05	21,578	24
Utility	(461)	0.05	(23)	(0)
Total	5,681,999		273,732	307
TOTAL SEWER FLOW			857,253	960

Source: Fuscoe 2024 (Appendix F)

Notes: gpd = gallons per day

afy = acre-feet-year

() = negative values

SFR = Single Family Residential

MFR = Multifamily Residential

¹ Land use designations differ than categories for land use types for purposes of calculating water demand and sewer generation. Therefore, certain land use types would represent a negative value as compared to the land use designation under the buildout of the proposed project.

² Residential buildout is calculated in du = dwelling units

Nonresidential buildout is calculated in sf = square feet

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As shown above, the buildout of the proposed project as a result of the proposed land use plan is estimated to result in an additional 960 acre-feet per year (afy) (0.86 million gallons per day) or approximately 0.86 mgd of sewer flows. These estimates are considered conservative since the available unit flow factors from the City of Los Angeles' Sewerage Facilities Charge are generalized for a limited number of land use categories. More information about the assumptions used to generate these sewer flow factors is provided in Appendix B and D of Appendix F.

Additionally, the projected increase in sewer flows shown in Table 5.17-2 is lower than estimates provided by LACSD in their formal comment letter associated with the Notice of Preparation (NOP) (See Appendix F). LACSD estimated that the General Plan Update would generate up to 2.8 mgd, but the calculations in Table 5.17-2 take into account a more detailed land use breakdown and assume lower sewer generation rates due to more recent trends in water use. Water demand rates have dropped significantly over the past decade due to drought caused water-saving requirements, improvements in water efficiency for new construction, and recognition that higher density residential tends to utilize less water per unit than other residential types. In general, local water providers have made significant strides to analyze and provide more current water demands influenced by these factors while sewer flow projections have remained conservative. In addition to conservation trends, legislation has also resulted in lower water demands, which in turn result in lower sewer demands. SB 1157 requires the standard for indoor water usage to be no more than 55 gallons per capita per day (gpcd) currently and reduces it to 47 gpcd in 2025. Based on these trends, agencies may produce water demand estimates that are lower than the sewer flow projections for the same project. Therefore, the City of Los Angeles' sewer generation rates were utilized as they are more reflective of current water and sewer demands.

While the land use plan under the proposed project is expected to increase sewer flows by approximately 0.86 mgd, this would be within the JWPCP's remaining treatment capacity of 156.9 mgd. Discharges from the JWPCP and its associated wastewater collection system and outfalls are required to comply with the Plant's NPDES Permit (NPDES No. CA0053813, Order No. R4-2023-0181). As development occurs, sewer flow increases would be evaluated alongside JWPCP's other service areas.

Level of Significance Before Mitigation: Less than significant.

5.17.1.5 CUMULATIVE IMPACTS

The area considered for cumulative impacts to wastewater facilities is the JWPCP service area. Cumulative population increases and development within the service area would increase the overall regional demand for wastewater treatment service. The JWPCP has a dry weather flow capacity of 400 mgd and a remaining treatment capacity of 156.9 MGD (LARWQCB 2023). Additionally, wastewater from the JWPCP service area that is processed through the JWPCP would meet established standards required by the LA RWQCB through 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 6.1.5 in the City's Utilities 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 completion of a Sewer Master Plan

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and an updated sewer impact and connection fee study within the Sewer Master Plan under the proposed policies in the Utilities Element. Expansions and upgrades to LACSD's sewer infrastructure are addressed through its review process of development. This process determines whether or not sufficient trunk sewer capacity exists to serve each development, and if LACSD'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.

5.17.1.6 LEVEL OF SIGNIFICANCE BEFORE MITIGATION

Upon implementation of regulatory requirements and the City's SSMP, required sewer impact, user and connection fees impacts would be less than significant.

5.17.1.7 MITIGATION MEASURES

No mitigation measures are required.

5.17.1.8 LEVEL OF SIGNIFICANCE AFTER MITIGATION

All impacts would be less than significant.

5.17.2 Water Supply and Distribution

5.17.2.1 ENVIRONMENTAL SETTING

Regulatory Background

Federal

Federal Safe Drinking Water Act

The Safe Drinking Water Act, the principal federal law intended to ensure safe drinking water for the public, was enacted in 1974 and has been amended several times since it came into law. The Act authorizes the EPA to set national standards for drinking water, called the National Primary Drinking Water Regulations, to protect against both naturally occurring and man-made contaminants. These standards set enforceable maximum contaminant levels in drinking water and require all water providers in the United States to treat water to remove contaminants, except for private wells serving fewer than 25 people. In California, the SWRCB conducts most enforcement activities. If a water system does not meet standards, it is the water supplier's responsibility to notify its customers.

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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, including regulating all pollutant or nuisance discharges that may affect either surface water or groundwater.

Urban Water Management Planning Act

The Urban Water Management Planning Act of 1983 (Water Code Sections 10610 et seq.) requires water suppliers to:

- Plan for water supply and assess reliability of each source of water over a 20-year period in 5-year increments.
- Identify and quantify adequate water supplies, including recycled water, for existing and future demands in normal, single-dry, and multiple-dry years.
- Implement conservation and the efficient use of urban water supplies.

Significant new requirements for quantified demand reductions have been added by the Water Conservation Act of 2009 (SBX7-7), which amended the Urban Water Management Planning Act and adds new water conservation provisions to the Water Code.

Senate Bill 610

Senate Bill (SB) 610 amended State law to ensure better coordination between local water supply and land use decisions and confirm that there is an adequate water supply for new development. Specific projects are required to prepare a water supply assessment (WSA). The WSA is composed of information regarding existing and forecast water demands, as well as information pertaining to available water supplies for the new development. The following projects that are subject to the California Environmental Quality Act (CEQA) are required to prepare a WSA.

- Residential developments consisting of more than 500 dwelling units.
- Shopping center or business establishment employing more than 1,000 persons or having more than 500,000 square feet of floor space.
- Commercial office building employing more than 1,000 persons or having more than 250,000 square feet of floor space.
- Hotel or motel, or both, having more than 500 rooms.

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- Industrial, manufacturing, or processing plant or industrial park planned to employ more than 1,000 persons, occupying more than 40 acres of land, or having more than 650,000 square feet of floor area.
- Mixed-use project that includes one or more of the projects specified above.
- Project that would demand an amount of water equivalent to, or greater than, the amount of water required for 500 dwelling units.

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 set 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. The 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 of 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.

Mandatory Water Conservation

Following Governor Brown's declaration of a state of emergency on July 15, 2014, the SWRCB adopted Resolution No. 2014-0038. The emergency regulation was partially repealed by Resolution No. 2017-0024. The remaining regulation prohibits several activities, including (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. The SWRCB resolution also directed urban water suppliers to submit monthly water monitoring reports to the SWRCB.

Assembly Bill 1668 and Senate Bill 606

In 2018, the California Legislature enacted two policy bills to establish long-term improvements in water conservation and drought planning to adapt to climate change and longer and more intense droughts in California. The Department of Water Resources (DWR) and the SWRCB adopted new standards for the following in 2020:

- Indoor residential water use
- Outdoor residential water use
- Commercial, industrial, and institutional (CII) water use for landscape irrigation with dedicated meters
- Water loss

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Urban water suppliers will be required to stay within annual water budgets, based on their standards for their service areas, and to calculate and report their urban water use objectives in an annual water use report. For example, the bills define a daily standard for indoor residential use of 55 gallons per person until 2025, when it decreases to 52.5 gallons and further decreases to 50 gallons by 2030. The legislation also includes changes to UWMP preparation requirements.

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 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 that included 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 of 2021, and March 28 of 2022. The May 10 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 8 proclamation called on Californians to voluntarily reduce water use by 15 percent from their 2020 levels. The October 19 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 28 proclamation required that by May 25, 2022, the SWRCB must consider adopting emergency regulations defining nonfunctional turf² 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.

Water Conservation in Landscaping Act of 2006 (AB 1881)

The Water Conservation in Landscaping Act of 2006 (AB 1881) required 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 is at least as effective in 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 (DWR 2019).

² Nonfunctional turf is turf that is ornamental and not otherwise used for human recreation purposes such as school fields, sports fields, and parks.

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2015 Update of the State Model Water Efficient Landscape Ordinance (per Governor's Executive Order B-29-15)

To improve water savings in the landscaping sector, the DWR updated the Model Ordinance in accordance with Executive Order B-29-15. The Model Ordinance promotes efficient landscapes in new developments and retrofitted landscapes. The Executive Order calls 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 landscape size threshold for new development projects ranged from 2,500 square feet to 5,000 square feet.

Title 5, Chapter 2, of the RBMC adopts an ordinance that incorporates updates consistent with the State MWELO update.

Sustainable Groundwater Management Act (SGMA)

The SGMA addresses the sustainable management of groundwater in California. This legislation results from water shortages in California, long-term issues with land subsidence, and over-drafting of groundwater aquifers. The DWR identified the status of water basins by overdraft and priority levels (e.g., very low, low, medium, or high). The consistency requirement between the Cal Water-Hermosa-Redondo District's Urban Water Management Plan and SGMA is not applicable because the West Coast Subbasin is categorized as very low priority. Thus, the implementation of a Groundwater Sustainability Plan is not required because groundwater storage and extraction in the West Coast Basin are governed by basin adjudication, with excess production restricted to emergencies.

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.

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Regional

California Water Service, Hermosa-Redondo District 2020 Urban Water Management Plan

Cal Water–Hermosa-Redondo District’s 2020 Urban Water Management Plan (UWMP) complies with the Urban Water Management Planning Act of 1983, providing information about the Hermosa-Redondo District’s historical and projected water demands, water supplies, and supply reliability. Through the UWMP reporting, Cal Water uses population growth, climate scenarios, water supplies, water conservation, large development projects, and approved specific plans to estimate future water demands and evaluate the ability to meet this demand through various water supply sources over a 20-year projection. The California Water Code requires this document, to be updated every five years. The latest was prepared in 2020 and planning will begin in 2025 for the 2025 UWMP.

Cal Water’s 2020 Water Conservation Strategic Plan within the UWMP includes the stages of response to water shortages caused by drought or supply interruptions as a result of infrastructure failure, regulatory mandate, or catastrophic human-caused or natural events. The primary objective of the strategic plan is to ensure that the Hermosa-Redondo district has in place the necessary resources and management responses needed to protect health and human safety, minimize economic disruption, and preserve environmental and community assets during water supply shortages and interruptions.

West Basin Municipal Water District Plans

The WBMWD provides imported potable and recycled water to the Hermosa-Redondo District, as described in detail in *Existing Conditions*, below. WBMWD adopted an UWMP in 2021 that provides a summary of all current and projected water supplies and demands within West Basin’s service area. The UWMP addresses WBMWD’s recycled water system and outlines actions to optimize and expand the use of recycled water for the District. The UWMP also includes a water conservation strategic plan that outlines WBMWD’s strategies to encourage water efficiency and conservation in addition to programs WBMWD is implementing or plans to implement to make end uses of its water supply more efficient.

WBMWD also adopted a recycled water master plan in 2022 that evaluates existing and future system conditions to identify and prioritize the potential construction of new facilities and delivery laterals. The plan provides a roadmap for the implementation of an updated CIP and allows WBMWD to effectively plan for changing water supply, demand, and regulatory conditions over a 20-year planning horizon.

Local

City of Redondo Beach General Plan

The existing City of Redondo Beach General Plan includes a Utilities Element that describes the water infrastructure within the City and contains goals, objectives, policies, and implementation programs that guide the City’s management of water utilities. The following goals, objectives, and policies in the Utilities Element are applicable to water infrastructure and supply impacts of the proposed project:

GOAL 6C Ensure adequate planning, maintenance, and operation of a modern, safe, and effective system of supply, distribution, transmission, and storage of water to meet the needs of the community; encourage the

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upgrading of existing deficient systems and expansion, where necessary, in the City. The services shall be provided and system operated in an ecologically-sensitive manner.

Objective 6.3: Provide a modern and efficient system of transmission, distribution, and storage of water supplies to the City capable of meeting the normal daily and peak hour demands of the community, including adequate fire flow requirements, to meet existing and future water demand in a timely and cost effective manner.

- **Policy 6.3.1.** Ensure the provision of adequate water supply, transmission, distribution, and storage, throughout the City to serve the community's residential, industrial, commercial, and recreational needs.
- **Policy 6.3.2.** Ensure the provision and construction of upgraded and expanded water supply, transmission, distribution, and storage facilities throughout the City to support existing and future development.
- **Policy 6.3.3.** Ensure the maintenance and replacement of existing water supply, transmission, distribution, and storage facilities, as necessary to adequately serve the City's water needs.
- **Policy 6.3.4.** Require that the approval of new development in the City be contingent upon the ability of the project to be served with adequate water infrastructure and service.
- **Policy 6.3.5.** Improve and enhance cooperation and communication with the California Water Service Company, the West Basin Municipal Water District, and Metropolitan Water District officials (or any future purveyors of water to the City) to promote effective planning and ensure the most efficient operation and maintenance of the City's water supply, transmission, distribution, and storage system and facilities.
- **Policy 6.3.6.** Work, through the City Public Works Department, with the California Water Service Company, the West Basin Municipal Water District, and Metropolitan Water District (or any future purveyors of water to the City) in developing and implementing a menu of programs for public information/education and action in encouraging (or enforcing the potential mandating) of water conservation practices relevant to the periodic drought conditions faced by the area and the region.
- **Policy 6.3.7.** Ensure that the costs of specific improvements to the existing water supply, transmission, distribution, and storage facilities necessitated by a new development project be borne by the project proponent; either through the payment of impact fees, or by the actual construction of the necessary physical improvements.
- **Policy 6.3.8.** Examine the feasibility and potential for the realization of alternative means of water resources and production for use in the community, (including seawater desalinization).
- **Policy 6.3.9.** Ensure the continued monitoring and maintenance of water quality in the community's supply of potable water, to protect the public health and welfare.
- **Policy 6.3.10.** Ensure the prudent use of local water resources by the City of Redondo Beach municipal government by continuing to install and maintain drought-tolerant landscaping and adequate and operationally efficient irrigation systems in its parks, parkways, and median strips.

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- **Policy 6.3.11.** Encourage the use of reclaimed water for landscape, grading, industrial, and other State and County health approved purposes as service is provided in the City by the West Basin Municipal Water District.
- **Policy 6.3.12.** Require that development projects of sufficient scale to make it economically feasible incorporate dual pipe systems for the use of reclaimed water for irrigation and other State and County health approved purposes where these uses are accessible to trunkline distribution service.
- **Policy 6.3.13.** Work with the City's water providers to encourage local residents, businesses, and industries to store and re-use gray water.
- **Policy 6.3.14.** Require that large scale development projects evaluate the feasibility of and where feasible incorporate gray water re-capture, storage, and distribution systems.

City of Redondo Beach Municipal Code

Several provisions in the RBMC are applicable to water use and water conveyance systems.

- **Title 5, Chapter 2, Article 8, Section 5-2.810, Model Water Efficient Landscaping Ordinance,** implements the provisions of the Statewide MWELo by requiring property owners or their building or landscape designers, who are constructing a new (single-family, multi-family, public, institutional, or commercial) project with a landscape area greater than 500 square feet, or rehabilitating an existing landscape with a total landscape area greater than 2,500 square feet, to comply with Sections 492.6(a)(3)(B), (C), (D), and (G) of the MWELo.
- **Title 8, Chapter 9, Section 8-9.08, Water Users' Tax,** levies a tax on every person using water delivered through a pipeline distribution system in the City. This tax imposed is the rate of 4.75 percent of the charges made for such water.
- **Title 9, Chapter 23, Green Building Standards,** adopts the 2022 CALGreen into the RBMC. The CALGreen standards includes provisions for buildings that promote water efficiency and conservation.
- **Title 9, Chapter 5, Plumbing Code,** adopts the 2022 California Plumbing Code into the RBMC.
- **Title 10, Chapter 2 and 5, Article 7, Section 10-2.1900 (f) and Section 10-5.1900 (f), Model Water Efficient Landscape Ordinance,** adopts by reference the California State Water Model Water Efficient Landscape Ordinance, codified at Chapter 2.7 of Title 23 of the California Code of Regulations, and any amendments thereto, and is incorporated by reference and applicable to all development and/rehabilitation projects as cited in the Statewide MWELo.
- **Title 10, Chapter 3, Environmental Review Pursuant to CEQA.** The Redondo Beach Municipal Code establishes the specific procedures necessary to implement CEQA. Article 2, Evaluation of Significant Effects, establishes criteria for determining significant effects and provides guidance in making an evaluation whether or not a particular project may have a substantial adverse effect on the environment. Pursuant to the Municipal Code, if there are inconsistencies between the provisions contained in Title 10,

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Chapter 3, and the State's CEQA Guidelines, the State's CEQA Guidelines shall control. As established in Section 10-3.202, significant effects may be due to primary consequences immediately related to the project or may be due to secondary consequences related more to the primary consequences than the project itself. As established in Section 10-3.203 (n) and (o), with respect to water demand, a project will normally have a significant effect on the environment if it will: (n) encourage activities which result in the use of large amounts of fuel, water, or energy; and/or (o) use fuel, water, or energy in a wasteful manner.

Existing Conditions

The following existing conditions information is from the *City of Redondo Beach General Plan Update Infrastructure Report for Water, Sewer, Storm Drainage, and Water Quality* (see Appendix F for additional information and citations).

Water Districts

Cal Water Services–Hermosa-Redondo District

The regional water system around and within the City is managed by Cal Water–Hermosa-Redondo District. As shown in Figure 5.17-2, *California Water Services Hermosa-Redondo District Service Area*, the Hermosa-Redondo District serves the cities of Hermosa Beach, Redondo Beach, and portions of Torrance. The Hermosa-Redondo District water system consists of approximately 212 miles of pipeline, two active wells with wellhead treatment facilities, 15 storage tanks, and 4 connections to the Metropolitan Water District of Southern California (MWD). Water within the Hermosa-Redondo District consists of local groundwater and imported water from MWD and is distributed to residential, commercial, industrial, and governmental customers. Residential demands represent 74 percent of the District's water demands, with nonresidential uses accounting for 20 percent, and distribution system losses of 6 percent. Cal Water was contacted to obtain maps and GIS linework for the existing water system in Redondo Beach, but they declined to provide this information. Data on the City's local water system is limited to information in the District's Urban Water Management System (UWMP) (Fuscoe 2024).

West Basin Municipal Water District

The City is also within the service area of WBMWD, which encompasses approximately 185 square miles and includes 16 other cities and unincorporated areas. WBMWD provides imported potable water as a wholesaler to Cal Water (no direct-to-consumer potable water supply) and provides recycled water. Overall, WBMWD's recycled water distribution infrastructure includes over 100 miles of pipelines that are separate from the potable water system (Fuscoe 2024). Figure 5.17-3, *City of Redondo Beach Existing Recycled Water System Facilities*, shows WBMWD's recycled water distribution system.

Water Demand

Water demands throughout the Hermosa-Redondo District are driven by existing populations and projected growth linked to the Southern California Associations of Governments (SCAG) projections. SCAG utilizes a detailed modeling framework covering multiple Southern California counties including Los Angeles County and the City. The population, household, and employment projections used by the Hermosa-Redondo District to forecast service area population and service connections tie back to the SCAG census tract land use and

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growth projections. Table 5.17-3, *Projected Water Demands for the Hermosa-Redondo District*, shows estimated water demands for 2020 and projected demands for 2025 to 2045 from the 2020 Urban Water Management Plan.

Table 5.17-3 Projected Water Demands for the Hermosa-Redondo District – Cal Water

Land Use Type	Projected Water Use (afy)					
	2020	2025	2030	2035	2040	2045
Single Family	5,947	5,827	5,762	5,782	5,790	5,866
Multi-Family	2,147	2,072	2,044	2,042	2,045	2,063
Commercial	1,262	1,183	1,126	1,100	1,082	1,070
Institutional/ Gov.	387	368	354	349	345	343
Industrial	567	582	582	582	582	582
Other Potable	12	6	6	6	6	6
Losses	624	621	618	624	629	634
Recycled	208	193	193	193	193	193
Total	11,153	10,853	10,686	10,678	10,673	10,757

Source: Fuscoe 2024; Cal Water 2021.

afy = acre-feet per year

As shown in Table 5.17-3, the Hermosa-Redondo District estimates that from 2020 to 2045 water demands will decrease to 10,757 acre-feet per year (afy). This decrease in demand takes into account reductions in water use due to the ongoing effects of appliance standards and plumbing codes, the Hermosa-Redondo District's conservation efforts, and customer assistance programs. 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 General Plan.

Water Supply

The City is served by a mix of local groundwater, imported water, and recycled water sources through the Hermosa-Redondo District and WBMWD. Table 5.17-4, *Projected Water Supply for Hermosa-Redondo District*, shows the water supply for the Hermosa-Redondo District as reported in the Hermosa-Redondo District's 2020 UWMP.

Table 5.17-4 Projected Water Supply for the Hermosa-Redondo District – Cal Water

Water Supply	Existing and Projected Water Supply (afy)					
	2020	2025	2030	2035	2040	2045
WBMWD: Purchased or Imported Water	10,450	6,590	6,423	6,415	6,410	6,494
West Coast Subbasin: Groundwater (not desalinated)	495	4,070	4,070	4,070	4,070	4,070
Edward C. Little Water Recycling Facility: Recycled Water	208	193	193	193	193	193
Total	11,153	10,853	10,686	10,678	10,673	10,757

Source: Fuscoe 2024.

Note: afy = acre-feet per year



0 1
Scale (Miles)

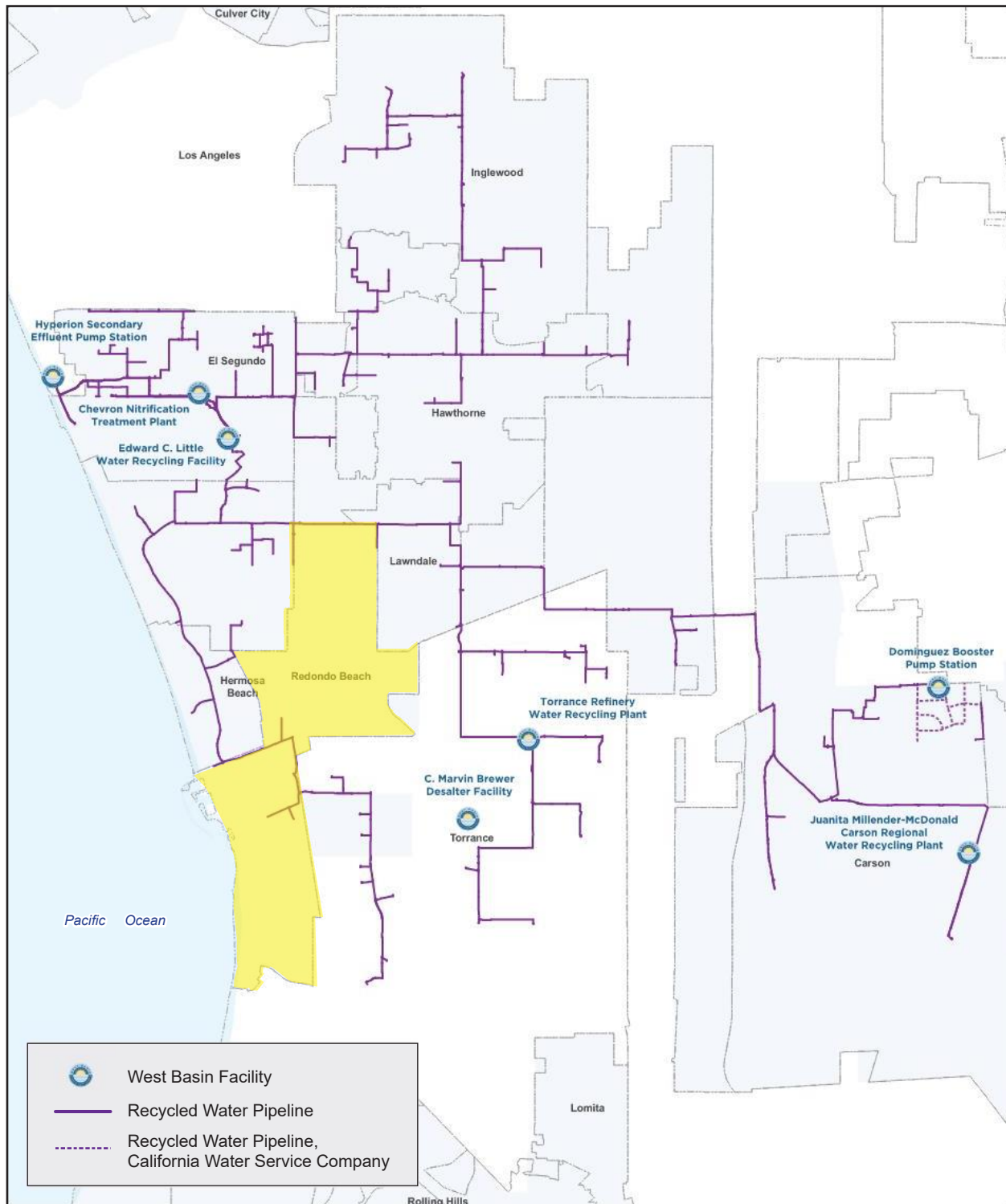


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Figure 5.17-3 - City of Redondo Beach Existing Recycled Water System Facilities



 City of Redondo Beach

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Scale (Miles)



Source: FUSCOE, 2024.

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Local Groundwater

The City lies within the Coastal Plain of Los Angeles Groundwater Basin and is within the adjudicated West Coast Groundwater Subbasin (West Coast Basin or Basin). The West Coast Subbasin is shaped by the Ballona Escarpment, Newport-Inglewood fault, and the Pacific Ocean. Overdraft issues emerged in the 1930s due to the increased pumping linked to population growth and industrialization. Adjudication efforts began in 1945 and led to the formation of the WBMWD in 1947. The Water Replenishment District of Southern California (WRD), established in 1959, collaborated with the West Coast Basin Water Association to address overdraft and seawater intrusion. In 1965, stakeholders agreed to adjudicate water from the Basin with a limiting allowable pumping allocation of 80 percent. The Basin provides approximately 64,468 afy of groundwater to the City and several other cities in the region, and the City specifically has an allowable pumping allocation right to extract 4,070 afy from the Basin.

Cal Water has a total of 3 wells and 15 surface storage structures in the service area, which allow the Hermosa-Redondo District to pump water into storage during non-peak demand periods. The Hermosa-Redondo District has consistently had sufficient capacity to supply all of the current annual average day and maximum day demands. A decrease in groundwater production from 2016 to 2020 was due to the temporary shutdown of wells for rehabilitation. Current rehabilitation efforts are aimed at preparing wells for a blending project that would lower the concentration of “total dissolved solids” in local water supplies.

Imported Water

The WBMWD acts as a secondary wholesale water agency; it purchases imported water from MWD and resells it to Cal Water–Hermosa Redondo District. WBMWD’s imported water comes from the State Water Project and Colorado River via MWD pipelines and aqueducts. The State Water Project is owned and operated by DWR, and MWD transports water stored in the Oroville Dam through the Bay-Delta and California Aqueduct. The Colorado River Aqueduct is owned and operated by MWD and transports water from Lake Havasu, at the border of California and Arizona, approximately 242 miles west to its end at Lake Matthews.

Recycled Water

Cal Water relies on WBMWD for recycled water services. Water is sourced from the Hyperion Wastewater Treatment Plant and undergoes secondary treatment at the Edward C. Little Water Recycling Facility. The recycling facility treats and produces water at varying water quality levels, and uses include seawater intrusion barriers, industrial operations, and landscape irrigation. WBMWD provides around 32,200 afy to over 200 sites. As of fiscal year 2020-2021, WBMWD served 224.3 af of water to 19 of Cal Water–Hermosa-Redondo District’s customers.

The 2020 UWMP assumed recycle water demand and supply would remain consistent throughout the planning period (2020-2045). Subsequent to the 2020 UWMP, the West Basin Municipal Water District completed a Water Recycled Master Plan (January 2022). The plan identified new opportunities within Redondo Beach for expanding the use of recycled water for an additional demand of 150 AFY for irrigation at schools, parks and medians within the service area. The 2025 UWMP should incorporate the findings from the Water Recycled Master Plan and demonstrate the potential for increased usage of recycled water within the service area.

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As shown in Table 5.17-4, the Hermosa-Redondo District estimates that from 2020 to 2045 its water supply will decrease from 11,153 afy to 10,757 afy. The Hermosa-Redondo District plans to purchase less imported water from WBMWD and rely more on groundwater from the West Coast Subbasin. This trend is a result of the Hermosa-Redondo District's plans to maximize the use of its groundwater and recycled water supplies.

Water Supply Reliability

Every urban water supplier is required to assess its reliability to provide water service to its customers under normal, dry, and multiple dry water years. The 2020 Hermosa-Redondo District UWMP states that the Hermosa-Redondo District would be able to meet projected demands between 2025 and 2045 during normal years, single dry years, and multiple dry years, as shown in Table 5.17-5, *Normal, Single Dry, and Multiple Dry Year Supply and Demand (afy) for Hermosa-Redondo District*.

Table 5.17-5 Normal, Single Dry, and Multiple Dry Year Supply and Demand (afy) for Hermosa-Redondo District

	2025	2030	2035	2040	2045
Normal Year					
Supply Totals	10,853	10,686	10,678	10,673	10,757
Demand Totals	10,853	10,686	10,678	10,673	10,757
Surplus	0	0	0	0	0
Single Dry Year					
Supply Totals	11,085	10,914	10,906	10,900	10,987
Demand Totals	11,085	10,914	10,906	10,900	10,987
Surplus	0	0	0	0	0
Multiple Dry Year					
Year 1					
Supply Totals	11,228	11,055	11,047	11,041	11,129
Demand Totals	11,228	11,055	11,047	11,041	11,129
Surplus	0	0	0	0	0
Year 2					
Supply Totals	11,228	11,055	11,047	11,041	11,129
Demand Totals	11,228	11,055	11,047	11,041	11,129
Surplus	0	0	0	0	0
Year 3					
Supply Totals	11,228	11,055	11,047	11,041	11,129
Demand Totals	11,228	11,055	11,047	11,041	11,129
Surplus	0	0	0	0	0
Year 4					
Supply Totals	11,228	11,055	11,047	11,041	11,129
Demand Totals	11,228	11,055	11,047	11,041	11,129
Surplus	0	0	0	0	0
Year 4					
Supply Totals	11,228	11,055	11,047	11,041	11,129
Demand Totals	11,228	11,055	11,047	11,041	11,129
Surplus	0	0	0	0	0

Source: Cal Water 2021.

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Water Capacity Assessment

The management of the City's water systems involves multiple entities, including Cal Water–Hermosa-Redondo District, WBMWD, and the City's Public Works Department. Although the broader responsibility for the public water system, including capacity assessments and oversight of private water improvements affecting public systems, is Cal Water's responsibility, the collaborative approach between Cal Water, WBMWD, and the City ensures that water capacity, maintenance, and development throughout the City are addressed comprehensively.

Water Capital Improvement Plans

Cal Water submits an Infrastructure Improvement Plan (IIP) with anticipated capital improvement plans. This report is produced every three years and is reviewed and subject to approval by an independent state agency and the Office of Ratepayer Advocates. These IIPs outline necessary infrastructure updates throughout the Hermosa-Redondo District's service area and ensure that reliable water supply and resources are available for customers. The IIP covering 2022 to 2025 was submitted in July 2021 but was not accessible for review.

In addition to Cal Water's IIP, WBMWD also outlines several infrastructure projects within its 2020 UWMP, its 2021 Recycled Water Master Plan, and various other planning programs. WBMWD mainly allocates annual funds for the operations and maintenance of its recycled water distribution system and the C. Marvin Brewer Desalter Facility, which uses reverse osmosis to treat brackish groundwater. WBMWD responds to repairs as needed and conducts scheduled maintenance as identified through the program, ensuring compliance with regulations and addressing evolving water management needs. The capital improvement plans that relate to water resources that serve the City are shown in Table 5.17-6, *Water System Capital Improvement Plans*.

Table 5.17-6 Water System Capital Improvement Plans - WBMWD

CIP Project Name	Phase/ FY Completion	Project Description
Cal Water: Booster Pump Station Upgrade	Completed FY 20-21	This project replaced a 27-year-old pump and installed a new booster pump capable of transferring 750 gallons of water per minute. The pump ensures that continuous water supply is available for customers.
Cal Water: Redondo Beach Infrastructure Improvement Project	Completed FY 22-23	This project replaced aging water mains and installed more than 2,800 ft (0.53 miles) of new 6- and 8-inch pipes. Three new fire hydrants were also installed to improve fire flows.
Cal Water: Redondo Beach Tank Coating Project	Completed FY 22-23	This project recoated the interior and exterior of a storage tank in order to extend the tanks longevity and improve water supply reliability.
West Basin Recycled Water Expansion, Redondo Beach	Phase 2 FY 25-30	This project is estimated to allow the City of Redondo Beach to request an additional 150 afy of recycled water for irrigation end use at schools, parks, and medians.
West Basin Recycled Water Expansion, Torrance Project	Phase 2 FY 25-30	This project is located in various areas within the WBMWD service area including the City of Redondo Beach. The project aims to provide 50 potential recycled water customers with up to 870 afy of recycled water.

Source: Fuscoe 2024.

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5.17.2.2 THRESHOLDS OF SIGNIFICANCE

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

- U-1 Requires or results in the relocation or construction of new or expanded water, the construction or relocation of which could cause significant environmental effects.
- U-2 Has insufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry, and multiple dry years.

5.17.2.3 PROPOSED GENERAL PLAN GOALS AND POLICIES

Land Use Element

Goal LU-5 Environmental Sustainability: An environmentally aware community that utilizes tools, strategies and approaches that protect and minimizes the impacts to the City's environmental resources.

- **Policy LU-5.2. Conservation and Re-use Strategy.** Promote the use of water conservation and re-use as a strategy to lower the cost, minimize energy consumption, and maximize the overall efficiency and capacity of public and private water systems. Encourage the installation of water storage, rain catchment and graywater systems to support domestic and outdoor water needs. Avoid water reuse that could adversely affect the quality of groundwater or surface water.

Open Space and Conservation Element

Goal OS-7 Water Management: Efficiently manage the City's available water resources to protect both the short- and long-term water supply.

- **Policy OS-7.1. Water-Wise Planning.** In planning for urban water needs, including new and retrofit projects, the City will adopt and strive for the most efficient available water practices. The City will encourage other agencies to follow this policy. "The most efficient available practices" means behavior and devices that use the least water for a desired outcome, considering available equipment, lifecycle costs, social and environmental side effects, and the regulations of other agencies.
- **Policy OS-7.2. Public Education.** Educate homeowners and business owners about water conservation and stormwater management strategies appropriate to Redondo Beach, and partner with Cal Water, Los Angeles County, and other agencies to inform residents and business owners about water conservation and stormwater management programs available to them.
- **Policy OS-7.3. Groundwater Infiltration.** Improve natural groundwater recharge by incorporating best management principles (BMPs), such as maximizing permeable surfaces, using native landscaping, and installing stormwater gardens, on new public and private projects and retrofits to incorporate BMPs. Consider expanding the application of the City's "Low Impact Design" (LID) stormwater management program required in the Coastal Zone to the City's Non-Coastal/Inland areas.

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- **Policy OS-7.4 Regional Cooperation.** Cooperate with the County, utility companies, and other agencies operating in the City to replenish the groundwater supplies in the region.
- **Policy OS-7.5 Recycled and Gray Water.** Expand the City's recycled water infrastructure for landscaping for parks, medians, schools, and existing and new private uses. Allow development of permitted gray water use.

5.17.2.4 ENVIRONMENTAL IMPACTS

Methodology

The following analysis is based in part on the information and analyses presented in the *City of Redondo Beach General Plan Update Infrastructure Report for Water, Sewer, Storm Drainage, and Water Quality* prepared by Fuscoe Engineering in July 2024. This technical report includes an assessment of the City's water infrastructure, calculations of the net increase in water demand under buildout of the proposed project, and a summary of existing regulatory procedures that reduce impacts to water infrastructure. The water supply and demand analyses reference information provided in Cal Water–Hermosa-Redondo District's 2015 and 2020 UWMPs and the WBMWD's 2020 UWMP. As detailed below, the ability of Cal Water to meet the water demands of the proposed project is demonstrated by the surplus in water supply available to be purchased from WBMWD, as documented in the Hermosa-Redondo District's current and previous UWMPs. In determining the level of significance, the analysis assumes that future projects facilitated by the proposed project would comply with applicable federal, state, and local laws, ordinances, regulations, and goals and policies within the proposed general plan update.

Impact Analysis

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

Impact 5.17-3: The proposed project would not require the relocation or construction of new or expanded water facilities the construction or relocation of which could cause significant environmental effects. [Threshold U-1]

Buildout of the proposed project would add 4,956 dwelling units and 5,681,999 nonresidential square feet in the City, based on the land use changes proposed under the General Plan Update (see Chapter 3, *Project Description*). The City of Los Angeles' "Sewerage Facilities Charge and Sewage Generation Factors for Residential and Commercial Categories" was utilized to estimate changes in water demand associated with the changes in land use. Each of the proposed General Plan land uses was aligned to land use types listed on the sewerage facilities sheet and multiplied by 110 percent to yield a conservative indoor and outdoor water demand. Table 5.17-7, *Net Change in Water Demand Under the Proposed Project*, shows the net change in water demand as a result of the proposed land use changes. As shown in the table, water demand would increase by 1,056 afy under proposed conditions.

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Table 5.17-7 Net Change in Water Demand Under the Proposed Project

General Plan Update Land Use	Land Use Buildout (du or sf) ¹	Water Use Factor (gpd/du or gpd/sf) ²	Water Demand (gpd)	Water Demand (afy) ³
Residential				
MFR: 2-3	1,404	144	202,651	227
MFR: 4 or More	742	144	107,145	120
Institutional	(96)	77	(7,392)	(8)
Mixed Use Res/Com	2,631	144	379,798	425
SFR	(602)	204	(122,422)	(137)
ADU	624	83	51,480	58
Senior Housing	253	121	30,613	34
Total	4,956		641,872	719
Non-Residential				
Commercial	3,251,895	0.06	178,854	200
Industrial	2,147,114	0.06	118,091	132
Institutional	(148,107)	0.13	(19,550)	(22)
Mixed Use Res/Com	431,558	0.06	23,736	27
Utility	(461)	0.06	(25)	(0)
Total	5,681,999		301,106	337
TOTAL WATER DEMAND			942,978	1,056

Source: Fuscoe 2024.

¹ Residential buildout is calculated in du = dwelling units. Nonresidential buildout is calculated in sf = square feet.

² gpd = gallons per day

³ afy = acre-feet-year

Projects under the General Plan 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 Cal Water, pay connection fees, and undergo site-specific fire-flow tests and hydraulic pressure analyses.

The Will-Serve process requires the applicant to provide a detailed description of the proposed project, including the existing water demands and the proposed water demands. Based on the increased demand, connection fees will be applied to ensure the water agency collects funds to provide the additional demand while maintaining services to existing consumers and set aside reserves for future upgrades where needed. The results of the fire flow and hydraulic pressure analyses determine the on-site and off-site improvements required to ensure proper water delivery and fire flow to the project site while maintaining services to existing clients. Cal Water typically requires a minimum of 20 psi (pounds per square inch) as a lower limit of pressure within the water pipeline during fire suppression operations. This ensures that firefighters have access to water of sufficient pressure. Additionally, the American Water Works Association recommends a normal static pressure of 60 to 75 psi throughout the water system. A minimum normal operating pressure of 35 to 45 psi is typically permitted for peak-hour flow conditions. Maximum allowable velocities within the pipelines range from 5 to 8 feet per second for peak-hour scenarios, and 10 to 12 feet per second for fire suppression operations. This process covers both potable water system and recycled water systems.

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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 the Hermosa-Redondo District would be required to incorporate the proposed land use changes under the General Plan Update into its water demand and supply projections out to 2050.

Policies in the Utilities Element of the existing General Plan also ensure that new development is served by water infrastructure. For example, Policy 6.3.1 directs the City to provide adequate water supply, transmission, distribution, and storage throughout the City, while Policy 6.3.2 would ensure that these systems are upgraded and expanded as necessary to meet the demands of new development, and Policy 6.3.3 directs the City to replace and maintain these systems as necessary. Policy 6.3.5 also requires that the approval of new development be contingent on the ability of the development to be served by adequate water infrastructure and service. Policy 6.3.7 requires new development to pay its fair share for water supply and conveyance infrastructure through the payment of impact fees or by the actual construction of the necessary physical improvements.

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. Any work that may affect services to the existing water lines would be coordinated with the City and Cal Water, 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.

Level of Significance Before Mitigation: Less than significant.

Impact 5.17-4: Available water supplies are sufficient to serve the project and reasonably foreseeable future development during normal, dry, and multiple dry years. [Threshold U-2]

As shown in Table 5.17-4, the Hermosa-Redondo District estimates that from 2020 to 2045 water supply will decrease from 11,153 afy to 10,757 afy. Cal Water plans to purchase less imported water from WBMWD and rely more on groundwater from the West Coast Subbasin. This trend is a result of Cal Water's plans to maximize the use of its groundwater and recycled water supplies. The projected purchases from WBMWD shown in the

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Table 5.17-8, *Purchased Water Supply*, are the differences between projected demand and other projected (groundwater and recycled water) supplies. The projected groundwater supplies match the Cal Water's total allowable pumping allocation of 4,070 afy.

The WBMWD Draft 2020 UWMP states that it will be able to serve 100 percent of projected demands in normal, single-dry, and multiple-dry years (WBMUD 2021). Because of this, Cal Water expects that, under all hydrologic conditions, purchased water supplies, in combination with groundwater and recycled supplies will fully meet future demands. Cal Water has purchased up to 10,450 afy of imported water through the WBMWD (as shown in Table 5.17-4). Table 5.17-8 shows the projected water supplies from Cal Water's 2015 UWMP. As shown in Table 5.17-8, Cal Water projected purchasing up to 8,527 afy by the year 2040 within its 2015 UWMP (Cal Water 2016).

Table 5.17-8 Purchased Water Supply

Water Supply From WBMWD	Projected Water Supply (afy)			
	2025	2030	2035	2040
Purchased Water (2015 UWMP)	8,320	8,357	8,425	8,527
Purchased Water (2020 UWMP)	6,590	6,423	6,415	6,410
Difference in Purchased Supply	<1,730>	<1,934>	<2,010>	<2,117>

Source: Cal Water 2016, 2021.
afy = acre-feet per year

The proposed project would result in an increase of 1,056 afy at buildout when compared to the current General Plan. As shown in Table 5.17-8, this increase is within the conservative residual water supply numbers available to Cal Water from WBMWD if needed.

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, Policy OS-7.1 in the proposed Open Space and Conservation Element directs new development to adopt the most efficient available water practices. The City seeks to improve public education of water conservation practices through Policy OS-7.2 and improve coordination with its water purveyors to promote the most efficient operation and maintenance of the City's water supply, transmission, distribution, and storage system and facilities through Policy 6.3.5 in the existing Utilities Element.

As documented in Tables 5.17-5, the Hermosa-Redondo District can meet all customers' demands during normal year, single dry year, and multiple dry year conditions with excess water available. In addition, the District will continue to implement and expand its water conservation program, which includes water efficiency rebates to residential and commercial customers, water waste prevention ordinances, conservation pricing, and public education and outreach.

Water supplies would be available to meet the demand of the proposed project and therefore impacts would be less than significant.

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Level of Significance Before Mitigation: Less than significant.

5.17.2.5 CUMULATIVE IMPACTS

The area considered for cumulative impacts to water supply services is Cal Water's Hermosa-Redondo District service area. Existing and future development within the service area would require additional quantities of water. The Hermosa-Redondo District's 2020 UWMP projects population within the service area will increase to 100,006 persons by the year 2045, and the total water demand is expected to decrease from 11,153 afy in the year 2020 to 10,757 afy in the year 2045. The Hermosa-Redondo District states that it will have water supplies available for all years up to 2045 during normal years, single-dry years, and multiple-dry years, as shown in Table 5.17-5.

Other future projects within these service areas would result in increases in water demand. However, cumulative water demands are addressed through the Redondo-Hermosa District's UWMP, and expansion and upgrades to water infrastructure are addressed through the City, Cal Water, and WBMWD's IIPs and CIP. All new development projects would be required to obtain will-serve letters from Cal Water. Projects that meet the SB 610 criteria, such as residential projects with more than 500 dwelling units, would be required to prepare WSAs. The City and Cal Water would review such projects for adequacy of water supply, and the Hermosa-Redondo District 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 Update would require the implementation of water efficiency and water conservation measures, as per the CALGreen Code and the MWELo 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.

5.17.2.6 LEVEL OF SIGNIFICANCE BEFORE MITIGATION

Upon implementation of regulatory requirements, the general plan goals, objectives, and policies, Impact 5.17-4 would be less than significant.

5.17.2.7 MITIGATION MEASURES

No mitigation measures are required.

5.17.2.8 LEVEL OF SIGNIFICANCE AFTER MITIGATION

All impacts would be less than significant.

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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

State Water Resources Control Board General Construction Permit

The SWRCB has adopted a statewide Construction General Permit (Order No. 2022-0057-DWQ) for stormwater discharges associated with construction activity. These regulations prohibit the discharge of stormwater from construction projects that include one acre or more of soil disturbance. Construction activities subject to this permit include clearing, grading, and other disturbances to the ground, such as stockpiling or excavation, that results in soil disturbance of at least one acre of total land area. Individual developers are required to submit a Notice of Intent to the SWRCB for coverage under the NPDES permit and would be obligated to comply with its requirements.

The NPDES Construction General Permit requires all dischargers to (1) develop and implement a Stormwater Pollution Prevention Plan (SWPPP) that specifies BMPs to be used during construction of the project, (2) eliminate or reduce nonstorm water discharge to stormwater conveyance systems, and (3) develop and implement a monitoring program of all BMPs specified. The two major objectives of the SWPPP are to (1) help identify the sources of sediment and other pollutants that affect the water quality of stormwater discharges and (2) describe and ensure the implementation of BMPs to reduce or eliminate sediment and other pollutants in stormwater as well as nonstorm water discharges.

Los Angeles RWQCB (MS4) Permit for the Coastal Watershed of Los Angeles and Ventura Counties

On July 23, 2021, the Los Angeles RWQCB adopted a Regional Phase I Municipal Separate Stormwater Sewer System (MS4) Permit for discharges within the coastal watersheds of Los Angeles and Ventura counties (Order No. R4-2021-0105, NPDES No. CAS004004). The municipal discharges of stormwater and nonstorm water by the City are subject to waste discharge requirements as set forth by this MS4 permit.

Los Angeles County Department of Public Works Hydrology Manual

The Los Angeles County Department of Public Works (LACDPW) hydrology manual establishes hydrologic design procedures and contains charts, graphs, and tables necessary to conduct a hydrologic study within the County of Los Angeles. The manual contains procedures and standards developed and revised by the Water Resources Division based on historic rainfall and runoff data collected within the county. The hydrologic techniques in the manual apply to the design of local storm drains, retention and detention basins, pump

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stations, and major channel projects. Standards set forth in the manual govern all hydrology calculations done under LACDPW's jurisdiction.

Los Angeles County Department of Public Works Low Impact Development Standards Manual

LACDPW prepared the 2013 Low Impact Development (LID) Standards Manual to comply with the requirements of the NPDES MS4 Permit. The LID Standards Manual provides guidance for the implementation of stormwater quality control measures in new development and redevelopment projects with the intention of improving water quality and mitigating potential water quality impacts from stormwater and nonstorm water discharges (LACDPW 2006).

Standard Urban Stormwater Mitigation Plan

The NPDES MS4 Permit defines the minimum required BMPs that must be adopted by the permittee municipalities and included by developers within plans for facility operations. To obtain coverage under this permit, a developer must obtain approval of a project-specific standard urban stormwater mitigation plan (SUSMP) from the appropriate permittee municipality. A SUSMP addresses the discharge of pollutants in stormwater generated by new construction or redevelopment. Under recent regulations adopted by the LA RWQCB, projects are required to implement a SUSMP during the operational life of a project to ensure that stormwater quantity and quality is addressed by incorporating BMPs into project design. This plan defines water quality design standards to ensure that stormwater runoff is managed for water quality concerns and to ensure that pollutants carried by stormwater are confined and not delivered to receiving waters. Applicants are required to abide by source control and treatment control BMPs from the list approved by the LA RWQCB and included in the SUSMP. These measures include infiltration of stormwater as well as filtering runoff before it leaves a site. This can be accomplished through various means, including the use of infiltration pits, flow-through planter boxes, hydrodynamic separators, and catch basin filters.

Local

City of Redondo Beach General Plan

The existing City of Redondo Beach General Plan includes a Utilities Element that describes the stormwater infrastructure within the City and contains goals, objectives, policies, and implementation programs that guide the City's management of stormwater utilities. The Utilities Element includes the following policies applicable to stormwater impacts under the proposed project.

GOAL 6B: Establish and maintain adequate planning, construction, maintenance, and funding for storm drainage facilities to support and serve the various land uses and intensities of development in the City and protect public health and safety; upgrading existing deficient systems and expanding the system, where necessary. The services shall be provided and system operated in an ecologically- sensitive manner.

Objective 6.2: Ensure the provision of a comprehensive and modern system of storm drainage facilities that will adequately collect, convey, and remove/dispose of the quantities of storm water and excess water that are generated in the City. The services shall be provided and system operated in an ecologically-sensitive manner.

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- **Policy 6.2.1.** Ensure the provision and operation of adequate storm drainage facilities, where necessary, throughout the City.
- **Policy 6.2.2.** Provide for the maintenance and repair of existing storm drainage facilities, wherever located, throughout the City.
- **Policy 6.2.3.** Require that the approval of new development in the City be contingent upon the ability of the project to be served with adequate storm drainage infrastructure and service.
- **Policy 6.2.4.** Improve and enhance cooperation and communication with the Los Angeles County Department of Public Works Flood Control Division officials to promote effective planning and ensure the most efficient operation and maintenance of the City's storm drainage collection and removal/disposal system and facilities.
- **Policy 6.2.5.** Plan and provide for the ongoing construction of upgraded and expanded storm drainage facilities in areas currently underserved by such facilities in the City, focusing on areas currently encumbered by high incidences of long standing "nuisance" or excess water generated by day to day domestic activities (i.e., washing of vehicles, irrigation of lawns or planting areas, etc.), to protect existing and new development.
- **Policy 6.2.6.** Pursue, through the City Public Works Department additional or alternative mechanisms (other than the City General Fund) for the funding of future storm drainage system improvements.
- **Policy 6.2.7.** Require that improvements to or expansion of existing storm drainage facilities necessitated by specific new development projects be borne by the project proponent, either through the payment of impact fees or the actual construction of such improvements.
- **Policy 6.2.8.** Allow for the formation of benefit assessment districts and community facilities districts, where appropriate and feasible, in which those who directly benefit from specific local storm drainage improvements pay a pro rata share of the costs of the improvements.
- **Policy 6.2.10.** Ensure an adequate and thorough notification of the resident population of the community that will be affected by planned storm drainage improvements or repairs prior to the actual action being taken.
- **Policy 6.2.12.** Where appropriate and feasible, upgrade the existing drainage system by replacing open swales and drainage channels with covered or underground facilities.
- **Policy 6.2.13.** Evaluate the potential feasibility of collecting and using reclaimed excess storm water for irrigation and other non-potable uses, and implement such uses where possible.
- **Policy 6.2.14.** Provide additional information and education to the public relative to the proper or improper disposal of debris or materials into the storm drainage system (i.e., household materials, toxics, etc.).

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City of Redondo Beach Flood Control Policy

In 2009, the City published an Administrative Report approving the City's policy on flood control. The report referenced the City's Strategic Plan and designated the City Engineer as the policy administrator. As requested as part of the City's Strategic Planning document, the Engineering Division prepared a proposed administrative policy in order to address requirements for driveway slopes and approaches. The proposed flood control policy was discussed by the Public Works Commission on February 26, 2009, and was approved with additional recommendations.

- a) It shall be unlawful to discharge storm water or any other type of water, from a private property over a public walkway, public street, alley, or any other type of public improvement.
- b) It shall be unlawful to discharge storm water or any other type of water, from one private property over another private property.
- c) It shall be unlawful to change the existing course of water flow coming from surrounding improvements. New improvements shall be designed to accommodate this requirement.
- d) Storm water and any other type of water generated by a private property shall be collected on site and safely discharged to the gutter of the adjacent public street/alley or public storm drain as required by the provisions of this policy.

The design of basins, sumps, pumps, pipes and all other flood control elements shall be performed in accordance with the latest requirements of the NPDES, and with the latest edition of the Hydraulic Design Manual and Hydrology/Sedimentation appendix of the Los Angeles County Department of Public Works, to the satisfaction of the City Engineer.

When a private property slopes downward toward the public right-of-way, and when the driveway of said private property measures twenty (20) feet (or longer) from the back of public walkway to the garage door, waters coming from that property shall be collected into a basin before it reaches the public right-of-way and shall be drained through pipes under the public walkway to a safe discharge at the street gutter.

Developers seeking to construct a multi-residential project of more than four (4) units, or a commercial project of more than one (1) acre in land area, shall construct an on-site detention system to meet the following flood control requirements:

- 1. Site hydrology/hydraulics shall be based on 25-year design storm.
- 2. Time of concentration shall not be more than five (5) minutes unless calculated otherwise.
- 3. Discharging storm water shall only occur at a direct connection to the nearest storm drain system.
- 4. Storm water shall be detained on site and gradually discharged at a rate of no more than one (1) cubic foot per second (cfs), per acre of site area.
- 5. The differential between the total site storm water rate and the discharge rate of one (1) cubic foot per second, per acre of land, shall be detained on site for no less than seven (7) minutes.

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City of Redondo Beach Municipal Code

Title 5, Chapter 7, Stormwater Management and Discharge Control, of the RBMC sets forth requirements for the construction and operation of certain commercial development, new development and redevelopment, and other projects to ensure compliance with the stormwater mitigation measures prescribed in the current MS4 Permit. Section 5-7.113, Standard Urban Stormwater Mitigation Plan and Low Impact Development Requirements for New Development and Redevelopment Projects, implements the requirement for SUSMPs pursuant to the NPDES MS4 Permit for development in the City. Section 5-7.107, Storm Drain Impact Fees, levies a fee on development to offset the City's costs of NPDES-related implementation and enforcement.

Existing Conditions

The following existing conditions information is from the *City of Redondo Beach General Plan Update Infrastructure Report for Water, Sewer, Storm Drainage, and Water Quality* (see Appendix F for additional information and citations).

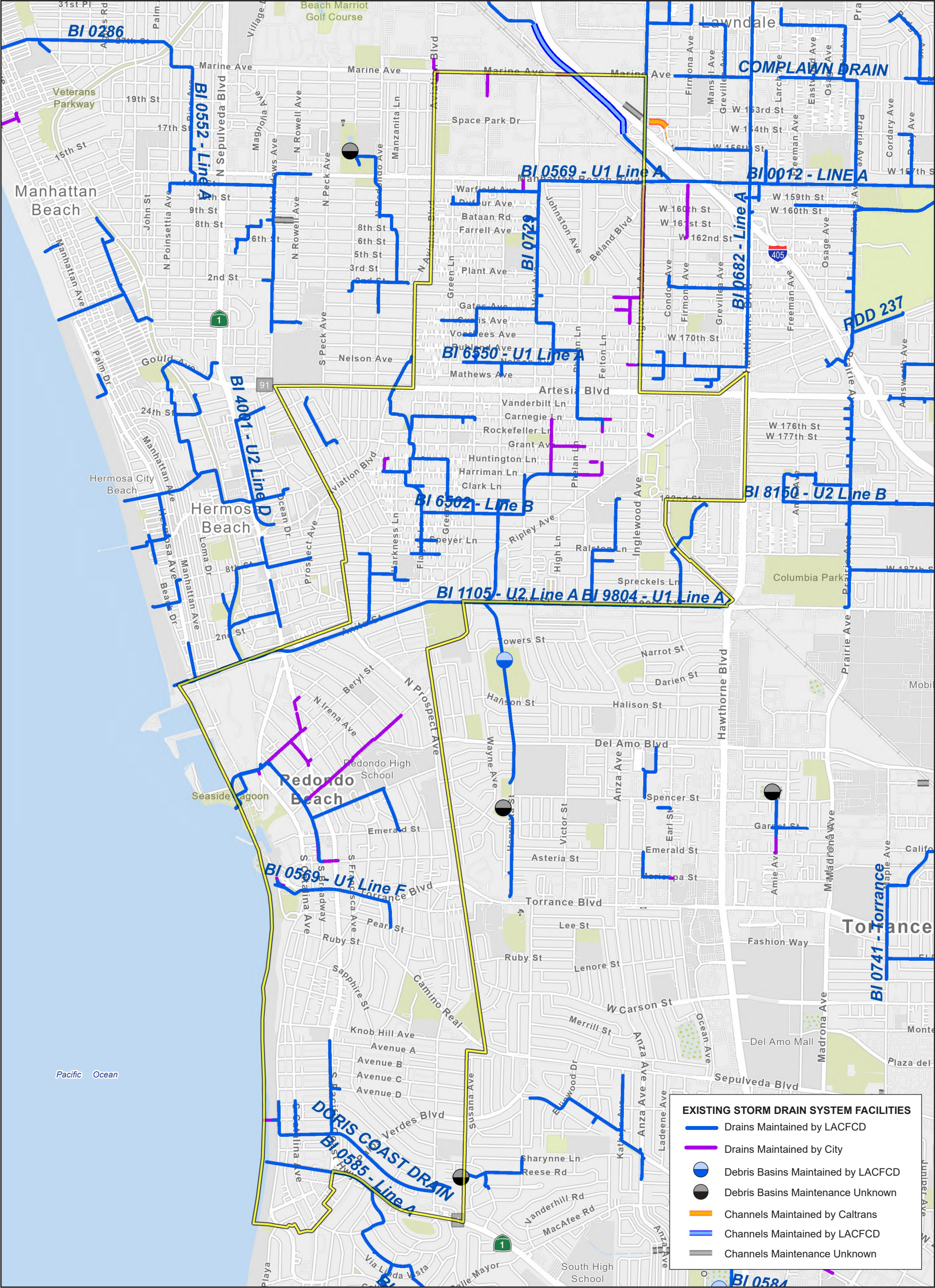
Existing Drainage Facilities

The facilities and infrastructure throughout and connecting to the City are managed and operated by the City of Redondo Beach Public Works Department and the County of Los Angeles Department of Public Works Flood Control District (LACFCD). Within the City, the City's Public Works Department is responsible for maintaining, approximately 185,756 feet (35 miles) of storm drains, 784 catch basins (472 with Connector Pipe Screens), 8 controlled debris collection systems units, 15 dry wells, 3 stormwater pump stations, and 2 stormwater diversion system units. Approximately 25 percent of the storm drainage system is owned, operated, and maintained by the City of Redondo Beach Public Works Department; the remaining 75 percent is owned, operated, and maintained by LACFCD. Although LACFCD owns and maintains infrastructure within the City's watersheds they are not responsible for land uses in the City. LACFCD and the City have a detailed GIS-based inventory of drainage facilities, including storm drain pipes and catch basins, for public and private properties. Figure 5.17-4, *Existing Drainage Facilities in Redondo Beach*, shows the existing storm drain system throughout the City.

Watershed

The City is part of the Beach Cities Watershed Management Group, which includes the watershed management areas for the Santa Monica Bay, Dominguez Channel, and Machado Lake Watersheds. The Dominguez Channel Watershed encompasses the north portion of the City (1,251.8 acres) bordering Lawndale and Torrance. The Santa Monica Bay Watershed includes most of the southeastern part of the City (2,592.3 acres), with a small section falling within the Machado Lake Watershed. Stormwater and excess water have three routes out of the City via the Dominguez Channel, drainage outfalls, and sump pumps. Stormwater from the north and northeast portions of Redondo Beach is carried out of the City to the east and drains into the Dominguez Channel, a major regional drainage facility. From the southern part of the City, stormwater is directed into the Pacific Ocean through thirteen different drainage outfalls along the southwestern shoreline. Water collected in each of the five sumps is pumped backed into the system and drained through one of the ocean drainage outfall pipes. Figure 5.9-1, *Watersheds in Redondo Beach*, in Section 5.9, *Hydrology and Water Quality*, shows the watersheds within and surrounding the City.

Figure 5.17-4 - Existing Drainage Facilities in Redondo Beach



City of Redondo Beach

0 2,400
Scale (Feet)

Source: FUSCOE, 2024.



Flood Hazard Zones

Zones AE, AH, & VE: 1% Annual Chance Flood Hazard (AE with Base Flood Elevations Determined)

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Stormwater Management

The City has ongoing monitoring and maintenance procedures in place to ensure that the system functions effectively. To prevent significant flooding during storm events, the City and LACFCD monitor and maintain stormwater pumping stations to ensure they operate efficiently.

As of 2019, the City has worked to improve five deficient pump stations to increase performance and operation. Similar improvements are being made to reduce offshore trash, debris, leaks, and urban runoff. These ongoing improvements are updated annually in the City's CIP. In addition, the City currently requires individual drainage analyses for redevelopments to ensure conformity with the citywide drainage system. New developments and significant redevelopments must analyze the 10- and 25-year storm events of their project and determine if there are any impacts to the public storm drain system. The City uses a hybrid approach to maintain storm drain capacity and promotes using existing features (i.e., parks) to serve as detention systems wherever needed and practical.

Capital Improvement Program Projects

The City alongside other stakeholders has multiple plans for CIP projects to continually improve water quality and plan for future drainage projects. The City specifically has a 5-year CIP document that describes several projects that impact drainage facilities within Redondo Beach. Table 5.17-9, *Storm Drainage Capital Improvement Projects*, describes these six CIP projects that will be implemented over the next five years. These projects in addition to others not listed here will continually improve the regional water quality and drainage infrastructure serving the City and region.

Table 5.17-9 Storm Drainage Capital Improvement Projects

CIP Project Name	Phase/ FY Completion	Project Description
Santa Monica Bay Near/Offshore Marine Debris Total Maximum Daily Load (TMDL)	Ongoing	The project includes the installation and maintenance of catch basin trash screeners to achieve 20% trash reduction; five years, 40%; six years, 60%; seven years, 80%; and eight years, 100% trash reduction.
Enhanced Watershed Management Plan (EWMP) Implementation	Ongoing	EWMP implementation will include both structural water quality enhancement projects and nonstructural measures that address the need to comply with three new TMDLs recently approved by the EPA. They are PCB/DDT and debris for Santa Monica Bay and toxics for Dominguez Channel.
Drainage Improvement Project	Construction commenced FY 21-22	This project will address nuisance water locations and replace all of the corrugated metal pipe cross-drains and culverts throughout the City with reinforced concrete pipe to reduce leakage.
Beach Cities Green Street Improvements	Construction FY 22-23	Expand green street features, infiltration wells, and permeable pavers; control the peak rate from high intensity storm events; alleviate localized flooding/ponding; and recharge groundwater.
Fulton Playfield Multibenefit Infiltration Project	Construction FY 23-24	This project will enhance an existing underground flood control basin managed by LACFCD by modifying the inlet structure and adding infiltration drywells.

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Table 5.17-9 Storm Drainage Capital Improvement Projects

Glen Anderson Park Regional Stormwater Capture Green Streets	Design FY 23-24	A Beach Cities EWMP project that supports regional MS4 compliance and creates recreational and greening benefits to the community.
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Source: Fuscoe 2024.

5.17.3.2 THRESHOLDS OF SIGNIFICANCE

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

- U-1 Require or result in the relocation or construction of new or expanded storm water drainage, the construction or relocation of which could cause significant environmental effects.

5.17.3.3 PROPOSED GENERAL PLAN GOALS AND POLICIES

Land Use Element

Goal LU-5 Environmental Sustainability. An environmentally aware community that utilizes tools, strategies and approaches that protect and minimizes the impacts to the City's environmental resources.

- **Policy LU-5.9. Stormwater Recapture.** Prioritize bioswales and other strategies to recapture storm water and infiltrate it in the aquifer. Develop policies and ordinance that requires the implementation of bioswales and similar strategies such as permeable surfaces to capture and infiltrate storm water from streets and development.

5.17.3.4 ENVIRONMENTAL IMPACTS

Methodology

The following analysis is based in part on the information and analyses presented in the *City of Redondo Beach General Plan Update Infrastructure Report for Water, Sewer, Storm Drainage, and Water Quality* prepared by Fuscoe Engineering in July 2024. This technical report includes an assessment of the City's existing stormwater drainage infrastructure and a summary of existing regulatory procedures that reduce impacts to stormwater drainage infrastructure. In determining the level of significance, the analysis assumes that future projects facilitated by the proposed project would comply with applicable federal, state, and local laws, ordinances, and regulations.

Impact Analysis

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

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Impact 5.17-5: Existing and/or proposed facilities would be able to accommodate development pursuant to the proposed project and not require or result in the relocation or construction of new or expanded storm water drainage, the construction or relocation of which could cause significant environmental effects. [Threshold U-1]

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.

For example, per the requirements of the LACDPW, as detailed in the Los Angeles County Hydrology Manual and the Los Angeles County Hydraulic Design Manual, development under the proposed project would be required to have site-specific hydrology and hydraulic studies to determine the capacity of the existing storm drain systems and project impacts on such systems prior to approval by the LACDPW. 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. The hydrology and hydraulic studies must be submitted to the County for review and approval prior to the issuance of grading permits.

Development projects would also be required to prepare and submit a SUSMP per the MS4 permit and Section 5-7.113 of the RMBC, which would include applicable low impact development requirements in the MS4 permit and Low Impact Development Standards Manual. 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 SUSMP, which would occur during the City’s building plan check process. Additionally, the proposed project would incorporate into the project a stormwater mitigation plan, including the BMPs necessary to control stormwater pollution from project operations as set forth in the SUSMP. Structural or treatment control BMPs in project plans would meet the design standards in the SUSMP and MS4 permit. The project developer would also provide verification of maintenance provisions for treatment and structural control BMPs.

Furthermore, the City’s policy on flood control requires that developers seeking to construct a multifamily residential project of more than four units or a commercial project of more than one acre will be allowed to discharge one cubic foot per second per acre of site area. Detention systems would be required, when necessary, to mitigate the drainage impacts.

Moreover, policies within the existing Utilities Element also ensure that new development is adequately served by storm drainage utilities. For example, Policies 6.2.1 and 6.2.2 require the City to provide, operate, maintain, and repair storm drainage facilities in the City. Policy 6.2.3 requires that the approval of new development be

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contingent upon the ability of the development to be served with adequate storm drainage infrastructure. Policy 6.2.5 also directs the City to upgrade and expand storm drainage facilities for areas currently underserved by such facilities. Policy 6.2.7 would ensure that expansions for service to new development are paid for by the project proponent.

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 proposed 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.

Level of Significance Before Mitigation: Less than significant.

5.17.3.5 CUMULATIVE IMPACTS

Cumulative impacts are considered for the watersheds of the Beach Cities Watershed Management Group, including the Santa Monica Bay, Dominguez Channel, and Machado Lake watersheds. 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 areas 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 proposed General Plan goals and policies, proposed goals and policies in the LCP, 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 Los Angeles County and Ventura 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.

In combination with past, present, and reasonably foreseeable projects, proposed implementation of the General Plan Update would not result in a cumulatively considerable impact to stormwater infrastructure, and cumulative impacts would be less than significant.

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5.17.3.6 LEVEL OF SIGNIFICANCE BEFORE MITIGATION

Upon implementation of state, county, and local regulatory requirements, as well as the goals and policies within the proposed General Plan, impacts would be less than significant.

5.17.3.7 MITIGATION MEASURES

No mitigation measures are required.

5.17.3.8 LEVEL OF SIGNIFICANCE AFTER MITIGATION

Impacts would be less than significant.

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.

AB 1327, Model Ordinance for Recycling in Development Projects

AB 1327 (PRC Sections 42900-42911) required all local agencies to adopt an ordinance relating to adequate areas for collecting and loading recyclable materials in development projects. This bill required local agencies to adopt a local ordinance by 9/1/93 or allow the model ordinance to take effect.

Assembly Bills 939, 341, and 1826

Assembly Bill 939 (Integrated Solid Waste Management Act of 1989; PRC 40050 et seq.) established an integrated waste-management system that focused on source reduction, recycling, composting, and land

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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.

California Short-Lived Climate Pollutants Act (Senate Bill 1383)

SB 1383 (California Code of Regulations Title 14, Section 18993.1) focused on the elimination of methane gas created by organic materials in landfills and set targets to achieve a 50 percent reduction in the statewide disposal of organic waste by 2020 and a 75 percent reduction by 2025. Organic waste makes up half of what Californians send to landfills. SB 1383 requires all businesses and residents to divert organic materials (including food waste, yard waste, and soiled paper products) from the landfill. The regulation took effect on January 1, 2022, and will require that organics collection service be provided to all residents and businesses. Also, an edible food recovery program must be established by 2025 with the goal of recovering edible food for human consumption (CalRecycle 2024a).

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.

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.

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Regional

Los Angeles Regional Agency

The Los Angeles Area Integrated Waste Management Authority is referred to as the Los Angeles Regional Agency or “LARA.” It was approved by the California Integrated Waste Management Board in 2004 to assist its 18 member cities to achieve AB 939 recycling goals through a Joint Powers Agreement on a regional basis. The City of Redondo Beach is a member of LARA, which assists member cities in complying with recycling requirements.

County of Los Angeles Countywide Integrated Waste Management Plan

The County Integrated Waste Management Plan comprises the solid waste reduction planning documents produced by the County and its cities. To assess compliance with AB 939, a Disposal Reporting System was established to measure the amount of disposal from each jurisdiction. Comparing current disposal rates to base year solid waste generation determines whether each jurisdiction complies with the diversion mandate. Additionally, the Siting Element is a long-term planning document that describes how the County and the cities in the county plan to manage the disposal of their solid waste for a 15-year planning period. The Siting Element contains goals and policies on a variety of solid waste management issues.

Local

City of Redondo Beach General Plan

The City of Redondo Beach General Plan includes a Solid Waste Management and Recycling Element that describes solid waste collection and recycling programs within the City and contains goals, objectives, policies, and implementation programs that guide the City’s management of solid waste programs. The following policies from the Solid Waste Management and Recycling Element are applicable to solid waste impacts from the proposed project:

GOAL 7A: Promote, develop, and maintain a comprehensive plan and strategy to manage the City’s solid waste collection, transportation, and management in an efficient and environmentally sensitive manner, and in accordance with all applicable state laws.

Objective 7.1: Ensure that all available means of modern and efficient solid waste collection, transportation, and management are provided to the residential, commercial, and industrial users in the community, in accordance with evolving industry regulations and standards.

- **Policy 7.1.1.** The City of Redondo Beach shall actively participate and interact with other local cities, state and regional governments/agencies and planning bodies, and local and regional solid waste removal purveyors in pursuing and securing responsible long-term solutions for solid waste removal. These solutions may include, but, not be limited to: a) the securing of additional capacity and life span for existing operational landfills; b) the construction and operation of new solid waste landfills; and c) the construction and operation of “waste-to-energy” facilities.

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- **Policy 7.1.2.** The City of Redondo Beach (principally through the Department of Public Works) shall continue to analyze and interpret solid waste generation rates, waste removal practices, and other events and trends related to solid waste generation and removal, to further increase the effectiveness and efficiency of its removal and increase the potential and practice of solid waste management/reduction and recycling programs.
- **Policy 7.1.3.** The City of Redondo Beach (principally through the Department of Public Works) shall continue to encourage, support, and monitor the efforts and activities of the City's Environmental and Utilities Commission relative to solid waste removal and management and the creation and adoption of a comprehensive solid waste management plan. This body was appointed by the City Council to develop, adopt, and implement the City of Redondo Beach Solid Waste Management Plan, as mandated by the State Legislature in Assembly Bill 939.
- **Policy 7.1.4.** The City of Redondo Beach shall implement a solid waste/recycling education and information dispersal campaign/program at the local level, in order to supplement those currently instituted by state and regional governments and non-profit organizations through the various television and print media.

GOAL 7B: Increase the public awareness of the need to, and the means through which individual citizens, property owners, and business people in the community can successfully participate in local recycling programs.

Objective 7.2: Increase the range and amount of solid waste that is recycled throughout the community, in accordance with all applicable state and local requirements, while achieving the resultant environmental and financial benefits and advantages of such activities.

- **Policy 7.2.1.** In an effort to increase the rate and efficiency of recycling resources and collection facilities available to the community, the City of Redondo Beach, through its revised Municipal Code, shall continue to permit the siting and construction of reverse vending machines in commercial and industrial zones, shall continue to permit small recycling collection facilities in these zones through a conditional use permit process, and shall continue to permit large recycling collection and processing facilities through conditional use permit and site plan review procedures and approvals.
- **Policy 7.2.2.** The City of Redondo Beach (principally through the Department of Public Works) shall continue to analyze and interpret solid waste generation rates, waste removal practices, and other events and trends related to solid waste generation and removal, to further increase the effectiveness and efficiency of its removal and increase the potential and practice of solid waste management/reduction and recycling programs.
- **Policy 7.2.3.** The City of Redondo Beach (principally through the Department of Public Works) shall continue to encourage, support, and monitor the efforts and activities of the City's Environmental and Utilities Commission relative to integrated waste management activities. This body was appointed by the

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City Council to develop and implement the City of Redondo Beach Solid Waste Management Plan, as mandated by the State Legislature in Assembly Bill 939.

- **Policy 7.2.4.** In the interim, the City should continue to proactively encourage, engender, and monitor its existing “curbside” recycling plan, neighborhood and group recycling plans and efforts, recycling by larger property owners and commercial and industrial businesses to increase the amount of participation and range of materials that are presently being recycled.
- **Policy 7.2.5.** The City of Redondo Beach shall, as feasible and appropriate, require that all new or remodeled multi-family residential, commercial, and industrial developments develop and submit a formal “recycling plan,” designating where and through which means materials will be stored for recycling purposes. The City Department of Public Works shall assist the City Community Development Department in reviewing these plans.

City of Redondo Beach Municipal Code

Title 5, Sanitation and Health, Chapter 2, Garbage, Weeds, Rubbish, and Hazardous Waste, of the RBMC provides a uniform procedure, regulation, and control for the collection and transportation of solid waste, discards, and recyclable commodities 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. Article 7, Construction and Demolition Debris Waste Reduction and Recycling Requirements, requires covered projects to submit a recycling report after the completion of a demolition project in addition to a waste management plan. Article 8, Mandatory Organic Waste Disposal Reduction, implements the requirements of SB 1383 and requires single-family residences and commercial businesses to dispose of organic waste.

Title 10, Chapter 3, Environmental Review Pursuant to CEQA of the RBMC establishes the specific procedures necessary to implement CEQA. Article 2, Evaluation of Significant Effects, establishes criteria for determining significant effects and provides guidance in making an evaluation whether or not a particular project may have a substantial adverse effect on the environment. Pursuant to the Municipal Code, if there are inconsistencies between the provisions contained in Title 10, Chapter 3, and the State's CEQA Guidelines, the State's CEQA Guidelines shall control. As established in Section 10-3.202, significant effects may be due to primary consequences immediately related to the project or may be due to secondary consequences related more to the primary consequences than the project itself. As established in Section 10-3.203(e), with respect to solid waste, a project will normally have a significant effect on the environment if it will breach published national, state, or local standards relating to solid waste or litter control.

Existing Conditions

Solid Waste Collection

Athens Services is the City’s exclusive franchise waste hauler that services all residential and commercial waste and recycling programs. Solid waste from Redondo Beach is collected by Athens Services and taken to its recycling facilities, which currently consist of the City of Industry Materials Recovery Facility and the Sun Valley Materials Recovery Facility (Athens Services 2024a). Food waste is processed and delivered to their

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compost facility, American Organics, in Victorville (Athens Services 2024b). Unrecyclable solid waste collected by Athens Service is delivered to Antelope Valley Recycling and Disposal Facility, Azusa Land Reclamation, Chiquita Canyon Landfill, Lancaster Landfill, and Sunshine Canyon/County Landfill. Table 5.17-10, *Landfill Summary*, provides additional data for each landfill.

Table 5.17-10 Landfill Summary

Landfill Name	Tons of Waste Received per Day in 2021	Maximum Permitted Throughput, tons per day	Residual Daily Capacity, tons/day	Remaining Capacity, cubic yards ²	Estimated Closing Year
Antelope Valley Recycling and Disposal Facility	2,579	5,548	2,969	17,911,225 ¹	2044
Azusa Land Reclamation	1,292	8,000	6,708	51,512,201 ²	2045
Chiquita Canyon Landfill	6,153	12,000	5,847	60,408,000 ³	2047
Lancaster Landfill	381	5,100	4,719	14,514,648 ⁴	2044
Sunshine Canyon/County Landfill	7,830	12,100	4,270	77,900,000 ⁵	2037
TOTAL	18,235	42,748	24,513	923 million	

Sources: LACPW 2022, 2024; CalRecycle 2024b, 2024c, 2024d, 2024e, 2024f.

¹ Remaining capacity as of October 2017.

² Remaining capacity as of September 2012.

³ Remaining capacity as of August 2018.

⁴ Remaining capacity as of August 2012.

⁵ Remaining capacity as of May 2018.

According to CalRecycle's report for Overall Jurisdiction Tons for Disposal and Disposal Related Uses, the total waste generated for the jurisdictions in the LARA was 5,374,645 tons across quarters 1 and 2 of 2023 and quarters 3 and 4 of 2022 (CalRecycle 2024g). The City of Redondo Beach represents 1.46 percent of the total population of all jurisdictions in the LARA and is therefore assumed to have an equivalent proportion of the total waste disposal from the LARA jurisdictions. The total disposal for the City is assumed to be 78,704 tons in 2022-2023.

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 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.

Redondo Beach disposals are aggregated with the 18 other jurisdictions under LARA. For the aggregated jurisdictions, the per capita residential target is 7.1 pounds per person per day of landfilled solid waste. In 2022, the aggregated jurisdictions achieved an actual disposal rate of 6.1 pounds per person per day and 13.2 pounds per employee per day (CalRecycle 2024h).

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The City's annual recovered organic waste product procurement target is 5,319 tons per year, as designated by CalRecycle under SB 1383 (CalRecycle 2024i). Beginning January 1, 2022, each jurisdiction is required to procure a specific tonnage of recovered organic waste products to meet its designated annual procurement target which is based on its population. However, SB 1383 also stipulates that jurisdictions whose procurement targets exceed their procurement of transportation fuel, electricity, and gas derived from organic waste products used for heating applications in the previous year, are able to adjust their target to an amount equal to their total procurement of those products as converted to their recovered organic waste product equivalent from the previous year. The City's adjusted procurement target is 0 tons (CalRecycle 2024j; LARA 2022). According to the Los Angeles Area Integrated Waste Management Authority Electronic Annual Report for 2022, the most recent year for which data are available, the City procured 342.07 tons of organic waste product (LARA 2022). While the City did not achieve its annual procurement product, it did achieve the adjusted procurement target.

5.17.4.2 THRESHOLDS OF SIGNIFICANCE

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

- U-4 Generates 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 Does not comply with federal, state, and local management and reduction statutes and regulations related to solid waste.

5.17.4.3 PROPOSED GENERAL PLAN GOALS AND POLICIES

The proposed General Plan Update does not include any goals, objectives, policies, or actions relevant to solid waste disposal impacts. The analysis below references policies from the existing General Plan's Solid Waste and Recycling Element, which will not be updated as part of the proposed project.

5.17.4.4 ENVIRONMENTAL IMPACTS

Methodology

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 and 2023 from CalRecycle. As explained above, solid waste disposal data for the City is aggregated with that of 18 other jurisdictions under LARA. The City's proportion of population within the combined population of the LARA jurisdictions was used to estimate the proportion of solid waste attributable to the City from the total solid waste generated by all 18 LARA jurisdictions. This baseline generation rate was applied to the net population increase anticipated from buildout of the General Plan Update. 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.

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Impact Analysis

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

Impact 5.17-6: Existing and/or proposed facilities would be able to accommodate project-generated solid waste 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 (2022-2023) is estimated to be 78,704 tons. The existing (2023) service population in Redondo Beach is assumed to be 98,949, which accounts for employees and residents. Therefore, the baseline waste generation rate for the City is 0.8 tons/service population/year. The service population of the City under buildout of the General Plan is projected to be 115,605 residents and employees (see Table 3-4, *Summary of Existing and Proposed Land Uses*). Using the City's baseline waste generation rate, the anticipated waste generation for the City per year under buildout of the General Plan by 2050 is 92,484 tons.³ This represents a net increase of 13,780 tons of waste by 2050. This assumes that the current diversion rate for Redondo Beach 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.

A total of 13,780 tons/year would average about 46 tons/day (assuming 300 disposal days/year). This increase would be approximately 0.2 percent of the current excess capacity of 24,513 tons/day at the landfills listed in Table 5.17-10. In addition, these calculations conservatively assume that current diversion rates remain the same and there is no increased diversion rate for organics and recycling.

Furthermore, all development pursuant to the Redondo Beach General Plan Update 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 Redondo Beach 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.

³ 0.8 tons per service population per year * 115,605 service population = 92,484 tons per year

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- 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.
- 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 Solid Waste Management and Recycling Element, including Policies 7.1.1 through 7.2.5, promote compliance with State and federal waste management policies and encourage monitoring of waste services to increase waste diversion in the City. Development under the General Plan would also be required to comply with the applicable provisions of Title 5, Sanitation and Health, of the RBMC. Article 7 of the RBMC requires covered projects to submit a recycling report after the completion of a demolition project in addition to a waste management plan, and Article 8 requires single-family residences and commercial businesses to dispose of organic waste. With continued compliance with the applicable regulations, leading to increased recycling and waste diversion and adherence to the General Plan goals, objectives, policies, anticipated rates of solid waste disposal would be less than significant.

Level of Significance Before Mitigation: Less than significant.

5.17.4.5 CUMULATIVE IMPACTS

Cumulative impacts are considered for the service areas of the five landfills that serve the City, shown in Table 5.17-10. 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 42,748 tons per day, a remaining capacity of approximately 923 million cubic yards, and estimated closure dates ranging from 2037 to 2047. 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 Los Angeles County to maintain 15 years of available countywide solid waste disposal capacity. As detailed in the 2023 Countywide Integrated Waste Management Plan, the County's landfill system has sufficient capacity to accommodate the project and future development within the County. Cumulative impacts would be less than significant after compliance with existing regulations, and project impacts would not be cumulatively considerable.

5.17.4.6 LEVEL OF SIGNIFICANCE BEFORE MITIGATION

Upon implementation of regulatory requirements and goals and policies from the proposed project, all solid waste impacts would be less than significant.

5.17.4.7 MITIGATION MEASURES

No mitigation measures are required.

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5.17.4.8 LEVEL OF SIGNIFICANCE AFTER MITIGATION

Impacts would be less than significant.

5.17.5 Other Utilities

5.17.5.1 ENVIRONMENTAL SETTING

Regulatory Background

Federal

Natural Gas Pipeline Safety Act of 1968

The Natural Gas Pipeline Safety Act of 1968 authorizes the US Department of Transportation (USDOT) 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. USDOT's Pipeline and Hazardous Materials Safety Administration (PHMSA) develops and enforces regulations for the safe, reliable, and environmentally sound operation of the nation's 2.6 million miles of pipelines. USDOT 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 USDOT, 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 (PHMSA 2017).

Pipeline Inspection, Enforcement, and Protection Act of 2006

The Pipeline Inspection, Enforcement, and Protection Act confirms the commitment to the Integrity Management Program 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 integrity management programs 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).

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- 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. (INGAA 2019)

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.
- 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 regulates interstate and international communications by radio, television, wire, satellite and cable in all 50 states, the District of Columbia and US territories. The commission's regulatory powers include setting manufacturing standards for communications equipment, decency standards in radio and television broadcasts, and ensuring competition.

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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.
- 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.

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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.

2016 Appliance Efficiency Regulations

The 2016 Appliance Efficiency Regulations (Title 20, California Code of Regulations, Sections 1601 through 1608), combined with federal standards, set minimum efficiency levels for energy and water consumption in products, such as consumer electronics, household appliances, and plumbing equipment (CEC 2023a). Twenty-three categories of appliances are included in the scope of these regulations. The standards apply to appliances that are sold or offered for sale in California, except those sold wholesale in California for final retail sale outside the State, and those designed and sold exclusively for use in recreational vehicles or other mobile equipment. These regulations exceed the standards imposed by all other states and they reduce GHG emissions and energy demand.

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 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 Emission*, of the EIR.

Local

City of Redondo Beach General Plan

The City of Redondo Beach General Plan includes a Utilities Element that contains goals, objectives, policies, and implementation programs related to providing energy and telecommunications infrastructure in the City. The following goals, objectives, and policies from the Utilities Element are applicable to energy and telecommunications infrastructure impacts from the proposed project.

GOAL 6D: Provide an adequate, safe, and orderly supply of electrical energy to support the various existing and future land uses and development intensities in the City. The services shall be provided and system operated in an ecologically-sensitive manner.

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Objective 6.4: Work actively with the Southern California Edison Company (or any future purveyor of electricity to City) to ensure that adequate electrical facilities and capacities are available to meet the average daily and peak electrical energy needs of existing and future development in the City.

- **Policy 6.4.1.** Improve and enhance cooperation and communication with the Southern California Edison Company (or any future purveyor of electricity to the City) to promote effective planning and ensure the most efficient and environmentally sensitive operation and maintenance of the City's electricity supply system and facilities.
- **Policy 6.4.2.** Require that the approval of new development in the City be contingent upon the ability of the project to be served with adequate electrical infrastructure and service.
- **Policy 6.4.3.** Promote and require the undergrounding of electrical utilities, including on-site electrical utility infrastructure and connections within a new development project, unless such undergrounding is judged as being infeasible.
- **Policy 6.4.4.** Continue, through the City Public Works Department, to pursue potential funding mechanisms (outside of the City's General Fund) to undertake and carry out a more general program to incrementally underground, where possible, all of the existing overhead electrical utility infrastructure, cable television lines, and overhead telephone lines in the City.
- **Policy 6.4.5.** Ensure the provision of adequate illumination of all public streets, alleys (under special conditions) and public areas; upgrading areas which are deficient and maintaining light fixtures in good working order.
- **Policy 6.4.6.** Require that improvements to or expansion to the existing city street lighting system and or new street light systems necessitated by new private development be borne by the project proponent; either through the payment of fees, or through the actual construction of the facilities.
- **Policy 6.4.7.** Work, through the City Public Works Department, with the Southern California Edison Company (or any future purveyor of electricity to the City) in developing and implementing a menu of programs for public information/education and action in encouraging electricity conservation practices.
- **Policy 6.4.8.** Work with the Southern California Edison Company to ensure that their facilities and operations are provided in a manner that is compatible with adjacent and surrounding uses in the community. Continue to pursue and implement, where feasible, a program of mitigation measures to lessen the severity and occurrence of the impacts of these facilities relative to noise, air quality, etc.
- **Policy 6.4.9.** Work, through the City Public Works Department to monitor the evolving issue of Electromagnetic Radiation Frequencies [EMF] (from electrical operations and facilities) and their potential impacts on the community. As information and mitigation measures for these impacts becomes available, they should be analyzed and implemented, as possible and feasible, through the community.

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GOAL 6E: Provide an adequate, safe, and orderly supply of natural gas to support the various existing and future land uses and development intensities in the City. The services shall be provided and system operated in an ecologically-sensitive manner.

Objective 6.5: Work actively with the Southern California Gas Company (or any future purveyor of natural gas to the City) to ensure that adequate natural gas facilities and capacities are available to meet the average daily and peak natural gas energy needs of existing and future development in the City.

- **Policy 6.5.1.** Improve and enhance cooperation and communication with the Southern California Gas Company (or any future purveyor of natural gas to the City) to promote effective planning and ensure the most efficient and safe operation and maintenance of the City's natural gas supply system and facilities.
- **Policy 6.5.2.** Require that the approval of new development in the City to be served by natural gas be contingent upon the ability of the project to be served with adequate natural gas infrastructure and service.
- **Policy 6.5.3.** Require that all new development to be served by natural gas install on-site pipeline connections to distribution facilities underground, unless such undergrounding is judged to be infeasible.
- **Policy 6.5.4.** Work with the Southern California Gas Company to develop a program for the future protection and conservation of natural gas resources, as supplies warrant into the future.

GOAL 6F: Ensure the availability, operation, and maintenance of an adequate, modern, telecommunications system (i.e. telephone, facsimile, cellular, telephone, cable television, and satellite television/communication) to support the needs of existing and future land uses and development intensities in the City.

Objective 6.6: Work to ensure that adequate, modern telecommunications systems and facilities (i.e., telephone, facsimile, cellular telephone, cable television, and satellite television/communication) are available to meet the needs of existing and new development in the City.

- **Policy 6.6.1.** Provide for the continued development, expansion, and modernization of telecommunications systems (i.e., telephone, facsimile, cellular telephone, cable television, and satellite television/communication) [including fiber optics systems] as feasible, to ensure and enhance communication between residents, businesses, government agencies and other similar entities.
- **Policy 6.6.2.** Improve and enhance cooperation and communication with the General Telephone and Electric Company and Century Cable Company (or any additional or future purveyor of telecommunications services to the City) to promote effective planning and ensure the most efficient operation and maintenance of the City's telecommunications system and facilities.
- **Policy 6.6.3.** Pursue the expansion of coverage and availability of local cable television programming for government and community service meetings and events, public service notices and activities, and other non-profit or community-serving programs that may be of interest or value to the community.
- **Policy 6.6.4.** Require that all new development to be served by telecommunications install on-site connections to distribution facilities underground, unless such undergrounding is judged to be infeasible.

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- **Policy 6.6.5.** Ensure, through the design review and approval process of the City Planning Commission and City of Redondo Beach Building and Safety Department, that satellite dishes and other highly visible telecommunications devices are (preferably) placed and designed as such to be shielded from view, or (at the least) designed as such to be compatible with surrounding uses and design characteristics of the community.
- **Policy 6.6.6.** Work with General Telephone (and any other purveyors of telephone service) to ensure that outdoor telephone facilities are located and designed so as to prevent adverse impacts on surrounding properties.

Existing Conditions

Electric power is provided to the City of Redondo Beach by Southern California Edison (SCE). 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 but not limited to AT&T, Spectrum, Frontier FIOS TV, and Mediacom.

Electricity

Total existing electricity demand in Redondo Beach is estimated at 657,942,472 kilowatt hours (kWh) per year (657.9 gigawatt hours (GWh) per year), as shown in Table 5.5-1, *Existing Electricity Demand*, in Section 5.5, *Energy*.

Southern California Edison

The City is in SCE's service area, which spans much of southern California from Orange and Riverside counties on the south to Santa Barbara County on the west to Mono County on the north (SCE 2024a). Total electricity consumption in SCE's service area was 107,876 GWh in 2022 (CEC 2024a). Sources of electricity sold by SCE in 2022, the latest year for which data are available, were:

- 33.2 percent renewable, consisting mostly of solar and wind
- 3.4 percent large hydroelectric
- 24.7 percent natural gas
- 8.3 percent nuclear
- 0.1 percent other
- 30.3 percent unspecified sources—that is, not traceable to specific sources (SCE 2024b)⁴

Clean Power Alliance

The Clean Power Alliance (CPA) is a nonprofit default electricity provider for over 30 public agencies in Southern California and started to service the City of Redondo Beach in February 2019. CPA provides electricity generated from renewable sources, such as solar, wind, biomass, bio-waste, geothermal, and hydroelectric, and delivers to customers through SCE transmission lines. Customers in the City are automatically

⁴ The electricity sources listed reflect changes after the 2013 closure of the San Onofre Nuclear Generating Station, which is owned by SCE. Numbers are rounded up and may cause the total to not add up to exactly 100 percent.

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enrolled in the CPA's "Clean Power" energy plan when they establish a new energy supply connection with CPA, which delivers over 50 percent renewable energy (Redondo Beach 2024).

Sources of electricity sold by CPA under the "Clean Power" plan in 2022, the latest year for which data are available, were:

- 40.1 percent renewable, consisting mostly of geothermal, solar, and wind
- 20.4 percent large hydroelectric
- 0.0 percent natural gas
- 0.0 percent other
- 39.4 percent unspecified sources—that is, not traceable to specific sources (CPA 2024a)⁵

Customers have the option of opting up to "100% Green Power" plan, which provides 100 percent renewable and carbon-free electricity (CPA 2024b). Conversely, customers have the option to opt out of CPA renewable energy sources and receive their energy service from SCE. SCE is responsible for maintaining transmission lines, handling customer billing, and responding to new service requests and emergencies.

Natural Gas

SoCalGas provides natural gas service in and has facilities throughout the City of Redondo Beach. 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 2024b).

Existing natural gas demands in the City, based on data provided by SoCalGas, are estimated at 11.1 million therms per year, as shown in Table 5.5-2, *Existing Natural Gas Demand*, in Section 5.5, *Energy*.

Telecommunication Services

Telecommunications services include wireless internet, cell phone and land line telephone, cable television, and satellite television. There are numerous telecommunication and internet providers that serve the City. Telecommunication providers include AT&T, T-Mobile, Verizon, and others. Internet providers include Spectrum, Xfinity, AT&T, Frontier, T-Mobile, and Frontier FIOS TV, among others. The current infrastructure is in place and sufficient to serve existing and future customers in Redondo Beach and the surrounding area.

5.17.5.2 THRESHOLDS OF SIGNIFICANCE

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

⁵ Unspecified power is electricity that has been purchased through open market transactions and is not traceable to a specific generation source.

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- 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.

5.17.5.3 PROPOSED GENERAL PLAN GOALS AND POLICIES

The proposed General Plan Update does not include any goals, objectives, policies, or implementation actions relevant to electricity, natural gas, and telecommunications infrastructure impacts. The analysis below references policies from the existing General Plan's Utilities Element which will not be updated as part of the proposed project.

5.17.5.4 ENVIRONMENTAL IMPACTS

Methodology

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 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 SCE and SoCalGas service areas presented in the California Energy Commission's 2022 Integrated Energy Policy Report and California Gas and Electric Utilities 2018 California Gas Report, respectively.

Impact Analysis

The following impact analysis addresses thresholds of significance concerning electric power, natural gas, and telecommunications. Impact analysis concerning thresholds of significance for new or expanded water, wastewater treatment or storm water drainage facilities are covered in the discussions of Impact 5.17-1, 2, 3, 4, and 5 earlier in this Chapter. The applicable thresholds are identified in brackets after the impact statement.

Impact 5.17-7: Development pursuant to the proposed project would not require or result in the relocation or construction of new or expanded electric power, natural gas, and telecommunications facilities the construction or relocation of which could cause significant environmental effects. [Threshold U-1]

Electricity

Electrical service to the City is provided by SCE and CPA through connections to existing off-site electrical lines and new on-site infrastructure. As shown in Section 5.5, Table 5.5-3, *Year 2050 Forecast Electricity Consumption*, by horizon year 2050, electricity use in the City would increase by 230,624,940 kWh/year, or approximately 35 percent, from existing conditions. The total mid-electricity consumption in SCE's service area is forecast to increase by approximately 23,200 GWh between 2022 and 2035 (CEC 2024c). Therefore, the forecast increase in electricity demand for the plan area is well within the forecast demand in SCE's service area.

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Buildout of the General Plan would not require SCE to obtain additional electricity supplies, and impacts would be less than significant.

In addition, any development pursuant to the proposed GPU would be required to comply with energy efficiency standards set forth by Title 24 of the California Administrative Code, appliance efficiency regulations set forth by Title 20 of the California Administrative Code, and CALGreen. Furthermore, several policies in the existing Utilities Element would ensure that new development is served by electrical utilities and that the utilities comply with energy efficiency standards. For example, Policy 6.4.2 requires that the approval of new development in the City be contingent upon the ability of the project to be served with adequate electrical infrastructure and service. Policy 6.4.7 directs the City to work with SCE to develop and implement a menu of programs for public information/education and action to encourage electricity conservation practices. Therefore, project development would not require SCE to obtain new or expanded electricity supplies, and impacts would be less than significant.

Natural Gas

As shown in Table 5.5-4, *Year 2050 Forecast Natural Gas Consumption*, in Section 5.5, existing natural gas use in the City totals 11,148,598 therms annually. By 2050, natural gas use in the City would increase by 2,623,262 therms annually, or approximately 24 percent, from existing conditions to a total of 13,771,860 therms per year. This increase is less than 0.01 percent of the total natural gas consumed in the SoCalGas service area in 2022 of 6,565 million therms. SoCalGas forecasts that it will have sufficient supplies to meet demands in its service area (CGEU 2018).

Therefore, the net increase in natural gas demand due to the buildout of the proposed project is within the amount that SoCalGas forecasts that it will supply to its customers, and buildout would not require SoCalGas to obtain increased natural gas supplies over its currently forecast supplies. Additionally, policies in the existing Utilities Element would ensure that new development is served by natural gas utilities. For example, Policy 6.5.1 directs the City to improve communication with SoCalGas to ensure the most efficient and safe operation and maintenance of the City's natural gas supply system and facilities. Policy 6.5.2 requires that the approval of new development in the City to be served by natural gas be contingent upon the ability of the project to be served with adequate natural gas infrastructure and service. Policy 6.5.3 requires that all new development to be served by natural gas install on-site pipeline connections to distribution facilities underground. 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.

Telecommunications

Infrastructure supporting telecommunications services associated with the General Plan 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 Utilities Element would also ensure that telecommunications infrastructure is modernized and provided where needed and when new infrastructure is added, so it does not

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result in impacts to the environment. For example, Policy 6.6.1 directs the City to provide for the continued development, expansion, and modernization of telecommunications systems, and Policy 6.6.3 directs the City to pursue the expansion of coverage and availability of local cable television programming for government and community service meetings and events, public service notices and activities, and other nonprofit or community-serving programs that may be of interest or value to the community. Policy 6.6.6 directs the City to work with telecommunications providers to ensure that outdoor telephone facilities are located and designed so as to prevent adverse impacts on surrounding properties. As discussed, the General Plan 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: Less than significant.

5.17.5.5 CUMULATIVE IMPACTS

The area considered for cumulative impacts are the service areas of SCE 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 Public Utilities Commission has identified the Integrated Energy Policy Report as “the appropriate venue for considering issues of load forecasting, resource assessment, and scenario analyses, to determine the appropriate level and ranges of resource needs for load serving entities in California” (CEC 2020). The report shows that California’s electricity sector is leading efforts to reduce GHG emissions, and was an increase in electricity consumption of only 10 percent while California’s economy grew by 54 percent between 2000 and 2018 (CEC 2020). Natural gas consumption is expected to level out between 2020 and 2030 with no significant increase due to energy savings from new building standards and the implementation of city and county ordinances that require new construction to have all-electric appliances and heating (CEC 2020).

In addition, all future projects developed within the SCE 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.

The energy providers and telecommunications providers that serve the City indicate that they have the capability to serve future increases in population within their service areas without significant changes to the existing infrastructure. In addition, the General Plan Utilities Element includes goals, objectives, and policies that would contribute to minimizing inefficient, wasteful, or unnecessary energy consumption and ensure compliance with State, regional, or local plans for renewable energy, therefore avoiding the need for new or expanded electric power and natural gas facilities. 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.

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5.17.5.6 LEVEL OF SIGNIFICANCE BEFORE MITIGATION

Upon implementation of regulatory requirements, and the goals, objectives, and policies within the City's Utilities Element, this impact would be less than significant.

5.17.5.7 MITIGATION MEASURES

No mitigation measures are required.

5.17.5.8 LEVEL OF SIGNIFICANCE AFTER MITIGATION

Impacts would be less than significant.

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6. Alternatives to the Proposed Project

6.1 INTRODUCTION

The California Environmental Quality Act (CEQA) Guidelines, Section 15126.6(a), state that an Environmental Impact Report (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 Program Draft EIR (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 project. The two project alternatives are assessed in further detail in Section 6.3.

6.1.1 Purpose and Scope

CEQA requires that an EIR include a discussion of reasonable project alternatives that would “feasibly attain most of the basic objectives of the project, but would avoid or substantially lessen any significant effects of the project, and evaluate the comparative merits of the alternatives” (CEQA Guidelines Section 15126.6[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])

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- “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]).
- “Only locations that would avoid or substantially lessen any of the significant effects of the project need be considered for inclusion in the EIR.” (15126.6[f][2][A])
- “An EIR need not consider an alternative whose effect cannot be reasonably ascertained and whose implementation is remote and speculative.” (15126.6[f][3])

For each development alternative, this analysis:

- Describes the alternative.
- Analyzes the impact of the alternative as compared to the proposed project.
- Identifies the impacts of the project that would be avoided or lessened by the alternative.
- Assesses whether the alternative would meet most of the basic project objectives.
- 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.”

6.1.2 Project Objectives

As described in Chapter 3, *Project Description*, Section 3.3, 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. Foster development of a variety of housing options citywide that accommodates the lifestyles and affordability needs of all residents, while meeting the State-mandated Regional Housing Needs Allocation (RHNA) requirements as certified in the City’s Sixth Cycle Housing Element.
2. Reduce automobile traffic volume and congestion by promoting safe, efficient, multimodal transportation that provides alternatives to the car.
3. Ensure that the City is both a place to live and work by matching its residents to jobs and promoting a workforce/jobs balance.
4. Protect and enhance the City’s existing Aerospace Industry and economic identity.
5. Support resident’s health and vitality through the preservation and expansion of public open space for active and passive recreation for residents throughout the City.

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6. Create more walkable and bike friendly interconnected neighborhoods through the development of new parks, trails, and sports facilities.
7. Promote creativity, innovation, and technological advances to attract businesses that are on the cutting edge of their industries.
8. Create unique destinations for residents, employers, and visitors, while maintaining existing neighborhoods and preserving public space.
9. Balance City growth in an environmentally, sustainably, equitable, and fiscally responsible way.

6.2 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.

6.2.1 Alternative Location

The proposed project covers the entire City of Redondo Beach. Alternative locations are typically included in an environmental document to avoid, lessen, or eliminate the significant impacts of a project by considering the proposed development in an entirely different location. To be feasible, development of off-site locations must be able to fulfill the project purpose and meet most of the project's objectives. Given the nature of the proposed project (adoption of a Redondo Beach General Plan, Zoning Ordinance Updates, and Local Coastal Program Amendment for the entire City), it is not possible to consider an off-site alternative. For this reason, an offsite alternative was considered infeasible pursuant to State CEQA Guidelines Section 15126.6(c) and rejected as a feasible project alternative.

6.2.2 Reduced Residential Density and Intensity Alternative

A Reduced Residential Density and Intensity Alternative would result in fewer residences and nonresidential uses, which would theoretically reduce traffic and thereby reduce community impacts such as air quality, greenhouse gas (GHG) emissions, noise, and demand for utilities and public services. However, such an alternative would not achieve or would only partially achieve the proposed project objectives of providing for growth and job creation within the City. This alternative would not be consistent with regional planning strategies that require accommodation of regional housing needs as established by the State of California and would be inconsistent with the existing certified Housing Element. Finally, by restricting residential and nonresidential growth, the environmental impact of the projected growth would increase development pressure elsewhere in the region, which could increase vehicle miles travelled (VMT) and thereby further degrade air quality and increases in greenhouse gas (GHG) emissions. If regional growth estimates remain constant, it is reasonable to assume that a Reduced Residential Density and Intensity Alternative would relocate impacts from development to other agencies outside of the City and would not meet the project objectives locally or regionally, therefore this option was not evaluated in the EIR.

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6.3 ALTERNATIVES SELECTED FOR FURTHER ANALYSIS

Based on the criteria listed above, the following two project 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/Existing General Plan Alternative
- Increased Residential Density and Intensity in Transit Oriented Design (TOD) Areas Alternative

An EIR must identify an “environmentally superior” alternative and where the No Project Alternative is identified as environmentally superior, the EIR is then required to identify as environmentally superior an alternative from among the others evaluated. Each alternative's environmental impacts are compared to the proposed project and determined to be environmentally superior, neutral, or inferior. Section 6.7 identifies the Environmentally Superior Alternative. The preferred land use alternative (proposed project) is analyzed in detail in Chapter 5 of this DEIR.

6.3.1 Alternatives Comparison

The following provides a summary of general socioeconomic buildout projections determined by the two alternatives, and 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 DEIR. Table 6-1 identifies City-wide information regarding dwelling unit, population, and employment projections, for each of the alternatives.

Table 6-1 Buildout Statistical Summary

	Existing Conditions	Proposed Project	No Project/Existing General Plan Alternative	Increased Residential Density and Intensity in TOD Areas Alternative
Dwelling Units	30,431	35,387	32,504	38,811
Population	70,311	78,978	75,046	86,649
Nonresidential Square Footage	11,826,277	17,508,276	16,312,887	18,936,375
Employment	28,638	36,627	33,174	38,681

Source: Appendix B, Buildout Methodology Memorandum.

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6.4 NO PROJECT/EXISTING GENERAL PLAN ALTERNATIVE

Under the No Project/Existing General Plan Alternative, the proposed General Plan Update, Zoning Ordinance, and Local Coastal Amendment would not be implemented by the City. The current General Plan, Zoning Code, and Local Coastal Program would remain in effect. Buildout statistics for the proposed project and the current General Plan are compared in Table 6-1. It should be noted that the existing conditions within the City do not meet the current General Plan buildout, therefore there would still be growth within the City under this alternative. The proposed land use designations under the proposed project would not be implemented under this alternative.

6.4.1 Aesthetics

In this alternative, the City would be developed under the existing land use plan and would involve new development and redevelopment in some of the same areas as the proposed project. The proposed project identifies seven areas of the City that warrant special policy direction due to the role they play in the City, as a gateway, corridor, district, or activity center. The purpose of identifying these areas is to create additional policy direction to preserve or enhance the special character of these areas. A summary of the special policy areas (SPA) is provided in Chapter 3, *Project Description*, Table 3-6, *Summary of Special Policy Areas*. Under this alternative the SPAs would not be implemented and would therefore be less consistent with project objective 8, which aims to create unique destination within the City while maintaining existing neighborhood character. However, similar to the proposed project, the land use changes under the current General Plan would generally occur where development currently exists and primarily focuses on the reuse or repurpose of sites. In addition, the City's municipal code identifies development standards and object design standards to ensure quality development in the City. Overall, aesthetic impacts under the No Project Alternative would be similar to the proposed project and would be less than significant.

6.4.2 Agriculture and Forestry Resources

In this alternative, the City would be developed under the existing land use plan and would involve new development and redevelopment in similar areas as the proposed project except the housing sites consistent with the Housing Element and enhancements of the special policy areas. There are no land use designations or zoning for farmland, forest land, timberland, or timberland zoned Timberland Production in Redondo Beach. Therefore, impacts on forestry resources would be like the proposed project and would remain no impact.

6.4.3 Air Quality

Similar to the buildout of the proposed project, this alternative would result in an increase in emissions in the City that have the potential to exceed the South Coast AQMD's significance thresholds. Therefore, like the proposed project, implementation of this alternative would result in significant impacts regarding consistency with the AQMD, cumulatively considerable net increase of pollutants for which the project region is in nonattainment and exposing sensitive receptors to substantial pollutant concentrations. However, unlike the proposed project, this alternative would not result in an update to the proposed project, whose updated policies have the potential to reduce air quality emissions, and the no project alternative would result in greater VMT

6. Alternatives to the Proposed Project

due to reduced residential density and nonresidential land use intensity. As such, this alternative would not be consistent with objective 2 and 9, which aim to reduce traffic congestion and facilitate sustainable development. In comparison to the proposed project, this alternative would have slightly greater operational air quality impacts, and impacts would remain significant and unavoidable.

6.4.4 Biological Impacts

This alternative would be within the same footprint as the proposed project; therefore, under this alternative, biological resource impacts would be the same as the proposed project because land use changes would occur where development currently exists and primarily focuses on the reuse or repurpose of underutilized sites. A number of special status plant species and special status wildlife species are known to occur in or immediately adjacent to the City, or are known to occur in the region based on historical data. Federal and state regulations require development projects to assess and mitigate potential biological resources within a project site. Similar to the proposed project, the current General Plan would increase development and could result in loss of habitat. However, unlike the proposed project, this alternative would not update the City's General Plan, which includes updated policies with the potential to protect, conserve, and restore habitats and species, and would therefore support objective 6 to a lesser extent than the proposed project. Impacts on biological resources would be similar as the proposed project and would remain less than significant.

6.4.5 Cultural Resources

Cultural resource impacts are primarily associated with potential ground disturbance and development of previously undisturbed areas, or impacts to potential historic structures (building additions, demolition, etc.). This alternative would be within the same footprint as the proposed project; therefore, impacts to cultural resources would be similar to the proposed project. Like the proposed project, this alternative would also have the potential to impact historic resources as a result of redevelopment. Therefore, impacts to potential cultural/historic resources would be the same as the proposed project and would remain significant.

6.4.6 Energy

Similar to buildout of the proposed project, this alternative would result in an increase in energy use. However, unlike this alternative, the proposed project would include goals and policies that have the potential to reduce energy use in the City, such as Policies LU-5.3, S-2.6, and S-10.1, which would support the statewide goal of transitioning the electricity grid to renewable sources and Policy S-10.4 would promote energy efficient city-owned facilities, including battery storage systems. Nonetheless, like the proposed project, this alternative could potentially conflict with implementation of the City's Climate Action Plan (CAP). In general, impacts to energy use under this alternative would be slightly increased compared to the proposed project, and impacts would remain significant and unavoidable.

6.4.7 Geology and Soils

As with the proposed project, individual development projects under this alternative would be required to prepare site-specific geotechnical investigations to evaluate seismic, liquefaction, ground settlement,

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paleontological resources, and/or soil expansion hazards. All development projects would be required to comply with existing federal, state, and local regulations, such as the California Building Code. Therefore, impacts would be the same as proposed project and would be less than significant.

6.4.8 Greenhouse Gas Emissions

Similar to the buildout of the proposed project, this alternative would result in an increase in GHG emissions in the City. Local GHG emissions reduction measures are necessary to align the City with the GHG reduction targets of the state. This alternative would not include the proposed project's goals and policies, which includes policies to reduce GHG emissions through better coordinated land use and transportation policies to reduce energy use and increase energy efficiency, such as Policies LU-2.8, LU-3.7, LU3.8, LU-4.6, and OS-1.8 which contributes to reducing GHG emissions from mobile sources by promoting pedestrian access and public transportation, reducing vehicle congestion, and supporting TDM measures where feasible. Additionally, this alternative does not include the focus of increasing future development growth in proximity to the City's existing and proposed light rail stations in support of TOD strategies which will further support reductions in GHG emissions by supporting rail commuter ridership to regional job centers and would not support project objective 2 or 9. Overall, because the no project alternative would not include GHG reduction policies or the inclusion of TOD growth strategies, impacts of this alternative would be slightly greater compared to the proposed project and would remain significant and unavoidable.

6.4.9 Hazards and Hazardous Materials

In both this alternative and the proposed project, land uses throughout the City would be required to comply with existing federal, state, and local regulations governing use, storage, transport, and disposal of hazardous materials and hazardous wastes. However, under this alternative, the new policies that would reduce potential hazards would not be implemented, such as Policies S-8.2, S-8.3, S-8.4, S-8.5, S-8.6, S-8.7, S-8.8, and S-8.9 which prescribe set regulations and procedures to follow for sites that handle, store, operate, and dispose of hazardous materials. This alternative would result in similar impacts compared to the proposed project, and impacts would remain less than significant.

6.4.10 Hydrology and Water Quality

In both this alternative and the proposed project, future project-specific water quality management plans (WQMPs), preliminary and/or final, must be prepared consistent with the prevailing terms and conditions of the City Local Implementation Plan, and Model WQMP at the time of project application. Moreover, Low Impact Development and water quality treatment solutions prescribed in project specific WQMPs must be designed to support or enhance the regional best management practices (BMP) and efforts implemented by the City as part of its efforts to improve water quality. During construction, project-specific Stormwater Pollution Prevention Plans (SWPPP) are required to be prepared in accordance with the site-specific sediment risk analyses based on the grading plans. The SWPPP must describe construction BMPs that address pollutant source reduction and provide measures/controls necessary to mitigate potential pollutant sources. As these actions are required by state regulation, under the no project alternative, impacts would be similar to the proposed project and would be less than significant.

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6.4.11 Land Use and Planning

This alternative would leave the current General Plan in place rather than providing the necessary updates as included in the proposed project for consistency with new and updated state and local planning laws, such as the California Complete Streets Act of 2008 and the Southern California Association of Governments' 2024–2050 Regional Transportation Plan/Sustainable Communities Strategies (RTP/SCS) (Connect SoCal). The Complete Streets Act of 2008 requires that cities plan for a multimodal transportation network that serves motorized and nonmotorized modes of transportation, and Connect SoCal encourages three principles that collectively work as the key to the region's future—mobility, economy, and sustainability. Goals and policies in the proposed project address the need to establish an interconnected network of bicycle and pedestrian infrastructure that is safe, efficient, and accessible. Comprehensive transit services related to mobility, connectivity, and safety are also addressed in the proposed project and not in the current General Plan. In addition, this alternative would not achieve or would only partially achieve the proposed project's objectives 3 and 8 of providing for the growth and job creation within the City, when compared to the proposed project. While growth would still occur under this alternative, updates to the land use plan and associated zoning ordinances would not occur and therefore, this alternative would not be consistent with regional planning strategies and state housing laws that require accommodation of regional housing needs. As such, this alternative would also not be consistent with project objective 1, which aims to foster development of a variety of housing options citywide while meeting the State-mandated Regional Housing Needs Allocation (RHNA). Additionally, it is reasonable to assume that like the proposed project, this alternative would also conflict with SCAG's Connect SoCal goals aimed at improving air quality and reducing GHG emissions and impacts would be considered significant. Therefore, the land use impacts would be more significant under this alternative in comparison to the proposed project and would be significant and unavoidable.

6.4.12 Mineral Resources

The proposed project and this alternative would result in similar impacts to mineral resources. As noted in Chapter 7 of the Draft EIR, the City of Redondo Beach does not contain mineral resources of statewide, regional, or local significance. The City is primarily underlain by mineral resource zone (MRZ) MRZ-3. Overall, the impact to mineral resources would be similar to the proposed project and remain no impact.

6.4.13 Noise

Construction and operational noise impacts would be similar to the proposed project under this alternative. Like the proposed project, construction activities under this alternative could occur close to sensitive receptors and impacts would be significant. This alternative would potentially increase the number of trips and development patterns compared to the proposed project as development would not be focused in transit areas. This alternative would not include the proposed project's goals and policies, which includes policies to reduce noise impacts such as Policy N-1.10 to address construction noise; Policies N-1.1, N-1.4, N-1.5, and N-1.6 to address stationary noise; and Policies N-1.1, N-1.7, and N-1.11 to address traffic noise. However, noise impacts would be the same under this alternative in comparison to the proposed project and would be significant and unavoidable.

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6.4.14 Population and Housing

This alternative would result in smaller numbers of dwelling units, population, jobs-housing ratio, and employment than the proposed project. This alternative would not achieve or would only partially achieve the proposed project's objectives of providing for the growth and job creation within the City. While growth would still occur under this alternative, updates to the land use plan and associated zoning ordinances would not occur and therefore, this alternative would not be consistent with regional planning strategies and state housing laws that require accommodation of regional housing needs. As such, this alternative would also not be consistent with project objective 1, which aims to foster development of a variety of housing options citywide while meeting the State-mandated Regional Housing Needs Allocation (RHNA). Additionally, this alternative would meet project objectives 3, 4 and 7 to a lesser extent as it would not significantly improve the jobs to housing balance within the City. Therefore, the population and housing impacts would be slightly increased under this alternative in comparison to the proposed project, and like the proposed project, impacts would be significant and unavoidable.

6.4.15 Public Services

This alternative would result in less population and employment than the proposed project. Impacts to public services, including fire, police, school, and library services, would be reduced under this alternative. However, impacts would remain less than significant.

6.4.16 Recreation

This alternative would result in a reduced population compared to the proposed project; therefore, this alternative would result in a reduction in demand on recreation and recreational services in the City. However, under this alternative, goals and policies within the proposed project (General Plan Update) pertaining to trails, parks, and open space would not be implemented. Although this alternative would have a reduction in impacts upon recreation because it would reduce demand for parkland in the City it would not promote the many improvements with respect to recreation that are within the proposed project and would support objective 5 and 6 to a lesser extent. Like the proposed project, however, impacts would be less than significant.

6.4.17 Transportation

This alternative would result in a reduction in population, transit-oriented development, and overall employment in the City compared to the proposed project. As such, because of the reduction in TOD land use patterns, and goals and policies, vehicle miles traveled (VMT) per service population would be slightly higher as compared to the proposed project. Although this alternative would continue to reduce citywide average VMT per service population compared to existing conditions through implementation of land use patterns and non-vehicle connectivity that reduce vehicle use, because policies LU 1.3, 1.4, 1.6, 1.9, 1.10, 2.8, 3.6, etc. and the transit-oriented development in support of the Housing Element would not be adopted, this alternative would reduce VMT per service population to a lesser extent. Additionally, goals and policies in the proposed project, such as LU-2.8 and LU-4.6, address the need to establish an interconnected network of bicycle and pedestrian infrastructure that is safe, efficient, and accessible, as well as comprehensive transit services related to mobility,

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connectivity, and safety to reduce VMT. As such, this alternative would not support objectives 2 and 9. However, overall impacts would be similar to but slightly greater than the proposed project and would therefore remain significant and unavoidable.

6.4.18 Tribal Cultural Resources

Impacts to tribal cultural resources would primarily be associated with potential ground disturbance and development of previously undisturbed areas. Impacts to potential tribal cultural resources would be similar to the proposed project. Mitigation measures CUL-2 and CUL-3, as further discussed in Section 5.6, for the protection of tribal cultural resources would be applicable to this alternative. Additionally, both the proposed project and this alternative would comply with federal and state regulations pertaining to the protection and preservation of tribal cultural resources. Therefore, impacts to potential tribal cultural resources would be similar to the proposed project and less than significant.

6.4.19 Utilities and Service Systems

Impacts on public utilities (sewer, water, stormwater, solid waste) would be slightly reduced compared to the proposed project because this alternative has less population and employment growth, reducing the demand to expand infrastructure in the City. However, individual projects would be subject to City and agency permits, fees, and applications to ensure that these projects would not pose burdens on the existing infrastructure. Therefore, impacts would remain less than significant.

6.4.20 Wildfire

The proposed project and this alternative would result in similar impacts to wildfire. The City is not in or adjacent to a State Responsibility Area (SRA) or lands classified as very high fire hazard severity zones. Overall, impacts associated with wildfire hazards would be similar to the proposed project and would remain no impact.

6.4.21 Conclusion

Ability to Reduce Environmental Impacts

Impacts of the No Project/Current General Plan alternative would be similar for aesthetics, agriculture and forestry resources, biological resources, cultural resources, geology and soils, hazards and hazardous materials, hydrology and water quality, mineral resources, noise, tribal cultural resources, and wildfire. Impacts would be greater for air quality, energy, GHG emissions, land use and planning and housing and population. Impacts would be reduced for public services, recreation, and utilities and service systems.

Ability to Achieve Project Objectives

As shown in Table 6-3, the No Project/Current General Plan Alternative would meet most of the project objectives but to a lesser extent and would not meet the objectives of 1, 2, and 9; however, this alternative would not implement the proposed project policies, which are designed to further enhance the project objectives compared to the current General Plan.

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6.5 INCREASED RESIDENTIAL DENSITY AND INTENSITY IN TOD AREAS ALTERNATIVE

The Increased Residential Density and Intensity in TOD Areas Alternative would increase buildout beyond what is projected by the proposed project and would concentrate the additional residential and non-residential growth in TOD areas. While growth would occur citywide, and in compliance with the certified housing element, like the proposed project, and the No Project Alternative, under this alternative residential density and non-residential intensity would increase in Special Policy Areas 1, Tech District, and 2, Galleria District (see Figure 3-5, Proposed Land Use Plan), which are located in close proximity to existing and proposed metro stations. As shown below in Table 6-2, the Increased Residential Density and Intensity in TOD Areas Alternative would result in an approximately 9.7% increase in population (7,671 persons), 9.6% more dwelling units (3,424 dwelling units) and 8.1% more non-residential square footage (1.4 million square feet) compared to the proposed project.

Table 6-2 Alternative 2 Buildout Comparison

	Alternative 2	Proposed Project	Difference
Dwelling Units	38,811	35,387	3,424
Population	86,649	78,978	7,671
Nonresidential Square Footage	18,936,375	17,508,276	1,428,099
Employment	38,681	36,627	2,054

Under this alternative, residential density and nonresidential land use intensity would occur throughout the City consistent with the proposed project; however, the additional growth identified above in Table 6-2 would be concentrated and increased in Special Policy Areas 1, Tech District, and 2, Galleria District. Under this alternative, non-residential growth would need to increase relative to the increase in residential density in TOD areas in order to implement a land use pattern that reduces VMT. Implementation of this alternative would require greater FAR and residential density, as compared to the proposed project, which would likely result in changes to development standards within the TOD areas to allow for increased building heights and minimal setbacks to accommodate greater development.

- Special Policy Area 1, Tech District
 - Expand the Affordable Housing Overlay to include the Industrial (I-3) area North of the I-405 freeway,
 - Increase the residential density allowed within the North Tech Affordable Housing Overlay to 75 du/ac,
 - Allow for underlying uses within the overlay to develop at full FAR, allowing for 1.00 FAR of commercial and industrial development in addition to 75 du/ac
- Special Policy Area 2, Galleria District
 - Allow up to 75 du/ac in addition to 1.5 FAR of non-residential uses in the MU-TC land use district.

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- Increase the residential density allowed within the South Bay Marketplace and South of Transit Center Affordable Housing Overlay Zones to 75 du/ac,
- Allow for underlying uses within the overlay to develop at full FAR, allowing for 1.00 FAR of industrial-flex development in addition to 75 du/ac.

6.5.1 Aesthetics

Under this alternative, new development and redevelopment would increase citywide and in TOD areas, as shown in Table 6-2, *Alternative 2 Buildout Comparison*. Implementation of this alternative would require greater FAR and residential density to accommodate greater development in TOD areas, as compared to the proposed project. Therefore, this alternative would likely result in changes to developments standards, such as increased building heights and minimal setbacks, to accommodate more development in the TOD areas.. The City's municipal code identifies development standards and objective design standards to ensure quality development in the City. Since the density and intensity would increase in TOD areas, and although these areas are highly developed, there would be an increase in building height and density compared to the surrounding areas, which would modify the existing character . As such, this alternative would still meet project objective 8 but to a lesser extent as compared to the proposed project. The aesthetic impacts would be slightly greater than the proposed project but would remain less than significant.

6.5.2 Agriculture and Forestry Resources

This alternative would involve new development citywide and would increase growth in the TOD areas, as compared to the proposed project.. There are no land use designations or zoning for farmland, forest land, timberland, or timberland zoned Timberland Production in Redondo Beach. Therefore, impacts on forestry resources would be similar to the proposed project and no impacts would occur.

6.5.3 Air Quality

Like buildout of the proposed project, this alternative would result in an increase in emissions in the City that have the potential to exceed the South Coast AQMD's significance thresholds. Because this project would result in increased density of residential units and nonresidential square feet, as compared to the proposed project it is anticipated that emissions associated with this alternative would be slightly less in comparison to the proposed project because this alternative would reduce VMT per service population (as discussed further below under Transportation) and thereby reduce air quality impacts. As such, this alternative would support Project Objective 2 to a greater extent. Like the proposed project, implementation of this alternative would also result in significant impacts regarding consistency with the AQMP, cumulatively considerable net increase of pollutants for which the project region is in nonattainment and exposing sensitive receptors to substantial pollutant concentrations. In comparison to the proposed project, this alternative would slightly reduce air quality impacts, but they would remain significant and unavoidable.

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6.5.4 Biological Impacts

This alternative would be within the same footprint as the proposed project; therefore, under this alternative, biological resource impacts would be the same as the proposed project. A number of special status plant species and special status wildlife species are known to occur in or immediately adjacent to the City or are known to occur in the region based on historical data. Federal and state regulations require development projects to assess and mitigate potential biological resources within a project site. Similar to the proposed project, the current General Plan would increase development and could result in loss of habitat. However, the increased density under this alternative is restricted to TOD areas which are already highly developed and urbanized. Impacts on biological resources would be the same as the proposed project and would remain less than significant.

6.5.5 Cultural Resources

Cultural resource impacts are primarily associated with potential ground disturbance and development of previously undisturbed areas, or impacts to potential historic structures (building additions, demolition, etc.). Development may still occur under this alternative. Mitigation measures CUL 1 through CUL 3 for the proposed project would be applicable to this alternative and would mitigate potential impacts to archeological resources. However, like the proposed project, this alternative would have the potential to impact historic buildings as a result of redevelopment, especially if increased redevelopment would occur in the developed TOD areas. Therefore, impacts to potential cultural resources would be the same as the proposed project and would remain significant and unavoidable.

6.5.6 Energy

Similar to the buildout of the proposed project, this alternative would result in an increase in energy use in the City as compared to existing conditions. Under Alternative 2 increased density and intensity would be concentrated in developed TOD areas. Higher density uses within mixed-use development would contribute to a reduction in energy use from the transportation sector and overall VMT. Therefore, this alternative could result in shorter distances traveled, as there would be an increase in residential uses within proximity to jobs and other amenities. Overall, impacts to energy use under this alternative would be similar compared to the proposed project but impacts would remain significant.

6.5.7 Geology and Soils

As with the proposed project, individual development projects under this alternative would be required to prepare site-specific geotechnical investigations to evaluate seismic, liquefaction, ground settlement, paleontological resources, and/or soil expansion hazards. All development projects would be required to comply with existing federal, state, and local regulations, such as the California Building Code and statewide Construction General Permit. Therefore, impacts would be the same as proposed project and would be less than significant.

6.5.8 Greenhouse Gas Emissions

Similar to buildout of the proposed project, this alternative would result in an increase in GHG emissions in the City as compared to existing conditions. Local GHG emissions reduction measures are necessary to align

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the City with the GHG reduction targets of the state. Because this project would result in increased density of residential uses and employment opportunities around transit that would provide mobility options, it is anticipated that GHG emissions associated with this alternative would be slightly less in comparison to the proposed project. Policies and implementation measures for the proposed project would be applicable to this alternative and would have the potential to reduce GHG emissions from new and existing developments. Overall, impacts of this alternative would be slightly reduced compared to the proposed project but would remain significant.

6.5.9 Hazards and Hazardous Materials

In both this alternative and the proposed project, land uses throughout the City would be required to comply with existing federal, state, and local regulations governing use, storage, transport, and disposal of hazardous materials and hazardous wastes. This alternative would result in similar impacts compared to the proposed project, and impacts would remain less than significant.

6.5.10 Hydrology and Water Quality

This alternative would increase intensity of development in areas previously developed. Future project specific WQMPs, preliminary and/or final, will be prepared consistent with the prevailing terms and conditions of the City Local Implementation Plan and Model WQMP at the time of project application. Moreover, Low Impact Development and water quality treatment solutions prescribed in project specific WQMPs shall be designed to support or enhance the regional BMPs, and efforts implemented by the City as part of its efforts to improve water quality. During construction, project-specific SWPPPs are required to be prepared in accordance with the site-specific sediment risk analyses based on the grading plans. The SWPPP must describe construction BMPs that address pollutant source reduction and provide measures/controls necessary to mitigate potential pollutant sources. This alternative would focus residential and commercial development in TOD areas, which could reduce stormwater pollutants during operation and construction activities in these areas. Therefore, potential impacts on water quality would generally be the same as compared to the proposed project, and impacts would remain less than significant.

6.5.11 Land Use and Planning

This alternative would include an update to be consistent with new or updated state and local planning laws. Under this alternative, there would be an increased density and intensity citywide, similar to the proposed project's buildout, but additional growth would occur in TOD areas. Overall land use impacts would be slightly less than the proposed project as this alternative would be more consistent with the goals of SCAG's 2024-2050 RTP/SCS aimed at reducing air quality and GHG emissions through reduced regional VMT. However, under this alternative land use and planning impacts would still remain significant.

6.5.12 Mineral Resources

The proposed project and this alternative would result in similar impacts to mineral resources. The City does not contain mineral resources of statewide, regional, or local significance. The City is primarily underlain by

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mineral resource zone (MRZ) MRZ-3. Overall, the impact to mineral resources would be similar to the proposed project and remain no impact.

6.5.13 Noise

Under this alternative construction and operational noise impacts would be similar as compared to the proposed project; however, as more potential for construction could occur to meet growth this alternative may result in increased levels of noise for construction close to sensitive receptors. Mitigation measures N1 through N3 for the proposed project would be applicable to this alternative and would mitigate potential construction-related noise and vibration impacts, but impacts would remain significant and unavoidable.

This alternative may result in a reduction of vehicle trips because this alternative would result in more concentrated development in TOD areas and a reduction in development in other areas of the City compared to the proposed project. As a result, traffic noise impacts under this alternative would be less than the proposed project but would remain significant and unavoidable. As construction noise may slightly increase and operation noise may slightly decrease, overall impacts would be similar to that of the proposed project and remain significant and unavoidable.

6.5.14 Population and Housing

This alternative would result in an increased population dwelling units, and employment as the proposed project. Like the proposed project, this alternative would achieve the proposed project's objectives of providing for the growth of the City. This alternative would be consistent with objectives 3 and 7 as it would add opportunities for housing and employment, thus improving the City's job to housing balance. This alternative would be consistent with regional planning that requires accommodation of regional housing needs and would be consistent with the existing certified Housing Element as it would provide additional housing within the City as discussed in Chapter 3, Project Description, Table 3-5, *Housing Element Sites Inventory Relative to Proposed Project Growth*. However, population and housing impacts of this alternative would slightly increase as compared to the proposed project as it would further increase growth beyond projections identified in SCAG's regional forecasts for 2050. Similar to the proposed project, impacts to population and housing under Alternative 2 would also be significant and unavoidable.

6.5.15 Public Services

This alternative would result in an approximately 9.7% increase in population (7,671 persons), 9.6% more dwelling units (3,424 dwelling units) and 8.1% more non-residential square footage (1.4 million square feet) compared to the proposed project and would concentrate the additional residential and non-residential growth in TOD areas. As such, this alternative would increase demand on public services, including fire, police, school, and library services and would be slightly less consistent with objective 9 which aims to balance growth comparably with City services and facilities. Compared to the proposed project, impacts on public services would be slightly increased but impacts would remain less than significant.

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6.5.16 Recreation

This alternative would result in an increased population, dwelling units, and employment as compared to the proposed project and would result in a slight increase in demand on recreation and recreational services in the City. This alternative would be less consistent with objectives 5, 6, 8 and 9 as there could be less opportunity for the expansion of recreational facilities, parks and trails, in order to meet the increase in development. Therefore, impacts under this alternative would be slightly increased compared to the proposed project and would remain less than significant.

6.5.17 Transportation

This alternative would reduce VMT per service population compared to the proposed project because of the slight improvement in transportation efficiency as a result of intensification of the land uses surrounding transit. Due to the increase in development density and intensity resulting in an increase in population and some employment categories, this alternative would be expected to reduce VMT per service population relative to the proposed project. As such, this alternative would support project objective 2 to a greater extent and would continue to support objective 7. Total VMT and impacts would be slightly reduced under this alternative compared to the proposed project, but impacts would remain significant and unavoidable.

6.5.18 Tribal Cultural Resources

Impacts to tribal cultural resources would primarily be associated with potential ground disturbance and development of previously undisturbed areas. Impacts to potential tribal cultural resources would be similar to the proposed project. Mitigation measures for the protection of tribal cultural resources would be applicable to this alternative. Additionally, both the proposed project and this alternative would comply with federal and state regulations pertaining to the protection and preservation of tribal cultural resources. Therefore, impacts to potential tribal cultural resources would be similar and less than significant.

6.5.19 Utilities and Service Systems

Impacts on public utilities (sewer, water, stormwater, solid waste) would be similar but potentially greater in the TOD areas. This alternative could require upgrades to existing utility infrastructure facilities in TOD areas to accommodate increased growth. Concerning the provision of public utilities, like the proposed project, this alternative would be accommodated. As further discussed in Chapter 5.17, the proposed project is well within existing facilities capacity, therefore this alternative could be accommodated by the utility purveyors. Also, individual projects would be subject to City permits, fees, and applications to ensure that these projects would not pose burdens on the existing infrastructure. Overall, impacts would be slightly increased as compared to the proposed project but would remain less than significant.

6.5.20 Wildfire

The proposed project and this alternative would result in similar impacts to wildfire. The City is neither in nor adjacent to an State Responsibility Area (SRA) or lands classified as very high fire hazard severity zones. Overall, impacts associated with wildfire hazards would be similar to the proposed project and would remain no impact.

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6.6 CONCLUSION

Ability to Reduce Environmental Impacts

Impacts of the Increased Residential Density and Intensity in TOD Areas Alternative would be similar for agriculture and forestry resources, biological resources, cultural resources, geology and soils, hazards and hazardous materials, hydrology and water quality, noise, mineral resources, tribal cultural resources, and wildfire. Impacts would be greater for aesthetics, population and housing, public services, recreation, and utilities and system services. Impacts would be slightly reduced for air quality, energy, GHG emissions, land use and transportation.

Ability to Achieve Project Objectives

As shown in Table 6-4, the Increased Residential Density and Intensity in TOD Areas Alternative would meet three project objectives to a lesser extent, and would only meet one project objective to a greater extent as compared to the proposed project.

6.7 ENVIRONMENTALLY SUPERIOR ALTERNATIVE

As shown in Table 6-3, the Increased Residential Density and Intensity in TOD Areas Alternative would slightly reduce impacts to air quality, energy, GHG emissions, and transportation. Other impacts would increase as compared to the proposed project, such as aesthetics, population and housing, public services, recreation, and utilities and system services. The Increased Residential Density and Intensity in TOD Areas Alternative would slightly reduce the effect on the environment with respect to regional VMT and thus air quality and GHG emissions, and energy, but would not eliminate a significant impact identified in the EIR. Therefore, the Increased Residential Density and Intensity in TOD Areas Alternative is the “environmentally superior” alternative as it slightly reduces the overall impact on the environment compared to the proposed project. Table 6-3 shows how each of the alternatives meets the project objectives. The Increased Residential Density and Intensity in TOD Areas Alternative would meet all the project objectives but to a lesser extent. Although the Increased Residential Density and Intensity in TOD Areas Alternative is deemed the “environmentally superior” alternative, all the alternatives would result in the same determination in terms of their level of impact, No Impact; Less than Significant; Less than Significant with Mitigation Incorporated; Significant and Unavoidable for each of the issue areas analyzed.

6. Alternatives to the Proposed Project

Table 6-3 Summary of Impacts of Alternatives Compared to the Proposed Project

Topic	Proposed Project	No Project/Current General Plan Alternative	Increased Residential Density and Intensity in TOD Areas Alternative
Aesthetics	LTS	=	+
Agricultural & Forestry Resources	NI	=	=
Air Quality	S/U	+	-
Biological Resources	LTS	=	=
Cultural Resources	S/U	=	=
Energy	S/U	+	-
Geology and Soils	LTS/M	=	=
GHG Emissions	S/U	+	-
Hazards and Hazardous Materials	LTS	=	=
Hydrology and Water Quality	LTS	=	=
Land Use and Planning	S/U	+	-
Mineral Resources	NI	=	=
Noise	S/U	=	=
Population and Housing	SU	-	+
Public Services	LTS	-	+
Recreation	LTS	-	+
Transportation	S/U	+	-
Tribal Cultural Resources	LTS/M	=	=
Utilities and Service Systems	LTS	-	+
Wildfire	NI	=	=

Notes: NI= No Impact; LTS = Less than Significant; LTS/M = Less than Significant with Mitigation Incorporated; S/U = Significant and Unavoidable

(*) The alternative would eliminate an impact of the proposed project and impacts would be substantially reduced

(-) The alternative would result in less of an impact than the proposed project.

(+) The alternative would result in greater impacts than the proposed project.

(=) The alternative would result in the same/similar impacts as the proposed project.

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Table 6-4 Ability of Each Alternative to Meet the Project Objectives

Objective	Proposed Project	No Project/Current General Plan Alternative	Increased Residential Density and Intensity in TOD Areas Alternative
1. Foster development of a variety of housing options citywide that accommodate the lifestyles and affordability needs of all residents, while meeting the State-mandated Regional Housing Needs Allocation (RHNA) requirements as certified in the City's Sixth Cycle Housing Element.	Yes	No	Yes
2. Reduce automobile traffic volume and congestion by promoting safe, efficient, multimodal transportation that provides alternatives to the car.	Yes	No	Yes – To a Greater Extent
3. Ensure that the City is both a place to live and work by matching its residents to jobs and promoting a workforce/jobs balance.	Yes	Yes – To a Lesser Extent	Yes
4. Protect and enhance the City's existing Aerospace Industry and economic identity.	Yes	Yes – To a Lesser Extent	Yes
5. Support resident's health and vitality through the preservation and expansion of public open space for active and passive recreation throughout the City.	Yes	Yes – To a Lesser Extent	Yes
6. Create more walkable and bike friendly interconnected neighborhoods through the development of new parks, trails, and sports facilities.	Yes	Yes – To a Lesser Extent	Yes – To a Lesser Extent
7. Promote creativity, innovation, and technological advances to attract businesses that are on the cutting edge of their industries.	Yes	Yes – To a Lesser Extent	Yes
8. Create unique destinations for residents, employers, and visitors, while maintaining existing neighborhoods and preserving public space.	Yes	Yes – To a Lesser Extent	Yes – To a Lesser Extent
9. Balance city growth in an environmentally, sustainably, economically, and fiscally responsible way.	Yes	No	Yes – To a Lesser Extent

6. Alternatives to the Proposed Project

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7. 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 State California Environmental Quality Act (CEQA) Guidelines (Guidelines) Section 15126.2(a), which states that “[a]n EIR [Environmental Impact Report] shall identify and focus on the significant environmental impacts of the proposed project” and Section 15143, which states that “[t]he EIR shall focus on the significant effects on the environment.” The Guidelines allow use of an Initial Study to document project effects that are less than significant (Guidelines Section 15063[a]). Guidelines Section 15128 requires that an EIR contain a statement briefly indicating the reasons that various possible significant effects of a project were determined not to be significant and were therefore not discussed in detail in the Draft EIR.

As described in the Notice of Preparation (NOP) prepared for the proposed project (See Appendix A), the City determined that three environmental categories were found to have impacts that are less than significant: Agriculture and Forestry, Mineral Resources, and Wildfire. The rest of the categories were found to have at least one potentially significant impact and have been evaluated in the EIR. Impact categories and questions below are summarized directly from the CEQA Environmental Checklist.

7.1 AGRICULTURE AND FORESTRY RESOURCES

- 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 Farmland Mapping and Monitoring Program (FMMP), the project site is designated as Urban and Built-Up Land and is not located near or within any area designated as Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (DOC 2022a). The project site is not used for agricultural purposes. Therefore, implementation of the proposed project would not convert agricultural land to a nonagricultural use. Thus, no impact would occur.

- b) **Conflict with existing zoning for agricultural use or a Williamson Act contract?**

No Impact. The project site is not zoned for agricultural use, nor are there any Williamson Act contracts on the project site (DOC 2022a). Therefore, implementation of the proposed project would not conflict with existing agricultural zones or a Williamson Act contract, and no impact would occur.

7. 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 project site has been historically developed and is an urbanized area. The project site does not contain forest lands or timberlands, nor is the project site zoned as forestland (USDA 2024). Thus, implementation of the proposed project would not conflict with such zoning, and no impact would occur.

- d) **Result in the loss of forest land or conversion of forest land to non-forest use?**

No Impact. The project site does not contain forest lands or timberlands, nor is the project site zoned as forestland. Thus, implementation of the proposed project would not result in the loss of forest land or conversion of forest land to nonforest use, and no impact would occur.

- 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. The project site does not contain farmland or forestland. The project site is an urbanized area. Implementation of the proposed project would not result in conversion of farmland to nonagricultural use or conversion of forestland to nonforest use. Thus, no impact would occur.

7.2 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 project site is not located in any governmental databases monitoring mineral resources, including the Active Mines and Mineral Plants Database and the Mineral Resources Data System (USGS 2024). Additionally, nearly all of Redondo Beach is classified as Mineral Resources Zone 3 (MRZ-3) for construction aggregate under the California Mineral Land Classification System (DOC 2022b). An MRZ-3 classification includes areas where the available geologic information indicates that while mineral deposits are likely to exist, the significance of the deposit is undetermined. The City is developed and is not used for mineral extraction. 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. There are no known locally important mineral resource recovery sites identified in the current Redondo Beach General Plan, the proposed project, or in a specific plan or other land use plan. Thus,

7. Impacts Found Not to Be Significant

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.

7.3 WILDFIRE

If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project:

a) Substantially impair an adopted emergency response plan or emergency evacuation plan?

No Impact. The City is not in or adjacent to a State Responsibility Area (SRA) or lands classified as very high fire hazard severity zones (FHSZ) (CALFIRE 2024). Additionally, implementation of the proposed project would follow the appropriate local and regional procedure and policies regarding emergency response and would not interfere with any adopted emergency response or evacuation plan. Therefore, no impact would occur.

b) 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?

No Impact. The City of Redondo Beach is largely developed and is in an urban area. Additionally, the City and its surrounding area are generally flat with only portions of the city having sloping hillside conditions. There is no wildland susceptible to wildfire on or near the city. Furthermore, CAL FIRE does not classify any adjacent areas as a very high FHSZ. Therefore, the proposed project would not expose City residents to pollutant concentrations from a wildfire or the uncontrolled spread of wildfire, and no impact would occur.

c) Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?

No Impact. As demonstrated above, the City is not in or near an SRA or lands classified as high fire hazard severity zones. The proposed project is in an urbanized area and would not require the installation or maintenance of associated infrastructure that may exacerbate fire risk. Therefore, no impact would occur.

d) Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?

No Impact. The City has been historically developed and is an urbanized area. Additionally, there are no slopes susceptible to wildfire in the surrounding area. Therefore, the proposed project would not result in runoff, post-fire slope instability, or drainage changes, and no impact would occur.

7. Impacts Found Not to Be Significant

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8. Significant Unavoidable Adverse Impacts

At the end of Chapter 1, *Executive Summary*, is a table that summarizes the environmental impacts of issue areas analyzed, 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 mitigation measures are applied:

Air Quality

- **Impact 5.2-1:** Buildout of the proposed project and associated emissions would exceed the assumptions of the South Coast Air Quality Management District’s (AQMD) Air Quality Management Plan (AQMP). Incorporation of Mitigation Measures AQ-1 and AQ-2 into future development projects for the operation phase would reduce criteria air pollutant emissions associated with buildout of the General Plan Update. However, Impact 5.2-1 would remain significant and unavoidable.
- **Impact 5.2-2:** Construction activities associated with future development that would be accommodated under the proposed project could generate short-term emissions in exceedance of the South Coast AQMD’s threshold criteria. Implementation of Mitigation Measure AQ-1, and the policies of the General Plan Update, would reduce construction-related air pollutant emissions to the extent feasible. However, Impact 5.2-2 would remain significant and unavoidable.
- **Impact 5.2-3:** Implementation of the proposed project would generate additional, long-term emissions in exceedance of South Coast AQMD’s threshold criteria and cumulatively contribute to the South Coast Air Basin’s nonattainment designations. Implementation of Mitigation Measure AQ-2, and the policies of the General Plan Update, would reduce air pollutant emissions to the extent feasible. However, Impact 5.2-3 would remain significant and unavoidable.
- **Impact 5.2-4:** The proposed project could expose sensitive receptors to substantial criteria air pollutant and toxic air contaminant concentrations. Mitigation Measures AQ-1 and AQ-2 would reduce the regional construction and operation emissions associated with buildout of the General Plan Update and therefore also result in a reduction of localized construction- and operation-related criteria air pollutant emissions to the extent feasible. However, Impact 5.2-4 would remain significant and unavoidable.

6. Significant Unavoidable Adverse Impacts

Cultural Resources

- **Impact 5.4-1:** Future development facilitated by the proposed project could impact an identified or potentially eligible historic resource. Mitigation Measures CUL-1, which requires evaluation of historic resources for projects, would reduce potential impacts associated with historic resources. However, with implementation of mitigation, impacts would remain significant and unavoidable.

Energy

- **Impact 5.5-2:** Implementation of the proposed project would conflict with or obstruct a state or local plan (City's Climate Action Plan (CAP)) for renewable energy or energy efficiency. There are no feasible mitigation measures that can fully reduce vehicle miles traveled (VMT) impacts at full buildout of the proposed project and fully reduce the proposed project's inconsistencies with the goals of the Southern California Association of Government's (SCAG) 2024-2050 Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS). Therefore, impacts would remain significant.

Greenhouse Gas Emissions

- **Impact 5.7-1:** Implementation of the proposed project would not result in a substantial increase in emissions but would not place the City on a trajectory to achieve the goals established under Executive Order S-03-05 or progress toward the State's carbon neutrality goal. Mitigation Measure GHG-1 would ensure that the City prepares a CAP to achieve greenhouse gas (GHG) reduction goals of Senate Bill 32 and chart a trajectory to achieve the long-term year 2045 GHG reduction goal and State's carbon neutrality goal set by AB 1279. However, given the growth in population and employment within the City and the magnitude of GHG emissions reductions needed to achieve the GHG reduction target, GHG emissions would remain significant.
- **Impact 5.7-2:** Implementation of the proposed project would conflict with an applicable plan, policy, or regulation of an agency adopted for the purpose of reducing GHG emissions. There are no feasible mitigation measures that can fully reduce VMT impacts at full buildout of the proposed project and thus, fully reduce the proposed project's inconsistencies with the goals of SCAG's 2024-2050 RTP/SCS. Therefore, impacts would remain significant.

Land Use

- **Impact 5.10-2:** Implementation of the proposed project would cause a significant environmental impact due to a conflict with the goals and SCAG's 2024-2050 RTP/SCS. There are no feasible mitigation measures that can fully reduce the proposed project's inconsistencies with the goals of SCAG's 2024-2050 RTP/SCS. Therefore, impacts would remain significant.

6. Significant Unavoidable Adverse Impacts

Noise

- **Impact 5.11-1:** Construction activities associated with buildout of the proposed project would result in temporary noise increases at sensitive receptors. Implementation of Mitigation Measure N-1 would reduce potential noise impacts during construction to the extent feasible through implementation of construction best management practices. However, with implementation of mitigation, impacts would remain significant.

Population and Housing

- **Impact 5.12-1:** Implementation of the proposed project would directly result in population growth in the City. Although the goals and policies of the proposed project would support the projected growth within the City boundaries, the proposed project would exceed the growth projections in the SCAG's 2024 -2050 RTP/SCS growth forecasts for population, employment, and housing growth. There are no feasible mitigation measures to reduce the proposed project's impacts to population growth and impacts would remain significant.

Transportation

- **Impact 5.15-1:** The proposed project would conflict with a program, plan, ordinance, or policy addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities. There are no feasible mitigation measures that can fully reduce the proposed project's inconsistencies with the goals of SCAG's 2024-2050 RTP/SCS. Therefore, impacts would remain significant.
- **Impact 5.15-2:** Implementation of the proposed project would conflict with CEQA Guidelines § 15064.3, subdivision (b) concerning criteria for analyzing transportation impacts. There are no feasible mitigation measures that can fully reduce VMT impacts at full buildout of the proposed project. Therefore, impacts would remain significant.

6. Significant Unavoidable Adverse Impacts

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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 highway improvements which provides access to previously inaccessible area(s)) 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.

The following are the significant irreversible changes that would be caused by the proposed project, should it be implemented:

- Future development facilitated by the proposed project would include construction that would entail the commitment of nonrenewable and/or slowly renewable energy resources; human resources; and natural resources such as sand and gravel, asphalt, steel, copper, lead, other metals, water, and fossil fuels. Operation of the proposed project would require the use of natural gas and electricity, petroleum-based fuels, fossil fuels, and water. The commitment of resources required for the construction and operation of growth and development facilitated by the proposed project would limit the availability of such resources for future generations or for other uses during the life of the proposed project.
- An increase in vehicle trips would accompany project-related population growth. 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) under the California and National Ambient Air Quality Standards (AAQS), and nonattainment for nitrogen dioxide (NO₂) under the California AAQS.

Given the low likelihood that the land in the City would revert to its original form, the proposed project would generally commit future generations to these environmental changes.

9. Significant Irreversible Changes Due to the Proposed Project

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10. Growth-Inducing Impacts of the Proposed Project

Pursuant to Sections 15126(d) and 15126.2(e) 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?

Future growth facilitated by the proposed project would allow for infill development and intensification in the City. This would indirectly induce construction of site-specific infrastructure upgrades, extensions and improvements, such as roadways, storm drains, sewer lines, water pipes, solid waste collection systems, and energy/communications extensions. Additionally, the proposed project would induce growth through the removal of obstacles to development by simplifying and streamlining land use and zoning regulations for the project area. The proposed project does not, however, propose any specific infrastructure improvements that would result in growth. The proposed project does not approve the construction of specific development

10. Growth-Inducing Impacts of the Proposed Project

projects and would largely accommodate growth based on specific, future development proposals pursuant to market conditions. However, in some locations, the project would allow increased development intensity and/or mix of land uses (e.g. residential development of different densities on the same property, or a combination of retail and/or office land uses and residential land uses) compared to existing conditions. Specifically, the proposed project provides opportunities for intensification or reuse of focused areas of the City and targets change in areas essential to satisfy the City's State-mandated obligation to demonstrate it could meet its Regional Housing Needs Allocation (RHNA) requirements for housing. Therefore, the proposed project removes regulatory obstacles to growth and is considered growth inducing.

Would this project result in the need to expand one or more public services to maintain desired levels of service?

The proposed project is a regulatory document that sets the framework for future growth and development in the City and does not directly result in development. Direct growth-inducing impacts are commonly associated with the extension of new public services, utilities, and roads into areas that have previously been undeveloped. Growth facilitated by the proposed project would allow for infill development and intensification in the City, which is already served by public services. As discussed in Section 5.13, *Public Services*, there are several mechanisms in place to ensure there is adequate funding for expansion of services as buildout facilitated by the proposed project continues, such as budgets, development impact fees, and coordination with local and regional agencies. Future projects facilitated by the proposed project would be evaluated on an individual basis for conformance with funding mechanisms as applicable. Over time, the City anticipates the need to expand services to meet the needs of growth envisioned in the proposed project.

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 encourage or facilitate economic effects. Temporary jobs would be created during development of future projects (e.g., design, planning, engineering, construction, etc.), facilitated by the proposed project, which would result in direct economic effects. As the population grows and occupies new dwellings units in accordance with the proposed project, new residents would seek shopping, entertainment, employment, home improvement, and other economic opportunities in the surrounding area. This would facilitate economic transactions of goods and services and could, therefore, encourage the creation of new businesses and/or the expansion of existing businesses to address these economic needs. Furthermore, the proposed increases in development capacity for office, commercial, and retail uses would serve the shopping and services needs of the future residents and would generate additional employment opportunities. The physical impacts of job growth are reflected in the analysis in this DEIR and are expected to be localized in the City. As the proposed project is a regulatory document and does not directly result in development, before any development or redevelopment activities would occur in the City, such activities would be analyzed for conformance with applicable local, state, and federal requirements to ensure that future projects would not adversely affect the environment. There is nothing unusual about the anticipated growth facilitated by the proposed project that would significantly affect the environment.

10. Growth-Inducing Impacts of the Proposed Project

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 elements pursuant to California Government Code Sections 65300 et seq., and the adoption of these types of plans do not necessarily set a precedent that could encourage and facilitate other activities that may significantly affect the environment. The General Plan Update refines and adds to the goals and policies and changes land uses in the City. New and/or modified goals and policies in the proposed General Plan Update either replace, supplement, or elaborate on those in the existing General Plan. Updates to the Zoning Ordinance and Local Coastal Program (LCP) would involve land-use changes that would be consistent with the General Plan Update. Development facilitated by the proposed project would be reviewed for consistency with the General Plan and may tier from the General Plan EIR if appropriate. Future development proposals would be reviewed on a project-by-project basis for conformance with the General Plan, zoning requirements, and other applicable local, state, and federal requirements to ensure that future projects would not adversely affect the environment. Moreover, no changes to any of the City's building safety standards (building, grading, plumbing, mechanical, electrical, fire codes) are proposed or required to implement the proposed project. Although the proposed project would include actions that set precedents within the City to facilitate future growth, these precedents are not anticipated to encourage and/or facilitate other activities that could significantly affect the environment.

10. Growth-Inducing Impacts of the Proposed Project

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