DRAFT

CENTENNIAL GENERAL PLAN ENVIRONMENTAL IMPACT REPORT

SCH NO. 2013041021

prepared for:

CITY OF SAN CLEMENTE

Contact:
Jeff Hook, AICP
Principal Planner

prepared by:

THE PLANNING CENTER|DC&E

Contact:
Nicole Morse, Esq.
Senior Associate

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910 Calle Negocio
Suite 100
San Clemente, CA 92673
949.361.6184

Contact:
Jeff Hook, AICP
Principal Planner

prepared by:

THE PLANNING CENTER|DC&E

3 MacArthur Place, Suite 1100
Santa Ana, CA 92707
Tel: 714.966.9220 • Fax: 714.966.9221
E-mail: information@planningcenter.com
Website: www.planningcenter.com

Contact:
Nicole Morse, Esq.
Senior Associate

CSL-03.0L

JULY 2013

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Abbreviations and Acronyms

AAQS	ambient air quality standards
AB	Assembly Bill
ABAU	adjusted business as usual
ACM	asbestos-containing materials
ADT	average daily traffic
af	acre-feet
afy	acre-feet per year
AMP	Allen McColloch Pipeline
APST	aboveground petroleum storage tank
AQMP	air quality management plan
ATM	Aufdenkamp Transmission Main
AWT	advanced wastewater treatment
bgs	below ground surface
BAU	business as usual
BEP	business emergency plan
bgs	below ground surface
BMP	best management practices
BNSF	Burlington Northern Santa Fe Railroad
BPMP	bicycle and pedestrian master plan
CAA	Clean Air Act
CalARP	California Accidental Release Prevention
Cal EMA	California Emergency Management Agency
Cal/EPA	California Environmental Protection Agency
CAL FIRE	California Department of Forestry and Fire Protection
CALGreen	California Green Building Code
CalRecycle	California Department of Resources, Recycling, and Recovery
Caltrans	California Department of Transportation
CARB	California Air Resources Board
CAP	climate action plan
CAT	Climate Action Team

CBC	California Building Code
CCAA	California Clean Air Act
CCR	California Code of Regulations
CDF	California Department of Finance
CDFW	California Department of Fish and Wildlife
CEQA	California Environmental Quality Act
CERCLA	Comprehensive Environmental Response, Compensation and Liability Act
cfs	cubic feet per second
CGV	Compass Growth Vision
CMP	congestion management program
CNDDB	California Natural Diversity Database
CNEL	community noise equivalent level
CO	carbon monoxide
CO2e	carbon dioxide equivalent
Corps	United States Army Corps of Engineers
CPUC	California Public Utilities Commission
CRA	Colorado River Aqueduct
CTC	California Transportation Commission
CTP	Coastal Treatment Plant
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
EMD	Emergency Management Division
EOC	emergency operations center
EPA	Environmental Protection Agency (US)

EPCRA	Emergency Planning and Community Right-to-Know Act
ESHA	environmentally sensitive habitat area
FEMA	Federal Emergency Management Agency
FESA	federal Endangered Species Act
FHWA	Federal Highway Administration
FTA	Federal Transit Administration
g	gravity
GHG	greenhouse gases
gpcd	gallons per capita per day
gpm	gallons per minute
GRF	groundwater recovery facility
GWh	gigawatt hours
GWP	global warming potential
HAP	hazardous air pollutant
HCD	Housing and Community Development Department (CA)
HCM	Highway Capacity Manual
HCP	habitat conservation plan
HVAC	Heating, Ventilating, and Air Conditioning System
ICS	Incident Command System
ICU	intersection capacity utilization
IPCC	Intergovernmental Panel on Climate Change
IRP	integrated water resources plan
IRWD	Irvine Ranch Water District
L_{dn}	day-night noise level
LBP	lead-based paint
LCFS	low-carbon fuel standard
LCP	local coastal plan
LEPC	local emergency planning committee
LGOP	Local Government Operations Protocol
L_{eq}	equivalent continuous noise level

LOS	level of service
LST	localized significance thresholds
LTM	local transmission main
LUST	leaking underground storage tank
MBTA	Migratory Bird Treaty Act
MCAS	Marine Corps Air Station
mcfd	million cubic feet per day
mgd	million gallons per day
MMAA	master mutual aid agreement
MMI	modified Mercalli intensity
MMT	million metric tons
MPCF	Master Plan for City Facilities (San Clemente)
MPO	metropolitan planning organization
MSAA	master streambed alteration agreement
MT	metric tons
MUTCD	Manual of Uniform Traffic Control Devices
mya	million years ago
Mw	moment magnitude
MW	megawatt
MWD	Metropolitan Water District of Southern California
MWDOC	Metropolitan Water District of Orange County
NAGPRA	Native American Graves Protection and Repatriation Act
NAHC	Native American Heritage Commission
NCCP	natural communities conservation plan
NFPA	National Fire Protection Association
NHPA	National Habitat Preservation Authority
NOP	Notice of Preparation
NO_X	nitrogen oxides
NPDES	National Pollution Discharge Elimination System
NPL	National Priorities List

O_3	ozone
OA	operational aria
OCFA	Orange County Fire Authority
OCPL	Orange County Public Library
OCSD	Orange County Sanitation District
OCTA	Orange County Transportation Authority
OES	California Office of Emergency Services
OSFM	Office of the State Fire Marshal
OSHA	Occupational Safety and Health Administration (US)
Pb	lead
PHGA	peak horizontal ground acceleration
PM	particulate matter
ppm	parts per million
QSA	quantification settlement agreement
RCRA	Resource Conservation and Recovery Act
RHNA	regional housing needs assessment
RMS	root mean square
RPS	renewable portfolio standard
RTP	regional transportation plan
RWQCB	Regional Water Quality Control Board
SAA	streambed alteration agreement
SARA	Superfund Amendments and Reauthorization Act
SB	Senate Bill
SCAG	Southern California Association of Governments
SCAQMD	South Coast Air Quality Management District
SCCIC	South Central Coastal Information Center
SCS	Sustainable Communities Strategy
SCWD	San Clemente Water District
SDG&E	San Diego Gas and Electric
SDWA	Safe Drinking Water Act

SEMS	standardized emergency management system
SERC	State Emergency Response Commission
SIP	state implementation plan
SLM	sound level meter
SMGWB	San Mateo Groundwater Basin
SMWD	Santa Margarita Water District
SO_x	sulfur oxides
SoCAB	South Coast Air Basin
SoCalGas	Southern California Gas
SOI	sphere of influence
SONGS	San Onofre Nuclear Generating Station
SPCC	Spill Prevention, Control and Countermeasure
SQMP	Stormwater Quality Management Plan
SRA	source receptor area (air quality)
SRA	state responsibility area (hazards)
SWP	State Water Project
SWPPP	Stormwater Pollution Prevention Plan
SWRCB	State Water Resources Control Board
TAC	toxic air contaminants
T-BACT	best available control technologies
TCE	trichloroethylene
TDM	travel demand model
TNM	transportation noise model
TRI	toxic release inventory
TTCP	traditional tribal cultural places
USFWS	US Fish and Wildlife Service
UST	Underground Storage Tank
UWMP	Urban Water Management Plan
V/C	volume-to-capacity ratio
VdB	velocity decibels

VHFHSZ	very high fire hazard severity zone
VMT	vehicle miles traveled
VOC	Volatile Organic Compounds
WECC	Western Electricity Coordinating Council
WEROC	Water Emergency Response Organization of Orange County
WIP	Well Investigation Program
WQMP	Water Quality Management Plan
WSAP	water supply allocation plan
WSDM	water surplus and drought management plan
WTP	water treatment plant
ybp	years before present

1. *Executive Summary*

1.1 INTRODUCTION

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

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

Data for this DEIR was obtained from onsite field observations; discussions with affected agencies; analysis of adopted plans and policies; review of available studies, reports, data and similar literature; and specialized environmental assessments (aesthetics, air quality, biological resources, cultural resources, geological resources, hazards and hazardous materials, hydrology and water quality, land use, noise, population and housing, public services, recreation, transportation and traffic, and utilities and service systems).

1.2 ENVIRONMENTAL PROCEDURES

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

1) To disclose to decision makers and the public the significant environmental effects of proposed activities.

2) To identify ways to avoid or reduce environmental damage.

3) To prevent environmental damage by requiring implementation of feasible alternatives or mitigation measures.

4) To disclose to the public reasons for agency approval of projects with significant environmental effects.

5) To foster interagency coordination in the review of projects.

6) To enhance public participation in the planning process.

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

environmental consequences associated with a proposed project that has the potential to result in significant, adverse environmental impacts.

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

1.2.1 EIR Format

This DEIR has been formatted as described here.

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

Section 2, Introduction. Describes the purpose of this EIR, background on the project, the Notice of Preparation (NOP), the use of incorporation by reference, and Final EIR certification.

Section 3, Project Description. A detailed description of the project, the objectives of the proposed project, the project area and location, approvals anticipated to be included as part of the project, the necessary environmental clearances for the project, and the intended uses of this EIR.

Section 4, Environmental Setting. A description of the physical environmental conditions in the vicinity of the project as they existed at the time the NOP was published, from both a local and regional perspective. The environmental setting provides baseline physical conditions from which the lead agency determines the significance of environmental impacts resulting from the proposed project.

Section 5, Environmental Analysis. Provides, for each environmental topic, a description of the thresholds used to determine if a significant impact would occur; the methodology to identify and evaluate the potential impacts of the project; the existing environmental setting; the potential adverse and beneficial effects of the project; the level of impact significance before mitigation; the mitigation measures for the proposed project; the level of significance of the adverse impacts of the project after mitigation is incorporated, and the potential cumulative impacts associated with the proposed project and other existing, approved, and proposed development in the area.

Section 6, Significant Unavoidable Adverse Impacts. Describes the significant unavoidable adverse impacts of the proposed project.

Section 7, Alternatives to the Proposed Project. Describes the impacts of the alternatives to the proposed project, including the No Project Alternative and a Reduced Intensity Alternative.

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

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

Section 10, Growth-Inducing Impacts of the Project. Describes the ways in which the proposed project would cause increases in employment or population that could result in new physical or environmental impacts.

Section 11, Organizations and Persons Consulted. Lists the people and organizations that were contacted during the preparation of this EIR for the proposed project.

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

Section 13, Bibliography. A bibliography of the technical reports and other documentation used in the preparation of this EIR for the proposed project.

Appendices. The appendices for this document (in PDF format on a CD attached to the front cover) contain the following supporting documents:

- Appendix A: NOP and Initial Study
- Appendix B: NOP Responses and Scoping Meeting Minutes
- Appendix C: Air Quality and GHG Modeling Data
- Appendix D: Cultural Records Search
- Appendix E: Infrastructure Technical Report
- Appendix F: Noise Measurements and Calculations Outputs
- Appendix G: Mobility Report
- Appendix H: Centennial General Plan Policies
- Appendix I: Regulatory Framework
- Appendix J: Public Services Correspondence

1.2.2 Type and Purpose of This DEIR

This DEIR fulfills the requirements for a Program EIR as defined by State CEQA Guidelines (Section 15168, California Code of Regulations, Title 14, Division 6, Chapter 3. Although the legally required contents of a Program EIR are the same as those of a Project EIR, Program EIRs are typically more conceptual and may contain a more general discussion of impacts, alternatives, and mitigation measures than a Project EIR. As provided in Section 15168 of the State CEQA Guidelines, a Program EIR may be prepared on a series of actions that may be characterized as one large project. Use of a Program EIR provides the City (as lead agency) with the opportunity to consider broad policy alternatives and programwide mitigation measures and provides the City with greater flexibility to address project-specific and cumulative environmental impacts on a comprehensive basis.

Agencies generally prepare Program EIRs for programs or a series of related actions that are linked geographically, are logical parts of a chain of contemplated events, rules, regulations, or plans that govern the conduct of a continuing program, or are individual activities carried out under the same authority and having generally similar environmental effects that can be mitigated in similar ways. The proposed project covers plans and programs that would guide the future development of the City over more than 20 years. Therefore, this Program EIR meets the requirements of CEQA.

Once a Program EIR has been prepared, subsequent activities within the program must be evaluated to determine whether an additional CEQA document needs to be prepared. However, if the Program EIR addresses the program's

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

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

1.3 PROJECT LOCATION

The City of San Clemente is in the southeastern corner of Orange County. San Clemente is surrounded by the Pacific Ocean to the southwest, the cities of Dana Point and San Juan Capistrano to the northwest, unincorporated areas of Orange County to the north, and San Onofre State Beach and Camp Pendleton in unincorporated San Diego County to the southeast (see Figure 3-1, *Regional Vicinity*). An aerial photograph of the City and surrounding area is shown on Figure 3-2, *Citywide Aerial*. Existing land uses in the City are shown on Figure 3-3. The City's incorporated boundaries encompass approximately 18.4 square miles or 11,754 acres.

Regional access to the City is provided by Interstate 5 (I-5), which bisects the City and connects it with other Orange County communities, Los Angeles County to the northwest, and San Diego County to the southeast. A rail line used by Metrolink and Amtrak also traverses the City, parallel and adjacent to the Pacific Ocean.

1.4 PROJECT SUMMARY

The proposed project includes four components: 1) a new San Clemente "Centennial" General Plan (proposed General Plan) that meets California Code requirements for a general plan, 2) a Strategic Implementation Program that implements the goals and policies of the General Plan, 3) the San Clemente Bicycle and Pedestrian Master Plan, and 4) the Climate Action Plan. Each of these components is discussed below.

1.4.1 Centennial General Plan

The proposed General Plan revises the 1993 General Plan land use map, elements required by the State of California, and optional elements. The exception is the Housing Element, which was adopted separately in July 2011. The Housing Element is not being updated with this project but will be updated separately in accordance with State requirements. The proposed General Plan connects intent with action by setting goals and policies that guide the City's long-term growth and development. A description of the policy elements are provided under "General Plan Elements," below.

Figure 3-4, *Proposed Land Use Plan*, shows how land uses would be distributed in the proposed General Plan. The land use designations guide and regulate land use patterns, distributions, densities, and intensities.

1.4.1.1 General Plan Elements

The proposed General Plan has twelve elements, six of which are mandated by state law. As noted previously, the Housing Element was adopted in 2011. The elements establish official City policy to guide future development. The new policies for each of the general plan elements are listed in Appendix H. The proposed General Plan would reorganize the 1993 General Plan into the following elements:

- The **Beaches, Parks and Recreation Element** provides goals and policies aimed at the preservation and enhancement of San Clemente's beaches, parks, and recreation resources and programs. The element also addresses San Clemente's open spaces and trails and provides policy direction for the acquisition, development, operation, and maintenance of these facilities.

- The **Coastal Element** provides goals and policies to protect, maintain, and enhance the coastal zone environment; maximize access to the coast and its recreational resources; and prioritize coastal-dependent and coastal-related development over other forms of development. Together with an Implementation Program that includes the zoning ordinance, specific plans, and other implementing documents, the Coastal Element fulfills a portion of the State requirements for San Clemente's Local Coastal Program (LCP).

- The **Economic Development Element** establishes goals and policies to guide decisions about public and private investment in and opportunities for improved quality of life through economic growth.

- The **Growth Management Element** addresses the location, timing, and type of development within and outside City limits. The Orange County Transit Authority (OCTA) countywide traffic improvement and congestion management plans and programs require all cities in Orange County to adopt general plan growth management elements to be eligible for transportation grant funds (Measure M and M2 funding), and this element meets that requirement. It is also needed to ensure that adequate infrastructure and services are available as the City and areas on the City's urban fringe develop.

- The **Historic Preservation Element**'s goals, policies, and related implementation measures are intended to help preserve San Clemente's heritage. More specifically, the Element addresses historic preservation for economic development, heritage promotion, incentives for historic preservation, and regulations.

- The **Land Use Element** describes objectives, policies, and programs for areas within San Clemente's boundaries in both narrative and graphic terms and establishes development criteria and standards. It describes the allowed types, configurations, and locations of land uses, including residential, commercial, mixed-use, industrial, open space, recreation and public uses. The Element also describes density and intensity standards and a variety of goals and policies that help guide public and private land use actions.

Proposed changes in land use and land use intensity are located predominantly in eight "focus areas" shown on Figure 3-5, *Focus Areas*. These areas are summarized in Table 1-1.

Table 1-1 Proposed General Plan Focus Area Changes

Land Use Changes	
Camino de Estrella/Camino de Los Mares	Creates new Medical Office Overlay south of I-5 that increases the maximum floor area ratio (FAR) for areas designated Community Commercial from 0.5 to 1.0 north of Camino Mira Costa and 0.75 to the south to accommodate medical office expansion with supporting retail.
Rancho San Clemente Business Park	Increases the maximum FAR from 0.50 to 0.75 in a portion of this area (shown on Figure 3-4) to accommodate new and expanded businesses and provide employment opportunities.
Los Molinos	Creates a Professional Business Overlay in the area adjacent to I-5 to shift primary uses from retail to office, allow for an institutional campus anchor, concentrate retail uses along Avenida Pico, and increase the maximum FAR to 0.75.
	Requires future development in this area to include potential for a future rail transit station and to ensure consistency with the affordable housing overlay identified in the Housing Element.
North Beach/North El Camino Real	Creates a Mixed Use Overlay for a portion of the site on Calle Lago to allow for a horizontal or vertical mix of commercial and residential uses while allowing industrial uses per the underlying Industrial land use designation.
	Includes a Mixed Use designation at El Portal to allow horizontal or vertical mix of commercial and residential uses.
	Increases Neighborhood Commercial FAR along El Camino Real from 0.35 to 0.50 to incentivize development of vacant lots and transition of auto-related uses.
Del Mar/T-Zone	Maintains requirement for ground floor retail for areas along Avenida Del Mar and El Camino Real, but provides increased flexibility for uses in other areas. Areas outside of and adjacent to buildings along Del Mar and El Camino Real would transition to encourage ground-floor service/office and limited retail with residential and office above. Portions of the perimeter areas would encourage ground-floor residential, lodging, service, and office uses with residential or lodging above.
Pier Bowl	Removes Mixed Use designation from the east side of Coronado Lane to reflect current residential uses.
South El Camino Real Area (West of Interstate 5)	Provides Mixed Use designation on the west side of the corridor to encourage the horizontal and vertical mix of residential, retail, and office uses, and maximizes views of the Pacific Ocean while preserving public views from I-5.
	Increases the FAR for Neighborhood Commercial uses south of Cadiz from 0.35 to 0.50 and north of Cadiz to 0.75, with a greater emphasis on office uses.
South El Camino Real (East of Interstate 5)	No land use changes are proposed, but new policies are included to promote the vision for the area as a visitor- and local-serving corridor and as a hub to a wealth of outdoor recreation.
Other Areas	Shorecliffs Golf Course Site: changes land use designation from Commercial (Coastal and Recreation Serving), which allows hotel and ancillary facilities, to Medium-Density or High Density Residential, to help meet state-mandated housing element requirements. Housing Element Affordable Housing Sites: The Housing Element calls for the City to consider applying an affordable housing overlay on a number of sites to accommodate affordable housing yet allow the underlying land use designation. Include additional areas identified in the Housing Element and identified by the Planning Commission.

Source: The Planning Center|DC&E, with changes recommended by City Staff, the General Plan Advisory Committee and Planning Commission. City Council directed Staff and the consultant team to use these changes as the basis for the EIR.

- The **Mobility and Complete Streets Element** addresses the identification, location, and extent of existing and proposed major thoroughfares, transportation routes, trails, multimodal transportation options, and local public utilities and facilities. It is correlated with the Land Use Element. The bicycle- and pedestrian-related goals and policies are also implemented through the San Clemente Bicycle and Pedestrian Master Plan.

- The **Natural Resources Element** establishes goals and policies to preserve and enhance the City's biological, aesthetic, archaeological, mineral, air quality, and energy resources. Related goals and policies regarding urban

forest, water resources, solid waste management, and historic resources are included in the Urban Design; Public Services, Facilities and Utilities; and Historic Preservation Elements.

- The **Public Services, Facilities and Utilities Element** addresses a full range of topics, including education, library facilities, arts and culture, human services, water systems and water quality, solid waste and recycling, and energy resources. Emergency services are covered in the Safety Element. The goals and policies of this element are aimed at the effective management of resources and facilities that are essential to individual and community well-being and to San Clemente's ability to attract and retain residents and businesses.

- The **Safety Element** identifies seismic, geologic, flood, radiological, and wildfire hazards and establishes policies to protect the community. The element also provides guidance related to noise conditions and identifies goals and policies to mitigate and adapt to nuisance noise in San Clemente.

- The **Urban Design Element** focuses on the physical and design characteristics of human-made urban features that unify San Clemente: public places, gateways, architecture, landscaping, public views, and the City's urban forest. Additional design goals and policies that are tailored to individual areas of the City are included in the "Focus Areas" section of the Land Use Element.

- The **Governance Element** is about good government and outstanding customer service. It establishes policies that help ensure open, fair, and informed decision making. It also guides how City staff 1) communicates internally, with the public, and with business, 2) allocates resources, and 3) follows adopted policies to make decisions. Elected and appointed City leaders, citizens, business people, investors, and staff will use this element to understand how citizens help shape policies and decisions that affect them.

1.4.2 Strategic Implementation Program

The Strategic Implementation Plan implements the Centennial General Plan by providing a framework to connect day-to-day and short-term actions to long-term goals. Strategic Implementation Plan policies require the City Council to prioritize actions for implementing the Centennial General Plan, require ongoing monitoring of development to ensure consistency with City master plans, and require that the City monitor and report progress in achieving the goals of the Centennial General Plan. The City must prepare an annual report on the status of the General Plan. This approach ensures that the Centennial General Plan evolves over time and responds to changing conditions. It provides an institutional framework to annually revisit the General Plan, gauge its continuing relevance, and recommit activities and investments to the community's long-term vision.

1.4.3 San Clemente Bicycle and Pedestrian Master Plan

The Bicycle and Pedestrian Master Plan (BPMP) establishes goals and policies for San Clemente's system of bike pedestrian facilities and identifies the need to integrate with the existing system of regional bikeways in southern Orange County. It also provides broad recommendations to improve the overall walking environment.

The BPMP is integrated with the City's Mobility and Complete Streets Element to comply with the California Complete Streets Act of 2008, thereby helping create a balanced multimodal transportation system. The BPMP incorporates text, maps, and graphics highlighting project research, best practices, and outreach. This BPMP is consistent with and supports General Plan goals and policies that address cyclists, pedestrian, and multimodal transportation.

1.4.4 Climate Action Plan

The Climate Action Plan (CAP) is the first step in the City's development of a long-range, comprehensive plan to move from "business-as-usual" growth practices to an environmentally and economically sustainable growth model. With that objective, the CAP provides a roadmap to reduce municipal and community emissions. It does this by setting a series of goals, policies, and actions to reduce emissions, such as reducing vehicle miles traveled by encouraging the use of electric vehicles. It also encourages planting new trees. The effects of global climate change include increased air pollution, diminished water supplies, higher seasonal temperatures, sea level increases, coastal erosion, and potential loss of protected species and habitats. In response, this CAP evaluates community and government emissions and establishes a plan to minimize emissions across households, businesses, and the government.

The CAP includes San Clemente's greenhouse gas (GHG) inventory and establishes citywide GHG reduction targets for 2020 and 2030. To achieve these targets, the CAP includes a series of strategies designed to reduce citywide emissions. No specific development projects are proposed as part of the 2012 CAP and no changes are proposed in existing land use zones, densities, or land use regulations. This CAP is consistent with the land uses envisioned in the Centennial General Plan and does not require zoning or changes to the land use designation of any specific property, nor does it require changes to the Zoning Ordinance that would increase residential density, result in development not envisioned in the General Plan, or remove policies that protect environmental resources.

The CAP is a policy document that provides policy direction and identifies actions for the City and community to take to reduce GHG emissions, consistent with California Assembly Bill 32 and Executive Order S-3-05. The CAP establishes strategies and guidelines for implementation to reduce San Clemente's GHG emissions through ten actions in three categories. The CAP covers:

- Forecasted impacts of climate change
- Summary of state legislation governing climate change
- GHG baseline inventory, 2020 and 2030 forecasts, and community emissions target
- Climate Action Plan organized by energy, transportation, and waste
- Implementation and monitoring mechanisms

Climate Action Strategies

The CAP includes GHG reduction strategies categorized by: energy consumption, transportation, and solid waste.

- The **Energy Consumption** strategies aim to minimize energy consumption by creating high performance buildings and transitioning to clean/renewable energy sources.

- The **Transportation** strategies focus on reducing vehicle miles traveled (VMT) in San Clemente by creating an interconnected transportation system and promoting land use patterns that shift travel from auto to walking, biking, and public transit.

- The **Solid Waste** strategy reduces waste production and diverts community waste from landfills to recycling facilities.

1.4.5 Physical Development under the Proposed General Plan

Pursuant to CEQA Guidelines Section 15064(d), this EIR determines whether there are direct physical changes and reasonably foreseeable indirect physical changes in the environment that would be caused by the Centennial General Plan. Specifically this EIR focuses on impacts from changes to land use associated with buildout of the Proposed Land Use Plan (see Figure 3-4) and impacts from the resultant population and employment growth in the City. The Centennial General Plan's Proposed Land Use Plan for the ultimate development of the City is not tied to a specific timeline. For the purposes of this environmental analysis, however, buildout of the Proposed Land Use Plan is assumed to be the year 2035.

The proposed General Plan generally follows the land uses and development intensities already allowed in the adopted General Plan, with the exception of limited changes in land use and development intensity in some of the designated Focus Areas. Although the proposed General Plan would only result in an increase of 514 residential units and 746,439 sf of nonresidential uses over the 1993 General Plan, this EIR must analyze impacts of buildout of the proposed General Plan compared to existing land uses.

The proposed San Clemente Centennial General Plan buildout would allow for 29,567 residential dwelling units, 4,428,332 square feet of retail use, 8,834,477 square feet of office use, 2,981,980 square feet of industrial use, and 1,894,695 square feet institutional use. Table 1-2 summarizes the proposed land use designations and summarizes the acreage for each designation. Table 1-3 shows a comparison between the existing land uses and the proposed land uses allowed by the Centennial General Plan. Buildout of the General Plan would result in 3,585 additional residential dwelling units and 10,094,484 additional square feet of nonresidential uses compared to existing land uses.

Table 1-2 San Clemente Centennial General Plan Buildout Projections (2035)

Land Use	Acres	Dwelling Units	Population	Square Feet				Em-ployees
				Retail	Office	Industrial	Instit-utional	
Residential								
Very Low Density (RVL)	107	33	86	-	-	-	-	-
Low Density (RL)	2,566	12,241	31,826	-	-	-	-	-
Medium Low Density (RLM)	609	4,672	12,148	-	-	-	-	-
Medium Density (RM)	518	9,645	25,078	-	-	-	-	-
High Density (RH)	61	2,117	5,506	-	-	-	-	-
Subtotal	**3,861**	**28,708**	**74,644**	**-**	**-**	**-**	**-**	**-**
Commercial								
Neighborhood Serving 1 (NC 1)	55	-	-	420,452	420,452	-	-	1,876
Neighborhood Serving 2 (NC 2)	22	-	-	287,088	192,473	-	-	1,010
Neighborhood Serving 3 (NC 3)	19	-	-	144,621	149,625	-	-	851
Community Serving 1 (CC 1)	35	-	-	305,599	305,599	-	-	1,364
Community Serving 2 (CC 2)	143	136	354	1,078,854	1,821,287	-	211,919	6,589
Regional Serving (RC)	52	-	-	718,143	179,536	-	-	1,666
Coastal and Recreation	<1	-	-	3,393	-	-	-	7

Table 1-2 San Clemente Centennial General Plan Buildout Projections (2035)

Land Use	Acres	Dwelling Units	Population	Square Feet				Em-ployees
				Retail	Office	Industrial	Instit-utional	
Serving (CRC)								
Subtotal	**326**	**136**	**354**	**2,958,151**	**3,068,973**	**-**	**211,919**	**13,363**
Mixed Use								
Mixed Use 1 (MU 1)	1	-	-	7,302	7,302	-	-	33
Mixed Use 2 (MU 2)	7	47	94	79,082	50,903	-	-	272
Mixed Use 3.1 (MU 3.1)	52	470	957	1,071,030	906,653	-	-	4,310
Mixed Use 3.2 (MU 3.2)	5	49	98	48,981	88,165	-	-	331
Mixed Use 4 (MU 4)	2	13	33	57,801	3,610	-	-	178
Mixed Use 5 (MU 5)	13	143	367	78,438	56,804	-	-	411
Subtotal	**80**	**722**	**1,549**	**1,342,633**	**1,113,436**	**-**	**-**	**5,535**
Industrial								
Light Industrial 1 (LI 1)	102	-	-	47,467	1,146,841	524,362	-	4,006
Light Industrial 2 (LI 2)	197	-	-	65,381	3,254,228	1,526,243	-	11,310
Heavy Industrial (HI)	40	-	-	14,700	155,066	931,376	-	1,543
Subtotal	**339**	**-**	**-**	**127,548**	**4,556,135**	**2,981,980**	**-**	**16,859**
Open Space								
Public Open Space (OS1)	971	-	-	-	-	-	-	-
Private Open Space (OS2)	4,215	-	-	-	-	-	-	-
Subtotal	**5,187**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
Other								
Institutional	18	-	-	-	-	-	267,995	536
Public	224	-	-	-	95,934	-	1,414,781	3,021
Right-of-way (ROW)	457	-	-	-	-	-	-	-
Right-of-way (ROW) outside of parcels[1]	1,262	-	-	-	-	-	-	-
Subtotal	**1,961**	**-**	**-**	**-**	**95,934**	**-**	**1,682,776**	**3,557**
TOTAL	**11,754**	**29,567**	**76,547**	**4,428,332**	**8,834,477**	**2,981,980**	**1,894,695**	**39,313**

Source: Stantec 2012.

[1] A majority of ROW in the City does not consist of parcels and is therefore not included in digital parcel information. Acreage for the "Right-of-way outside of parcels" land use category was calculated by subtracting all parcels in the City from the City's total acreage, since ROW is the only land use not accounted for within parcels.

Table 1-3 San Clemente Centennial General Plan Summary of Changes in Land Use from Existing Conditions

	Existing Land Uses				Proposed General Plan Future Buildout Projection				
Land Use	DU	Square Feet[1]	Pop-ulation	Employment	DU	Square Feet[1,2]	Pop-ulation	Employment	Change
Residential	25,982	-	-	-	29,567	-	76,547	-	3,585
Retail	-	2,328,000	-	-		4,428,332	-		2,100,332
Office	-	998,000	-	-		8,834,477	-		7,836,477
Industrial	-	4,307,000	-	-		2,981,980	-		-1,325,020
Institutional/ Other	-	412,000	-	-		1,894,695	-		1,482,695
CHANGE	-	-	-	-	***3,585***	***10,094,484***	***12,339***	***11,613***	
TOTAL	**25,982**	**8,045,000**	**64,208[3]**	**27,700[4]**	**29,567**	**18,139,484**	**76,547**	**39,313**	

Source: Stantec 2012.
[1] Nonresidential square feet.
[2] Under the "Proposed General Plan" column, nonresidential square feet projections include all types of nonresidential building space estimated for buildout of that land use category (e.g., square feet estimates for parcels designated for "industrial" uses include office and retail square feet in addition to industrial square feet).
[3] Department of Finance, http://www.dof.ca.gov/research/demographic/reports/estimates/e-1/view.php (2012).
[4] Employment Development Department, www.labormarketinfo.edd.ca.gov (2012).

Buildout Analyzed in the EIR versus Anticipated Buildout

This EIR conservatively examines buildout potential of all of the land uses regardless of market demand, individual site constraints, or more restrictive development standards. Combined, these factors will significantly limit development potential below what is contemplated by this environmental analysis, as was the case with the current General Plan (see Section 3.3.1). With respect to employment generating land uses, three Focus Areas generate the majority of new commercial and industrial square footage and employment growth capacity in the Centennial General Plan: Rancho San Clemente Business Park, Los Molinos and Camino de Los Mares. While the capacity generated by these areas far exceeds growth forecasts, the Centennial General Plan provides flexibility as to where this growth can be accommodated—either in the existing industrial/office environment of the Rancho San Clemente Business Park, the underutilized commercial area along Camino de Estrella to accommodate new medical office potential, and/or in an institutionally-anchored professional office area in the Pico Plaza section of Los Molinos.

While it is highly unlikely that the majority of development potential of each of these areas will be realized given limited future market demand, site constraints and property owner willingness to take advantage of new overlay designations, CEQA requires that each area be analyzed at full buildout. This also allows the City to understand the potential local impacts to traffic and other infrastructure for each area.

1.4.6 Mobility

The Centennial General Plan proposes to allow for greater density development ranging from residential and office to mixed-use development in some areas of the City. Allowing for greater density generates additional vehicle trips using the street network. Therefore, seven different circulation alternatives were evaluated using a series of traffic models to consider a street network that would reduce traffic impacts and meet the primary goal of the Mobility and Complete Streets Element:

> Create a comprehensive, multimodal transportation system that provides all users with safe connections to homes, commercial centers, job centers, schools, community centers, open spaces, recreation areas and visitor destinations.

These scenarios range from a combination of networks with and without the completion of the Foothill Transportation Corridor (FTC), the partial completion of the FTC (called the Tesoro Extension), and proposed road diets. The scenarios are summarized below:

- **No FTC Conditions.** This scenario assumes buildout of the General Plan without implementation of the FTC. As is the case today, regional access would be provided by the I-5.
- **With FTC Conditions.** This scenario assumes buildout of the General Plan with the implementation of the FTC, which would extend the 241 Toll Road from its current location at Oso Parkway to the I-5 just south of City limits.
- **With FTC and Road Diet Alternative 1.** This scenario assumes buildout of the General Plan with the implementation of the FTC extension to the I-5 as described above, with the implementation of a road diet. Road Diet Alternative 1 consists of a two-lane road diet on Coast Highway (North El Camino Real) between Camino San Clemente and Avenida Estacion, and a two-lane road diet on Camino Mira Costa, between Camino De Estrella and Camino Capistrano.
- **With FTC and Road Diet Alternative 2.** This scenario assumes buildout of the General Plan with the implementation of the FTC extension to the I-5 as described above, with the implementation of a road diet. Road Diet Alternative 2 consists of a two-lane road diet on Coast Highway (North El Camino Real and south El Camino Real) between Avenida Pico and Christianitos Road.
- **With FTC and Road Diet Alternative 3.** This scenario assumes buildout of the General Plan with the implementation of the FTC extension to the I-5 as described above, with the implementation of a road diet. Road Diet Alternative 3 would implement Road Diet Alternatives 1 and 2.
- **With FTC Tesoro Extension.** This scenario assumes buildout of the General Plan with the implementation of only the FTC Tesoro Extension scenario, which would extend the current 241 Toll Road from its current location at Oso Parkway to Cow Camp Road in the vicinity of Ortega Highway, California State Highway 74.
- **With FTC Tesoro Extension, and Road Diet Alternative 2.** This scenario assumes buildout of the General Plan with the implementation of only the FTC Tesoro Extension scenario as described above and the implementation of Road Diet Alternative 2. Road Diet Alternative 2 consists of a two-lane road diet on Coast Highway (North El Camino Real and south El Camino Real) between Avenida Pico and Christianitos Road.

1.5 SUMMARY OF PROJECT ALTERNATIVES

1.5.1 No-Project/1993 Adopted General Plan Alternative

Section 15126.6(e) of the CEQA Guidelines requires that an EIR evaluate and analyze the impacts of the "No-Project" Alternative. When the project is the revision of an existing land use or regulatory plan, policy, or ongoing operation, the no-project alternative is the continuation of the plan, policy, or operation into the future. Therefore, in the No Project/1993 Adopted General Plan Alternative, the current Land Use Plan would remain in effect. All proposed

changes to the focus areas would not occur; therefore, the maximum floor area ratio (FAR) in the Rancho San Clemente Business Park would remain at 0.5, and the Shorecliffs Golf Course would remain Commercial (Coastal and Recreation Serving), which allows hotel and ancillary facilities. Development in accordance with the 1993 General Plan would continue, allowing for a total of 29,054 residential units, 5,058,456 square feet (sf) of retail, 7,615,574 sf of office, 3,007,941 sf of industrial, and 1,711,074 sf of institutional uses. This alternative would not include adoption of the Climate Action Plan or Bicycle and Pedestrian Master Plan.

1.5.2 Alternative Land Use Plan

The Alternative Land Use Plan was selected to reduce traffic impacts along Avenida Pico. Under this alternative, all aspects of the proposed Centennial General Plan would remain the same except that no change in maximum FAR would occur in the Rancho San Clemente Business Park (Focus Area 2). Development intensities prescribed in the adopted General Plan would still apply to this focus area. Compared to the proposed project, this would result in a reduction of 2,438,000 square feet of nonresidential uses by reducing commercial by 116 thousand square feet (tsf), reducing office by 3,982 tsf, increasing industrial by 1,496 tsf, and increasing institutional by 164 tsf.

1.5.3 Reduced Intensity Alternative

The Reduced Intensity Alternative was selected to reduce significant and unavoidable impacts related to air quality, GHG emissions, noise, and traffic. This alternative would reduce development intensity at General Plan buildout by 25 percent for nonresidential uses and 10 percent for residential uses. The reduction would occur citywide. A buildout statistical summary of this alternative compared to the proposed General Plan is shown in Table 7-1. Note that this alternative would result in lower buildout development intensity than allowed under the 1993 General Plan; for instance, at buildout this alternative would permit development of 26,610 residential units and about 13.6 million square feet of nonresidential land uses; corresponding figures for the 1993 General Plan are 29,054 units and 17.4 million square feet.

1.6 ISSUES TO BE RESOLVED

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

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.

1.7 AREAS OF CONTROVERSY

Prior to the preparation of the DEIR, and EIR scoping meeting was held on April 25, 2013, at San Clemente City Hall to determine the concerns of interested parties regarding environmental analysis of the Centennial General Plan. These and other environmental issues are addressed in Chapter 5 of this DEIR. No other areas of controversy are known to the Lead Agency. Table 1-4 summarizes issues identified by respondents to the NOP and attendees of the scoping meeting. The table also provides references to the sections of the DEIR in which these issues are evaluated.

Correspondence received in response to the NOP and a summary of comments recorded at the scoping meeting are included in Appendix B.

Table 1-4 Summary of NOP and Scoping Meeting Comments

Commenting Agency/Person	Comment Type	Comment Summary	Issue Addressed In:
California Department of Transportation, District 12 (Caltrans)	Traffic/ Transportation	• General Plan should encourage coordination between land use and transportation planning (comment on content of General Plan) • Utilize Highway Capacity Manual when analyzing traffic impacts • Utilize established Caltrans methodologies for developing mitigation	Section 5.14, *Transportation and Traffic*
California Department of Fish and Wildlife (CDFW)[1]	Biological Resources	• CDFW considers adverse impacts to protected species as "significant without mitigation" • Identify potential impacts to sensitive flora and fauna, associated natural habitats, and wildlife corridors • Identify potential impacts to jurisdictional waters	Section 5.3, *Biological Resources*
Native American Heritage Commission	Cultural Resources	• Identify potential impacts to paleontological and cultural resources • Consult with Native American tribes	Section 5.4, *Cultural Resources*
Orange County Public Works (OCPW)	Recreation	• Discuss regional recreational facilities in General Plan (comment regarding content of General Plan)	Not applicable
PEDal	Transportation	• Use a multimodal approach to transportation; integrate Bike and Pedestrian Master Plan with General Plan • Concerns regarding relationship/consistency between various planning documents in regards to multimodal transportation • Consider bicycle and pedestrian modes when analyzing traffic volumes	Section 5.14, *Transportation and Traffic*
Rancho Mission Viejo (RMV)	Notification	• RMV owns property adjacent to San Clemente that has been entitled for development • Contact RMV if information is needed regarding RMV land holdings	Not applicable

Table 1-4 Summary of NOP and Scoping Meeting Comments

Commenting Agency/Person	Comment Type	Comment Summary	Issue Addressed In:
Southern California Association of Governments (SCAG)	Land Use; Population and Housing; Transportation	• Utilize goals and recommended mitigation measures from SCAG's 2012-2035 Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS) in environmental analysis • Utilize adopted SCAG growth forecasts	Section 5.9, *Land Use and Planning*; Section 5.11, *Population and Housing*
South Coast Air Quality Management District (SCAQMD)	Air Quality	• Identify potential air quality impacts of Centennial General Plan • Utilize SCAQMD CEQA Air Quality Handbook for air quality analysis and mitigation	Section 5.2, *Air Quality*
The Gas Company	Utilities	• Natural gas infrastructure is available to service the planning area	Section 5.15, *Utilities and Service Systems*
Mike Cotter	Notification; Aesthetics	• Scoping Meeting notification was inadequate • Identify meaningful project objectives • Concerns about three-story buildings	Section 3, *Project Description*
John Hazeltine	Aesthetics; Biological Resources	• Concerns about Tree Preservation Ordinance (comments regarding content of General Plan)	Not applicable
Georgette Korsen	Aesthetics; Air Quality; Biological Resources; Greenhouse Gases	• Concerns about tree removal and Tree Preservation Ordinance (comments regarding content of General Plan) • Concerns about changes to community character	Section 5.1, *Aesthetics*
Scoping Meeting Comments	Notification; Project Description; Aesthetics; Traffic	• Provide future notices on the City's website • Concerns with buildout numbers and increases in intensity • Concerns about traffic impacts, including impacts to Pico • Use a multimodal approach to transportation; integrate Bike and Pedestrian Master Plan with General Plan • Issues regarding number of stories/building height in T-Zone (comments on content of General Plan)	Section 3, *Project Description*; Section 5.1, *Aesthetics*; Section 5.9, *Land Use*, Section 5.14, *Transportation and Traffic*

[1] Formerly the California Department of Fish and Game.

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

Table 1-5 summarizes the conclusions of the environmental analysis contained in this EIR. Impacts are identified as significant or less than significant and for all significant impacts mitigation measures are identified. The level of significance after imposition of the mitigation measures is also presented.

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Table 1-5 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			
5.1-1 Buildout in accordance with the Centennial General Plan would not substantially alter scenic vistas in San Clemente.	Less Than Significant	No mitigation is required.	Less Than significant
5.1-2 Buildout in accordance with the Centennial General Plan would not substantially alter scenic resources within a state scenic highway.	Less Than Significant	No mitigation is required.	Less Than significant
5.1-3 Buildout in accordance with the proposed Land Use Plan would alter the visual appearance of San Clemente, but would not substantially degrade its existing visual character or quality.	Less Than Significant	No mitigation is required.	Less Than significant
5.1-4 Future development that would be accommodated by the Centennial General Plan would generate additional light and glare in San Clemente that could impact surrounding land uses.	Less Than Significant	No mitigation is required.	Less Than significant
5.2 AIR QUALITY			
5.2-1 The proposed General Plan would not be consistent with the SCAQMD Air Quality Management Plan because buildout of the Land Use Plan would exceed the current population and employment estimates and would cumulatively contribute to the nonattainment designations of the SoCAB.	Potentially Significant	No mitigation measures are available that would reduce impacts associated with inconsistency with the AQMP.	Significant and Unavoidable
5.2-2 Construction activities associated with buildout of the proposed General Plan could generate short-term emissions that exceed the SCAQMD'S significance thresholds and would cumulatively contribute to the nonattainment designations of the SoCAB.	Potentially Significant	2-1 If, during subsequent project-level environmental review, construction-related criteria air pollutants are determined to have the potential to exceed the South Coast Air Quality Management District (SCAQMD) adopted thresholds of significance, the City of San Clemente Planning Department shall require that applicants for new development projects incorporate mitigation measures as identified in the CEQA document prepared for the project to reduce air pollutant emissions during construction activities. Mitigation measures that may be identified during the environmental review include, but are not limited to:	Significant and Unavoidable

Table 1-5 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
		• Requiring fugitive dust control measures that exceed SCAQMD's Rule 403, such as: o Requiring use of nontoxic soil stabilizers to reduce wind erosion. o Applying water every four hours to active soil-disturbing activities. o 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 3 (model year 2006 or newer) or Tier 4 (model year 2008 or newer) emission limits, applicable for engines between 50 and 750 horsepower. • Ensuring construction equipment is properly serviced and maintained to the manufacturer's standards. • 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 manufactures can be found on the SCAQMD's website at: http://www.aqmd.gov/prdas/brochures/Super-Compliant_AIM.pdf.	
5.2-3 Buildout of the proposed General Plan would generate long-term emissions that would exceed the SCAQMD's significance thresholds and would cumulatively contribute to the nonattainment designations of the SoCAB.	Potentially Significant	No mitigation measures are available that would reduce impacts below SCAQMD's thresholds.	Significant and Unavoidable
5.2-4 Buildout of the proposed General Plan could expose sensitive receptors to substantial toxic air contaminant concentrations.	Potentially Significant	2-2 New industrial or warehousing land uses 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 (TRUs), 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 San Clemente Planning Department prior to future discretionary project approval. The HRA shall be prepared in accordance with policies and procedures of the state Office of Environmental Health Hazard Assessment and the South Coast Air Quality Management District. If the HRA shows that the incremental cancer risk exceeds one in one hundred thousand (1.0E-05) or the appropriate noncancer hazard index exceeds 1.0, the applicant will be required to identify and demonstrate that best available control technologies for toxics (T-BACTs) are capable of reducing potential cancer and noncancer risks to an acceptable level, including	Significant and Unavoidable

Table 1-5 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
			appropriate enforcement mechanisms. T-BACTs may include, but are not limited to, restricting idling onsite or electrifying warehousing docks to reduce diesel particulate matter, or requiring use of newer equipment and/or vehicles. T-BACTs identified in the HRA shall be identified as mitigation measures in the environmental document and/or incorporated into the site plan.	
5.2-5 Buildout of the proposed General Plan could site sensitive land uses near air pollution sources and therefore expose sensitive receptors to substantial pollutant concentrations.	Potentially Significant	2-3	The City of San Clemente shall evaluate new development proposals for sensitive land uses (e.g., residential, schools, day care centers) within the City for potential incompatibilities with regard to the California Air Resources Board's Air Quality and Land Use Handbook: A Community Health Perspective (April 2005). Applicants for sensitive land uses that are within the recommended buffer distances shall submit a health risk assessment (HRA) to the City of San Clemente prior to future discretionary project approval. The HRA shall be prepared in accordance with policies and procedures of the state Office of Environmental Health Hazard Assessment (OEHHA) and the South Coast Air Quality Management District. The latest OEHHA guidelines shall be used for the analysis, including age sensitivity factors, breathing rates, and body weights appropriate for children age 0 to 6 years. If the HRA shows that the incremental cancer risk exceeds ten in one million (10E-06) or the appropriate noncancer hazard index exceeds 1.0, the applicant will be required to identify and demonstrate that mitigation measures are capable of reducing potential cancer and noncancer risks to an acceptable level (i.e., below ten in one million or a hazard index of 1.0), including appropriate enforcement mechanisms. Measures to reduce risk may include but are not limited to: • Air intakes away from high-volume roadways and/or truck loading zones. • Heating, ventilation, and air conditioning systems of the buildings provided with appropriately sized maximum efficiency rating value (MERV) filters. Mitigation measures identified in the HRA shall be identified as mitigation measures in the environmental document and/or incorporated into the site development plan as a component of the proposed project. The air intake design and MERV filter requirements shall be noted and/or reflected on all building plans submitted to the City and shall be verified by the City's Planning Department.	Less Than Significant

Table 1-5 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
5.2-6 Industrial land uses associated with buildout of the proposed General Plan have the potential to create objectionable odors that could affect a substantial number of people.	Potentially Significant	2-4 If it is determined during project-level environmental review that a project has the potential to emit nuisance odors beyond the property line, an odor management plan may be required, subject to Planning Director review. Facilities that have the potential to generate nuisance odors include but are not limited to: • Wastewater treatment plants • Composting, greenwaste, or recycling facilities • Fiberglass manufacturing facilities • Painting/coating operations • Large-capacity coffee roasters • Food-processing facilities If an odor management plan is determined to be required through CEQA review, the City shall require the project applicant to submit the plan prior to approval to ensure compliance with the South Coast Air Quality Management District's Rule 402, for nuisance odors. If applicable, the Odor Management Plan shall identify the best available control technologies for toxics (T-BACTs) that will be utilized to reduce potential odors to acceptable levels, including appropriate enforcement mechanisms. T-BACTs may include but are not limited to scrubbers (e.g., air pollution control devices) at the industrial facility. T-BACTs identified in the odor management plan shall be identified as mitigation measures in the environmental document and/or incorporated into the site plan.	Less Than Significant
5.3 BIOLOGICAL RESOURCES			
5.3-1 Buildout of the proposed Centennial General Plan could impact sensitive species.	Potentially Significant	3-1 The City of San Clemente shall require applicants of future development projects that disturb undeveloped land to prepare a biological resources survey. The biological resources survey shall be conducted by a qualified biologist and submitted to the City's Planning Department. The biological resources survey shall include, but not be limited to: Analysis of available literature and biological databases, such as the California Natural Diversity Database, to determine sensitive biological resources that have been reported historically from the proposed development project vicinity; review of current land use and land ownership within the proposed development project vicinity; Assessment and mapping of vegetation communities present within the proposed development project vicinity; and general assessment of potential jurisdictional areas, including wetlands and riparian habitats.	Less Than Significant

Table 1-5 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
		a. If the proposed development project site supports vegetation communities that may provide habitat for special status plant or wildlife species, a focused habitat assessment shall be conducted by a qualified biologist to determine the potential for special status plant and/or animal species to occur within or adjacent to the proposed development project area. b. If one or more special status species has the potential to occur within the proposed development project area, focused species surveys shall be conducted to determine the presence/absence of these species to adequately evaluate potential direct and/or indirect impacts to these species. c. If construction activities are not initiated immediately after focused surveys have been completed, additional preconstruction special status species surveys may be required, in accordance with the California Endangered Species Act and Federal Endangered Species Act, to assure impacts are avoided or minimized to the extent feasible. If preconstruction activities are required, a qualified biologist would perform these surveys as required for each special status species that is known to occur or has a potential to occur within or adjacent to the proposed development project area. d. If sensitive biological resources or wildlife corridors are identified within or adjacent to the proposed development project area, as outlined in the biological resources report, the construction limits shall be clearly flagged to assure impacts to sensitive biological resources and the wildlife corridor are avoided or minimized, to the extent feasible. Prior to implementing construction activities, the City of San Clemente shall require applicants to contract with a qualified biologist to verify that the flagging clearly delineates the construction limits and sensitive resources to be avoided. e. If sensitive biological resources are known to occur within or adjacent to the proposed development project area, as outlined in the biological resources report, the City of San Clemente shall require applicants to contract with a qualified biologist to develop and implement a project-specific contractor training program to educate project contractors on the sensitive biological resources within and adjacent to the proposed development project area and measures being implemented to avoid and/or minimize impacts to these species.	

Table 1-5 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
		f. If sensitive biological resources are present within or adjacent to the proposed development project area and impacts may result from construction activities, as outlined in the biological resources report, a qualified biological monitor may be required during a portion or all of the construction activities to assure impacts to the sensitive biological resources are avoided or minimized to the extent feasible. The specific biological monitoring requirements shall be determined on a project-by-project basis. The qualified biological monitor shall be approved by the City on a project-by-project basis based on applicable experience with the sensitive biological resources that may be impacted by the proposed development project activities. 3-2 The City of San Clemente shall require applicants of development projects that have the potential to affect listed species to obtain written authorization from the U.S. Fish and Wildlife Service that the grading or construction activity is in compliance with regulations on the "take" of the listed species that would directly or indirectly be impacted. Any mitigation requirements set forth by such agencies shall be incorporated into the project's final design plans.	
5.3-2 Buildout of the proposed General Plan could result in impacts to sensitive habitats.	Potentially Significant	Implementation of Mitigation Measures 3-1 and 3-2.	Less Than Significant
5.3-3 Buildout of the General Plan could impact jurisdictional waters and wetlands.	Potentially Significant	3-3 The City of San Clemente shall require applicants of development projects that have the potential to affect listed species to obtain written authorization from the U.S. Fish and Wildlife Service that the grading or construction activity is in compliance with regulations on the "take" of the listed species that would directly or indirectly be impacted. Any mitigation requirements set forth by such agencies shall be incorporated into the project's final design plans. 3-4 The City of San Clemente shall require applicants of development projects that have the potential to affect jurisdictional resources to contract with a qualified biologist to conduct a jurisdictional delineation following the methods outlined in the 1987 US Army Corps of Engineers Wetland Delineation Manual and the Regional Supplement to the USACE Wetland Delineation Manual: Arid West Region (2008) to map the extent of wetlands and nonwetland waters, determine jurisdiction, and assess potential impacts. The results of the delineation shall be presented in a wetland delineation letter report and shall be incorporated into the CEQA document(s) required for approval and permitting of the proposed development project.	Less Than Significant

Table 1-5 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
		3-5 The City of San Clemente shall require applicants of development projects that have the potential to impact jurisdictional features to obtain permits and authorizations from the US Army Corps of Engineers, California Department of Fish and Wildlife, and/or Santa Ana Regional Water Quality Control Board. The agency authorization would include impact avoidance and minimization measures as well as mitigation measures for unavoidable impacts. Specific avoidance, minimization, and mitigation measures for impacts to jurisdictional resources shall be determined through discussions with the regulatory agencies during the proposed development project permitting process and may include monetary contributions to a mitigation bank or habitat creation, restoration, or enhancement.	
5.3-4 Buildout of the General Plan would impact wildlife movement.	Less Than Significant	3-6 The City of San Clemente shall require applicants of future development projects that are within designated open space or identified as a major linkage/corridor (see Figure 5.3-6) to prepare a habitat connectivity evaluation. The results of the evaluation will be incorporated into the project's biological report required under Mitigation Measure 3-1. The habitat connectivity evaluation shall assess the potential for the project to adversely affect the intended functions of the wildlife corridor. The evaluation shall also identify project design features that would reduce potential impacts and maintain functionality as habitat and for wildlife movement. To this end, the City shall incorporate the following measures, to the extent practicable, into projects that would propose development within these areas: • Avoid known sensitive biological resources • Any lighting associated with the project in this area, including street lights and residential lights, shall be of the minimum output required and shall be down-shielded to prevent excessive light bleed into adjacent areas • Encourage development plans that maximize wildlife movement • Provide buffers between development and sensitive habitat areas • Any road crossings, bridges, culverts, etc., shall be constructed with soft bottoms with an openness ratio of at least 0.9 (openness ratio=height x width/length) or as recommended by CDFW • Use native, drought-resistant plant species in landscape design	Less Than Significant
5.3-5 Buildout of the Centennial General Plan would not conflict with the Orange County Southern Subregion HCP.	Less Than Significant	No mitigation is required.	Less Than Significant

Table 1-5 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
5.3-6 The proposed General Plan would not conflict with the City's Coastal Element.	Less Than Significant	No mitigation is required.	Less Than Significant
5.4 CULTURAL RESOURCES			
5.4-1 Developments pursuant to the proposed General Plan could impact identified historic resources.	Less Than Significant	No mitigation is required.	Less Than Significant
5.4-2 Buildout of the proposed General Plan could impact archaeological resources or paleontological resources.	Potentially Significant	4-1 City staff shall require applicants for development permits to provide studies by qualified archaeologists assessing the cultural and historical significance of any known archaeological resources on or next to each respective development site; and assessing the sensitivity of sites for buried archaeological resources. On properties where resources are identified, or that are determined to be moderately to highly sensitive for buried archaeological resources, such studies shall provide a detailed mitigation plan, including a monitoring program and recovery and/or in situ preservation plan, based on the recommendations of a qualified cultural preservation expert. The mitigation plan shall include the following requirements: a. An archaeologist shall be retained for the project and will be on call during grading and other significant ground-disturbing activities. b. Should any cultural/scientific resources be discovered, no further grading shall occur in the area of the discovery until the Community Development Director concurs in writing that adequate provisions are in place to protect these resources. c. Unanticipated discoveries shall be evaluated for significance by an Orange County Certified Professional Archaeologist. If significance criteria are met, then the project shall be required to perform data recovery, professional identification, radiocarbon dates as applicable, and other special studies; submit materials to the California State University Fullerton; and provide a comprehensive final report including appropriate records for the California Department of Parks and Recreation (Building, Structure, and Object Record; Archaeological Site Record; or District Record, as applicable). 4-2 City staff shall require applicants for development permits to provide studies by qualified paleontologists assessing the sensitivity of sites for buried paleontological resources. On properties determined to be moderately to highly sensitive for paleontological	Less Than Significant

Table 1-5 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
		resources, such studies shall provide a detailed mitigation plan, including a monitoring program and recovery and/or in situ preservation plan, based on the recommendations of a qualified paleontologist. The mitigation plan shall include the following requirements: a. A paleontologist shall be retained for the project and will be on call during grading and other significant ground-disturbing activities. b. Should any potentially significant fossil resources be discovered, no further grading shall occur in the area of the discovery until the Community Development Director concurs in writing that adequate provisions are in place to protect these resources. c. Unanticipated discoveries shall be evaluated for significance by an Orange County Certified Professional Paleontologist. If significance criteria are met, then the project shall be required to perform data recovery, professional identification, radiocarbon dates as applicable, and other special studies; submit materials to the California State University Fullerton; and provide a comprehensive final report, including catalog with museum numbers.	
5.4-3 Grading activities could potentially disturb human remains.	Less Than Significant	No mitigation is required.	Less Than Significant
5.5 GEOLOGY AND SOILS			
5.5-1 Buildout of the Centennial General Plan would expose people and structures to strong ground shaking.	Less Than Significant	No mitigation is required.	Less Than Significant
5.5-2 Buildout of the proposed General Plan could subject people and structures to hazards from liquefaction and other seismic ground failure.	Less Than Significant	No mitigation is required.	Less Than Significant
5.5-3 General Plan implementation could pose hazards to people and structures from earthquake-induced landslides.	Less Than Significant	No mitigation is required.	Less Than Significant
5.5-4 General Plan buildout could result in substantial soil erosion.	Less Than Significant	No mitigation is required.	Less Than Significant

Table 1-5 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
5.5-5 General Plan implementation would not expose people or structures to substantial hazards from ground subsidence.	Less Than Significant	No mitigation is required.	Less Than Significant
5.5-6 General Plan implementation could expose people or structures to substantial hazards arising from collapsible soils.	Less Than Significant	No mitigation is required.	Less Than Significant
5.5-7 General Plan implementation could subject people and structures to hazards from expansive soils.	Less Than Significant	No mitigation is required.	Less Than Significant
5.6 GREENHOUSE GAS EMISSIONS			
5.6-1 Buildout of the proposed General Plan would not result in an increase in GHG emissions as a result of federal, state, and local GHG reduction measures; however, the City would not achieve the long-term GHG reductions goals under Executive Order S-03-05.	Potentially Significant	6-1 The City of San Clemente's Climate Action Plan is included as part of the proposed General Plan. The CAP sets GHG reduction targets for the City to achieve. Additionally, the CAP includes measures for the City to implement in support of achieving the reduction targets. As shown in Table 5.6-8, the policies in the proposed General Plan are consistent with the CAP. No other additional measures to reduce GHG emissions are available.	Significant and Unavoidable
5.7 HAZARDS AND HAZARDOUS MATERIALS			
5.7-1 Buildout in accordance with the San Clemente Centennial General Plan would involve the transport, use, and/or disposal of hazardous materials.	Less Than Significant	No mitigation is required.	Less Than Significant
5.7-2 The project site is included on a list of hazardous materials sites.	Less Than Significant	No mitigation is required.	Less Than Significant
5.7-3 Project development could affect the implementation of an emergency response or evacuation plan.	Less Than Significant	No mitigation is required.	Less Than Significant
5.7-4 San Clemente is within moderate, high, and very high fire hazard zones and could expose structures and/or residences to fire danger.	Less Than Significant	No mitigation is required.	Less Than Significant

Table 1-5 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
5.8 HYDROLOGY AND WATER QUALITY			
5.8-1 Development pursuant to the proposed General Plan would not result in a substantial increase in the amount of impervious surfaces and would not therefore increase surface water flows into drainage systems within the City's watersheds.	Less Than Significant	No mitigation is required.	Less Than Significant
5.8-2 Development pursuant to the proposed General Plan would not result in a substantial increase in the amount of impervious surfaces and would not therefore impact opportunities for groundwater recharge.	Less Than Significant	No mitigation is required.	Less Than Significant
5.8-3 Portions of the project site proposed for development are not located within a 100-year flood hazard area.	Less Than Significant	No mitigation is required.	Less Than Significant
5.8-4 During construction of projects in accordance with the Centennial General Plan, there is the potential for short-term unquantifiable increases in pollutant concentrations. After such project development, the quality of storm runoff (sediment, nutrients, metals, pesticides, pathogens, and hydrocarbons) may be altered.	Less Than Significant	No mitigation is required.	Less Than Significant
5.8-5 The project site is not located within the inundation area of any major dam or levee.	Less Than Significant	No mitigation is required.	Less Than Significant
5.8-6 The site would not be subject to inundation by seiche, tsunami, or mudflow.	Less Than Significant	No mitigation is required.	Less Than Significant
5.10 LAND USE AND PLANNING			
5.9-1 Implementation of the General Plan would not conflict with applicable plans adopted for the purpose of avoiding or mitigating an environmental effect.	Less Than Significant	No mitigation is required.	Less Than Significant

Table 1-5 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
5.9-2 Implementation of the General Plan would not conflict with the adopted Orange County Southern Subregion Natural Community Conservation Plan/Master Streambed Alteration Agreement/Habitat Conservation Plan.	Less Than Significant	No mitigation is required.	Less Than Significant
5.10 NOISE			
5.10-1 Buildout of the Proposed Land Use Plan would result in an increase in traffic on local roadways in the City of San Clemente, which would substantially increase the existing noise environment.	Potentially Significant	10-1 Prior to the issuance of building permits for any project that involves a noise-sensitive use within the 65 dBA CNEL contour (i.e., areas in or above 65 dBA CNEL) along major roadways, freeways, and railroads, the project property owner/developers shall retain an acoustical engineer to conduct an acoustic analysis and identify, where appropriate, site design features (e.g., setbacks, berms, or sound walls), and/or required building acoustical improvements (e.g., sound transmission class rated windows, doors, and attic baffling) to ensure compliance with the City's Noise Compatibility Criteria and the California State Building Code and California Noise Insulation Standards (Title 24 and 21 of the California Code of Regulations).	Significant and Unavoidable
5.10-2 Sensitive land uses would not be exposed to substantial levels of rail noise.	Less Than Significant	No mitigation is required.	Less than Significant
5.10-3 Noise-sensitive uses could be exposed to elevated noise levels from transportation sources.	Potentially Significant	Implementation of Mitigation Measure 10-1	Less Than Significant
5.10-4 Noise-sensitive uses could be exposed to elevated noise levels from stationary sources.	Less Than Significant	No mitigation is required.	Less Than Significant
5.10-5 Implementation of the General Plan would not substantially elevate noise and vibration exposure from activities at the Marine Corps Base Camp Pendleton.	Less Than Significant	No mitigation is required.	Less Than Significant
5.10-6 Construction activities associated with buildout of the individual land uses and projects for implementation of the General Plan would substantially elevate noise levels in the vicinity of noise-sensitive land uses.	Potentially Significant	10-2 Construction activities associated with new development that occurs near sensitive receptors shall be evaluated for potential noise impacts. Mitigation measures such as installation of temporary sound barriers for construction activities that occur adjacent to occupied noise-sensitive structures, equipping construction equipment with mufflers, and reducing nonessential idling of construction equipment to no more than five minutes shall be incorporated into the construction operations to reduce construction-related noise to the extent feasible.	Significant and Unavoidable

Table 1-5 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
5.10-7 Construction activities associated with buildout of the individual land uses and projects for implementation of the General Plan would substantially elevate noise levels in the vicinity of noise-sensitive land uses.	Potentially Significant	10-3 New development that occurs within 200 feet of a railroad track (according to the FTA's vibration screening distances) shall be evaluated for potential vibration impacts. The project property owner/developers shall retain an acoustical engineer to conduct an acoustic analysis and identify, where appropriate, site design features and/or required building construction improvements to ensure that vibration impacts would remain below acceptable levels of 0.08 RMS in/sec for residential uses. 10-4 Individual projects that use vibration-intensive construction activities, such as pile drivers, jack hammers, and vibratory rollers, near sensitive receptors shall be evaluated for potential vibration impacts. If construction-related vibration is determined to be perceptible at vibration-sensitive uses (i.e., exceed the Federal Transit Administrations vibration annoyance criterion of 78 VdB), additional requirements, such as use of less-vibration-intensive equipment or construction techniques, shall be implemented during construction (e.g., drilled piles to eliminate use of vibration-intensive pile driver). 10-5 Heavy industrial projects in the Los Molinos area would be require to provide evidence that vibration due to the operation of machinery would not adversely affect nearby vibration sensitive uses such as commercial, hotel, institutional, and residential uses. If vibration related to the operation of mechanical equipment is determined to be perceptible at vibration-sensitive uses (i.e., exceed the Federal Transit Administrations vibration annoyance criterion of 78 VdB).	Significant and Unavoidable
5.11 POPULATION AND HOUSING			
5-11 The proposed project would directly result in population growth in the project area.	Less Than Significant	No mitigation is required.	Less Than Significant
5.14 PUBLIC SERVICES			
FIRE PROTECTION AND EMERGENCY SERVICES			
5.12-1 The proposed project would introduce new structures and residents into the Orange County Fire Authority service boundaries, thereby increasing the requirement for fire protection facilities and personnel.	Less Than Significant	No mitigation is required.	Less Than Significant

Table 1-5 Summary of Environmental Impacts, Mitigation Measures and Levels of Significance After Mitigation

Environmental Impact	Level of Significance Before Mitigation	Mitigation Measures	Level of Significance After Mitigation
POLICE PROTECTION			
5.12-2 Buildout in accordance with the Centennial General Plan would introduce new structures, residents, and workers into the Orange County Sheriff's Department service boundaries, increasing the demand for police protection facilities and personnel.	Less Than Significant	No mitigation is required.	Less Than Significant
SCHOOL SERVICES			
5.12-3 Buildout of the Centennial General Plan would generate approximately 2,394 new students in the Capistrano Unified School District.	Less Than Significant	No mitigation is required.	Less Than Significant
LIBRARY SERVICES			
5.12-4 Buildout in accordance with the Centennial General Plan would generate additional population in San Clemente, increasing the need for library services in the City.	Less Than Significant	No mitigation is required.	Less Than Significant
5.13 PARKS AND RECREATION			
5.13-1 The proposed project would generate additional residents that would increase the use of existing park and recreational facilities.	Less Than Significant	No mitigation is required.	Less Than Significant
5.13-2 Project implementation would result in environmental impacts to provide new and/or expanded recreational facilities.	Less Than Significant	No mitigation is required.	Less Than Significant
5.14 TRANSPORTATION/TRAFFIC			
5.14-1 Project-related trip generation would impact levels of service for the existing area roadway system.	Potentially Significant	**Mitigation Measures for Intersections** See Table 1-5 **Mitigation Measures for Roadway Segments** See Table 1-6	Significant and Unavoidable

Table 1-5 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
5.14-2 Future development that would be accommodated by the Centennial General Plan would not conflict with the applicable congestion management program.	Less Than Significant	No mitigation is required.	Less Than Significant
5.14-3 Circulation improvements associated with future development that would be accommodated by the Centennial General Plan would be designed to adequately address potentially hazardous conditions (sharp curves, etc.), potential conflicting uses, and emergency access.	Less Than Significant	No mitigation is required.	Less Than Significant
5.14-4 The proposed project complies with adopted policies, plans, and programs for alternative transportation and does not decrease the safety of alternative transportation.	Less Than Significant	No mitigation is required.	Less Than Significant
5.15 UTILITIES AND SERVICE SYSTEMS			
5.15-1 Project-generated wastewater could be adequately treated by the wastewater service provider for the project.	Less Than Significant	No mitigation is required.	Less Than Significant
5.15-2 Water supply and delivery systems are adequate to meet project requirements.	Less Than Significant	No mitigation is required.	Less Than Significant
5.15-3 Existing and/or proposed storm drainage systems are adequate to serve the drainage requirements of the proposed project.	Less Than Significant	No mitigation is required.	Less Than Significant
5.15-4 Existing and/or proposed facilities would be able to accommodate project-generated solid waste and comply with related solid waste regulations.	Less Than Significant	No mitigation is required.	Less Than Significant
5.15-5 Existing and/or proposed facilities would be able to accommodate project-generated utility demands.	Less Than Significant	No mitigation is required.	Less Than Significant

Table 1-6 shows the intersection improvements that would be required categorized by each traffic scenario (i.e. "No FTC Conditions," "With FTC Conditions," etc.) to meet City's intersection minimum level of service.

Table 1-6 Summary of Intersection Impacts and Mitigation Measures

Intersection	Mitigation Measures	Scenario			
		No FTC	With FTC	With FTC and RD Alts	With FTC TE
Camino Del Rio and Avenida La Pata	Restripe the Camino Del Rio southbound right turn lane to a southbound through lane. This mitigation will require that the Camino Del Rio southbound receiving leg have three lanes. This mitigation will require public right-of-way acquisition.	X			
	Restripe the Avenida La Pata southbound right turn lane to a southbound through lane. Widen the Camino Del Rio eastbound approach to provide an additional left turn lane onto Avenida La Pata. This mitigation will require that the Avenida La Pata southbound receiving leg have three lanes. This mitigation will require public right-of-way acquisition.				X
Avenida Vista Hermosa and Avenida La Pata	Restripe on Avenida Vista Hermosa one eastbound through lane to an eastbound left turn lane. Restripe on Avenida Vista Hermosa one eastbound right turn lane to an eastbound through lane. This mitigation will require signal modifications.	X			
	Restripe on Avenida Vista Hermosa available right of way to provide an additional eastbound left turn lane.				X
Avenida Vista Hermosa and Camino Vera Cruz	Widen the intersection to provide an additional eastbound through and westbound through lane on Avenida Vista Hermosa, and a northbound left turn lane on Camino Vera Cruz. This mitigation will require public right-of-way acquisition and signal modifications.	X			
	Widen the intersection to provide an additional northbound left turn lane on Camino Vera Cruz. Restripe the westbound right turn lane on Avenida Vista Hermosa to a through lane. This mitigation will require that the Avenida Vista Hermosa westbound receiving leg have three lanes. This mitigation will require public right-of-way acquisition and signal modifications.				X
Avenida Vista Hermosa and Calle Frontera	Restripe on Avenida Vista Hermosa the eastbound right turn lane to an eastbound through lane. This mitigation will require that the Avenida Vista Hermosa eastbound receiving leg have three lanes, which will require public right-of-way acquisition and the implementation of signal modifications.	X			X
Avenida Vista Hermosa and I-5 NB on/off ramps	Restripe the eastbound right turn lane on Avenida Vista Hermosa to an eastbound shared through-right lane at the ramp and an eastbound through at the intersection. This mitigation may require a realignment and restriping of Avenida Vista Hermosa in the eastbound direction to provide shared through-right striping at the ramp and a third through lane at the intersection.	X			X

Table 1-6 Summary of Intersection Impacts and Mitigation Measures

Intersection	Mitigation Measures	Scenario			
		No FTC	With FTC	With FTC and RD Alts	With FTC TE
Avenida Pico and Avenida La Pata	Restripe the westbound approach on Avenida Pico to have one additional westbound through lane. This mitigation will require that the Avenida Pico westbound receiving leg have four lanes, which will require public right-of-way acquisition and the implementation of signal modifications.	X			
	Restripe the westbound approach on Avenida Pico to have one additional westbound through lane. This mitigation will require that the Avenida Pico westbound receiving leg have four lanes, which will require public right-of-way acquisition and the implementation of signal modifications. The volumes at this location need additional capacity at the Avenida Pico eastbound left and Avenida La Pata southbound right movements. The intersection already has two eastbound left turn lanes, however, and providing two southbound right turn lanes or providing a free southbound right turn lane will not mitigate the PM peak hour to within allowable LOS limits.				X
Avenida Pico and Calle Amanecer	Restripe on Avenida Pico one westbound through lane to a westbound left turn lane. Widen the southbound receiving leg on Calle Amanecer to have two lanes. Widen the Calle Amanecer northbound approach to provide three left and one free right turn lane. Widen Avenida Pico eastbound and provide one free eastbound right turn lane. This mitigation will require public right-of-way acquisition and signal modifications.	X			
	Restripe on Avenida Pico one westbound through lane to a left turn lane. Widen the southbound receiving leg on Calle Amanecer to have two lanes. Widen the Calle Amanecer northbound approach to provide two left and one free right turn lane. Widen Avenida Pico eastbound to provide four through lanes and one free eastbound right turn lane. This mitigation will require public right-of-way acquisition and signal modifications.				X
Avenida Pico and Calle Frontera/Avenida Presidio	Restripe the Avenida Pico eastbound right turn lane to an eastbound through lane. Widen the Avenida Pico eastbound receiving leg to have four lanes. Restripe one Calle Frontera/Avenida Presidio southbound through lane to a southbound left lane, and restripe the southbound right turn lane to a southbound through lane. Add one Avenida Pico westbound left turn lane and widen the Calle Frontera/Avenida Presidio southbound receiving leg to have two lanes. This mitigation will require public right-of-way acquisition and signal modifications.	X			X
	Restripe on Calle Frontera/Avenida Presidio the eastbound right turn lane to an eastbound through lane. Widen the Calle Frontera/Avenida Presidio eastbound receiving leg to have four lanes. Restripe the Avenida Pico southbound through lane to a southbound left, and restripe the Avenida Pico southbound right turn lane to a southbound shared through-right lane. This mitigation will require public right-of-way acquisition and signal modifications.			X	

Table 1-6 Summary of Intersection Impacts and Mitigation Measures

Intersection	Mitigation Measures	Scenario			
		No FTC	With FTC	With FTC and RD Alts	With FTC TE
Avenida Pico and Los Molinos	Restripe the Los Molinos northbound approach to have one northbound left turn and one northbound shared through-right turn lane. This mitigation will require signal modifications.	X			
	Restripe the Los Molinos northbound approach to have one northbound shared through-left turn and one northbound right turn lane. This mitigation will require signal modifications.		X		
	Restripe the Avenida Pico northbound approach to have one northbound shared left-through lane and one northbound right turn lane. This mitigation will require public right-of-way acquisition and signal modifications.			X	
	Restripe the Los Molinos northbound approach to have one northbound shared left-through lane and one northbound right turn lane. Restripe the Avenida Pico westbound approach to have two left turn lanes, and two through lanes. This mitigation will require the Los Molinos southbound receiving have two receiving lanes. This mitigation will require public right-of-way acquisition and signal modifications.				X
Avenida Pico and Calle Amanecer	Restripe on Avenida Pico one westbound through lane to a westbound left turn lane. Widen the southbound receiving leg on Calle Amanecer to have two lanes. Widen the Calle Amanecer northbound approach to provide two left and one free right turn lane. Widen Avenida Pico eastbound and provide one free eastbound right turn lane. This mitigation will require public right-of-way acquisition and signal modifications.		X		
	Restripe on Calle Amanecer one westbound through lane to westbound left turn lane. Widen the Avenida Pico southbound receiving leg to have two lanes. Widen the Avenida Pico northbound approach to provide two left and one free right turn lane. Provide one free eastbound right turn lane on Calle Amanecer. This mitigation will require public right-of-way acquisition and signal modifications.			X	
	Restripe on Avenida Pico one westbound through lane to a left turn lane. Widen the southbound receiving leg on Calle Amanecer to have two lanes. Widen the Calle Amanecer northbound approach to provide two left and one free right turn lane. Widen Avenida Pico eastbound to provide four through lanes and one free eastbound right turn lane. This mitigation will require public right-of-way acquisition and signal modifications.				X

Source: Fehr and Peers, 2013.
Notes: Only roadway segments which experience an impact under the analyzed scenarios are listed.
X = significant impact, FTC = Foothill Transit Corridor, RD = road diet, TE = Tesoro extension, ALT=alternative

Table 1-7 shows the roadway segment improvements that would be required to meet City's acceptable level of service within the anticipated buildout of the Centennial General Plan for each scenario.

Table 1-7 Summary of Roadway Segment Impacts and Mitigation Measures

Mitigation Measure	Roadway Segment	Scenario						
		No FTC	With FTC	With FTC and RD Alt[1]	With FTC and RD Alt [2]	With FTC and RD Alt [3]	With FTC TE	With FTC TE with RD Alt[2]
Avenida Vista Hermosa								
Widen Vista Hermosa to add travel lanes and carry additional capacity. This mitigation will require the acquisition of public right of way.	Between Calle Frontera and Via Turqueza	X	X	X	X		X	X
	Between Via Turqueza and Camino Vera Cruz	X					X	X
	Between Camino Vera Cruz and Avenida La Pata	X					X	X
Camino De Estrella								
Widen Camino De Estrella to add travel lanes and carry additional capacity. This mitigation will require the acquisition of public right of way.	Between I-5 NB on/off ramp and Camino El Molino	X	X	X	X	X	X	X
Avenida Pico								
Widen Avenida Pico to add travel lanes and carry additional capacity. This mitigation will require the acquisition of public right of way.	Between I-5 NB on/off ramp and Avenida Presidio	X	X	X	X	X	X	X
	Between Avenida Presidio and Calle del Cerro	X	X	X	X	X	X	X
	Between Calle del Cerro and Calle Amanecer	X					X	X
	Between Calle Amanecer and Camino Vera Cruz	X					X	X
Avenida La Pata								
Widen Avenida La Pata to add travel lanes and carry additional capacity. This mitigation will require the acquisition of public right of way.	Between Calle Saluda and Avenida Vista Hermosa	X					X	X
Coast Highway								
Widen Coast Highway/El Camino Real to add travel lanes and carry additional capacity. This mitigation will require the acquisition of public right of way.	Between Camino Capistrano and Camino San Clemente	X	X		X		X	

Table 1-7 Summary of Roadway Segment Impacts and Mitigation Measures

Mitigation Measure	Roadway Segment	Scenario						
		No FTC	With FTC	With FTC and RD Alt[1]	With FTC and RD Alt [2]	With FTC and RD Alt [3]	With FTC TE	With FTC TE with RD Alt[2]
El Camino Real								
Widen Coast Highway/El Camino Real to add travel lanes and carry additional capacity. This mitigation will require the acquisition of public right of way.	Between Camino San Clemente and Avenida Estacion	X	X	X	X	X	X	X
	Between Avenida Estacion and Avenida Pico	X	X		X		X	X
	Between Avenida Pico and Los Molinos	X	X	X	X	X	X	
	Between Los Molinos and Calle Las Bolas	X	X	X	X	X	X	
	Between Calle Las Bolas and Avenida De La Grulla	X	X	X	X	X	X	X
	Between Avenida De La Grulla and Avenida Aragon	X	X		X	X	X	X
	Between Avenida Aragon and El Portal	X	X		X	X	X	X
	Between El Portal and Canada				X	X		X
	Between Canada and Escalones				X	X		X
	Between Escalones and Mariposa				X	X		X

Source: Fehr and Peers, 2013.
Note: Only roadway segments which experience an impact under the analyzed scenarios are listed.
X = significant impact, FTC = Foothill Transit Corridor, RD = road diet, TE = Tesoro extension, ALT=alternative

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 prior to taking action on those projects. This Draft Environmental Impact Report (DEIR) has been prepared to satisfy CEQA, as set forth in the Public Resources Code Section 21000, et seq., and the State CEQA Guidelines, 14 California Code of Regulations, Section 15000, et seq. The Environmental Impact Report (EIR) is the public document designed to provide decision-makers and the public with an analysis of the environmental effects of the proposed project, to indicate possible ways to reduce or avoid environmental damage and to identify alternatives to the project. The EIR must also disclose significant environmental impacts that cannot be avoided, growth inducing impacts, effects not found to be significant, and significant cumulative impacts.

Pursuant to CEQA Section 21067, the Lead Agency means "the public agency which has the principal responsibility for carrying out or approving a project which may have a significant effect upon the environment." The City of San Clemente has the sole responsibility for taking final action on San Clemente's Draft Centennial General Plan ("proposed General Plan") and is the lead agency for this project.

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

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

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

The overall purpose of this DEIR is to inform the lead agency, responsible agencies, decision makers, and the general public of the environmental effects of the development and operation of the proposed General Plan.

2.2 NOTICE OF PREPARATION AND INITIAL STUDY

The City of San Clemente determined that an EIR would be required for this project and issued a Notice of Preparation (NOP) and Initial Study on April 8, 2013 (See Appendix B). Comments received during the Initial Study public review period, which extended from April 8, 2013 to May 7, 2013, are contained in Appendix B.

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

2.3 SCOPE OF THIS DEIR

The scope of the DEIR was determined based upon the City of San Clemente's Initial Study, comments received in response to the NOP, and comments received at the scoping meeting conducted by the City on April 25, 2013. Pursuant to Sections 15126.2 and 15126.4 of the CEQA Guidelines, the DEIR should identify any potentially significant adverse impacts and recommend mitigation that would reduce or eliminate these impacts to less than significant levels.

This is a program EIR. Pursuant to Section 15168 of the CEQA Guidelines, a program EIR is an EIR that may be prepared on a series of actions that can be characterized as one large project and related in connection with a plan or regulation, such as a general plan. Program EIRs focus the analysis on big pictures issues affecting the entire plan area. The information in the Project Description (see Chapter 3) establishes the basis for analyzing future project-related environmental impacts. However, further environmental review by the City may be required as more detailed information and plans are submitted on a project-by-project basis following approval of the General Plan.

This DEIR has been prepared to evaluate potentially significant impacts associated with implementation of the proposed General Plan. The San Clemente General Plan's policies and programs, existing regulations and standard conditions, and mitigation measures have been identified to either reduce or eliminate potentially significant impacts. The focus of the impact analysis is on those areas where land use or physical changes are proposed that may result in environmental impacts (e.g., areas where land use changes are proposed) and on ensuring that development and improvement activities are consistent with the General Plan. In addition, the DEIR describes a range of reasonable alternatives to the project that could feasibly attain the project's basic objectives while substantially avoiding or lessening significant impacts. It also evaluates the comparative merits of the alternatives and the proposed project.

2.3.1 Impacts Considered Less Than Significant

Two environmental impact categories were identified as not being significantly affected by or affecting the proposed General Plan, based on the Initial Study. The following topical issues are not addressed in the DEIR:

- Agriculture and Forestry Resources
- Mineral Resources

2.3.2 Potentially Significant Adverse Impacts

Fifteen environmental factors have been identified as potentially significant impacts of the proposed project. These factors are:

- Aesthetics
- Air Quality
- Biological Resources
- Cultural Resources
- Geology/Soils
- Greenhouse Gas Emissions
- Hazards & Hazardous Materials
- Hydrology/Water Quality
- Land Use/Planning

- Noise
- Population/Housing
- Public Services
- Recreation
- Transportation/Traffic
- Utilities/Service Systems

2.3.3 Unavoidable Significant Adverse Impacts

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

- Air Quality
- Greenhouse Gas Emissions
- Noise
- Transportation/Traffic

2.4 INCORPORATION BY REFERENCE

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

- *City of San Clemente General Plan*, 1993.

This DEIR also relies on previously adopted regional and statewide plans and programs, agency standards, and background studies in its analysis, such as the City's Municipal Code, the South Coast Air Quality Management District (SCAQMD) Air Quality Management Plan, and SCAQMD's *CEQA Air Quality Handbook*. Whenever existing environmental documentation or previously prepared documents and studies are used in the preparation of this DEIR, the information is summarized for the convenience of the reader and incorporated by reference. In addition, each section that relies on previously adopted plans, programs, environmental documentation, and background studies notes how it specifically relates to the proposed project and that the information has been reconfirmed. These documents and other referenced source material in this DEIR will be made available to the public for inspection at the City upon request, at the City of San Clemente, 910 Calle Negocio, Suite 100, San Clemente, CA 92673.

2.5 FINAL EIR CERTIFICATION

This DEIR is being circulated for public review for a period of 45 days. Interested agencies and members of the public are invited to provide written comments on the DEIR to the City at the address shown on the title page of this document. Upon completion of the 45-day review period, the City of San Clemente will review all written comments

received and prepare written responses for each comment. A Final EIR (FEIR) will be prepared incorporating all of the comments received, responses to the comments, and any changes to the DEIR that result from the comments received. This FEIR will be presented to the City of San Clemente for potential certification as the environmental document for the project. All persons who commented on the DEIR will be notified of the availability of the FEIR and the date of the public hearing before the City.

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

- City of San Clemente, Planning Department, 910 Calle Negocio, Suite 100, San Clemente, CA 92673
- San Clemente Library, 242 Avenida Del Mar, San Clemente, CA 92672
- http://san-clemente.org

2.6 MITIGATION MONITORING

Public Resources Code Section 21081.6 requires that agencies adopt a monitoring or reporting program for any project for which it has made findings pursuant to Public Resources Code 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 General Plan will be completed as part of the Final EIR prior to consideration of the project by the San Clemente City Council.

3. *Project Description*

3.1 PROJECT LOCATION

The City of San Clemente is located in the southeastern corner of Orange County. San Clemente is surrounded by the Pacific Ocean to the southwest, the cities of Dana Point and San Juan Capistrano to the northwest, unincorporated areas of Orange County to the north, and San Onofre State Beach and Camp Pendleton in unincorporated San Diego County to the southeast (see Figure 3-1, *Regional Vicinity*). An aerial photograph of the City and surrounding area is shown on Figure 3-2, *Citywide Aerial*. Existing land uses in the City are shown on Figure 3-3. The City's incorporated boundaries encompass approximately 18.4 square miles or 11,754 acres.

Regional access to the City is provided by Interstate 5 (I-5). The I-5 bisects the City, connecting it with other Orange County communities, Los Angeles County to the northwest, and San Diego County to the southeast. A rail line used by Metrolink and Amtrak also traverses the City, parallel and adjacent to the Pacific Ocean.

3.2 STATEMENT OF OBJECTIVES

The City established the following objectives for the San Clemente Centennial General Plan project to aid decision-makers in their review of the project and associated environmental impacts:

- Provide a new General Plan that establishes the goals and policies to create a built environment that fosters the enjoyment, financial stability, and well-being of the entire community.
- Craft a General Plan that is a living, web-based document, designed to adjust continuously to new opportunities and challenges.
- Integrate environmental analysis in the early planning phases, creating a self-mitigating General Plan, to the extent feasible.
- Create a plan that promotes sustainable economic vitality and fiscal responsibility.
- Identify and plan new opportunities for infill growth in key focus areas of the City. Opportunities must reflect the City's vision and be consistent with the Guiding Principles (below) established early on during the planning process.
    - **Small-Town Feel.** Maintain San Clemente's small-town feel: where neighbors know neighbors and merchants, the scale of the built environment does not overwhelm, and the downtown "T-Zone"—the heart of the Spanish village by the sea—is everybody's neighborhood.
    - **Arts/Culture**. Celebrate and cultivate San Clemente's surf, beach, and arts culture, through community events, preservation of landmarks, and support of the arts community.
    - **Public Safety.** Maintain and enhance personal safety (real and perceived), and maintain preparedness for catastrophic events.

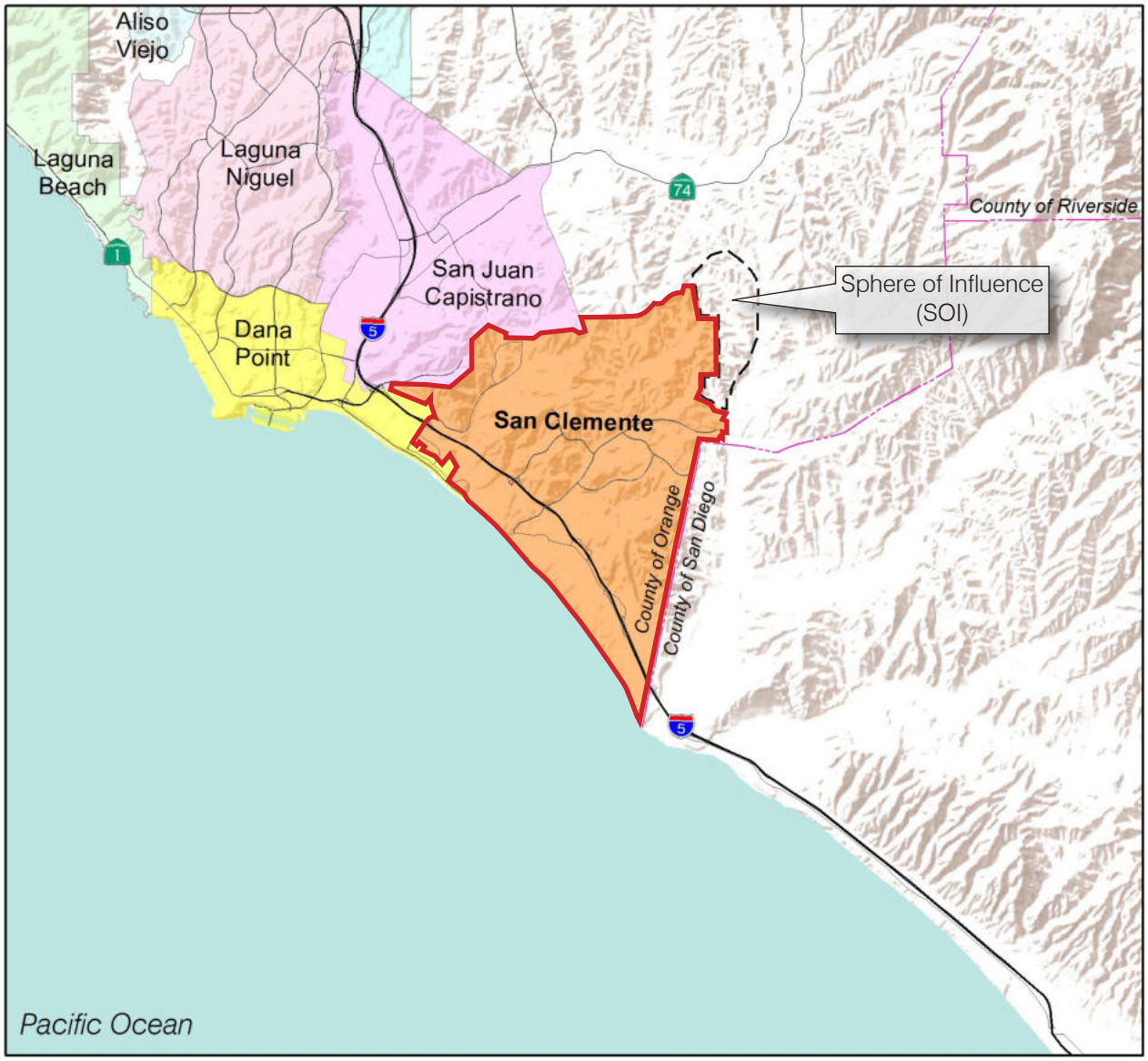
- **Beach and Ocean.** Protect and create spaces and places to enjoy a memorable beach experience on and off the sand.
- **Education and Information.** Seek out and provide a state-of-the-art, comprehensive life-long learning and information environment.
- **Mobility.** Develop and maintain programs and efficient connective transportation networks (e.g., pathways, trails, roads, transit, and telecommuting) that satisfy competing needs for the movement of people and goods.
- **Natural Environment.** Preserve and enhance natural resources and open space, prevent and reduce pollution, and protect the public's vistas of and access to coastal, hillside, and canyon lands.
- **Fiscal Sustainability.** Practice economically and fiscally responsible municipal decision making to avoid shifting today's costs to future generations.
- **Economic Prosperity.** Promote economic growth and prosperity that leverages our local assets and complements the other guiding principles.
- **Historic Architecture/Preservation.** Preserve and restore historic resources to showcase the city's authentic local identity and catalyze economic activity.

- Support mixed use development where it is compatible with surrounding uses.
- Reconcile General Plan buildout projections with regional and subregional estimates for growth.
- Incorporate housing sites identified in the adopted Housing Element with the Land Use Element.
- Ensure consistency with AB 32, SB 375 and other recent State mandates.
- Incorporate new goals, policies, and programs that balance multiple modes of transportation and meet the requirements of the Complete Streets Act.
- Ensure that roadway design, transit systems, and nonmotorized transportation systems are balanced against the context of the places that they are serving or attempting to connect.

3.3 PROJECT CHARACTERISTICS

"Project," as defined by the CEQA Guidelines, means "the whole of an action, which has a potential for resulting in either a direct physical change in the environment, or a reasonably foreseeable indirect physical change in the environment, and that is any of the following: (1)…enactment and amendment of zoning ordinances, and the adoption and amendment of local General Plans or elements thereof pursuant to Government Code Sections 65100-65700" (14 Cal. Code of Reg. 15378[a]). This DEIR compares the buildout potential for the proposed land use plan with the existing baseline condition.

Regional Vicinity



City Boundary

County Boundary

Sphere of Influence (SOI)

0 3

Scale (Miles)

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Citywide Aerial

Source: Google Earth Pro 2011

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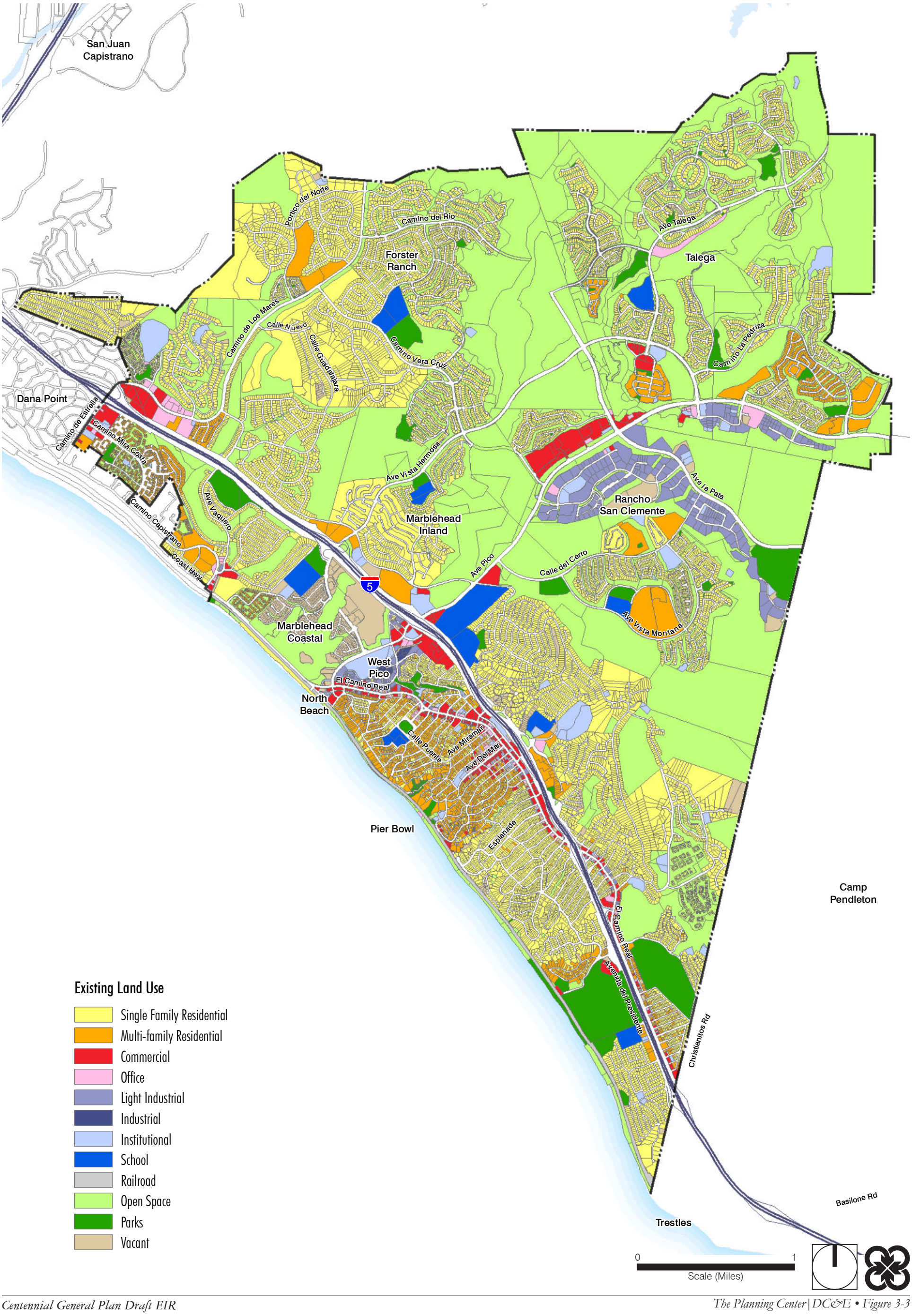
Existing Land Use



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3.3.1 Adopted General Plan (1993 General Plan)

The current General Plan (1993 General Plan) for the City of San Clemente was adopted in 1993 and is summarized in Table 3-1. In the 1993 General Plan, five designations regulate residential development at densities between a minimum of one dwelling unit per 20 gross acres (or one unit per legal parcel of record) to a maximum of 24 units per gross acre. Seven commercial land use designations regulate retail, service, and office uses, ranging from neighborhood-serving to regional-serving commercial development. Twelve mixed-use designations permit a mix of residential, commercial, institutional, and other uses. These mixed-use designations were strategically applied to specific areas of the City to establish vibrant, pedestrian-oriented activity centers and to provide housing opportunities near jobs and services. In addition, the 1993 General Plan includes two land use designations that regulate industrial uses, two designations that regulate parking and public uses, one regulating private institutions, and five that regulate open space. Three special overlay districts are also designated: 1) The Pedestrian Overlay District, which provides standards to promote pedestrian activity, 2). the Architectural Design Overlay District, which requires that new buildings and major remodels conform to the Spanish Colonial Revival architectural style, as defined by the General Plan's Urban Design Element, and 3) the Affordable Housing Overlay, which allows property owners the option of including affordable housing on their properties, including the possibility of City approval of affordable incentives and/or requirements.

Table 3-1 1993 General Plan Land Use Summary

Land Use Designation	Maximum Density/Intensity	Acres	% of Total
Residential			
Very Low Density (RVL)	1 du/20 ac or 1 du/parcel	92.55	0.8%
Low Density (RL)	4.5 du/ac	3,088.38	26.3%
Medium Low Density (RML)	7 du/ac	593.93	5.1%
Medium Density (RM)	15 du/ac	529.63	4.5%
High Density (RH)	24 du/ac	57.50	0.5%
Subtotal	**N/A**	**4,361.99**	**37.1%**
Commercial			
Neighborhood Serving (NC)	0.35 FAR	116.54	1.0%
Community Serving (CC)	Varies by height (see General Plan)	104.55	1.0%
Regional Serving 1 (RC 1)	0.50 FAR	3.33	0.0%
Regional Serving 2 (RC 2)	2.00 FAR	0.0	0.0%
Coastal and Recreation Serving (CRC)	1.00 or 1.50 FAR (see General Plan)	7.53	0.0%
Coastal and Recreation Serving 2 (CRC 2)	1.00 FAR		
Coastal and Recreation Serving 3 (CRC 3)	0.35 FAR		
Subtotal	**N/A**	**231.95**	**2.0%**
Mixed Use			
Mixed Use (MU 1, 1.1, 1.2, 2, 3, 4.1, and 4.2)	Varies by sub-category (see General Plan)	417.38	3.6%
Mixed Use 4.3 (MU 4.3)	1.00 FAR	2.40	0.0%
Mixed Use 5.1 (MU 5.1)	0.35 FAR	11.88	0.1%
Mixed Use 5.2 (MU 5.2)	Varies by use (See General Plan)	0.55	0.0%
Mixed Use 5.3 (MU 5.3)	0.50 FAR	0.0	0.0%
Mixed Use 5.4 (MU 5.4)	0.50 FAR	0.0	0.0%

Table 3-1 1993 General Plan Land Use Summary

Land Use Designation	Maximum Density/Intensity	Acres	% of Total
Subtotal	**N/A**	**432.21**	**3.7%**
Industrial			
Industrial 1 (I1)	0.35 FAR	17.94	0.2%
Industrial 2 (I2)	0.50 FAR	288.17	2.4%
Industrial 3 (I3)[1]	0.75 FAR	42.83	0.4%
Subtotal	**N/A**	**348.94**	**3.0%**
Open Space			
Open Space 1 (OS 1)	N/A	588.82	5.0%
Open Space 2 (OS 2)	N/A	1,911.86	16.3%
Open Space 3 (OS 3)	N/A	1,009.57	8.6%
Golf Course (OSC)	To be determined on an individual basis	614.32	5.2%
Talega Reserve (OSR)	N/A	184.82	1.6%
Subtotal	**N/A**	**4,309.39**	**36.7%**
Other			
Institutional	To be determined on an individual basis	20.14	0.2%
Public (P)	N/A	341.44	2.9%
Civic Center (CVC)	0.35 FAR	2.71	0.0%
Right-of-way (ROW)	N/A	447.51	3.8%
Right-of-way (ROW) outside of parcels[2]	N/A	1,257.72	10.7%
Subtotal	**N/A**	**2,069.52**	**17.6%**
	TOTAL	**11,754.00**	**100.0%**

Source: City of San Clemente General Plan, 1993.
du/ac - dwelling unit per acre
FAR - floor area ratio
[1] GIS data identifying parcels as Industrial 4, 5, and 6 were counted as Industrial 3.
[2] A majority of ROW in the City does not consist of parcels and is therefore not included in digital parcel information. Acreage for the "Right-of-way outside of parcels" land use category was calculated by subtracting all parcels in the City from the City's total acreage, since ROW is the only land use not accounted for within parcels.

In addition to generalized land use designations, 15 special districts are identified in the 1993 General Plan. Goals, objectives, and policies provide greater specificity for these districts and expand upon the basic policies and standards established for individual land uses.

Buildout of the adopted general plan was estimated to determine the total intensity that would be allowed for each land use. Buildout of the 1993 General Plan would allow for: 29,054 residential units, 5,058,456 square feet (sf) of retail, 7,615,574 sf of office, 3,007,941 sf of industrial, and 1,711,074 sf of institutional uses. Of this total 89 percent of the total residential units have been built and 46 percent of the total nonresidential square footage has been built. Given the relatively built-out nature of the City today, this does not mean that 11 percent of residential areas and 54 percent of nonresidential areas are vacant or undeveloped. While some parcels are indeed vacant, the majority of this remaining development capacity is due to the fact that many of these areas have been built out significantly below the maximum allowable densities or intensities. This "unrealized development potential" is attributable to various development constraints including but not limited to market demand at the time of development, lot configuration, slope, environmental constraints, more restrictive development standards, parking limitations, among other factors.

Description of the Project

The proposed project includes four components: 1) a new San Clemente "Centennial" General Plan ("proposed General Plan") that meets California Code requirements for a general plan, 2) a Strategic Implementation Program that implements the goals and policies of the General Plan, 3) the San Clemente Bicycle and Pedestrian Master Plan, and 4) the Climate Action Plan. Each of these components is discussed below.

Centennial General Plan

The proposed General Plan revises the 1993 General Plan land use map, elements required by the State of California, and optional elements. The exception is the Housing Element, which was adopted separately in July 2011. The Housing Element is not being updated with this project but will be updated separately in accordance with State requirements. The proposed General Plan connects intent with action by setting goals and policies that guide the City's long-term growth and development. A description of the policy elements are provided under "General Plan Elements," below. Figure 3-4, *Proposed Land Use Plan*, shows how land uses would be distributed in the proposed General Plan. The land use designations guide and regulate land use patterns, distributions, densities, and intensities.

General Plan Elements

The proposed General Plan has twelve elements, six of which are mandated by state law. As noted previously, the housing element was adopted in 2011. The elements establish official City policy to guide future development. The new policies for each of the general plan elements are listed in Appendix H. The proposed General Plan would reorganize the 1993 General Plan into the following elements:

- The **Beaches, Parks and Recreation Element** provides goals and policies aimed at the preservation and enhancement of San Clemente's beaches, parks, and recreation resources and programs. The Element also addresses San Clemente's open spaces and trails and provides policy direction for the acquisition, development, operation, and maintenance of these facilities.

- The **Coastal Element** provides goals and policies to protect, maintain, and enhance the coastal zone environment; maximize access to the coast and its recreational resources; and prioritize coastal-dependent and coastal-related development over other forms of development. Together with an Implementation Program that includes the zoning ordinance, specific plans, and other implementing documents, the Coastal Element fulfills a portion of the State requirements for San Clemente's Local Coastal Program (LCP).

- The **Economic Development Element** establishes goals and policies to guide decisions about public and private investment in and opportunities for improved quality of life through economic growth.

- The **Growth Management Element** addresses the location, timing, and type of development within and outside City limits. The Orange County Transit Authority (OCTA) countywide traffic improvement and congestion management plans and programs require all cities in Orange County to adopt general plan Growth Management Elements to be eligible for transportation grant funds (Measure M and M2 funding), and this Element meets that requirement. It is also needed to ensure that adequate infrastructure and services are available as the City and areas on the City's urban fringe develop.

- The **Historic Preservation Element**'s goals, policies, and related implementation measures are intended to help preserve San Clemente's heritage. More specifically, the Element addresses historic preservation for economic development, heritage promotion, incentives for historic preservation, and regulations.

- The **Land Use Element** describes objectives, policies, and programs for areas within San Clemente's boundaries in both narrative and graphic terms and establishes development criteria and standards. It describes the allowed types, configurations, and locations of land uses, including residential, commercial, mixed-use, industrial, open

space, recreation and public uses. The Element also describes density and intensity standards and a variety of goals and policies that help guide public and private land use actions. Specific "focus areas" were integrated into the Land Use Element of the General Plan, as described below.

Focus Areas

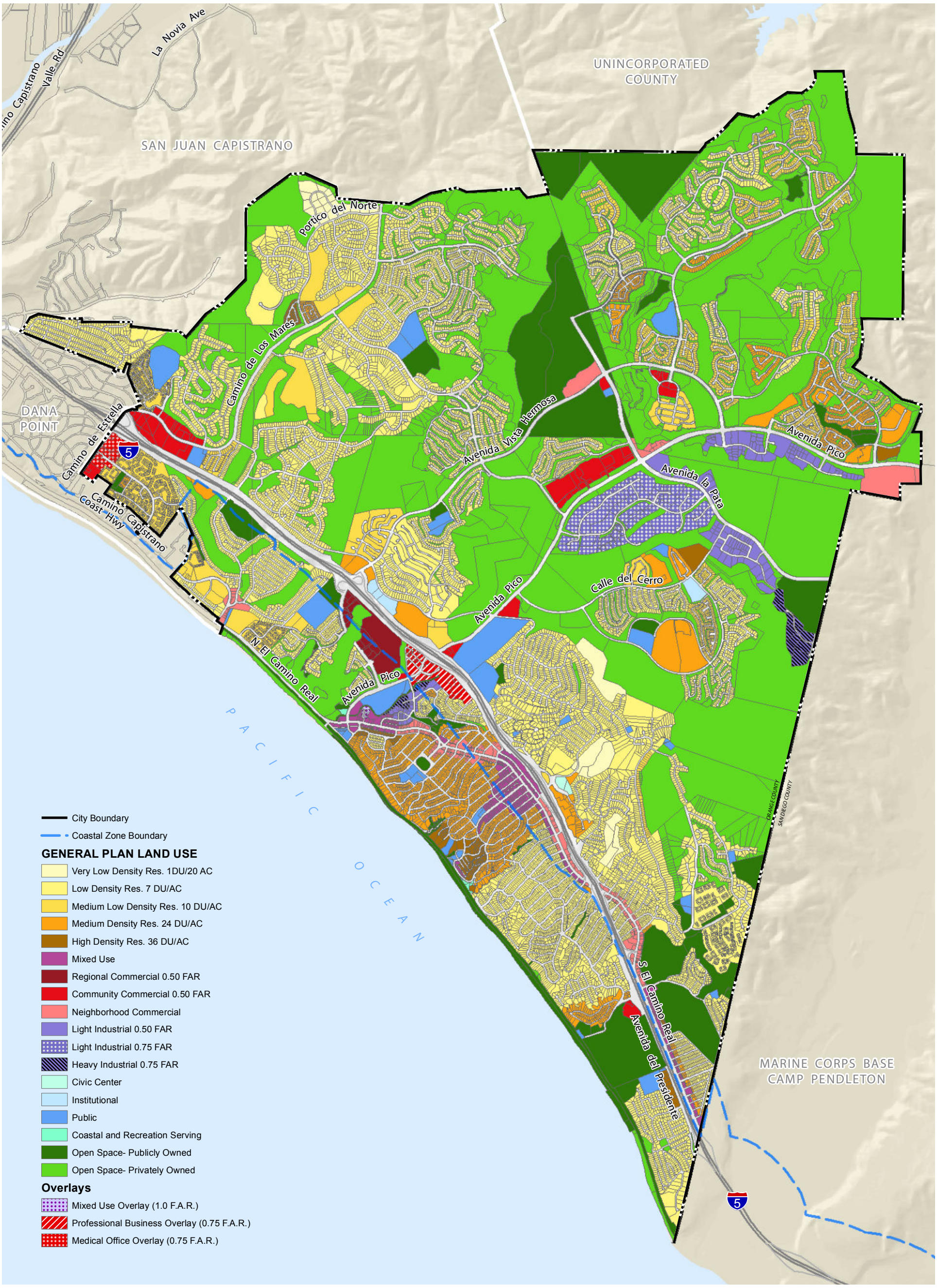
Proposed changes in land use and land use intensity are located predominantly in eight "focus areas" shown on Figure 3-5, Focus Areas. These areas are summarized in Table 3-2 and described in more detail in the text that follows.

Table 3-2 Proposed General Plan Focus Area Changes

Land Use Changes	
Camino de Estrella/Camino de Los Mares	Creates new Medical Office Overlay south of I-5 that increases the maximum floor area ratio (FAR) for areas designated Community Commercial from 0.5 to 1.0 north of Camino Mira Costa and 0.75 to the south to accommodate medical office expansion with supporting retail.
Rancho San Clemente Business Park	Increases the maximum FAR from 0.50 to 0.75 in a portion of this area, as shown on Figure 3-5, to accommodate new and expanded businesses and provide employment opportunities.
Los Molinos	Creates a Professional Business Overlay in the area adjacent to I-5 to shift primary uses from retail to office, allow for an institutional campus anchor, concentrate retail uses along Pico, and increase the maximum FAR to 0.75.
	Requires future development in this area to include potential for a future rail transit station and to ensure consistency with the affordable housing overlay identified in the Housing Element.
North Beach/North El Camino Real	Creates a Mixed Use Overlay for a portion of the site on Calle Lago to allow for a horizontal or vertical mix of commercial and residential uses while allowing industrial uses per the underlying Industrial land use designation.
	Includes a Mixed Use designation at El Portal to allow horizontal or vertical mix of commercial and residential uses.
	Increases Neighborhood Commercial FAR along El Camino Real from 0.35 to 0.50 to incentivize development of vacant lots and transition of auto-related uses.
Del Mar/T-Zone	Maintains requirement for ground floor retail for areas along Avenida Del Mar and El Camino Real, but provides increased flexibility for uses in other areas. Areas outside of and adjacent to buildings along Del Mar and El Camino Real would transition to encourage ground-floor service/office and limited retail with residential and office above. Portions of the perimeter areas would encourage ground-floor residential, lodging, service, and office uses with residential or lodging above.
Pier Bowl	Removes Mixed Use designation from the east side of Coronado Lane to reflect current residential uses.
South El Camino Real Area (West of Interstate 5)	Provides Mixed Use designation on the west side of the corridor to encourage the horizontal and vertical mix of residential, retail, and office uses, and maximizes views of the Pacific Ocean while preserving public views from I-5.
	Increases the FAR for Neighborhood Commercial uses south of Cadiz from 0.35 to 0.50 and north of Cadiz to 0.75, with a greater emphasis on office uses.
South El Camino Real (East of Interstate 5)	No land use changes are proposed, but new policies are included to promote the vision for the area as a visitor- and local-serving corridor and as a hub to a wealth of outdoor recreation.
Other Areas	Shorecliffs golf course site: changes land use designation from Commercial (Coastal and Recreation Serving), which allows hotel and ancillary facilities, to Medium-Density or High Density Residential, to help meet state-mandated housing element requirements. Housing Element Affordable Housing Sites: The Housing Element calls for the City to consider applying an affordable housing overlay on a number of sites to accommodate affordable housing yet allow the underlying land use designation. Include additional areas identified in the Housing Element and identified by the Planning Commission.

Source: The Planning Center|DC&E, with changes recommended by City Staff, the General Plan Advisory Committee and Planning Commission. City Council directed Staff and the consultant team to use these changes as the basis for the EIR.

Proposed Land Use Plan



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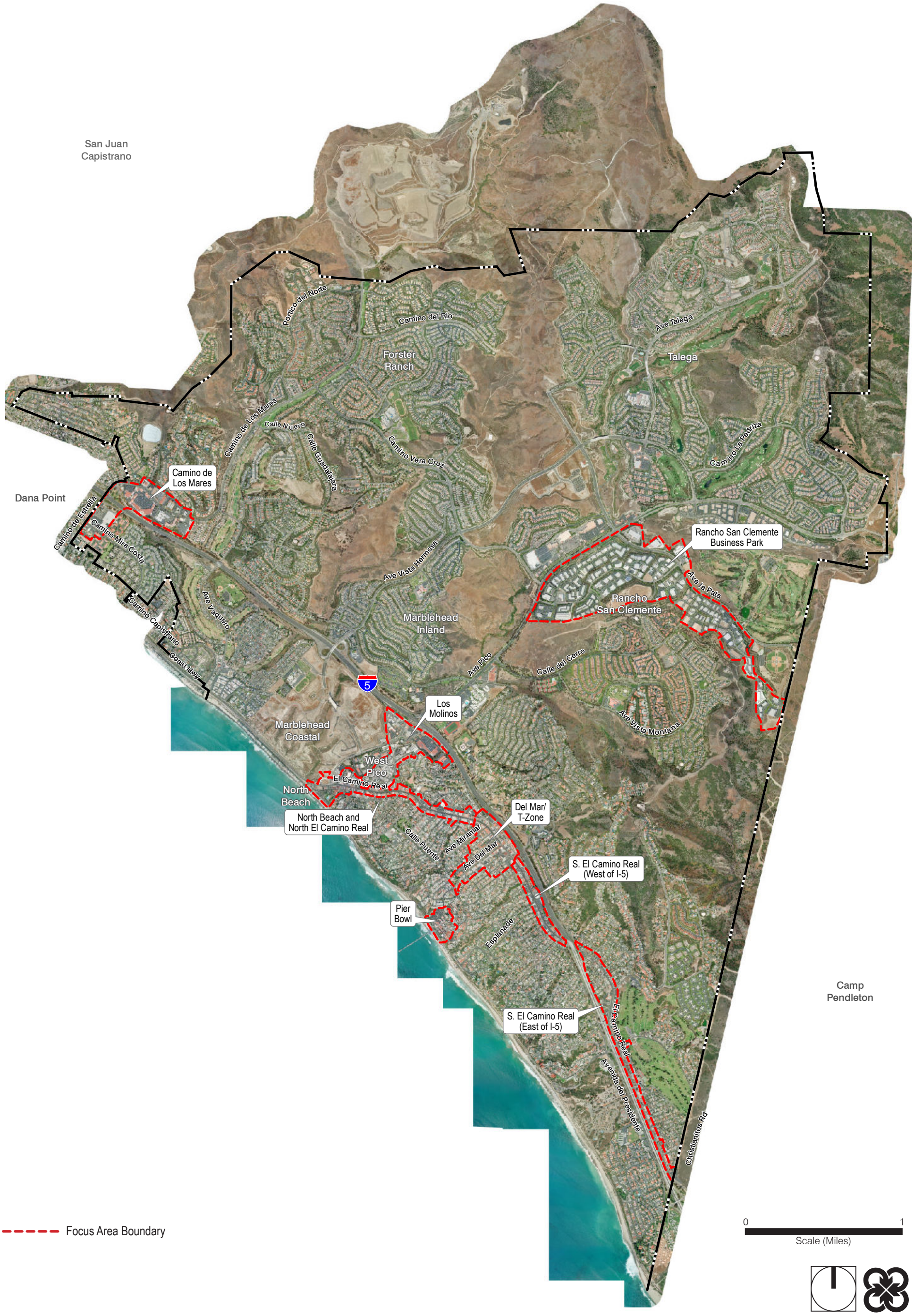
Focus Areas


San Juan Capistrano
Dana Point
Camino de Los Mares
Portico del Norte
Camino del Rio
Forster Ranch
Ave Talega
Talega
Mares
Camino de Los Mares
Calle Nuevo
Calle Guadalajara
Camino Vera Cruz
Camino La Pedriza
Camino de Los Mares
Camino de Estrella
Camino Mira Costa
Camino Capistrano
Coast Hwy
Ave Vaquero
Ave Vista Hermosa
Marblehead Inland
Rancho San Clemente Business Park
Rancho San Clemente
Ave La Pata
Ave Pico
Calle del Cerro
Ave Vista Montana
5
Los Molinos
Marblehead Coastal
West Pico
El Camino Real
North Beach
North Beach and North El Camino Real
Del Mar/ T-Zone
Calle Puente
Ave Miramar
Ave Del Mar
S. El Camino Real (West of I-5)
Pier Bowl
Esplanade
S. El Camino Real (East of I-5)
El Camino Real
Avenida del Presidente
Christianitos Rd
Camp Pendleton
Focus Area Boundary
0
1
Scale (Miles)

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- The **Mobility and Complete Streets Element** addresses the identification, location, and extent of existing and proposed major thoroughfares, transportation routes, trails, multimodal transportation options, and local public utilities and facilities. It is correlated with the Land Use Element. The bicycle- and pedestrian-related goals and policies are also implemented through the San Clemente Bicycle and Pedestrian Master Plan.

- The **Natural Resources Element** establishes goals and policies to preserve and enhance the City's biological, aesthetic, archaeological, mineral, air quality, and energy resources. Related goals and policies regarding our urban forest, water resources, solid waste management, and historic resources are included in the Urban Design; Public Services, Facilities and Utilities; and Historic Preservation Elements.

- The **Public Services, Facilities and Utilities Element** addresses a full range of topics, including education, library facilities, arts and culture, human services, water systems and water quality, solid waste and recycling, and energy resources. Emergency services are covered in the Safety Element. The goals and policies of this Element are aimed at the effective management of resources and facilities that are essential to individual and community well-being and to San Clemente's ability to attract and retain residents and businesses.

- The **Safety Element** identifies seismic, geologic, flood, radiological, and wildfire hazards and establishes policies to protect the community. The Element also provides guidance related to noise conditions and identifies goals and policies to mitigate and adapt to nuisance noise in San Clemente.

- The **Urban Design Element** focuses on the physical and design characteristics of human-made urban features that unify San Clemente: public places, gateways, architecture, landscaping, public views, and the City's urban forest. Additional design goals and policies that are tailored to individual areas of the City are included in the "Focus Areas" section of the Land Use Element.

- The **Governance Element** is about good government and outstanding customer service. It establishes policies that help ensure open, fair, and informed decision making. It also guides how City staff 1) communicates internally, with the public, and with business, 2) allocates resources, and 3) follows adopted policies to make decisions. Elected and appointed City leaders, citizens, business people, investors, and staff will use this Element to understand how citizens help shape policies and decisions that affect them.

Strategic Implementation Program

The Strategic Implementation Plan implements the new General Plan by providing a framework to connect day-to-day and short-term actions to long-term goals. Strategic Implementation Plan policies require the City Council to prioritize actions for implementing the Centennial General Plan, require on-going monitoring of development to ensure consistency with City master plans, and the City shall monitor and report progress in achieving the goals of the Centennial General Plan. The City must prepare an Annual Report on the status of the General Plan. This approach ensures that the Centennial General Plan evolves over time and responds to changing conditions. It provides an institutional framework to annually revisit the General Plan, gauge its continuing relevance, and recommit activities and investments to the community's long-term vision.

San Clemente Bicycle and Pedestrian Master Plan

The Bicycle and Pedestrian Master Plan (BPMP) establishes goals and policies for San Clemente's system of bike pedestrian facilities and identifies the need to integrate with the existing system of regional bikeways in the southern Orange County area. It also provides broad recommendations to improve the overall walking environment.

The BPMP is integrated with the City's Mobility and Complete Streets Element to comply with the California Complete Streets Act of 2008, thereby helping create a balanced multimodal transportation system. The BPMP incorporates text, maps, and graphics highlighting project research, best practices, and outreach. This BPMP is consistent with and supports General Plan goals and policies that address cyclists, pedestrian, and multimodal transportation.

Climate Action Plan

The Climate Action Plan (CAP) is the first step in the City's development of a long-range, comprehensive plan to move from "business-as-usual" growth practices to an environmentally and economically sustainable growth model. With that objective, the CAP provides a "roadmap" to reduce municipal and community emissions. It does this by setting a series of goals, policies and actions to reduce emissions, such as reducing vehicle miles traveled by encouraging the use of electric vehicles. It also encourages planting new trees. The effects of global climate change include increased air pollution, diminished water supplies, higher seasonal temperatures, sea level increases, coastal erosion, and potential loss of protected species and habitats. In response, this CAP evaluates community and government emissions and establishes a plan to minimize emissions across households, businesses, and the government.

The CAP includes San Clemente's "greenhouse gas inventory" and establishes citywide GHG reduction targets for 2020 and 2030. To achieve these targets, the CAP includes a series of strategies designed to reduce citywide emissions. No specific development projects are proposed as part of the 2012 CAP and no changes are proposed in existing land use zones, densities, or land use regulations. This CAP is consistent with the land uses envisioned in the new Centennial General Plan and does not require zoning or changes to the land use designation of any specific property, nor does it require changes to the Zoning Ordinance that would increase residential density, result in development not envisioned in the General Plan, or remove policies that protect environmental resources.

The CAP is a policy document that provides policy direction and identifies actions for the City and community to take to reduce Greenhouse Gas Emissions (GHG), consistent with California Assembly Bill 32 and Executive Order S-3-05. The CAP establishes strategies and guidelines for implementation to reduce San Clemente's GHG emissions through ten actions in three categories. The CAP covers:

- Forecasted impacts of climate change
- Summary of state legislation governing climate change
- GHG baseline inventory, 2020 and 2030 forecasts, and community emissions target
- Climate Action Plan organized by energy, transportation, and waste
- Implementation and monitoring mechanisms

Climate Action Strategies

The CAP includes GHG reduction strategies categorized by: energy consumption, transportation, and solid waste.

- The **Energy Consumption** strategies aim to minimize energy consumption by creating high performance buildings and transitioning to clean/renewable energy sources.

- The **Transportation** strategies focus on reducing vehicle miles traveled (VMT) in San Clemente through creating an interconnected transportation system and promoting land use patterns that shift travel from auto to walking, biking, and public transit.

- The **Solid Waste** strategy reduces waste production and diverts community waste from landfills to recycling facilities.

Physical Development under the Proposed General Plan

Pursuant to CEQA Guidelines Section 15064(d), this EIR determines whether there are direct physical changes and reasonably foreseeable indirect physical changes in the environment that would be caused by the Centennial General Plan. Specifically this EIR focuses on impacts from changes to land use associated with buildout of the Proposed Land Use Plan (see Figure 3-4) and impacts from the resultant population and employment growth in the City. The Centennial General Plan's Proposed Land Use Plan for the ultimate development of the City is not tied to a specific timeline. For the purposes of this environmental analysis, however, buildout of the Proposed Land Use Plan is assumed to be the year 2035.

The proposed General Plan generally follows the land uses and development intensities already allowed in the adopted General Plan, with the exception of limited changes in land use and development intensity in some of the designated "Focus Areas" described below. The proposed General Plan would result in an increase of 514 residential units and 746,439 sf of nonresidential uses over the adopted 1993 General Plan; however, this EIR must analyze potential impacts of buildout of the proposed General Plan compared to existing land uses.

The proposed San Clemente Centennial General Plan buildout would allow for 29,567 residential dwelling units, 4,428,332 square feet of retail use, 8,834,477 square feet of office use, 2,981,980 square feet of industrial use, and 1,894,695 square feet institutional use. Table 3-3 summarizes the proposed land use designations and summarizes the acreage for each designation. Table 3-4 shows a comparison between the existing land uses and the proposed land uses allowed by the Centennial General Plan. Buildout of the General Plan would result in 3,585 additional residential dwelling units and 10,094,484 additional square feet of nonresidential uses compared to existing land uses.

Table 3-3 San Clemente Centennial General Plan Buildout Projections (2035)

Land Use	Acres	Dwelling Units	Population	Square Feet				Em-ployees
				Retail	Office	Industrial	Instit-utional	
Residential								
Very Low Density (RVL)	107	33	86	-	-	-	-	-
Low Density (RL)	2,566	12,241	31,826	-	-	-	-	-
Medium Low Density (RLM)	609	4,672	12,148	-	-	-	-	-
Medium Density (RM)	518	9,645	25,078	-	-	-	-	-
High Density (RH)	61	2,117	5,506	-	-	-	-	-
Subtotal	**3,861**	**28,708**	**74,644**	**-**	**-**	**-**	**-**	**-**
Commercial								
Neighborhood Serving 1 (NC 1)	55	-	-	420,452	420,452	-	-	1,876
Neighborhood Serving 2 (NC 2)	22	-	-	287,088	192,473	-	-	1,010
Neighborhood Serving 3 (NC 3)	19	-	-	144,621	149,625	-	-	851
Community Serving 1 (CC 1)	35	-	-	305,599	305,599	-	-	1,364
Community Serving 2 (CC 2)	143	136	354	1,078,854	1,821,287	-	211,919	6,589

Table 3-3 San Clemente Centennial General Plan Buildout Projections (2035)

Land Use	Acres	Dwelling Units	Population	Square Feet				Em-ployees
				Retail	Office	Industrial	Instit-utional	
Regional Serving (RC)	52	-	-	718,143	179,536	-	-	1,666
Coastal and Recreation Serving (CRC)	<1	-	-	3,393	-	-	-	7
Subtotal	**326**	**136**	**354**	**2,958,151**	**3,068,973**	**-**	**211,919**	**13,363**
Mixed Use								
Mixed Use 1 (MU 1)	1	-	-	7,302	7,302	-	-	33
Mixed Use 2 (MU 2)	7	47	94	79,082	50,903	-	-	272
Mixed Use 3.1 (MU 3.1)	52	470	957	1,071,030	906,653	-	-	4,310
Mixed Use 3.2 (MU 3.2)	5	49	98	48,981	88,165	-	-	331
Mixed Use 4 (MU 4)	2	13	33	57,801	3,610	-	-	178
Mixed Use 5 (MU 5)	13	143	367	78,438	56,804	-	-	411
Subtotal	**80**	**722**	**1,549**	**1,342,633**	**1,113,436**	**-**	**-**	**5,535**
Industrial								
Light Industrial 1 (LI 1)	102	-	-	47,467	1,146,841	524,362	-	4,006
Light Industrial 2 (LI 2)	197	-	-	65,381	3,254,228	1,526,243	-	11,310
Heavy Industrial (HI)	40	-	-	14,700	155,066	931,376	-	1,543
Subtotal	**339**	**-**	**-**	**127,548**	**4,556,135**	**2,981,980**	**-**	**16,859**
Open Space								
Public Open Space (OS1)	971	-	-	-	-	-	-	-
Private Open Space (OS2)	4,215	-	-	-	-	-	-	-
Subtotal	**5,187**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
Other								
Institutional	18	-	-	-	-	-	267,995	536
Public	224	-	-	-	95,934	-	1,414,781	3,021
Right-of-way (ROW)	457	-	-	-	-	-	-	-
Right-of-way (ROW) outside of parcels[1]	1,262	-	-	-	-	-	-	-
Subtotal	**1,961**	**-**	**-**	**-**	**95,934**	**-**	**1,682,776**	**3,557**
TOTAL	**11,754**	**29,567**	**76,547**	**4,428,332**	**8,834,477**	**2,981,980**	**1,894,695**	**39,313**

Source: Stantec 2012.

[1] A majority of ROW in the City does not consist of parcels and is therefore not included in digital parcel information. Acreage for the "Right-of-way outside of parcels" land use category was calculated by subtracting all parcels in the City from the City's total acreage, since ROW is the only land use not accounted for within parcels.

Buildout Analyzed in the EIR versus Anticipated Buildout

This EIR conservatively examines buildout potential of all of the land uses regardless of market demand, individual site constraints, or more restrictive development standards. Combined, these factors will significantly limit development potential below what is contemplated by this environmental analysis, as was the case with the current General Plan (see previous Section 3.3.1). With respect to employment generating land uses, three Focus Areas generate the majority of new commercial and industrial square footage and employment growth capacity in the Centennial General Plan: Rancho San Clemente Business Park, Los Molinos and Camino de Los Mares. While the capacity generated by these

areas far exceeds growth forecasts, the Centennial General Plan provides flexibility as to where this growth can be accommodated—either in the existing industrial/office environment of the Rancho San Clemente Business Park, the underutilized commercial area along Camino de Estrella to accommodate new medical office potential, and/or in an institutionally-anchored professional office area in the Pico Plaza section of Los Molinos.

While it is highly unlikely that the majority of development potential of each of these areas will be realized given limited future market demand, site constraints and property owner willingness to take advantage of new overlay designations, CEQA requires that each area be analyzed at full buildout. This also allows the City to understand the potential local impacts to traffic and other infrastructure for each area.

Table 3-4 San Clemente Centennial General Plan Summary of Changes in Land Use from Existing Conditions

	Existing Land Uses				Proposed General Plan Future Buildout Projection				
Land Use	DU	Square Feet[1]	Pop-ulation	Employment	DU	Square Feet[1,2]	Pop-ulation	Employment	Change
Residential	25,982	-	-	-	29,567	-	76,547	-	3,585
Retail	-	2,328,000	-	-		4,428,332	-		2,100,332
Office	-	998,000	-	-		8,834,477	-		7,836,477
Industrial	-	4,307,000	-	-		2,981,980	-		-1,325,020
Institutional/ Other	-	412,000	-	-		1,894,695	-		1,482,695
CHANGE	**-**	**-**	**-**	**-**	***3,585***	***10,094,484***	***12,339***	***11,613***	
TOTAL	**25,982**	**8,045,000**	**64,208[3]**	**27,700[4]**	**29,567**	**18,139,484**	**76,547**	**39,313**	

Source: Stantec 2012.

[1] Nonresidential square feet.

[2] Under the "Proposed General Plan" column, nonresidential square feet projections include all types of nonresidential building space estimated for buildout of that land use category (e.g., square feet estimates for parcels designated for "industrial" uses include office and retail square feet in addition to industrial square feet).

[3] Department of Finance, http://www.dof.ca.gov/research/demographic/reports/estimates/e-1/view.php (2012).

[4] Employment Development Department, www.labormarketinfo.edd.ca.gov (2012).

Mobility

The Centennial General Plan proposes to allow for greater density development ranging from residential and office to mixed-use development in some areas of the City. Allowing for greater density generates additional vehicle trips using the street network. Therefore, seven different circulation alternatives were evaluated using a series of traffic models to consider a street network that would reduce traffic impacts and meet the primary goal of the Mobility and Complete Streets Element:

> *Create a comprehensive, multimodal transportation system that provides all users with safe connections to homes, commercial centers, job centers, schools, community centers, open spaces, recreation areas and visitor destinations.*

These scenarios range from a combination of networks with and without the completion of the Foothill Transportation Corridor (FTC), the partial completion of the FTC (called the Tesoro Extension), and proposed road diets. The scenarios are summarized below:

- **No FTC Conditions.** This scenario assumes buildout of the General Plan without implementation of the FTC. As is the case today, regional access would be provided by the I-5.

- **With FTC Conditions.** This scenario assumes buildout of the General Plan with the implementation of the FTC, which would extend the 241 Toll Road from its current location at Oso Parkway to the I-5 just south of City limits.
- **With FTC and Road Diet Alternative 1.** This scenario assumes buildout of the General Plan with the implementation of the FTC extension to the I-5 as described above, with the implementation of a road diet. Road Diet Alternative 1 consists of a 2-lane road diet on Coast Highway (North El Camino Real) between Camino San Clemente and Avenida Estacion, and a 2-lane road diet on Camino Mira Costa, between Camino De Estrella and Camino Capistrano.
- **With FTC and Road Diet Alternative 2.** This scenario assumes buildout of the General Plan with the implementation of the FTC extension to the I-5 as described above, with the implementation of a road diet. Road Diet Alternative 2 consists of a 2-lane road diet on Coast Highway (North El Camino Real and south El Camino Real), between Avenida Pico and Christianitos Road.
- **With FTC and Road Diet Alternative 3.** This scenario assumes buildout of the General Plan with the implementation of the FTC extension to the I-5 as described above, with the implementation of a road diet. Road Diet Alternative 3 would implement Road Diet Alternatives 1 and 2.
- **With FTC Tesoro Extension.** This scenario assumes buildout of the General Plan with the implementation of only the FTC Tesoro Extension scenario, which would extend the current 241 Toll Road from its current location at Oso Parkway to Cow Camp Road in the vicinity of Ortega Highway, California State Highway 74.
- **With FTC Tesoro Extension, and Road Diet Alternative 2.** This scenario assumes buildout of the General Plan with the implementation of only the FTC Tesoro Extension scenario as described above and the implementation of Road Diet Alternative 2. Road Diet Alternative 2 consists of a two-lane road diet on Coast Highway (North El Camino Real and south El Camino Real), between Avenida Pico and Christianitos Road.

3.4 INTENDED USES OF THE EIR

This is a Program EIR. It examines the potential environmental impacts of the proposed Centennial General Plan, Strategic Implementation Program, the San Clemente Bicycle and Pedestrian Master Plan, and the Climate Action Plan. This DEIR is also being prepared to address various actions by the City and others to adopt and implement the General Plan. It is the intent of the DEIR to enable the City of San Clemente, other responsible agencies, and interested parties to evaluate the environmental impacts of the proposed project, thereby enabling them to make informed decisions regarding the proposed actions. The anticipated approvals required for this project are shown on Table 3-4.

Table 3-5 Required Project Approvals

Lead Agency	Action
San Clemente City Council	• Certification of the Centennial General Plan EIR • Adoption of the Centennial General Plan • Adoption of the Strategic Implementation Program • Adoption of the San Clemente Bicycle and Pedestrian Master Plan • Adoption of the Climate Action Plan
Responsible Agencies	**Action**
Southern California Association of Governments	• Revision of regional models related to growth and development projections

4. *Environmental Setting*

4.1 INTRODUCTION

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

4.2 REGIONAL ENVIRONMENTAL SETTING

4.2.1 Regional Location

The City of San Clemente is in the southeastern corner of Orange County. As shown on Figure 3-1, *Regional Vicinity*, San Clemente is surrounded by the Pacific Ocean to the southwest; the cities of Dana Point and San Juan Capistrano to the northwest; unincorporated areas of Orange County to the north; and San Onofre State Beach and Camp Pendleton in unincorporated San Diego County to the southeast. The City's incorporated boundaries encompass approximately 18.4 square miles or 11,754 acres. Regional access to the City is provided by Interstate 5 (I-5), which bisects the City, connecting it with other Orange County communities, Los Angeles County to the northwest, and San Diego County to the southeast. A rail line used by Metrolink and Amtrak also traverses the City, parallel and adjacent to the Pacific Ocean.

4.2.2 Regional Planning Considerations

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 (MPO) for this region, which encompasses over 38,000 square miles. SCAG is a regional planning agency and a forum for addressing regional issues concerning transportation, the economy, community development, and the environment. SCAG is also the regional clearinghouse for projects requiring environmental documentation under federal and state law. In this role, SCAG reviews proposed development and infrastructure projects to analyze their impacts on regional planning programs. As the southern California region's MPO, SCAG cooperates with the Southern California Air Quality Management District (SCAQMD), the California Department of Transportation (Caltrans), and other agencies in preparing regional planning documents. SCAG has developed regional plans to achieve specific regional objectives. The plans most applicable to the proposed project are discussed below.

Regional Transportation Plan/Sustainable Communities Strategy

On April 4, 2012, SCAG adopted the 2012–2035 Regional Transportation Plan/Sustainable Communities Strategy Towards a Sustainable Future: (RTP/SCS). SCAG has placed a greater emphasis than ever on sustainability and

integrated planning in the 2012–2035 RTP/SCS, and its RTP/SCS vision encompasses three principles that collectively work as the key to the region's future: mobility, economy, and sustainability. The 2012–2035 RTP/SCS includes a strong commitment to reduce emissions from transportation sources to comply with Senate Bill 375, improve public health, and meet the National Ambient Air Quality Standards as set forth by the federal Clean Air Act.

Compass Growth Vision

In 2004, SCAG adopted the Compass Growth Vision (CGV), which is a response, supported by a regional consensus, to the land use and transportation challenges facing southern California. SCAG developed the CGV in an effort to maintain the region's prosperity, continue to expand its economy, house its residents affordably, and protect its environmental setting as a whole. The CGV is a framework that helps local jurisdictions address growth management cooperatively and also helps coordinate regional land use and transportation planning.

In conjunction with the CGV, SCAG also adopted the Compass Blueprint 2% Strategy, which is the part of the 2004 regional growth forecast policy that attempts to reduce emissions and increase mobility through strategic land use changes. The 2% Strategy is a guideline for how and where the CGV for southern California's future can be implemented toward improving measures of mobility, livability, prosperity, and sustainability for local neighborhoods and their residents. Through extensive public participation and land use and transportation modeling and analysis, the program has resulted in a plan that identifies strategic growth opportunity areas (2% Strategy Opportunity Areas). These opportunity areas are roughly 2 percent of the land area in the southern California region. These are the areas where the 2% Strategy will help cities and counties reap the maximum benefits from regional planning implemented in cooperation and partnership with the local community. Goals for the 2% Strategy Opportunity Areas include locating new housing near existing jobs and new jobs near existing housing, encouraging infill development, promoting development with a mix of uses, creating walkable communities, providing a mix of housing types, and focusing development in urban areas.

One area of the City is designated a Compass 2% Strategy Opportunity Area (SCAG 2012): a semicircular area with an approximately one-half-mile radius centered on the San Clemente Amtrak/Metrolink station. The San Clemente Centennial General Plan's consistency with advisory Compass Growth Vision policies is analyzed in detail in Section 5.9, *Land Use and Planning*, Table 5.9-2.

Air Quality and Global Climate Change

The City of San Clemente is in the South Coast Air Basin (SoCAB), which is managed by the South Coast Air Quality Management District. The air pollutants emitted into the ambient air by stationary and mobile sources are regulated by federal and state law. These regulated air pollutants are known as criteria air pollutants and are: carbon monoxide, 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 ozone (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 ambient air quality standards (AAQS) for that pollutant. The SoCAB is designated as in nonattainment for ozone (O_3), fine inhalable particulate matter ($PM_{2.5}$), coarse inhalable particulate matter (PM_{10}), and lead (Los Angeles County only) under the California and National AAQS and nonattainment for nitrogen (NO_2) under the California AAQS.

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

Current State of California guidance and goals for reductions in greenhouse gas (GHG) emissions are generally embodied in Assembly Bill 32 (AB 32), the Global Warming Solutions Act. AB 32 was passed by the California state

legislature on August 31, 2006, to place the state on a course toward reducing its contribution of GHG emissions. AB 32 follows the 2020 tier of emissions reduction targets established in Executive Order S-3-05.

AB 32 directed the California Air Resources Board (CARB) to adopt discrete early action measures to reduce GHG emissions and outline additional reduction measures to meet the 2020 target. Based on the GHG emissions inventory conducted for the Scoping Plan by CARB, GHG emissions in California by 2020 are anticipated to be approximately 596 million metric tons CO_2equivalent (MMTCO2e). In December 2007, CARB approved a 2020 emissions limit of 427 $MMTCO_2e$ (471 million tons) for the state. The 2020 target requires a total emissions reduction of 169 $MMTCO_2e$, 28.5 percent from the projected emissions of the business-as-usual (BAU) scenario for the year 2020 (i.e., 28.5 percent of 596 $MMTCO_2e$) (CARB 2008).[1]

Regional Water Quality Control Board/Watershed

The City of San Clemente and SOI are in the jurisdictional area of the San Diego Regional Water Quality Control Board (Region 9). Most of the City is in the San Clemente Watershed, which drains via Prima Deshecha Cañada, Segunda Deshecha Cañada, and numerous smaller streams. Some of the easternmost part of the City, and the SOI, are in the San Mateo Creek Watershed; the main streams draining that part of the City and SOI are San Mateo Creek and Cristianitos Creek. A few small parts of the City along the west City boundary are in the San Juan Creek Watershed, drained mainly by San Juan Creek. The northern part of the San Mateo Groundwater Basin (SMGWB) underlies Cristianitos Canyon and its tributary canyons along the northeastern boundary of the City and SOI (DWR 2003). The San Clemente Subbasin straddles the east City boundary; parts of the subbasin underlie Vista Bahia Park and the northern part of the San Clemente Municipal Golf Course (Boyle Engineering Corp. 1987). Groundwater also occurs in the City in the lower parts of the Prima Deshecha and Segunda Deshecha canyons. Most of the City and SOI are underlain by bedrock that is not considered to hold substantial groundwater.

Regional Habitat Conservation Plans and Areas

Orange County Southern Subregion NCCP/MSAA/HCP

The Orange County Southern Subregion Natural Community Conservation Plan/Master Streambed Alteration Agreement/Habitat Conservation Plan (Orange County Southern Subregion NCCP/MSAA/HCP) study area covers the southernmost 132,000 acres of Orange County, including all of the City of San Clemente. NCCP/MSAA/HCP habitat reserves and impact analysis areas overlap with the City near its northern boundary, north and east of the Talega community. The NCCP/MSAA/HCP covers 32 animal species and 10 vegetation communities. Seven federally listed species are covered by the plan, including the thread-leaved brodiaea, Riverside fairy shrimp, southwestern willow, coastal California gnatcatcher, arroyo toad, and least Bell's vireo.

4.3 LOCAL ENVIRONMENTAL SETTING

4.3.1 Location and Land Use

San Clemente has developed from a small residential village next to the ocean and surrounded by undeveloped rolling hills to a full-service suburban community that is largely built out. The majority of the City west of I-5 is urbanized with a mix of single-family, multifamily, commercial, and institutional land uses. This area includes the City's historical core, laid out by Ole Hanson as a "Spanish Village by the Sea" in the 1920s. Areas east of I-5 are dominated by single-family

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

residential uses and dedicated open spaces but also include business parks and other land uses. Large, previously undeveloped areas in the City east of I-5 (Marblehead Inland, Forster Ranch, Rancho San Clemente, and Talega) have been developed in recent decades. Most of the vacant land consists of small infill sites scattered throughout the City.

The City's incorporated boundaries encompass approximately 18.4 square miles or 11,754 acres. Undeveloped open space and single-family residential uses make up a majority of that acreage, as shown in Figure 3-3, *Existing Land Use*. Commercial, office, industrial, and institutional uses constitute a small percentage of the City's land area. I-5 traverses the City from northwest to southeast, connecting it with other Orange County communities, Los Angeles County to the northwest, and San Diego County to the southeast. A rail line used by Metrolink and Amtrak also traverses the City, adjacent and parallel to the Pacific Ocean.

Water bodies in the City consist of 14 reservoirs, man-made lakes developed for parks and golf courses, detention/percolation basins, watercourses, and drainage/flood control channels.

4.3.2 Surrounding Land Uses

San Clemente is at the southernmost end of Orange County. Adjacent developed urban areas are limited to the northwest, which consists of residential neighborhoods in the cities of Dana Point and San Juan Capistrano. To the north, the City is surrounded by undeveloped hillside areas in San Juan Capistrano and unincorporated Orange County. To the east and southeast is San Diego County, and the City is adjacent to open space at San Onofre State Beach. Directly beyond that narrow open space corridor, which follows San Mateo Creek, is the largely undeveloped Camp Pendleton Marine Corps Base (see Figure 3-2, *Citywide Aerial*).

4.3.3 General Plan and Zoning

Current General Plan and Land Use Designations

The current General Plan for the City of San Clemente was adopted in 1993. Table 3-1, *1993 General Plan Land Use Summary*, provides land use statistics (e.g., land use designations, acreages by land use designation) for the current General Plan. Currently, five land use designations regulate residential development at densities between a minimum of 1 dwelling unit per 20 gross acres (or 1 unit per legal parcel of record) to a maximum of 24 units per gross acre. Seven commercial land use designations regulate retail, service, and office uses, ranging from neighborhood- to regional-serving commercial development. Twelve mixed-use designations permit a mix of residential, commercial, institutional, and other uses. These mixed-use designations were strategically applied to specific areas of the City to establish pedestrian-oriented activity centers that provide housing opportunities near jobs and services. In addition to these uses, the General Plan includes two land use designations that regulate industrial uses, two designations that regulate parking and public uses, one regulating private institutions, and five that regulate open space. Two special overlay districts are also designated. The Pedestrian Overlay District provides standards aimed at creating structures with pedestrian-friendly ground floors in areas of the City with high pedestrian activity. The Architectural Design Overlay District regulates design conformance with the Spanish Colonial Revival architectural style, as defined by the Urban Design Element of the current General Plan.

Supplementary to general land use designations, 15 special districts are identified in the 1993 General Plan. Goals, objectives, and policies in the current General Plan provide greater specificity for these areas and expand upon the basic policies and standards established for individual land uses.

Existing Zoning

Title 17 (Zoning) of the City of San Clemente Municipal Code provides the basis for current zoning in the City. The City's official zoning map has eight general zoning designations: residential, commercial, mixed commercial and residential, industrial, institutional, public and parking, open space, and specific plans and study areas.

4.4 ASSUMPTIONS REGARDING CUMULATIVE IMPACTS

Section 15355 of the CEQA Guidelines defines cumulative impacts as "two or more individual effects which, when considered together, are considerable or which compound or increase other environmental impacts." Cumulative impacts are the change caused by the incremental impact of an individual project compounded with the incremental impacts from closely related past, present, and reasonably foreseeable probable future projects. Cumulative impacts can result from individually minor but collectively significant projects taking place over a period of time.

Section 15130 of the CEQA Guidelines states that cumulative impacts shall be discussed when the project's incremental effect is considerable. It further states that this discussion of cumulative impacts shall reflect the severity of the impacts and the likelihood of occurrence, but the discussion need not provide as great detail as is provided for the effects attributable to the project alone. The CEQA Guidelines (Section 15130 [b][1]) state that the information utilized 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 or cumulative impacts, including, if necessary, those projects outside the control of the agency; or

2) A summary of projections contained in an adopted general plan or related planning document, or in a prior environmental document which has been adopted or certified, which described or evaluated regional or areawide conditions contributing to the cumulative impact. Any such planning document shall be referenced and made available to the public at a location specified by the lead agency.

The cumulative impact analysis contained in this DEIR uses method No. 2, as described above. The proposed project consists of the San Clemente Centennial General Plan, Strategic Implementation Program, Bicycle and Pedestrian Master Plan, and Climate Action Plan. Consistent with Section 15130(b)(1)(B) of the CEQA Guidelines, this DEIR analyzes the environmental impacts of development in accordance with the proposed Land Use Plan. As a result, this DEIR addresses the cumulative impacts of development within the City of San Clemente and the larger Orange County region surrounding it, as appropriate. In most cases, the potential for cumulative impacts is contiguous with the City boundary, since the City is the service provider for various City services and public utilities. Potential cumulative impacts related to traffic, air quality, and noise, which have the potential for impacts beyond the City boundary, have been addressed through use of a traffic model. The City utilizes a traffic model for purposes of forecasting cumulative growth within the City and regionally. Regional growth outside of the City has accounted for traffic, air quality, and noise impacts through use of this model, which is a socioeconomic traffic model that uses regional growth projections to calculate future traffic volumes. The growth projections adopted by the City and surrounding area are used for the cumulative impact analyses of this DEIR. Please refer to Chapter 5 of this DEIR for a discussion of the cumulative impacts associated with development and growth within the City and region.

4.5 DETAILED DESCRIPTIONS OF THE ENVIRONMENTAL SETTING

More detailed descriptions of the environmental setting are provided in each resource subsection of Chapter 5.

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5. *Environmental Analysis*

5.1 AESTHETICS

This section of the Draft Environmental Report (DEIR) discusses the potential impacts to the visual character of San Clemente associated with the San Clemente Centennial General Plan. This section includes a discussion of the qualitative aesthetic characteristics of the environment that could be potentially degraded by the project's implementation and the consistency of the project with established relevant visual resource policies.

5.1.1 Environmental Setting

Visual Setting

Visual Character

The dominant visual characteristics in San Clemente are the canyons and ridgelines of the Santa Ana Mountain foothills and their transition into the coastal bluffs, canyons, and beaches. The visual character of the City -- the reason for the community's founding in the 1920s -- offers a somewhat secluded position on the Southern California coast despite its adjacency to the rest of highly urbanized Orange County. Although largely built-out, the ridgelines and canyons that span the City, the Pacific Ocean to the west, and undeveloped Camp Pendleton to the east all contribute to a character influenced by open vistas.

San Clemente's visual character is best described when separated into areas southwest of I-5 (Area 1) and northeast of I-5 (Area 2). The geographic range of these distinctive areas is shown in Figure 5.1-1, *Photographs of Unique Scenic Resources*. Both areas of the City offer significant greenery, lush landscaping, and an abundance of palm trees. Additionally, both areas generally feature high-quality, well-maintained development.

Area 1 - Between the Pacific Ocean and I-5

The western portion of the City spans a sloping shelf that sits atop coastal bluffs. It features moderately dense urban fabric, with older, highly connected neighborhoods that include the Downtown area and the City's main public areas. Area 1 has a Spanish village character with many buildings featuring Spanish Colonial Revival architecture and several areas featuring views of the ocean.

Area 2 - East of I-5

The northeast portion of the City has a hilly, low-density, suburban character and is dominated by residential neighborhoods. These vary from single-story residential neighborhoods built in the 1970s and 1980s near I-5, to tracts of larger, Mediterranean-influenced homes in inland areas such as Talega. Area 2 has large amounts of open space that separate residential areas, including ridgelines protected by provisions of the adopted General Plan. These separations give inland portions of Area 2 a pastoral character. Area 2 also includes the SOI, which consists of undeveloped hillside open space at the City's northeastern edge.

AESTHETICS

Visual Resources

Landforms

San Clemente lies in the northern part of the Peninsular Ranges Geomorphic Province, which is characterized by northwest-trending mountains and valleys extending from the Los Angeles Basin to the northwest and southeast into Baja California. The province is bounded by the San Andreas Fault zone on the east and extends offshore to the west. Most of the City and SOI consists of hills and canyons. These landforms generally feature gentler grades in Area 1 and steeper grades in Area 2. In addition to coastal canyons, the topography of Area 1 is notable for the high bluffs separating the community from the beach below.

The topography of inland Area 2 has been substantially modified in the past two decades, with new residential neighborhoods in the Forster Ranch and Talega Specific Plan areas requiring considerable cut-and-fill grading. However, this grading has produced a terraced effect that largely mimics the area's natural topography and will become less visually pronounced as vegetation matures on manufactured slopes.

Natural Features

As discussed above, the ocean, beach, hills, ridges and canyons of San Clemente are all natural features that define the community. The coastline is the City's most prominent feature and much of the City is planned to take advantage of views and recreational opportunities provided by the ocean and beach. Area 2's most prominent natural features are its undeveloped ridgelines, which are grass covered in the west near Dana Point and San Juan Capistrano and feature wooded areas in the east near San Onofre State Beach and the Orange/San Diego County border. Like San Clemente's coastline, the City's canyons and hillsides provide relief from urban living. An extensive trail system connects the City's canyons and hillsides with residential neighborhoods.

The City's natural land resources are part of the San Clemente Coastal Streams Watershed, an 18-square-mile area that nearly follows the City's jurisdictional boundaries and also covers small portions of the cities of San Juan Capistrano and Dana Point. Within the watershed, San Clemente's steep coastal canyons create three basins—Prima Deshecha, Segunda Deshecha, and the Southern Coastal Canyons—that ultimately drain into the Pacific Ocean. These coastal canyons provide natural buffers between neighborhoods and create habitat corridors extending from inland hills to the coast. Natural land resources also include portions of a 1,200-acre wilderness reserve that covers much of South Orange County and falls under the stewardship of the nonprofit Donna O'Neill Land Conservancy. Approximately 175 acres of the Donna O'Neill Land Conservancy property are within the City and SOI.

Scenic Vistas and Corridors

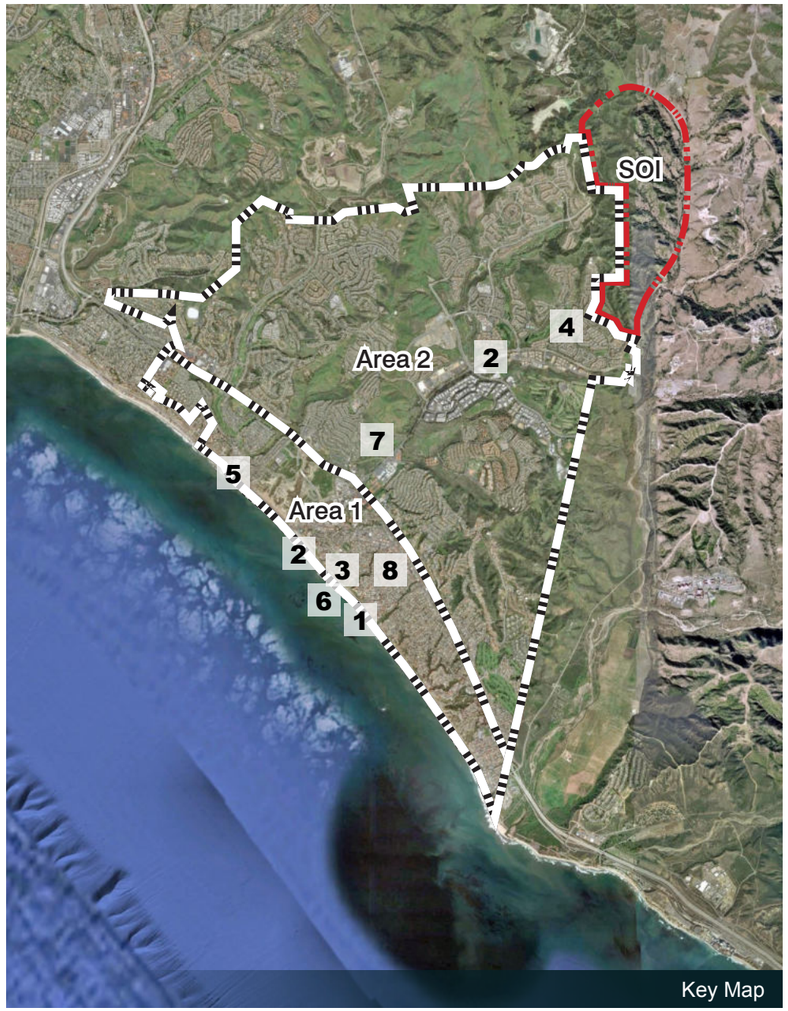
Although the City is divided by I-5, San Clemente residents enjoy views of the coast, interior canyons, and ridgelines from various points in the City. Ridgelines with scenic value, most of which run perpendicular to the coast, are identified in the adopted General Plan. Their scenic value is determined based on the views they afford overlooking Area 1 and the ocean, their own scenic value when viewed from elsewhere in the City, and their preservation of natural resources.

Photographs of Unique Scenic Resources


Pier and Pier Bowl Area 1


Avenida Pico View Corridor 2


Casa Romantica 3



Key Map


View of Ridgelines from Talega 4


Coastal Trail Along Bluffs 5


Mexican Fan Palms and Pier 6


Hills near Calle Frontera 7


View Corridor along Avenida del Mar looking North 8

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San Clemente is served by the I-5 freeway. It traverses the central portion of the City from the northwest to the southeast, linking San Clemente to the rest of Orange County to the north and San Diego County to the south. This segment of the freeway has not been officially designated a scenic highway by the California Department of Transportation (Caltrans 2012). However, in many locations, it affords scenic vistas of the City, ridgelines, and ocean. South Orange County is also served by State Route 1 (SR 1), otherwise called El Camino Real or "the King's Highway" within San Clemente. El Camino Real winds through the City roughly parallel to I-5, but also winds near the beach at the City's northwestern edge. The roadway links San Clemente to the beach cities of Dana Point, Laguna Beach and Newport Beach to the northwest, travels through Downtown San Clemente, and terminates near the City's southeastern edge. El Camino Real is an officially designated scenic highway. Unique among scenic highways, land uses along the roadway are heavily urbanized, especially in and near Downtown San Clemente.

The following roadways were identified as scenic corridors in the Scenic Highways Element of the adopted 1992 General Plan:

- Avenida Vista Hermosa
- Avenida La Pata
- Avenida Pico
- El Camino Real/Pacific Coast Highway
- Ola Vista
- El Camino Real
- Camino De Los Mares
- Camino Vera Cruz
- Camino Del Rio
- Calle del Cerro
- Avenida Vista Montana
- Avenida Talega

Policies outlined in the Element stress the importance of these corridors as an "essential part of the community's urban fabric" (San Clemente 1992) and emphasize their role in providing scenic views. Other important vistas in San Clemente include those visible from the 2.3-mile-long San Clemente Coastal Trail, which parallels the beach, and views from San Clemente's ocean bluffs. Many public places and historic buildings in Area 1 are oriented to maximize visual access to coastal canyons and the ocean, including Calafia Park, Leslie Park, the western terminus of West Paseo de Cristobal, Parque del Mar, the Ole Hanson Beach Club, Casa Romantica (the historic home of San Clemente's founder), and La Casa Pacifica, President Nixon's "western White House." The last two in this list not only afford scenic views, but are scenic resources in their own right because of their Spanish Colonial Revival architecture and lush landscaping.

A summary of San Clemente's visual resources, including ridgelines, coastal canyons, and major roadways, is shown in Figure 5.1-2, *Visual Resources Map*.

Unique Scenic Resources

In addition to the natural features discussed above that make San Clemente aesthetically unique, the City fabric itself contains numerous unique scenic resources. Area 1 of San Clemente has a distinctive urban character. The "Spanish Village by the Sea" theme selected for the community by Ole Hanson in the 1920s is still apparent in the curvilinear modified street grid and fine-grained development pattern of areas west of El Camino Real. This area has a high level

of street connectivity and streets that are strategically oriented to direct views toward scenic resources. Examples of this include the terminus of Avenida del Mar at San Clemente's historic City Hall, the terminus of West El Portal at Max Berg Plaza Park, and the orientation of Downtown's major streets toward the public pier and "Pier Bowl" area.

The Spanish village theme also provides additional scenic resources, including a prevalence of streets lined with tall palm trees (consisting largely of the Mexican Fan Palm or *Washingtonia robusta* variety) and historic Ole Hanson–era homes. The Spanish Colonial Revival architectural style is common throughout Area 1 and is encouraged by the Design Guidelines. The following are essential elements of the style, as identified by the Design Guidelines (San Clemente 1991):

- Plain, whitewashed smooth-wall surfaces
- Low-pitched red tile roofs
- Cornice bands and moldings
- Entrance and internal courtyards
- Thick-walled recesses for windows and doors
- Second-story balconies and recessed or rooftop verandas
- Arcades, loggias, and patios
- Porches and vine covered arbors
- Outdoor stairs with delicate metal rails and grillwork
- Accent towers, turrets, and chimneys, where appropriate for silhouette
- Bay windows
- Low garden walls

Photographs of scenic vistas and other visual amenities in San Clemente are shown in Figure 5.1-1, *Photographs of Unique Scenic Resources*.

Light and Glare

Sources of light and glare in San Clemente include building lights (interior and exterior), security lights, sign illumination, and parking-area lighting. Other sources of nighttime light and glare include street lights and vehicular traffic along surrounding roadways. Additionally, a significant amount of ambient lighting comes from surrounding communities and roadways. However, because of San Clemente's unique geographic location, nighttime ambient lighting from surrounding communities is not as pronounced as in other urbanized areas of Orange County. San Clemente's night skies benefit from being surrounded by uses that emit little or no light: the Pacific Ocean, Camp Pendleton, and the open space lands to the east. In addition, land uses that generate significant amounts of light pollution, such as shopping centers, are limited to only a few areas in the City.

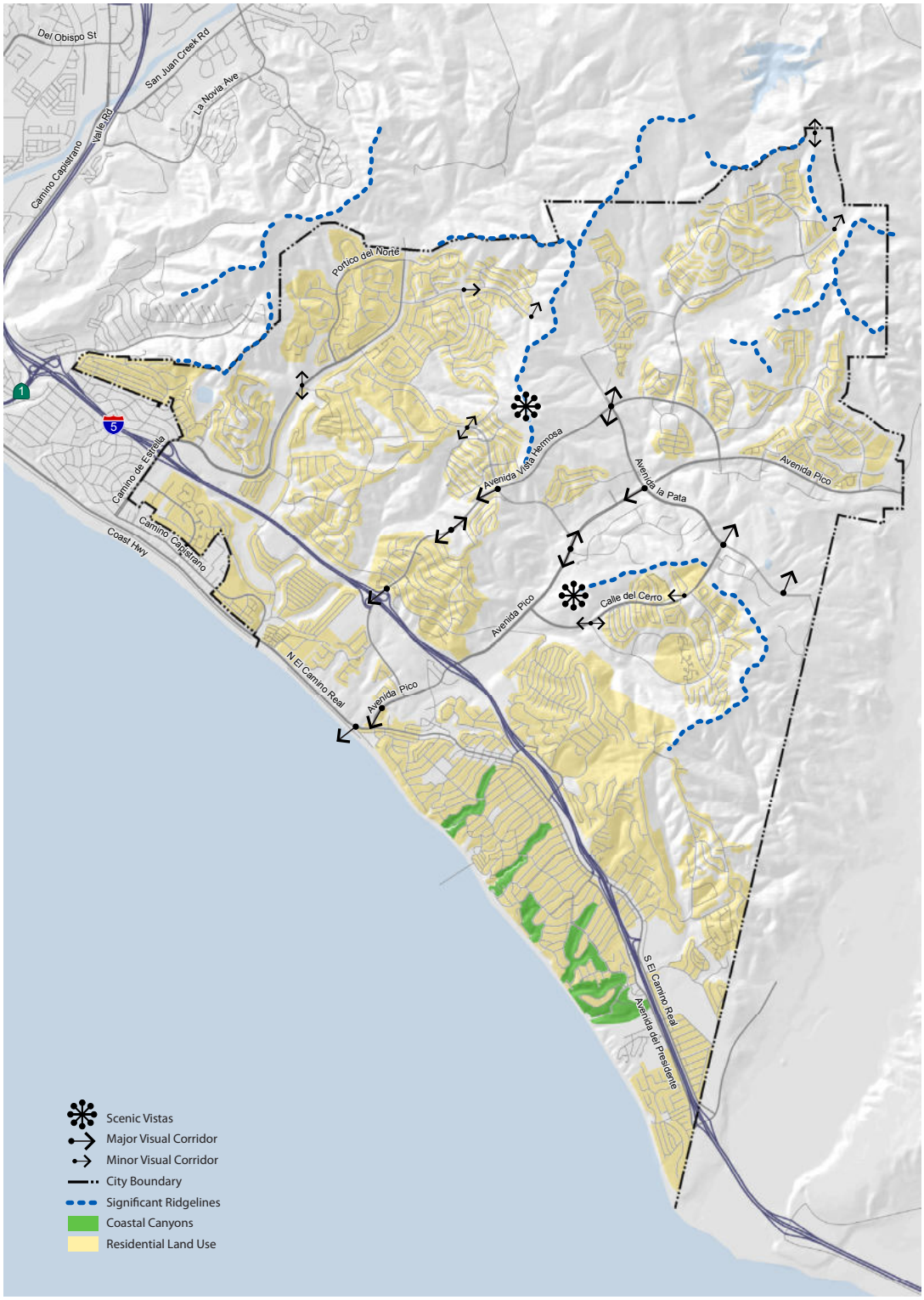
Regulatory Setting

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

City of San Clemente Municipal Code

The City of San Clemente Municipal Code identifies land use categories, development standards, and other general provisions that ensure consistency between the General Plan and proposed development projects. The following provisions from the Municipal Code help minimize visual and light and glare impacts associated with new development projects and are relevant to the proposed project.

Visual Resources Map



Source: The Planning Center|DC&E

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- **Regulation of Nuisances (Chapter 8.52).** Chapter 8.52 of the Municipal Code addresses the mitigation of nuisances and includes provisions aimed at protecting the visual quality of neighborhoods. These regulations (Sections 8.52.20 and 8.52.30) require the proper maintenance of buildings and property, including the abatement of overgrown vegetation, accumulation of debris, general neglect of property, and other visual nuisances.

- **Hillside Development Ordinance (Chapter 15.40).** The Zoning Ordinance establishes development standards (e.g., building heights, setbacks, parking requirements, allowed and prohibited specific uses, etc.) for land within the City's boundaries. In addition to development standards in the City's zoning ordinance, San Clemente also maintains and implements a Hillside Development Ordinance (Municipal Code, Chapter 15.40). The Hillside Development Ordinance requires primary ridgelines to be preserved in their natural state and seeks to protect natural systems and resources associated with hillside environments. The adopted General Plan identifies several designated ridgelines, most of which run perpendicular to the coast.

- **Residential Development Control (Chapter 15.44).** The purpose of this chapter is to augment the policies in the General Plan and other City ordinances relating to the regulation of residential development. Among other considerations is the preservation of the visual character of the community. The chapter outlines procedures to be followed by a Residential Development Evaluation Board (Board) consisting of appointed members of the City's planning commission. The chapter instructs the Board to evaluate new residential development based on a variety of factors, including factors relating to aesthetics such as site and architectural design quality; landscaping and open space character; and impacts to trees. The chapter instructs the Board to present their evaluations and recommendations to the City Council for the awarding of development allocations.

- **General Development Standards (Chapter 17.24).** The intent of this chapter is to provide general development standards, resulting in new development that is harmonious with existing and potential development in the surrounding area. Standards include provisions addressing aesthetic concerns such as the preservation of topographical features (Section 17.24.60) and light and glare impacts (Section 17.24.130).

- **Landscape Standards (Chapter 17.68).** This chapter establishes landscaping standards for private property that enhance the appearance of developments; increase the compatibility between different land uses; reduce the heat and glare generated by development; and protect public health, safety, and welfare by minimizing the impacts of soil erosion and visual pollution and promoting water conservation.

- **Sign Regulations (Chapter 17.84).** The Zoning Ordinance establishes development standards for signs within the City, including requirements for type, lighting, and location.

City of San Clemente Design Guidelines

The Design Guidelines were adopted in November 1991 and are used to evaluate proposed development projects subject to discretionary design review. Projects that are evaluated for consistency with the guidelines include:

- All projects located on a historically significant site,
- All applicable projects within 300 feet of a historically significant site,
- All commercial and industrial projects,
- All new residential projects, which include five or more units, and
- All projects within the Pier Bowl Specific Plan area. (San Clemente 1991)

The City maintains a list of properties identified as historically significant. The Guidelines are also recommended as desirable design principles for other projects in the City not subject to discretionary design review. New developments in specific plan areas are evaluated for consistency with design guidelines in the applicable specific plans. The Forster Ranch, Marblehead Coastal, Marblehead Inland, Pier Bowl, Rancho San Clemente, Talega, and West Pico specific plans all have their own design guidelines.

In addition to general discussion of urban design principles and San Clemente's unique architectural character, the Design Guidelines include detailed and illustrated provisions aimed at ensuring quality development in the San Clemente. Concerns include scale, mass, and form; signage; site orientation of buildings; landscaping; parking; and the relationship between buildings and the street. Other provisions outline design solutions for specific development types and districts. Hand-drawn illustrations emphasize a document-wide focus on the City's Spanish Colonial Revival architectural tradition.

City of San Clemente Master Landscape Plan for Scenic Corridors

The Master Landscape Plan for Scenic Corridors was adopted in 1989 and revised in 1992. Its purpose is to establish a unified landscape program for the scenic highways in San Clemente that link coastal area of the City with inland master-planned areas. The plan determines specific plant materials along specific scenic corridors. It is the intent of the plan to provide objective design and evaluation criteria to utilize when landscaping land adjacent to or affecting scenic highways.

5.1.2 Thresholds of Significance

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

AE-1 Have a substantial adverse effect on a scenic vista.

AE-2 Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway.

AE-3 Substantially degrade the existing visual character or quality of the site and its surroundings.

AE-4 Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area.

5.1.3 Environmental Impacts

The evaluation of aesthetics and aesthetic impacts is highly subjective. It requires the application of a process that objectively identifies the visual features of the environment and their importance. Aesthetic description involves identifying existing visual character, including visual resources and scenic vistas unique to San Clemente. Visual resources are determined by identifying landforms (e.g., topography and graded areas), 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 aesthetic resources due to implementation of the proposed project are identified and qualitatively evaluated based on the proposed modifications to the existing setting and the viewer's sensitivity. Project-related impacts are determined using the threshold criteria discussed below.

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 5.1-1: Buildout in accordance with the Centennial General Plan would not substantially alter scenic vistas in San Clemente. [Thresholds AE-1]

Impact Analysis: Implementation of the Centennial General Plan is not expected to degrade views of the dominant scenic resource in the City, the Santa Ana Mountain foothills. Since the City is mostly built out, new development will occur on a limited number of vacant parcels and in the form of infill/intensification in already developed areas consistent with the proposed land uses or within the eight focus areas that are proposed for growth in the General Plan. Land use changes allowed under the Centennial General Plan consist primarily of increased development intensities in selected areas and the introduction of mixed uses in other selected areas. These changes are summarized below in Table 5.1-1.

Table 5.1-1 Summary of Land Use Changes Allowed Under the Centennial General Plan

Focus Area	Changes in Intensity*	Changes in Use
Camino de Los Mares	Increased max. FAR	New medical office uses
Rancho San Clemente Business Park	Increased max. FAR	Allow assembly/emergency shelter uses
Los Molinos	Increased max. FAR	New professional office uses
North Beach/North El Camino Real	Increased max. FAR	New mixed uses
Del Mar/T-Zone	-	New mixed uses
Pier Bowl	-	Remove mixed use designation east of Coronado Lane to reflect existing conditions
South El Camino Real Area (West of I-5)	Increased max. FAR	New mixed uses
South El Camino Real Area (East of I-5)	-	-

* Increased maximum FARs are for proposed for selected areas or specific land uses, not whole focus areas.

One focus area, Rancho San Clemente Business Park, is located near scenic canyons and ridgelines but is primarily located on terraces at lower elevations than surrounding residential communities to the north (Talega) and south (Rancho Santa Clemente). This focus area is also largely built out and surrounded by vegetated hillside areas that buffer the visual impact of its nonresidential buildings and surface parking. In addition to these factors, the few remaining undeveloped parcels in the area are already graded so that new development would not require substantial reshaping of the area's topography. For these reasons, future new or expanded businesses within the Rancho San Clemente Business Park would not substantially impact scenic vistas to or from eastern San Clemente.

The remaining seven focus areas are in Area 1 (see Figure 5.1-1), which is the older, more urbanized portion of the City. Two of these extend east of I-5, but all seven are highly developed with few vacant parcels. Development or redevelopment in these areas would be generally limited to small-scale infill and remodeling projects, especially in areas with sensitive visual resources such as Downtown San Clemente. Infill development is not expected to significantly alter scenic vistas.

Although land use changes proposed by the General Plan are predominately in the eight focus areas described above, changes are planned for a limited number of other parcels. The Shorecliffs golf course site's land use designation is proposed to change from Coastal and Recreation Serving Commercial to Medium Density Residential to help meet State-mandated housing element requirements. In addition, various parcels and groups of parcels throughout the City are proposed to be designated for housing or affordable housing uses. Under the General Plan's Housing Element, adopted in 2011, an affordable housing overlay designation would be applied to several parcels to accommodate the development of affordable housing while continuing to allow uses specified by each parcel's underlying land use designation. As with development allowed in the General Plan's eight focus areas, development on the Shorecliffs golf

course site and on some Affordable Housing Overlay sites could result in minor changes to existing views of ridgelines or the ocean. However, development in these locations would comply with City regulations and policies outlined below and due to their dispersed and limited nature, are not anticipated to substantially impact scenic vistas.

Development built pursuant to the proposed Centennial General Plan in all areas of the City would be required to comply with regulations in the Municipal Code, policies in the proposed General Plan, and other existing City policies that protect scenic vistas. The Municipal Code contains regulations that require retention of important natural features, preservation of views, and new development and landscaping that is sensitive to visual resources. In particular, the Code's Hillside Development Ordinance (Chapter 15.40) includes provisions requiring the preservation of ridgelines in their natural state. Additional sections of the Municipal Code that address the preservation of vistas and scenic resources are included in the Residential Development Control chapter (Chapter 15.44), General Development Standards (Chapter 17.24), and Landscape Standards (Chapter 17.68).

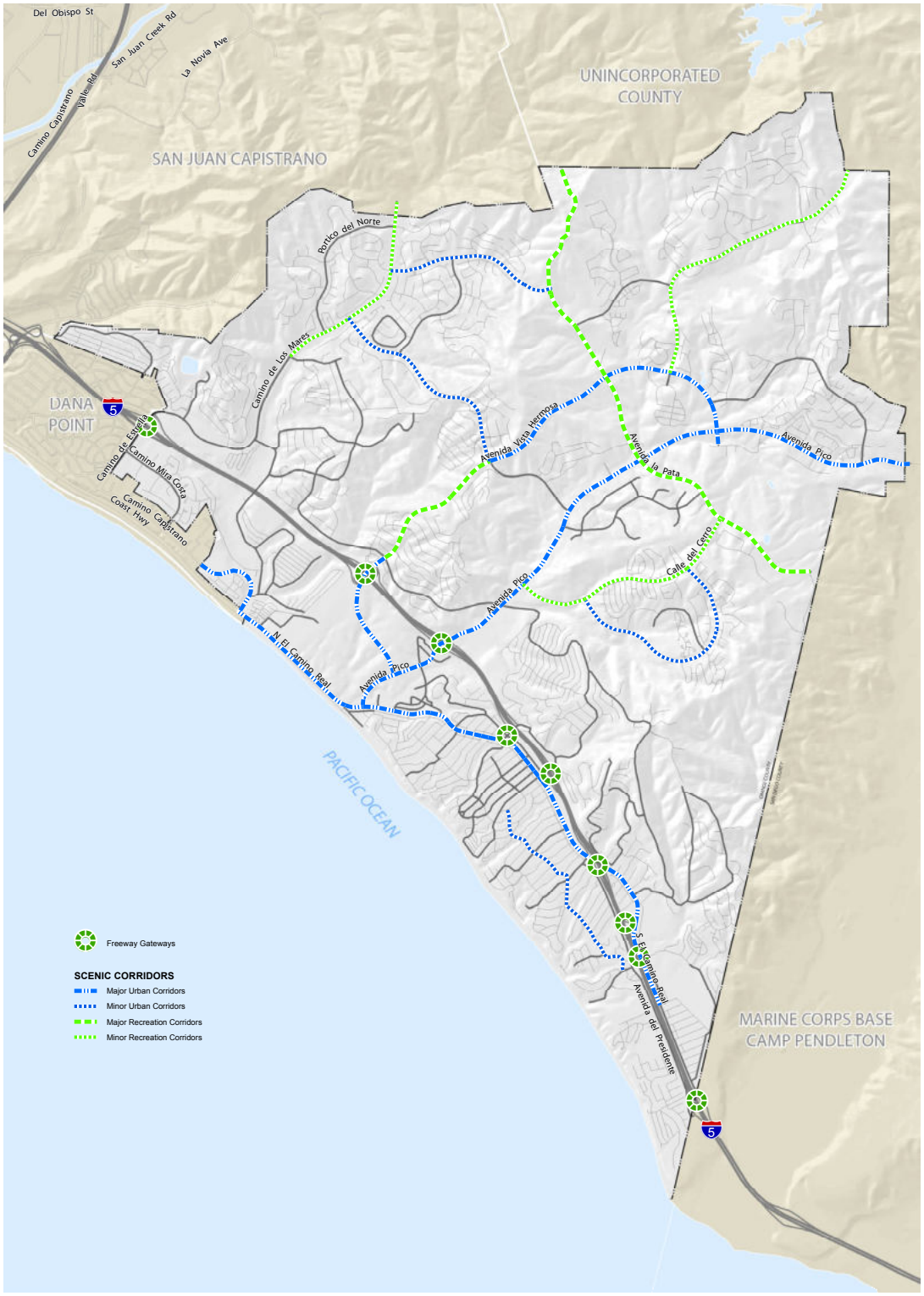
Policies of the proposed General Plan give substantial consideration to the preservation of scenic vistas, including "Scenic and Cultural Resources" policies in the Coastal Element and "Aesthetic Resources" policies in the Natural Resources Element. An exhaustive list of proposed General Plan policies relating to aesthetic resources is included below under Section 5.1.4, *Relevant General Plan Policies*. Upon implementation of these policies and adherence to the Municipal Code, implementation of the Centennial General Plan would not substantially alter scenic vistas in San Clemente and no significant impacts relating to scenic vistas would occur.

Impact 5.1-2: Buildout in accordance with the Centennial General Plan would not substantially alter scenic resources within a state scenic highway. [Threshold AE-2]

Impact Analysis: As stated above under Section 5.1.1, *Environmental Setting,* the segment of I-5 that traverses the central portion of the City is not an officially designated scenic highway. However, I-5 and SR-1/El Camino Real are both highways in San Clemente that afford generous scenic views of hillsides, ridgelines, the City, and the ocean. Figure 5.1-3, *Scenic Corridors Map,* shows the City's scenic corridors as identified by the proposed Centennial General Plan. El Camino Real, which winds through the cultural and economic core of the City, is considered a scenic resource in its own right because of its historical and cultural value. Scenic corridors in San Clemente, including I-5 and El Camino Real, and scenic resources near those corridors, would be protected under the Centennial General Plan by policies in the General Plan (listed in Section 5.1.5, below) and relevant provisions of the Municipal Code (also listed in Section 5.1.5). In particular, policy M-1.26, Major and Minor Scenic Corridors, requires that the following roadways be maintained and preserved as major or minor scenic corridors:

1. Avenida Vista Hermosa
2. Avenida La Pata
3. Avenida Pico
4. El Camino Real/Pacific Coast Highway
5. Ola Vista
6. El Camino Real
7. Camino De Los Mares
8. Camino Vera Cruz
9. Camino Del Rio
10. Calle del Cerro
11. Avenida Del Mar
12. I-5 from North to South City limits

Scenic Corridors Map



Source: The Planning Center|DC&E

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Land use changes are proposed in five focus areas near scenic corridors in San Clemente that are classified Major Urban Corridors: Los Molinos, North Beach/Camino Real, Del Mar/T-Zone, El Camino Real (east of I-5), and Rancho San Clemente Business Park. The Rancho San Clemente Business park is also adjacent to Avenida La Pata, which is classified a Major Recreation Corridor (see Figure 5.1-3). Land use changes and intensities for the focus areas do not represent a substantial reimagining of the character of those areas. Because those focus areas are largely urbanized and built out, buildout of the proposed land use plan would primarily involve gradual changes in development intensity along I-5 and El Camino Real. New and/or intensified uses in the focus areas would not fully obstruct visual resources such as the ocean or hillsides and would not require substantial changes in topography. Allowed uses in the focus areas would be regulated by Design Guidelines, Municipal Code development standards, and General Plan policies that limit the height and bulk of buildings.

Implementation of the General Plan would not result in damage to any historic buildings or rock outcroppings. However, development of the City and within the focus areas may result in removal of ornamental trees and landscaping. Implementation of the General Plan would require roadway improvements to a number of scenic corridors, including Avenida La Pata and Avenida Pico. In addition, the Bicycle and Pedestrian Master Plan proposes to add bike lanes within various scenic corridors. Development of these improvements may involve the removal of street trees. However, trees would be required to be replaced to meet the requirements of General Plan Policy M-1.17 (requiring construction or modification of major roadways to promote the creation and maintenance of "streetscapes" and linear scenic parkways or corridors that promote the City's visual quality and character). Therefore, buildout of the Centennial General Plan would not substantially alter scenic resources within or near scenic highways, and no significant impacts would occur.

Impact 5.1-3: Buildout in accordance with the proposed Land Use Plan would alter the visual appearance of San Clemente, but would not substantially degrade its existing visual character or quality. [Threshold AE-3]

Impact Analysis: As discussed above, implementation of the Centennial General Plan would allow continued development and redevelopment throughout the City. The General Plan predominantly allows changes in land use in eight focus areas, on a set of Affordable Housing Opportunity sites, and on the Shorecliffs golf club site. Although development allowed in all of these locations would alter the visual character of their immediate vicinity, it would not result in a substantial cumulative change or degradation of visual character or quality in San Clemente. The following list describes the impacts on visual character and quality that are anticipated for the eight focus areas, where most land use changes in the General Plan are proposed:

- **Camino de Estrella/Camino de Los Mares.** A new Medical Office Overlay land use designation is proposed for the portion of this focus area south of I-5. The overlay would increase the maximum floor area ratio (FAR) for areas designated Community Commercial from 0.5 to 1.0 north of Camino Mira Costa and 0.75 to the south to accommodate medical office expansion with supporting retail. This focus area is already built out and already features medical and commercial land uses with associated parking and landscaping. Therefore, redevelopment or expansion of existing medical and commercial uses would not represent a substantial change in visual character. Additional development intensity would heighten the visual contrast between nonresidential uses east of Camino de Estrella and single-family homes across the street. However, new or expanded uses would be required to comply with General Plan policies, Design Guidelines, and Municipal Code regulations that address land use compatibility. The area proposed for the Medical Office Overlay is also at a lower elevation than the adjacent I-5

freeway. Therefore, higher intensity development in the focus area allowed under the proposed General Plan would not obstruct ocean views from the roadway.

- **Rancho San Clemente Business Park.** The Centennial General Plan proposes that the maximum FAR of 0.50 in a portion of this focus area be increased to 0.75 to accommodate new and expanded businesses and employment opportunities. The focus area is an existing business park. Therefore, additional business park uses, even if built at a slightly higher intensity, would not represent a change in visual character in the area.

- **Los Molinos.** A new Professional Business Overlay is proposed for the area adjacent to I-5, with the goals of shifting the area's primary use from retail to office, allowing for an institutional campus anchor, concentrating retail uses along Pico, and increasing the maximum FAR to 0.75. Although buildout of the proposed overlay would create a shift in uses and involve a change in building intensity, it would not change the overall nonresidential character of the focus area. Redevelopment of the built-out area would be required to comply with General Plan policies, Municipal Code regulations, and Design Guidelines that address visual character and quality.

- **North Beach/North El Camino Real.** In this focus area, a Mixed Use Overlay is proposed for a portion of the area on Calle Lago in order to allow for a horizontal or vertical mix of commercial and residential uses while allowing industrial uses per the underlying industrial land use designation. A Mixed Use designation is also planned at El Portal to allow a horizontal or vertical mix of commercial and residential uses. The Centennial General Plan proposes that the maximum FAR for Neighborhood Commercial uses along El Camino Real be increased from 0.35 to 0.50 to incentivize development of vacant lots and transition of auto-related uses.

  Buildout of these allowed land use changes represents perhaps the greatest possible change in visual character amongst the eight focus areas. Although the area is largely built out and has a somewhat urban existing character, the transition of low-scale auto-oriented businesses and vacant parcels to vertically mixed uses would represent a change in overall atmosphere and visual relationship between El Camino Real and its surrounding neighborhood. Despite this change and the associated allowable increase in development intensity, neighborhood-oriented mixed uses, including commercial and residential uses in this focus area, would be more compatible with the village-like atmosphere of single-family residential uses to the immediate south of this area. Compliance with the Design Guidelines, Municipal Code development standards, and General Plan policies would ensure that the bulk, mass, height, and architectural character of new development are compatible with surrounding uses.

- **Del Mar/T-Zone.** In this focus area, the Centennial General Plan continues to require ground floor retail in areas along Avenida Del Mar and El Camino Real, but provides increased flexibility for uses in other areas. Areas outside of and adjacent to buildings along Del Mar and El Camino Real would transition to encourage ground-floor service/office and limited retail with residential and office above. Portions of the perimeter areas would encourage ground-floor residential, lodging, service, and office uses with residential or lodging above. Upon compliance with the Design Guidelines, Municipal Code regulations, and General Plan policies, these allowed land use changes would be consistent with the eclectic and varied mixed use visual environment in San Clemente's cultural and commercial core. Redevelopment of parcels that host existing important visual resources such as the Historic City Hall are not anticipated. Implementation of the General Plan would also maintain the requirement for areas along Avenida Del Mar and El Camino Real to include ground-floor retail. This requirement would ensure that the pedestrian's visual experience on Avenida del Mar, which is dominated by a lively streetscene, would be maintained and expanded to adjacent streets.

- **Pier Bowl.** Removal of the Mixed Use designation is proposed for the east side of Coronado Lane to reflect current residential uses. Therefore, no changes to the visual character and quality of the Pier Bowl area would occur.

- **South El Camino Real (West of I-5).** Provisions of the General Plan propose an increase in maximum FAR for Neighborhood Commercial uses south of Cadiz to 0.50 and north of Cadiz to 0.75 and promote mixed uses in the focus area. New uses and higher development intensities would alter the visual character of the area, but not substantially. Compliance with General Plan policies, including policy LU-13.05, Views, would ensure that new development maximizes views of the Pacific Ocean while preserving public views from I-5.

- **South El Camino Real (East of I-5).** No land use changes are proposed for this focus area, but new policies are included to promote a vision for the area as a visitor and local-serving corridor that serves as a hub for recreational activities. Therefore, new development or redevelopment may occur under the General Plan, but substantial changes in visual character would not occur.

For the reasons outlined in the bullets above, buildout of the General Plan would not substantially degrade the existing visual character or quality of the City or its neighborhoods and no significant impacts would occur.

Impact 5.1-4: Future development that would be accommodated by the Centennial General Plan would generate additional light and glare in San Clemente that could impact surrounding land uses. [Threshold AE-4]

Impact Analysis: Development allowed under the proposed Land Use Plan would generate new sources of light and glare that could affect day or nighttime views in the City. Sources of light include lighting needed to provide nighttime street and building illumination, security lighting, nighttime traffic, and lighting associated with construction activities. However, land use changes proposed by the Centennial General Plan are limited to the eight focus areas described in Chapter 3, *Project Description*. These areas are currently developed with residential, commercial, office, and public uses, and therefore already generate substantial amounts of light and glare. Although some areas outside of focus areas (with land use designations unchanged by the proposed project) could accommodate new light- and glare-generating land uses in previously undeveloped areas, these are limited in number and geographic range. San Clemente is generally built out and is anticipated to grow primarily by way of greater development intensities allowed in the focus areas. Therefore, new light and glare impacts are anticipated to occur mainly in those areas.

Daytime and Nighttime Glare

As shown in Table 5.1-1, most of the land use changes proposed within the focus areas are increases in allowable development intensity achieved by a proposed increase in maximum FAR. Greater allowable building intensity in these areas could result in greater surface areas of buildings, parking lots, and other flat surfaces that create glare. However, since almost all of the parcels in the relevant focus areas are built out, changes in surface area would be negligible. New development or redevelopment would also be required to comply with standards outlined in the Design Guidelines and Municipal Code that address light and glare, including the Municipal Code's general development standards (Chapter 17.24) and sign regulations (Chapter 17.84). Further attention to the prevention of excessive glare is addressed by Policy UD-2.10, Visual Screening, in the proposed Urban Design Element, which requires "visual screening of blank walls, trash bins, and parking facilities through a variety of landscaping and architectural design treatments." Compliance with this policy would minimize potential impacts relating to glare-generating surfaces.

AESTHETICS

In addition to targeted increases in development intensity allowed under the proposed project, buildout of the General Plan would involve changes in use within parts of the focus areas. As shown in Table 5.1-1, these changes generally involve the allowance of mixed uses in areas that currently feature single uses. However, mixed uses are not anticipated to generate more glare than their constituent parts (residential, commercial, and office uses) that are already present in the focus areas.

Nighttime Light Levels

The proposed General Plan defines a "dark sky" as the night sky with minimal light impact from urban land uses or structures. Light intrusion into the night sky obstructs views of astrological features, has been shown to disrupt animal behavior, and negatively impacts human health.

Existing sources of nighttime light in San Clemente include building lights (interior and exterior), security lights, sign illumination, and parking facility lighting. Other sources of nighttime light include street lights, vehicular traffic along roadways, and construction activities. Although the City is generally built out, continued development and redevelopment throughout the City and increased development intensities and land use changes within the eight focus areas would likely generate new sources of light. Especially where vacant or underutilized parcels are converted to new uses, new sources of light could increase nighttime illumination. However, because the City is largely built out, the lighting associated with improvements and structures of future development projects would not substantially increase nighttime light within the project area. Additionally, the Design Guidelines and Municipal Code contains lighting standards that would be applicable to development activity associated with future development that would be accommodated by the General Plan. For example, Section 17.24.130, *General Development Standards*, requires that outdoor lighting be directed downward and away from adjoining properties and public rights of way. The same section also prohibits outdoor lighting that blinks, flashes, or is of unusually high intensity or brightness. The City does not have a lighting ordinance specifying the maximum amount of lighting that may be generated by new development projects. However, future development projects would be required to comply with California's Building Energy Efficiency Standards for Residential and Nonresidential Buildings, Title 24, Part 6, of the California Code of Regulations, which outlines mandatory provisions for lighting control devices and luminaires.

Nighttime light is addressed in the Natural Resources Element of the proposed General Plan under the heading of "dark skies." The element aims to minimize light trespass and pollution to ensure safety, protection of the natural environment, and the community's dark nighttime skies. It establishes a goal of reducing the level of light pollution below 2013 levels. Centennial General Plan policies NR-7.1, NR-7.2, and NR-7.3 require that land uses in the City use unobtrusive light so that the sky can be observed and enjoyed in a more natural state. These policies are listed below in Section 5.1.4. The proposed Natural Resources Element emphasizes the varied benefits of dark skies preservation, which include lower energy costs.

Adherence to the design standards in the Municipal Code and other regulations would ensure that light and glare from new development and redevelopment projects that would be accommodated by the Centennial General Plan would be minimized and that significant impacts would not occur.

5.1.4 Relevant General Plan Policies

The following are relevant policies of the Centennial General Plan that would reduce potential aesthetic impacts of future development in San Clemente.

Beaches, Parks and Recreation Element

Beaches

BPR-3.3 **Balance.** We enhance beach areas that are appropriate for recreational development, without destroying natural resources or beauty.

Coastal Element

Coastal Access and Recreational and Visitor-Serving Opportunities

C-1.01 **Coastal Access.** We establish, maintain, and, where feasible, expand public coastal access to the shoreline, beaches, tidelands, and recreational facilities in a manner that:

a. Maximizes public access to and along the shoreline;

f. Maximizes coastal views;

m. Balances the rights of individual property owners with the public's rights of access;

n. Is compatible with adjacent development.

C-1.12 **Visual Compatibility.** We maintain, improve and develop our recreational resources in ways that are visually compatible with the character of surrounding areas.

Scenic and Cultural Resources

C-3.01 **Visual Character and Aesthetic Resources Preservation.** We preserve the visual character and aesthetic resources of the City, including coastal bluffs, visually significant ridgelines, and coastal canyons, open spaces, prominent, mature trees on public lands, and designated significant public views as discussed in the Natural Resources Element, Aesthetic Resources Section.

C-3.02 **Scenic View Corridors and Public Views.** We identify and designate the location and orientation of significant designated scenic view corridors and significant public views.

C-3.03 **Architectural, Historical, Archaeological and Cultural Resource Preservation and Restoration.** We provide for the preservation and restoration of the sites, structures, districts and cultural landscapes which have architectural, historical, archaeological, and/or cultural significance as described in the Historic Preservation Element and the Natural Resources Element, Archaeological and Paleontological Resources Section.

C-3.04 **Development Review.** We review and require changes to development proposals, as needed, to minimize obstructions of designated significant public views and designated scenic view corridors, and to ensure public and private development projects in the Coastal Zone are of high-quality materials and designed to be attractive and aesthetically compatible with adjacent structures, site improvements, utilities and landscape features, as further described in the Urban Design Element.

AESTHETICS

Growth Management Element

Community Edges

GM-1.01 **Design Transitions.** Development just inside City Limits or outside City Limits on the City's Urban Fringe shall provide appropriate design transitions to avoid a stark-appearing edge between site development and buildings in the City and adjacent open land. Such measures shall include, but are not limited to: drought-resistant and/or California Native plantings, ample side- and rear-yard building setbacks, and/or landscaped slopes, hills, or other landforms.

GM-1.02 **Open Space Edges.** Broad, undeveloped open spaces should separate the City from nearby urban areas. This Element establishes the edge for urban development within the term of this General Plan.

Development Outside the City

GM-2.04 **Residential Subdivisions.** We demand that the design of new residential subdivisions in our Sphere of Influence comply with the General Plan, including the following:

a. incorporate greenbelts, pedestrian paths, parks, recreation facilities, and other community amenities;

b. orient parcels away from principal arterials and highways or other heavily traveled corridors, incorporating extensive landscape setbacks along these frontages;

c. locate development so as to avoid disturbance of sensitive areas and maintain important environmental resources, including ridgelines, topographic formations, wildlife corridors and habitat in accordance with the Natural Resources Element;

d. integrate small scale, multi-family "clusters" within single family residential neighborhoods;

e. design streets to achieve safe, livable streets, consistent with the City's "Complete Streets" policies and standards; and

f. include alleys to minimize the dominance of garages along the street frontage.

Land Use Element

The Land Use Element of the Centennial General Plan contains numerous goals and policies relating to aesthetics and visual resources. In particular, policies for the General Plan's eight focus areas address preservation of scenic views, architectural and streetscape design, design of City gateways, landscaping quality, aesthetic compatibility of land uses, and general visual character. See Appendix H for a complete list of land use policies relating to aesthetics.

Mobility Element

Roadway System

M-1.11 **Transportation Infrastructure Design.** In designing transportation facilities such as bridges, retaining and sound walls and related transportation facilities, the City applies the Design Guidelines to maintain high quality design, compatible with community aesthetics. Side slopes and earthen berms adjacent to roadways shall be natural in appearance to minimize visual impacts along designated scenic corridors.

M-1.17 **Streetscapes and Major Roadways.** In the acquisition, design, construction or significant modification of major roadways, we will promote scenic parkways or corridors to improve the City's visual quality and character, enhance adjacent uses, and integrate roadways with surrounding districts. To accomplish this, the City will:

a. Update and implement the Master Landscape Plan for Scenic Corridors;

b. Encourage the creation and maintenance of median planters and widened parkway plantings;

c. Retain healthy, mature trees in the public right-of-way, where feasible;

d. Emphasize the planting and maintaining California Native tree species of sufficient height, spread, form and horticultural characteristics to create the desired streetscape canopy, shade, buffering from adjacent uses, and other desired streetscape characteristics, while considering impacts to public view corridors.

e. Encourage the use of water-conserving landscaping, street furniture, decorative lighting and paving, arcaded walkways, public art, and other pedestrian-oriented features to enhance the streetscape appearance, comfort and safety.

f. Encourage and where possible, require undergrounding or stealthing of overhead utility lines, cellular facilities and related structures.

g. When possible, consolidate signs in the public right-of-way to reduce sign clutter, improve sight distance, maintain or improve safe access and reduce costs.

h. Design and locate street lighting with shielding or "cutoffs" to prevent glare, avoid excess lighting and preserve dark night time skies.

M-1.25 **Major and Minor Scenic Corridors.** We require the following roadways be maintained and preserved as major or minor scenic corridors with key entry points as shown in Figure M-2:

a. Avenida Vista Hermosa
b. Avenida La Pata
c. Avenida Pico
d. El Camino Real/Pacific Coast Highway
e. Ola Vista
f. El Camino Real
g. Camino De Los Mares
h. Camino Vera Cruz
i. Camino Del Rio
j. Calle del Cerro
k. Avenida Vista Montana
l. Avenida Talega
m. Avenida Del Mar
n. Interstate 5, between Camino De Los Mares and South City Limits

M-1.26 **Scenic Corridor Enhancement and Designation.** Enhance existing scenic corridors and identify opportunities for the designation of new corridors.

M-1.27 **Urban and Recreation Corridor Designations.** We seek to create and distinguish different roadway characteristics for Urban and Recreation corridors throughout the City. Distinctions between urban and recreation corridors will establish a scenic hierarchy and an overall visual framework for the City.

M-1.28 **New Scenic Corridors or Highways.** We expand or designate new scenic highways where protection of community resources warrants their preservation and/or protection.

M-1.29 **Protection of Scenic Corridors.** We ensure that development is sited and designed to protect scenic corridors and open space/landscape areas by blending man-made and man-introduced features with the natural environment.

M-1.30 **Building Heights and Setbacks.** We review the heights and setbacks of all structures to ensure the preservation of visual corridors and the maintenance of an open, scenic quality within each corridor.

M-1.31 **Compatible Landscaping.** We require development to provide landscaping themes that are compatible with and reinforce the visual character of adjacent, designated scenic corridors.

M-1.32 **Signs.** We require the review of the size, height, numbers, and type of on-premise signs to minimize their impact to scenic corridors.

M-1.33 **Billboards Prohibited.** We prohibit the construction of billboards within designated scenic corridors.

M-1.34 **Design and Maintenance.** We support the proper design, installation and maintenance of scenic highways and scenic corridor elements, including the responsibilities for the maintenance of landscaping and roadway surfaces to be fulfilled by homeowners' associations, community service districts, private owners and public agencies.

Natural Resources Element

Aesthetic Resources

NR-2.01 **Hillside Development and Ridgeline Protection.** We require that development in hillside areas comply with the Hillside Development Ordinance to maintain the natural topography of hillsides and ridgelines; protect natural vegetation and habitat; protect public view corridors and preserve special geological features, canyons, natural drainage swales, steep slopes and important historic and cultural features.

NR-2.02 **Coastal Canyon Areas Protection.** We preserve designated, undeveloped "natural" coastal canyon areas that were originally intended to be open space buffers, pursuant to the Coastal Element.

NR-2.03 **Coastal Canyon Areas Restoration.** We promote the restoration of coastal canyons as a visual resource in a manner that is consistent with the goals of the California Coastal Commission and the City's Coastal Element.

NR-2.04 **Public View Corridors of Ocean.** We preserve designated public view corridors to the ocean.

NR-2.05 **Street Design.** We respect and enhance public view corridors in the design and layout of new streets.

NR-2.06 **Parks and Trails.** We locate and design parks and trails to take advantage of ocean, canyon and hillside views.

NR-2.07 **Underground Utilities.** The City will develop and implement a utilities undergrounding plan to avoid the adverse impacts to aesthetic resources caused by public utilities and unmanned telecommunications facilities, where feasible and where costs of such undergrounding does not pose economic hardship. Where undergrounding is determined by the City to not be physically possible, such features shall be located and designed to reduce their visibility and in developed areas, consistent with prevailing architectural character and scale. In beaches, parks and open

spaces areas, such facilities shall be designed and located to blend in with natural colors, textures and landforms.

Dark Skies

NR-7.01 **New Residential Development and Remodeling Projects.** We require development projects and major remodel projects to minimize light pollution and trespass while enhancing safety and aesthetics.

NR-7.02 **Public Facilities, Buildings and Streets.** We use outdoor light shielding measures to minimize light trespass and glare while enhancing safety and aesthetics.

NR-7.03 **Commercial and Industrial Buildings.** We require that site lighting for commercial and industrial uses be unobtrusive and constructed or located so that only the intended area is illuminated, off-site glare is minimized, and adequate safety is provided.

Urban Design Element

Public Places

UD-1.01 **Location of Public Buildings and Civic Places.** We locate public buildings and civic places on primary or secondary streets, at important viewpoints, adjacent to parks or open space, or as a focus for a neighborhood to ensure their prominence and accessibility.

UD-1.02 **Design of Public Plazas and Spaces.** We require public plazas and spaces to be designed for safety, comfort, convenience and universal accessibility. They should be well-defined by surrounding buildings, located near the public street for good visibility and convenience and incorporate amenities such as seating, distinctive focal points, public art, shade trees, and/or eating and entertainment facilities.

UD-1.03 **Landscaping.** We emphasize the prominence of public places and their linkage to adjacent neighborhoods by creating a distinctive landscape character around them and extending the landscape improvements into neighboring streets, such as extending special paving or landscape treatments.

UD-1.05 **Streetscape Design.** We design new and, when necessary, retrofit existing streets to strengthen connectivity, beautify and enhance community character through public right-of-way improvements, including sidewalks, bicycle paths, street trees, parkways, curbs, signs, street lighting and street furniture.

UD-1.06 **Streets.** We recognize that public streets are important public spaces as well as transportation routes and support their occasional closure for community events, where feasible. Sidewalks, street trees, landscaping, and other amenities should be provided and maintained to keep these spaces attractive.

UD-1.07 **Sidewalks.** We design our sidewalks to accommodate pedestrians in a manner that meets City standards and we seek to ensure they are ADA compliant, well lit, safe, comfortable and consistent in style and construction materials. Sidewalk designs and paving materials shall be architecturally compatible with the district or neighborhood in which they are located.

UD-1.08 **Wayfinding.** We maintain an attractive, unified citywide system of signage, streetscape and landscaping to clearly mark directions to public buildings, parks, beaches, the Del Mar/T-Zone, North Beach, Pier Bowl, public parking areas, prominent natural features and City entry points and gateways.

UD-1.09 **Signs.** We require quality, balance, consistency, and the use of high quality materials in the design of public and private signs, including commercial signs, municipal signs, and street and traffic signs. Signs should be compatible with the architectural character of buildings on which they are placed, prevailing streetscape character and surrounding community character, and should be not be visually obtrusive.

UD-1.10 **Non-Conforming Signs.** We require replacement of non-conforming signs wherever possible and appropriate, through such mechanisms as sign amortization programs or conditions of project entitlements.

Gateways

UD-2.01 **Architecture/Design Quality.** We require high quality design for buildings at visually significant locations in gateway areas. New buildings and major remodels in Gateway areas adjacent to or opposite I-5 offramps, as shown in Figure UD-1, shall follow Spanish Colonial Revival architectural style, except where otherwise specified in the Design Guidelines and other adopted policies.

UD-2.02 **Spanish Village by the Sea Design Identity.** We require new gateway area development to include appropriate entry design elements (e.g., Spanish Colonial Revival and Spanish architecture, landscaping, signage, lighting, streetscape furniture) unless otherwise specified in the Design Guidelines, Focus Area goals and policies (e.g., Los Molinos or Surf Zone areas, which have more eclectic design character).

UD-2.03 **Historic Resources.** In designing and constructing gateway improvements, we preserve and incorporate views of historic resources.

UD-2.04 **Circulation.** We require roadway improvements in gateway areas to enhance motor vehicle, bicycle, pedestrian, and transit circulation.

UD-2.05 **Public View Corridors.** We require the preservation of designated public view corridors in the design and construction of gateway area improvements.

UD-2.06 **Parking.** Where practical, we limit the visibility of surface parking lots and parking spaces within gateway areas by requiring them to be located behind or to the side of buildings. Where this is not practical, we ensure that street-facing parking spaces and parking lots are visually screened with landscaping and/or architectural treatments.

UD-2.07 **Wayfinding System.** We provide directional signs and access information to visitors through a clearly articulated and aesthetically pleasing wayfinding sign program.

UD-2.08 **Hardscape Materials.** We require high-quality paving materials, consistently applied within the districts served by gateways, for all sidewalks, crosswalks and other public spaces.

UD-2.09 **Art in Public Places.** We encourage the inclusion of public art in private development and in public improvements in gateway areas.

UD-2.10 **Visual Screening.** We require visual screening of blank walls, trash bins, and parking facilities through a variety of landscaping and architectural design treatments. Where possible, we require the screening of utilities infrastructure. Unsightly properties and buildings should be visually screened in an attractive manner.

UD-2.11 **Overhead Utilities.** We encourage the undergrounding of overhead utilities infrastructure in gateway areas.

Compatibility

UD-3.03 **Buffers and Setbacks.** We require that new uses and buildings, characterized by differing functions, activities, density, scale and massing, to provide mitigation, landscaped buffers and/or setbacks between uses to prevent or mitigate adverse impacts.

UD-3.05 **Infrastructure Compatibility.** We require public infrastructure and related facilities or equipment to be aesthetically pleasing and in context with the community character.

Maintenance

UD-4.01 **Long-Term Quality.** We require all public and privately owned structures, above-ground infrastructure (including utilities), landscaping and property (including trails and easements) to be designed and maintained to ensure their long-term quality and appearance.

UD-4.02 **Monitoring.** We periodically inspect the conditions of buildings in the City and enforce pertinent building and Municipal Code.

UD-4.03 **Education.** We promote programs and work with local service organizations and educational institutions to inform residential, commercial, and industrial property owners and tenants regarding methods for the maintenance and upkeep of their property.

UD-4.04 **Community/Neighborhood Based Efforts.** We encourage community and neighborhood-based efforts for the maintenance and renovation of structures, sites and neighborhoods.

UD-4.05 **Economic Assistance.** We provide economic assistance, as funds are available, for the improvement of physically deteriorated and blighted structures in the City.

UD-4.06. **Maintenance of Infrastructure and the Public Realm.** As resources allow, we maintain and where appropriate, improve infrastructure and the public realm, including landscaping, sidewalks, signage, furniture and other streetscape elements. We keep public facilities clean.

Architecture and Landscaping

UD-5.01 **Outdoor Spaces.** For multi-family residential, mixed use and commercial development, we require integration of outdoor spaces into the architectural and site designs by encouraging the use of courtyards, patios, paseos, plazas, gardens, covered walkways, rooftop terraces, verandas and other outdoor spaces enclosed by architectural or landscape elements, and encourage the same for other types of development.

UD-5.05 **Architectural Overlay District.** We require that new buildings and major building remodels in the Del Mar/T-Zone, North Beach, and Pier Bowl areas, and El Camino Real between North Beach and the T-Zone, utilize Spanish Colonial Revival architecture, per the Architectural Overlay District and Design Guidelines.

UD-5.06 **Preserving Distinctive Architecture.** In the Architectural Overlay areas, we require new buildings, additions and remodels to follow City Design Guidelines for Spanish Colonial Revival architectural style, except that remodels of architecturally significant buildings eligible or potentially eligible for historic listing with distinctive styles other than Spanish Colonial Revival, such as Post-Modern and Mid-Century Modern architectural styles, should reinforce the buildings' original architectural design.

UD-5.08 **Los Molinos and the Surf Zone.** We encourage the use of diverse architectural styles that reflect the eclectic character and local context of these areas. Emphasis shall be placed on quality design and building materials per the Zoning Code and Design Guidelines.

UD-5.09 **Public Buildings.** We require Spanish Colonial Revival architecture for the development and major remodels of public buildings, and for the development and major remodels of visually prominent, non-residential, quasi-public structures such as churches, assembly halls, theaters and cultural facilities, except in those districts allowing for a different architectural style.

UD-5.10 **Scale and Massing.** We require that the scale and massing of development be compatible with its surroundings and any larger vision for an area.

UD-5.18 **Drought Tolerant/Native Species Landscaping.** Ornamental plantings in new, non-residential development should consist primarily of drought tolerant and California native species. Only in small areas and special public locations, such as high-use areas of parks, should lawns or other high water use vegetation be used.

UD-5.19 **Landscaping Plans.** We require that development projects subject to discretionary review submit and implement a landscaping and irrigation plan.

UD-5.20 **Landscape Maintenance.** We require property owners to properly maintain vegetation on developed sites, remove and abate weeds, and replace unhealthy or dead landscape plants.

UD-5.21 **Landscaping in Commercial/Industrial Development.** We require that commercial and industrial development incorporate automatic, drought-conscious, "smart" irrigation systems and maintain landscaping in a healthy and attractive condition.

Trees/Urban Forest

UD-6.01 **Built Environment.** In the built environment, we will enhance and maintain a diversity of tree species that are resilient to environmental changes, pests and diseases, enhance the character and design themes of individual districts and neighborhoods, and implement City landscape and streetscape guidelines and ordinances.

UD-6.05 **Historically Significant Trees and Public Landscapes.** We require that historically significant trees and public landscapes, as identified in the City's Tree Inventory, are designated as historic resources and are preserved, whenever possible.

UD-6.06 **Public View Corridors.** We require that street trees planted along designated public view corridors have narrow form and open structure to allow greater visual access. Street trees should be carefully placed and/or properly pruned, following best arboricultural practices, to achieve the desired goals without interruption of significant public views.

5.1.5 Existing Regulations

State of California

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

City of San Clemente Municipal Code

- Title 8. Health and Safety, Chapter 52: Nuisances.
- Title 15. Building and Construction, Chapter 40: Hillside Development.
- Title 15. Building and Construction, Chapter 44: Residential Development Control.
- Title 17. Zoning, Chapter 24: General Development Standards.
- Title 17. Zoning, Chapters 32, 36, 40, 44, 48, 52, and 56: Zoning Standards.

- Title 17. Zoning, Chapter 64: Parking and Access Standards.
- Title 17. Zoning, Chapter 68: Landscape Standards.
- Title 17. Zoning, Chapter 84: Sign Regulations.

5.1.6 Level of Significance Before Mitigation

Upon implementation of regulatory requirements and compliance with the Centennial General Plan policies, 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 significant adverse impacts were identified and no mitigation measures are necessary.

5.1.8 Level of Significance After Mitigation

No significant adverse impacts relating to aesthetics were identified.

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5.2 AIR QUALITY

This section of the Draft Environmental Impact Report (DEIR) evaluates the potential for The City of San Clemente Centennial General Plan (proposed General Plan) to impact air quality in local and regional contexts. The analysis is based on buildout of the proposed Land Use Plan (see Figure 3-4); vehicle miles traveled (VMT), provided by Fehr and Peers and derived from the Citywide Travel Demand Model and the Southern California Association of Government's (SCAG) Travel Demand Model; natural gas use provided by San Diego Gas & Electric (SDG&E), waste generation identified for the City of San Clemente by the California Department of Resources, Recycling, and Recovery (CalRecycle), and water use for the City based on the City of San Clemente's 2010 Urban Water Management Plan (UWMP). The air quality model output sheets are included in Appendix C of this DEIR.

5.2.1 Environmental Setting

South Coast Air Basin

The project site lies within the South Coast Air Basin (SoCAB), which includes all of Orange County and the nondesert portions of Los Angeles, Riverside, and San Bernardino Counties. The SoCAB is in a coastal plain with connecting broad valleys and low hills and is bounded by the Pacific Ocean in the southwest 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 (SCAQMD 2005).

Temperature and Precipitation

The annual average temperature varies little throughout the SoCAB, ranging from the low to middle 60s, measured in degrees Fahrenheit (°F). With a more pronounced oceanic influence, coastal areas show less variability in annual minimum and maximum temperatures than inland areas. The climatological station nearest to the City of San Clemente that would best represent the conditions of the inland portion of the City is the San Juan Canyon Monitoring Station (ID 047836). The average low is reported at 37.0°F in December while the average high is 90.2°F in August (WRCC 2013). The nearest climatological station that would represent the coastal portion of the City is the Laguna Beach Monitoring Station (ID 044647). The average low is reported at 43.0°F in January while the average high is 78.1°F in August (WRCC 2013)

In contrast to a very steady pattern of temperature, rainfall is seasonally and annually highly variable. Almost all rain falls from November through April. Summer rainfall is normally restricted to widely scattered thundershowers near the coast, with slightly heavier shower activity in the east and over the mountains. Rainfall averages between 12.34 and 12.52 inches per year in the City (WRCC 2013).

Humidity

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

AIR QUALITY

Wind

Wind patterns across the south coastal region are characterized by westerly or southwesterly onshore winds during the day and by 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, both 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 affect the transport and diffusion of pollutants by inhibiting their eastward transport. Air quality in the SoCAB generally ranges from fair to poor and is similar to air quality in most of coastal southern California. The entire region experiences heavy concentrations of air pollutants during prolonged periods of stable atmospheric conditions (SCAQMD 2005).

Inversions

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

Air Pollutants of Concern

Criteria Air Pollutants

Pollutants emitted into the ambient air by stationary and mobile sources are regulated by federal and state law. Air pollutants are categorized as primary or secondary pollutants. Primary air pollutants are emitted directly from sources. Carbon monoxide (CO), volatile organic compounds (VOC), nitrogen dioxide (NO_2), sulfur dioxide (SO_2), coarse inhalable particulate matter (PM_{10}), fine inhalable particulate matter ($PM_{2.5}$), and lead (Pb) are primary air pollutants. Of these, CO, SO_2, NO_2, PM_{10}, and $PM_{2.5}$ are "criteria air pollutants," which means that ambient air quality standards (AAQS) have been established for them. VOC and oxides of nitrogen (NO_x) are air pollutant precursors that form secondary criteria pollutants through chemical and photochemical reactions in the atmosphere. Ozone (O_3) and NO_2 are the principal secondary pollutants. A description of each of the primary and secondary criteria air pollutants and their known health effects is presented below.

Carbon Monoxide (CO) is a colorless, odorless gas produced by incomplete combustion of carbon substances, such as gasoline or diesel fuel. CO is a primary criteria air pollutant. CO concentrations tend to be the highest during winter mornings with little to no wind, when surface-based inversions trap the pollutant at ground levels. The highest ambient CO concentrations are generally found near traffic-congested corridors and intersections. The primary adverse health effect associated with CO is interference with normal oxygen transfer to the blood, which may result in tissue oxygen deprivation (SCAQMD 2005; EPA 2012). The SoCAB is designated under the California and National AAQS as being in attainment of CO criteria levels (CARB 2013).

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 of VOCs include evaporative

emissions associated with the use of paints and solvents, the application of asphalt paving, and the use of household consumer products such as aerosols (SCAQMD 2005). There are no ambient air quality standards established for VOCs. However, because they contribute to the formation of O_3, the South Coast Air Quality Management District (SCAQMD) has established a significance threshold for this pollutant.

Nitrogen Oxides (NO_x) are a by-product of fuel combustion and contribute to the formation of ground-level O_3, PM_{10}, and $PM_{2.5}$. The two major forms of NOx are nitric oxide (NO) and nitrogen dioxide (NO_2). NO is a colorless, odorless gas formed from atmospheric nitrogen and oxygen when combustion takes place under high temperature and/or high pressure. The principal form of NO_2 produced by combustion is NO, but NO reacts with oxygen quickly to form NO_2, creating the mixture of NO and NO_2 commonly called NO_x. NO_2 acts as an acute irritant and is more injurious than NO in equal concentrations. At atmospheric concentrations, however, NO_2 is only potentially irritating. NO_2 absorbs blue light; the result is a brownish-red cast to the atmosphere and reduced visibility. NO_2 exposure concentrations near roadways are of particular concern for susceptible individuals, including people with asthma asthmatics, children, and the elderly. Current scientific evidence links short-term NO_2 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 breathing elevated short-term NO_2 concentrations and increased visits to emergency departments and hospital admissions for respiratory issues, especially asthma (SCAQMD 2005, EPA 2012). The SoCAB is designated an attainment area for NO_2 under the National AAQS and nonattainment under the California AAQS (CARB 2013).

Sulfur Dioxide (SO_2) 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 from chemical processes at chemical plants and refineries. Gasoline and natural gas have very low sulfur content and do not release significant quantities of SO_2. When sulfur dioxide forms sulfates (SO_4) in the atmosphere, together these pollutants are referred to as sulfur oxides (SOx). Thus, SO_2 is both a primary and secondary criteria air pollutant. At sufficiently high concentrations, SO_2 may irritate the upper respiratory tract. Current scientific evidence links short-term exposures to SO_2, ranging from 5 minutes to 24 hours, with an array of adverse respiratory effects, including bronchoconstriction and increased asthma symptoms. These effects are particularly important for asthmatics at elevated ventilation rates (e.g., while exercising or playing.) At lower concentrations and when combined with particulates, SO_2 may do greater harm by injuring lung tissue. Studies also show a connection between short-term exposure and increased visits to emergency departments and hospital admissions for respiratory illnesses, particularly in at-risk populations including children, the elderly, and asthmatics (SCAQMD 2005; EPA 2011). The SoCAB is designated attainment under the California and National AAQS (CARB 2013).

Suspended Particulate Matter (PM_{10} 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 PM_{10}, include 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. Both PM_{10} and $PM_{2.5}$ may adversely affect the human respiratory system, especially in people who are naturally sensitive or susceptible to breathing problems. EPA scientific review concluded that $PM_{2.5}$, which penetrates deeply into the lungs, is more likely than PM_{10} to contribute to health effects and at concentrations that extend well below those allowed by the current PM_{10} standards. These health effects include premature death in people with heart of lung disease, nonfatal heart attacks, irregular heartbeat, aggravated asthma, decreased lung function, and increased respiratory symptoms (e.g., irritation of the airways, coughing, or difficulty breathing). Diesel particulate matter (DPM) is classified by the California Air Resources Board (CARB) as a carcinogen.

Particulate matter can also cause environmental effects such as visibility impairment,[1] environmental damage,[2] and aesthetic damage[3] (SCAQMD 2005; EPA 2012). The SoCAB is a nonattainment area for $PM_{2.5}$ and PM_{10} under California and National AAQS (CARB 2013).[4]

Ozone (O_3) is commonly referred to as "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, including forest trees and plants during the growing season (SCAQMD 2005; EPA 2011). The SoCAB is designated extreme nonattainment under the California AAQS (1-hour and 8-hour) and National AAQS (8-hour) (CARB 2013).

Lead (Pb) is a metal found naturally in the environment as well as in manufactured products. 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 on-road motor vehicle 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 to the air today are ore and metals processing and piston-engine aircraft operating on leaded aviation gasoline. Once taken into the body, lead distributes throughout the body in the blood and is accumulated 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 lead effects 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 (SCAMQD 2005; EPA 2012). However, in 2008 the EPA and CARB adopted more strict lead standards and special monitoring sites immediately downwind of lead sources recorded[5] very localized violations of the new state and federal standards. As a result of these localized violations, the Los Angeles County portion of the SoCAB was designated in 2010 as nonattainment under the California and National AAQS for lead (SCAQMD 2010). Because emissions of lead are found only in projects that are permitted by SCAQMD, lead is not an air quality of concern for the proposed project.

[1] $PM_{2.5}$ is the main cause of reduced visibility (haze) in parts of the United States.
[2] Particulate matter can be carried over long distances by wind and then settle on ground or water. The effects of this settling include: making lakes and streams acidic; changing the nutrient balance in coastal waters and large river basins; depleting the nutrients in soil; damaging sensitive forests and farm crops; and affecting the diversity of ecosystems.
[3] Particulate matter can stain and damage stone and other materials, including culturally important objects such as statues and monuments.
[4] CARB approved the SCAQMD's request to redesignate the SoCAB from serious nonattainment for PM_{10} to attainment for PM_{10} under the National AAQS on March 25, 2010, because the SoCAB has not violated federal 24-hour PM_{10} standards during the period from 2004 to 2007. However, the EPA has not yet approved this request.
[5] 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 identified that the Trojan Battery Company and Exide Technologies exceed the federal standards (SCAQMD 2010).

Toxic Air Contaminants

The public's exposure to air pollutants classified as toxic air contaminants (TACs) is a significant environmental health issue in California. In 1983, the California Legislature enacted a program to identify the health effects of TACs and to reduce exposure to these contaminants to protect the public health. The California Health and Safety Code defines a TAC as "an air pollutant which may cause or contribute to an increase in mortality or in serious illness, or which may pose a present or potential hazard to human health." A substance that is listed as a hazardous air pollutant (HAP) pursuant to Section 112(b) of the federal Clean Air Act (42 United States Code §7412[b]) is a toxic air contaminant. Under state law, the California Environmental Protection Agency (Cal/EPA), acting through CARB, is authorized to identify a substance as a TAC if it determines that the substance is an air pollutant that may cause or contribute to an increase in mortality or to an increase in 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 technology to minimize emissions. To date, CARB has established formal control measures for 11 TACs, all of which are identified as having no safe threshold.

Air toxics from stationary sources are also regulated in California under the Air Toxics "Hot Spot" Information and Assessment Act of 1987. Under AB 2588, toxic air contaminant 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 in the form of notices and public meetings.

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

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

MATES III

In 2000, SCAQMD conducted a study on ambient concentrations of TACs and estimated the potential health risks from air toxics. The results showed that the overall risk for excess cancer from a lifetime exposure to ambient levels of air toxics was about 1,400 in a million. The largest contributor to this risk was diesel exhaust, accounting for 71 percent of the air toxics risk. In 2008, SCAQMD conducted its third update to its study on ambient concentrations of TACs and estimated the potential health risks from air toxics. The results showed that the overall risk for excess cancer from a lifetime exposure to ambient levels of air toxics was about 1,200 in one million. The largest contributor to this risk was diesel exhaust, accounting for approximately 84 percent of the air toxics risk (SCAQMD 2008). Excess cancer risk is 245 to 446 in a million in the vicinity of the City of San Clemente (SCAQMD 2008).

AIR QUALITY

Regulatory Framework

AAQS have been promulgated at the local, state, and federal levels for criteria pollutants. The project area is in the SoCAB and is subject to the rules and regulations imposed by the SCAQMD, as well as the California CAAQS adopted by CARB and federal AAQS.

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 Clean Air Act amendments strengthened previous legislation and laid the foundation for the regulatory scheme of the 1970s and 1980s. In 1977, Congress again added several provisions, including nonattainment requirements for areas not meeting National AAQS and the Prevention of Significant Deterioration program. The 1990 amendments represent the latest in a series of federal efforts to regulate the protection of air quality in the United States. The CAA allows states to adopt more stringent standards or to include other pollution species. The California Clean Air Act (CCAA), 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, based on even greater health and welfare concerns.

These National and California AAQS are the levels of air quality considered to provide a margin of safety in the protection of the public health and welfare. They are designed to protect "sensitive receptors," those 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 5.2-1, these pollutants are O_3, NO_2, CO, SO_2, PM_{10}, $PM_{2.5}$, 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.

Table 5.2-1 Ambient Air Quality Standards for Criteria Pollutants

Pollutant	Averaging Time	California Standard	Federal Primary Standard	Major Pollutant Sources
Ozone (O_3)	1 hour	0.09 ppm	*	Motor vehicles, paints, coatings, and solvents.
	8 hours	0.070 ppm	0.075 ppm	
Carbon Monoxide (CO)	1 hour	20 ppm	35 ppm	Internal combustion engines, primarily gasoline-powered motor vehicles.
	8 hours	9.0 ppm	9 ppm	
Nitrogen Dioxide (NO_2)	Annual Average	0.030 ppm	0.053 ppm	Motor vehicles, petroleum-refining operations, industrial sources, aircraft, ships, and railroads.
	1 hour	0.18 ppm	0.100 ppm	
Sulfur Dioxide (SO_2)	Annual Arithmetic Mean	*	0.030 ppm2	Fuel combustion, chemical plants, sulfur recovery plants, and metal processing.
	1 hour	0.25 ppm	0.075 ppm1	
	24 hours	0.04 ppm	0.014 ppm2	

Table 5.2-1 Ambient Air Quality Standards for Criteria Pollutants

Pollutant	Averaging Time	California Standard	Federal Primary Standard	Major Pollutant Sources
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 ($PM_{2.5}$)[3]	Annual Arithmetic Mean	12 µg/m^3	15 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)	Monthly	1.5 µg/m^3	*	Present source: lead smelters, battery manufacturing & recycling facilities. Past source: combustion of leaded gasoline.
	Quarterly	*	1.5 µg/m^3	
	3-Month Average	*	0.15 µg/m^3	
Sulfates (SO_4)	24 hours	25 µg/m^3	*	Industrial processes.
Visibility Reducing Particles	8 hours	ExCo =0.23/km visibility of 10≥ miles1	No Federal Standard	Visibility-reducing particles consist of suspended particulate matter, which is a complex mixture of tiny particles that consists of dry solid fragments, solid cores with liquid coatings, and small droplets of liquid. These particles vary greatly in shape, size and chemical composition, and can be made up of many different materials such as metals, soot, soil, dust, and salt.
Hydrogen Sulfide	1 hour	0.03 ppm	No Federal Standard	Hydrogen sulfide (H_2S) is a colorless gas with the odor of rotten eggs. It is formed during bacterial decomposition of sulfur-containing organic substances. Also, it can be present in sewer gas and some natural gas, and can be emitted as the result of geothermal energy exploitation.
Vinyl Chloride	24 hour	0.01 ppm	No Federal Standard	Vinyl chloride (chloroethene), a chlorinated hydrocarbon, is a colorless gas with a mild, sweet odor. Most vinyl chloride is used to make polyvinyl chloride (PVC) plastic and vinyl products. Vinyl chloride has been detected near landfills, sewage plants, and hazardous waste sites, due to microbial breakdown of chlorinated solvents.

Source: CARB 2012.
ppm: parts per million; µg/m^3: micrograms per cubic meter
[1] When relative humidity is less than 70 percent.
[2] On June 2, 2010, a new 1-hour SO_2 standard was established and the existing 24-hour and annual primary standards were revoked. The 1971 SO_2 national standards (24-hour and annual) remain in effect until one year after an area is designated for the 2010 standard, except that in areas designated nonattainment for the 1971 standards, the 1971 standards remain in effect until implementation plans to attain or maintain the 2010 standards are approved.
[3] On December 14, 2012, EPA lowered the federal primary PM2.5 annual standard from 15.0 µg/m^3 to 12.0 µg/m^3. The new annual standard will become effective 60 days after publication in the Federal Register. EPA made no changes to the primary 24-hour PM2.5 standard or to the secondary $PM_{2.5}$ standards.
* Standard has not been established for this pollutant/duration by this entity.

AIR QUALITY

Air Quality Management Planning

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

2012 AQMP

On December 7, 2012, SCAQMD adopted the 2012 AQMP, which employs the most up-to-date science and analytical tools and incorporates a comprehensive strategy aimed at controlling pollution from all sources, including stationary sources, on-road and off-road mobile sources, and area sources. It also addresses several state and federal planning requirements, incorporating new scientific information, primarily in the form of updated emissions inventories, ambient measurements, and new meteorological air quality models. The 2012 AQMP builds upon the approach identified in the 2007 AQMP for attainment of federal PM and ozone standards and highlights the significant amount of reductions needed and the urgent need to engage in interagency coordinated planning to identify additional strategies, especially in the area of mobile sources, to meet all federal criteria air pollutant standards within the time frames allowed under the CAA. The 2012 AQMP demonstrates attainment of federal 24-hour $PM_{2.5}$ standard by 2014 and the federal 8-hour ozone standard by 2023. It includes an update to the revised EPA 8-hour ozone control plan with new commitments for short-term NO_X and VOC reductions. The plan also identifies emerging issues of ultrafine ($PM_{1.0}$) particulate matter and near-roadway exposure and an analysis of energy supply and demand.

Lead State Implementation Plan

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

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 ambient air quality standards. Severity classifications for ozone nonattainment range in magnitude from marginal, moderate, and serious to severe and extreme.

Transportation conformity for nonattainment and maintenance areas is required under the federal CAA to ensure federally supported highway and transit projects conform to the SIP. The EPA approved California's SIP revisions for attainment of the 1997 8-hour O_3 National AAQS for the SoCAB in March 2012. Findings for the new 8-hour O_3 emissions budgets for the SoCAB and consistency with the recently adopted 2012 Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS) were submitted to the EPA for approval.

The attainment status for the SoCAB is shown in Table 5.2-2. The SoCAB is designated in attainment of the California AAQS for sulfates. The SoCAB will have to meet the new federal 8-hour O_3 standard by 2023 and the federal 24-hour $PM_{2.5}$ standards by 2014 (with the possibility of up to a five-year extension to 2019 if needed). SCAQMD has recently designated the SoCAB as a nonattainment area for NO_2 (entire basin) and lead (Los Angeles County only) under the California AAQS.

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

Pollutant	State	Federal
Ozone – 1-hour	Extreme Nonattainment	No Federal Standard
Ozone – 8-hour	Extreme Nonattainment	Severe-17 Nonattainment[1]
PM_{10}	Serious Nonattainment	Nonattainment[2]
$PM_{2.5}$	Nonattainment	Nonattainment
CO	Attainment	Attainment
NO_2	Nonattainment	Attainment/Maintenance
SO_2	Attainment	Attainment
Lead	Nonattainment (Los Angeles County only)[3]	Nonattainment (Los Angeles County only)[3]
All others	Attainment/Unclassified	Attainment/Unclassified

Source: CARB 2013a.
Notes:
[1] SCAQMD may petition for Extreme Nonattainment designation.
[2] Annual standard revoked September 2006. CARB approved the SCAQMD's request to redesignate the SoCAB from serious nonattainment for PM_{10} to attainment for PM_{10} under the National AAQS on March 25, 2010, because the SoCAB has not violated federal 24-hour PM_{10} standards from 2004 to 2007. However, the EPA has not yet approved this request.
[3] The Los Angeles portion of the SoCAB was designated nonattainment for lead under the new federal and existing state AAQS as a result of large industrial emitters. Remaining areas within the SoCAB are unclassified.

Existing Ambient Air Quality

Existing levels of ambient air quality and historical trends and projections in the vicinity of the project site and project area are best documented by measurements made by SCAQMD. The City of San Clemente lies within Source Receptor Area (SRA) 21 (Capistrano Valley). The air quality monitoring station closest to the City is the Mission Viejo Monitoring Station. However, this station does not monitor SO_2 and NO_2. Consequently, data was obtained from the Costa Mesa-Mesa Verde Drive Monitoring Station for these criteria air pollutants. Data from these stations are summarized in Table 5.2-3. The data show that the area regularly exceeds the state and federal one-hour and eight-hour O_3 standards and have exceeded the state PM_{10} and federal $PM_{2.5}$ standards within the last five recorded years. The CO, SO_2, and NO_2 standards have not been exceeded in the last five years in the project vicinity.

Table 5.2-3 Ambient Air Quality Monitoring Summary

Pollutant/Standard	Number of Days Threshold Were Exceeded and Maximum Levels during Such Violations				
	2007	2008	2009	2010	2011
Ozone (O_3)[1]					
State 1-Hour ≥ 0.09 ppm	5	9	7	2	0
State 8-hour ≥ 0.07 ppm	10	25	14	2	5
Federal 8-Hour > 0.075 ppm	5	15	10	2	2
Max. 1-Hour Conc. (ppm)	0.108	0.118	0.121	0.117	0.094
Max. 8-Hour Conc. (ppm)	0.090	0.104	0.095	0.082	0.083
Carbon Monoxide (CO)[1]					
State 8-Hour > 9.0 ppm	0	0	0	0	0
Federal 8-Hour ≥ 9.0 ppm	0	0	0	0	0
Max. 8-Hour Conc. (ppm)	2.16	1.10	1.00	0.90	0.95
Nitrogen Dioxide (NO_2)[2]					
State 1-Hour ≥ 0.18 ppm	0	0	0	0	0
Max. 1-Hour Conc. (ppm)	0.074	0.081	0.065	0.070	0.061
Sulfur Dioxide (SO_2)[2]					
State 1-Hour ≥ 0.04 ppm	0	0	0	0	0
Max. 1-Hour Conc. (ppm)	0.004	0.003	0.004	0.002	0.002
Coarse Particulates (PM_{10})[1]					
State 24-Hour > 50 µg/m^3	3	0	1	0	0
Federal 24-Hour > 150 µg/m^3	0	0	0	0	0
Max. 24-Hour Conc. (µg/m^3)	74.0	42.0	56.0	34.0	48.0
Fine Particulates ($PM_{2.5}$)[1]					
Federal 24-Hour > 35 µg/m^3	2	0	1	0	0
Max. 24-Hour Conc. (µg/m^3)	46.8	32.6	39.2	19.9	33.4

Source: CARB 2013b.
ppm: parts per million; μg/m^3: or micrograms per cubic meter.
[1] Data obtained from the Mission Viejo Monitoring Station at 26081 Via Pera in the City of Mission Viejo.
[2] Data obtained from the Costa Mesa-Mesa Verde Drive Monitoring Station at 2850 Mesa Verde Drive East in the City of Costa Mesa.

Existing City of San Clemente Criteria Air Pollutant Emissions Inventory

Table 5.2-4 identifies the existing criteria air pollutant emissions inventory of the City of San Clemente. The inventory is based on existing land uses in the City. The existing land uses include residential, institutional, commercial, office, and industrial uses as identified in Table 3-4, *San Clemente Centennial General Plan Summary of Changes in Land Use from Existing Conditions*. Criteria air pollutant emissions generated within the City was estimated using EMFAC2011, OFFROAD2007, and data provided by the San Diego Gas and Electric (SDG&E) for natural gas use. Emissions within the City of San Clemente are composed of the following sources:

- **Transportation:** Emissions from vehicle trips beginning and ending within the City and from external/internal vehicle trips (i.e., trips that either begin or end within the City).
- **Area Sources:** Emissions from lawn and garden equipment use, commercial equipment use, and construction equipment use.
- **Energy:** Emissions generated from natural gas consumption used for cooking and heating in the City.

Table 5.2-4 Existing City of San Clemente Regional Criteria Air Pollutant Emissions Inventory

Sector	Criteria Air Pollutant Emissions (pounds per day)					
	VOC	NO_X	CO	SO_2	PM_{10}	$PM_{2.5}$
2012 Land Uses (per Table 3-1)						
Transportation[1]	2,053	4,032	19,354	32	395	194
Area – Landscaping/ Consumer Products[2]	294	165	4,356	0	20	20
Area – Construction[2]	112	763	700	1	46	46
Energy	39	335	163	2	27	27
Existing Land Uses Total	2,497	5,294	24,573	35	488	310

Source:
[1] EMFAC2011 based on daily VMT provided by Fehr and Peers. Transportation sector includes the full trip length for external-internal trips. 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).
[2] OFFROAD2007. Estimated based on population (Landscaping) and employment (Light Commercial Equipment) for San Clemente as a percentage of Orange County. Estimated based on housing permit data for Orange County and San Clemente from the US Census. Daily offroad construction emissions multiplied by 347 days/year to account for reduced/limited construction activity on weekends and holidays. Excludes fugitive emissions from construction sites and wood-burning fireplaces. Various industrial and commercial processes (e.g., manufacturing, dry cleaning) allowed under the Land Use Plan of the proposed General Plan would require permitting and would be subject to further study pursuant to SCAQMD Regulation XIII, New Source Review. Because the nature of those emissions cannot be determined at this time and are subject to further regulation and permitting, they would be speculative and are not included in the table.

Sensitive Receptors

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

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

5.2.2 Thresholds of Significance

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

AQ-1 Conflict with or obstruct implementation of the applicable air quality plan.

AQ-2 Violate any air quality standard or contribute substantially to an existing or projected air quality violation.

AQ-3 Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors).

AQ-4 Expose sensitive receptors to substantial pollutant concentrations.

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

South Coast Air Quality Management District Thresholds

The analysis of the proposed project's air quality impacts follows the guidance and methodologies recommended in SCAQMD's *CEQA Air Quality Handbook* and the significance thresholds on SCAQMD's website.[6] CEQA allows the significance criteria established by the applicable air quality management or air pollution control district to be used to assess impacts of a project on air quality. SCAQMD has established thresholds of significance for regional air quality emissions for construction activities and project operation. In addition to the daily thresholds listed above, projects are also subject to the AAQS. These are addressed though an analysis of localized CO impacts and localized significance thresholds (LSTs).

Regional Significance Thresholds

SCAQMD has adopted regional construction and operational emissions thresholds to determine a project's cumulative impact on air quality in the SoCAB. Table 5.2-5 lists SCAQMD's regional significance thresholds.

Table 5.2-5 SCAQMD Significance Thresholds

Air Pollutant	Construction Phase	Operational Phase
Reactive Organic Gases (ROGs)/ Volatile Organic Compounds (VOCs)	75 lbs/day	55 lbs/day
Carbon Monoxide (CO)	550 lbs/day	550 lbs/day
Nitrogen Oxides (NO_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
Particulates ($PM_{2.5}$)	55 lbs/day	55 lbs/day

Source: SCAQMD 2011.

CO Hotspots

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

Localized Significance Thresholds (LSTs)

SCAQMD developed LSTs to determine if emissions of NO_2, CO, PM_{10}, and $PM_{2.5}$ generated at a project site (offsite mobile-source emissions are not included the LST analysis) would expose sensitive receptors to substantial concentrations of criteria air pollutants. LSTs represent the maximum emissions at a project site that are not expected to cause or contribute to an exceedance of the most stringent federal or state AAQS. LSTs are based on the ambient concentrations of that pollutant within the project SRA and the distance to the nearest sensitive receptor. LST analysis for construction is applicable for all projects of five acres and less; however, it can be used to screen larger projects to

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

determine whether or not dispersion modeling may be required. Table 5.2-6 shows the localized significance thresholds for projects in the SoCAB.

Table 5.2-6 SCAQMD 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
24-Hour PM_{10} Standard – Construction (SCAQMD)[1]	10.4 µg/m^3
24-Hour $PM_{2.5}$ Standard – Construction (SCAQMD)[1]	10.4 µg/m^3
24-Hour PM_{10} Standard – Operation (SCAQMD)[1]	2.5 µg/m^3
24-Hour $PM_{2.5}$ Standard – Operation (SCAQMD)[1]	2.5 µg/m^3

ppm – parts per million; µg/m3 – micrograms per cubic meter
[1] Threshold is based on SCAQMD Rule 403. Since the SoCAB is in nonattainment for PM_{10} and $PM_{2.5}$, the threshold is established as an allowable change in concentration. Therefore, background concentration is irrelevant.

Health Risk Thresholds

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

Table 5.2-7 SCAQMD Toxic Air Contaminants Incremental Risk Thresholds

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

Source: SCAQMD 2011.

5.2.3 Environmental Impacts

Methodology

This air quality evaluation was prepared in accordance with the requirements of CEQA to determine if significant air quality impacts are likely to occur in conjunction with future development that would be accommodated by the General Plan Update. SCAQMD has published the *CEQA Air Quality Handbook* (Handbook) and updates on its website that are intended to provide local governments with guidance for analyzing and mitigating project-specific air quality impacts. The Handbook provides standards, methodologies, and procedures for conducting air quality analyses in environmental impact reports that were used in this analysis. The City's criteria air pollutant emissions inventory includes the following sectors:

Transportation: Transportation emissions forecasts were modeled using CARB's EMFAC2011. Model runs were based on daily per capita VMT data provided by Fehr and Peers using the Citywide TDM, SCAG TDM and 2012 (existing), 2020, and 2035 emission rates. The VMT provided in the model includes the full trip length for land uses in

the City (origin-destination approach) and does not include a 50 percent reduction in VMT for external-internal/internal-external trips.

Energy: Natural gas use for residential and nonresidential land uses in the City were modeled using data provided by SDG&E. Forecasts are adjusted for increases in population and employment in the City.

Area Sources: OFFROAD2007 was used to estimate GHG emissions from landscaping equipment, light commercial equipment, and construction equipment in the City. OFFROAD2007 is a database of equipment use and associated emissions for each county compiled by CARB. Annual emissions were compiled using OFFROAD2007 for the County of Orange for year 2013. In order to determine the percentage of emissions attributable to the City of San Clemente, landscaping and light commercial equipment is estimated based on population (Landscaping) and employment (Light Commercial Equipment) for the City of San Clemente as a percentage of Orange County. Construction equipment use is estimated based on building permit data for the City of San Clemente and County of Orange from data compiled by the U.S. Census. Daily off-road construction emissions are multiplied by 347 days per year to account for reduced/limited construction activity on weekends and holidays. Forecasts are adjusted for increases in population and employment in the City, with the exception of construction activities, which assume that construction emissions for the forecast year would be similar to historical levels. Area sources exclude emissions from fireplaces and consumer products in the City.

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 5.2-1: The proposed General Plan would not be consistent with the SCAQMD Air Quality Management Plan because buildout of the Land Use Plan would exceed the current population and employment estimates and would cumulatively contribute to the nonattainment designations of the SoCAB. [Threshold AQ-1]

Impact Analysis: CEQA requires that general plans be evaluated for consistency with the AQMP. A consistency determination 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 clean air goals in the AQMP. Only new or amended general plan elements, specific plans, and major projects need to undergo a consistency review. This is because the AQMP strategy is based on projections from local general plans. Projects that are consistent with the local general plan are considered consistent with the air quality-related regional plan. There are two key indicators of consistency:

Indicator 1: 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 timely attainment of the AAQS or interim emission reductions in the AQMP.

Indicator 2: Whether the project would exceed the assumptions in the AQMP. The AQMP strategy is, in part, based on projections from local general plans.

Indicator 1

The SoCAB is designated nonattainment for O_3, $PM_{2.5}$, PM_{10} and lead (Los Angeles County only) under the California and National AAQS and nonattainment for NO_2 under the California AAQS.[7] Because the proposed project involves long-term growth associated with buildout of the City of San Clemente, cumulative emissions generated by construction and operation of individual development projects would exceed the SCAQMD regional and localized thresholds (see Impact 5.2-2 and Impact 5.2-3). Consequently, emissions generated by development projects in addition to existing sources within the City are considered to cumulatively contribute to the nonattainment designations of the SoCAB. Buildout of the proposed General Plan would therefore 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 of the proposed General Plan would result in a significant air quality impact. The proposed project would not be consistent with the AQMP under the first indicator.

Indicator 2

The land use designations in the General Plan form, in part, the foundation for the emissions inventory for the SoCAB in the AQMP. The AQMP is based on projections in population, employment, and VMT in the SoCAB region projected by SCAG. Table 5.2-8 compares the population and employment generation of the Centennial General Plan compared to the existing conditions and projections based on SCAG forecasts.

Table 5.2-8 Comparison of Population and Employment Forecast

Scenario	Existing Land Uses	SCAG 2035 Forecast(based on 1993 adopted General Plan)	Proposed General Plan 2035	Change from Existing	Increase Compared to the SCAG Forecast
Population	64,208	68,300	76,549	12,341	8,249
Employment	27,700	26,600	39,313	11,613	12,713

SCAG projections for the City are partially based on the adopted 1993 (current) General Plan. As shown in Table 5.2-8, the proposed General Plan would result in higher population and generate more employment for the City compared to SCAG forecasts. It should be noted that the growth projected by SCAG is based on demographic trends in the region. These demographic trends are incorporated into the Regional Transportation Plan (RTP)/ Sustainable Communities Strategy (SCS), compiled by SCAG to determine priority transportation projects and VMT in the SCAG region. Growth projections of the proposed General Plan assume full buildout of the City by the year 2035, since there is no schedule for when this development would occur. As a result, the growth projections that are based on SCAG's RTP/SCS and the associated emissions inventory in SCAQMD's AQMP do not include the additional growth forecast in the Centennial General Plan. Therefore, the 2012 AQMP does not consider emissions associated with the proposed General Plan. Once the proposed General Plan is adopted and the AQMP is revised, SCAG and SCAQMD will incorporate the growth projections associated with buildout of the proposed General Plan in their regional planning projections, and the proposed General Plan would be consistent with the AQMP. However, since full buildout associated with the proposed General Plan is not currently included in the emissions inventory for the SoCAB, impacts associated with the second indicator are also considered significant.

[7] CARB approved the SCAQMD's request to redesignate the SoCAB from serious nonattainment for PM_{10} to attainment for PM_{10} under the national AAQS on March 25, 2010, because the SoCAB has not violated federal 24-hour PM_{10} standards during the period from 2004 to 2007. However, the EPA has not yet approved this request.

AIR QUALITY

Summary

As described above, the proposed project would not be consistent with the AQMP because air pollutant emissions associated with buildout of the City of San Clemente would cumulatively contribute to the nonattainment designations in the SoCAB. Furthermore, buildout of the proposed General Plan would exceed current population and employment estimates for the City of San Clemente and therefore these emissions are not included in the current regional emissions inventory for the SoCAB. The proposed Land Use Plan (see Figure 3-4) would increase density/mixed-use and would therefore be consistent with regional goals of improving transportation and land use planning. In addition, the policies of the proposed General Plan would reduce GHG emissions. However, because this additional growth would generate emissions that would cumulatively contribute to the nonattainment designations, the proposed General Plan would be considered inconsistent with the AQMP, resulting in a significant impact in this regard.

Impact 5.2-2: Construction activities associated with buildout of the proposed General Plan could generate short-term emissions that exceed the SCAQMD'S significance thresholds and would cumulatively contribute to the nonattainment designations of the SoCAB. [Thresholds AQ-2 and AQ-3]

Impact Analysis: Construction activities associated with the propose Land Use Plan would occur over the buildout horizon of The San Clemente Centennial General Plan, which would cause short-term emissions of criteria air pollutants. The primary source of NO_x, CO, and SO_x emissions is the operation of construction equipment. The primary sources of particulate matter (PM_{10} and $PM_{2.5}$) emissions include activities that disturb the soil, such as grading and excavation, road construction, and building demolition and construction. The primary source of VOC emissions is the application of architectural coating and off-gas emissions associated with asphalt paving. A discussion of health impacts associated with air pollutant emissions generated by construction activities is included in section 5.2-1, *Environmental Setting, Air Pollutants of Concern.*

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 proposed Land Use Plan, emissions would likely exceed the SCAQMD regional significance thresholds. In accordance with the SCAQMD methodology, emissions that exceed the regional significance thresholds would cumulatively contribute to the nonattainment designations of the SoCAB. The SoCAB is designated nonattainment for O_3 and particulate matter (PM_{10} and $PM_{2.5}$). Emissions of VOC and NO_x are precursors to the formation of O_3. In addition, NO_X is a precursor to the formation of particulate matter (PM_{10} and $PM_{2.5}$). Therefore, the project would cumulatively contribute to the nonattainment designations of the SoCAB for O_3 and particulate matter (PM_{10} and $PM_{2.5}$). Air quality emissions related to construction must be addressed on a project-by-project basis.

For this broad-based Policy Plan, it is not possible to determine whether the scale and phasing of individual projects would exceed the SCAQMD's short-term regional or localized construction emissions thresholds. In addition to regulatory measures (e.g., SCAQMD Rule 201 for a permit to operate, Rule 403 for fugitive dust control, Rule 1113 for architectural coatings, Rule 1403 for new source review, and CARB's Airborne Toxic Control Measures), mitigation may include extension of construction schedules and/or use of special equipment. Nevertheless, the likely scale and extent of construction activities associated with the Centennial General Plan would likely continue to exceed the relevant SCAQMD thresholds for some projects. Therefore, construction-related air quality impacts associated with development of the proposed Land Use Plan are deemed significant.

Impact 5.2-3: Buildout of the proposed General Plan would generate long-term emissions that would exceed the SCAQMD's significance thresholds and would cumulatively contribute to the nonattainment designations of the SoCAB. [Thresholds AQ-2 and AQ-3]

Impact Analysis: For the purpose of the following analysis, it is important to note that, based on the requirements of CEQA, this analysis is based on a comparison of the proposed General Plan land use map to existing land uses and not to the current General Plan land use map.

It is also important to note that the proposed General Plan is a regulatory document that sets up the framework for growth and development and does not directly result in development in and of itself. Before development can occur, all such development is required to be analyzed for conformance with the General Plan, zoning requirements, and other applicable local and state requirements; comply with the requirements of CEQA; and obtain all necessary clearances and permits.

The proposed General Plan guides growth and development within the City of San Clemente by designating land uses in the proposed Land Use Plan and through implementation of the goals and policies of the proposed General Plan. New development would increase air pollutant emissions in the City and contribute to the overall emissions inventory in the SoCAB. A discussion of health impacts associated with air pollutant emissions generated by construction activities is included in the *Air Pollutants of Concern* discussion in section 5.2-1, *Environmental Setting*.

City of San Clemente Emissions Inventory

The emissions inventory for the City under the proposed General Plan is shown in Table 5.2-9. As shown in the table, implementation of the proposed General Plan would result in an increase in criteria air pollutant emissions from existing conditions. This increase is based on the difference between existing land uses and land uses associated with buildout of the proposed General Plan (see Table 3-3, *San Clemente Centennial General Plan Buildout Projects (2035)*) as well as an estimate of population employment in the City in year 2035.

Table 5.2-9 Buildout Year 2035 City of San Clemente Regional Criteria Air Pollutant Emissions Inventory

Sector	Criteria Air Pollutant Emissions (pounds per day)					
	VOC	NO_X	CO	SO_2	PM_{10}	$PM_{2.5}$
Existing Land Uses – Year 2035						
Transportation[1]	823	1,330	6,412	33	366	165
Area – Landscaping/ Consumer Products[2]	294	165	4,356	0	20	20
Area – Construction[2]	112	763	700	1	46	46
Energy	39	335	163	2	27	27
Existing Land Uses Total	1,267	2,593	11,632	36	459	280
Proposed Land Use Plan – Forecast Year 2035						
Transportation[1]	1,021	1,650	7,954	40	455	205
Area – Landscaping/ Consumer Products[2]	370	208	5,491	1	25	25
Area – Construction[2]	112	763	700	1	46	46
Energy	48	410	204	3	33	33
Proposed Land Use Plan Total	1,542	3,043	14,357	45	560	337
Increase in Emissions	**274**	**450**	**2,725**	8	**100**	**56**
SCAQMD Regional Significance Threshold	55	55	550	150	150	55
Significant?	**Yes**	**Yes**	**Yes**	No	No	**Yes**

Source: Emissions forecasts estimated based on changes in population (residential energy, area), employment (nonresidential energy, area), or service population (transportation).

[1] EMFAC2011 based on daily VMT provided by Fehr and Peers. Transportation sector includes the full trip length for external-internal trips. 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).

[2] OFFROAD2007. Estimated based on population (Landscaping) and employment (Light Commercial Equipment) for San Clemente as a percentage of Orange County. Estimated based on housing permit data for Orange County and San Clemente from the US Census. Daily offroad construction emissions multiplied by 347 days/year to account for reduced/limited construction activity on weekends and holidays. Excludes fugitive emissions from construction sites and wood-burning fireplaces. Does not include emissions from wood-burning fireplaces. Various industrial and commercial processes (e.g., manufacturing, dry cleaning) allowed under the Land Use Plan of the proposed General Plan would require permitting and would be subject to further study pursuant to SCAQMD Regulation XIII, New Source Review. Because the nature of those emissions cannot be determined at this time and they are subject to further regulation and permitting, they will not be included in the table because they would be speculative.

Buildout of the proposed General Plan would generate long-term emissions that exceed the daily SCAQMD thresholds for VOC, NO_X, CO, and $PM_{2.5}$. Emissions of VOC and NO_X are precursors to the formation of O_3. In addition, NO_X is a precursor to the formation of particulate matter (PM_{10} and $PM_{2.5}$). Therefore, emissions of VOC and NO_X that exceed the SCAQMD regional significance thresholds would contribute to the O_3 nonattainment designation of the SoCAB. In addition, emissions of NO_X, and $PM_{2.5}$ that exceed the SCAQMD regional significance threshold would also contribute to the particulate matter (PM_{10} and $PM_{2.5}$) nonattainment designation of the SoCAB.

Implementation of the General Plan policies and implementation actions would reduce impacts to the extent feasible. For example, Policy NR-5.01 would require future development to apply SCAQMD air quality mitigation measures and reduce air quality impacts to the extent feasible. However, future development projects could exceed the SCAQMD regional emissions thresholds. Therefore, operational-related air quality impacts associated with future development of the proposed General Plan are significant.

Impact 5.2-4: Buildout of the proposed General Plan could expose sensitive receptors to substantial toxic air contaminant concentrations. [Threshold AQ-4]

Impact Analysis: Operation of new land uses, consistent with the Land Use Plan of the proposed General Plan, would generate new sources of criteria air pollutants and TACs in the City from area/stationary sources and mobile sources.

Toxic Air Contaminants

Various industrial and commercial processes (e.g., manufacturing, dry cleaning) allowed under the proposed General Plan would be expected to release TACs. Land uses that have the potential to be substantial stationary sources that would require a permit from SCAQMD for emissions of TACs include industrial land uses, such as chemical processing facilities, chrome-plating facilities, dry cleaners, and gasoline-dispensing facilities. Emissions of TACs would be controlled by SCAQMD through permitting and would be subject to further study and health risk assessment prior to the issuance of any necessary air quality permits under SCAQMD Rule 1401. Because the nature of those emissions cannot be determined at this time and they are subject to further regulation and permitting, they will not be addressed further in this analysis but are considered a potentially significant impact of the proposed General Plan.

In addition to stationary/area sources of TACs, warehousing operations could generate a substantial amount of diesel particulate matter emissions from off-road equipment use and truck idling. In addition, some warehousing and industrial facilities may include rail operations involving switch or main line locomotive activities. DPM accounts for approximately 84 percent of the excess cancer risk in the SoCAB (SCAQMD 2008). New land uses in the City that use trucks, including trucks with transport refrigeration units, and rail activities could generate an increase in DPM that would contribute to cancer and noncancer health risk in the SoCAB. These new land uses could be near to existing sensitive receptors within and outside the City of San Clemente. In addition, trucks would travel on regional transportation routes through the SoCAB, contributing to near-roadway DPM concentrations. This is considered a significant impact of the project.

CO Hotspots

Areas of vehicle congestion have the potential to create pockets of CO called hotspots. These pockets have the potential to exceed the state one-hour standard of 20 ppm or the eight-hour standard of 9.0 ppm. At the time of the 1993 Handbook, the SoCAB was designated nonattainment under the California AAQS and National AAQS for CO. With the turnover of older vehicles, introduction of cleaner fuels, and implementation of control technology on industrial facilities, CO concentrations in the SoCAB and in the state have steadily declined. In 2007, the SCAQMD was designated in attainment for CO under both the California AAQS and National AAQS. As identified within SCAQMD's 2003 AQMP and the 1992 Federal Attainment Plan for Carbon Monoxide (1992 CO Plan), peak carbon monoxide concentrations in the SoCAB were a result of unusual meteorological and topographical conditions and not a result of congestion at a particular intersection. A CO hotspot analysis was conducted for four busy intersections in Los Angeles at the peak morning and afternoon time periods and did not predict a violation of CO standards.[8] Under existing and future vehicle emission rates, a project would have to increase traffic volumes at a single intersection by more than 44,000 vehicles per hour—or 24,000 vehicles per hour where vertical and/or horizontal air does not mix—in order to generate a significant CO impact (BAAQMD 2011). Buildout of the proposed General Plan would not

[8] 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 and LOS E in the morning peak hour and LOS F in the evening peak hour.

produce the volume of traffic required to generate a CO hotspot. Therefore, CO hotspots are not an environmental impact of concern for the proposed project.

Impact 5.2-5: Buildout of the proposed General Plan could site sensitive land uses in near air pollution sources and therefore expose sensitive receptors to substantial pollutant concentrations. [Threshold AQ-4]

Impact Analysis: Because placement of sensitive land uses falls outside CARB jurisdiction, CARB developed and approved the *Air Quality and Land Use Handbook: A Community Health Perspective* in May 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 were developed from 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 close proximity to air pollution sources substantially increases both exposure and the potential for adverse health effects. There are three carcinogenic toxic air contaminants that constitute the majority of the known health risks from motor vehicle traffic: diesel PM from trucks, and benzene and 1,3-butadiene from passenger vehicles. On a typical urban freeway (truck traffic of 10,000 to 20,000/day), diesel PM makes up approximately 84 percent of the potential cancer risk from the vehicle traffic. Table 5.2-10 shows a summary of CARB recommendations for siting new sensitive land uses within the vicinity of air-pollutant-generating sources. Recommendations in Table 5.2-10 are based on data that show that localized air pollution exposures can be reduced by as much as 80 percent by following CARB minimum distance separations.

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

Source Category	Advisory Recommendations
Freeways and High-Traffic Roads	• 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.
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.

New development associated with the proposed General Plan surrounding Interstate 5 (I-5) has the potential to expose sensitive receptors to substantial pollutant concentrations from diesel exhaust. While much of the freeway corridor has been developed, the proposed Land Use Plan would potentially intensify uses surrounding the freeway at buildout. The association of truck-related diesel emissions with adverse health effects is generally strongest between 300 and 1,000 feet and diminishes with distance. The impact of traffic emissions is on a gradient that at some point becomes indistinguishable from the regional air pollution problem. CARB recommends avoiding 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." Because roadway volumes on I-5 would have more than 100,000 vehicles per day, buildout of the proposed Land Use Plan has the potential to expose sensitive receptors to substantial concentrations of air pollutant emissions if constructed within 500 feet of this freeway. No other roadways within the City have or are projected to have more than 100,000 average daily vehicle trips. Table 5.3-10 lists other air-pollutant-generating sources that can affect localized air quality. If new sensitive development were placed in the vicinity of any of these sources, then sensitive receptors may be exposed to significant concentrations of air pollutants.

In accordance with CEQA, new development would be required to assess the localized air quality impacts from placement of new sensitive uses within the vicinity of air pollutant sources. In addition, Policy NR-5.01 would reduce impacts for future development projects to the extent feasible. However, sensitive receptors could be exposed to substantial pollutant concentrations near major sources of air pollutants in the absence of mitigation. Therefore, air quality impacts from placement of sensitive uses near major pollutant sources are considered significant.

Impact 5.2-6: Industrial land uses associated with buildout of the proposed General Plan have the potential to create objectionable odors that could affect a substantial number of people. [Threshold AQ-5]

Impact Analysis: Growth within the City of San Clemente could generate new sources of odors and place sensitive receptors near existing sources of odors. Nuisance odors from land uses in the SoCAB are regulated under SCAQMD Rule 402, Nuisance, 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.

Industrial land uses have the potential to generate objectionable odors. Examples of industrial projects are wastewater treatments plants, compost facilities, landfills, solid waste transfer stations, fiberglass manufacturing facilities, paint/coating operations (e.g., auto body shops), dairy farms, petroleum refineries, asphalt batch plants, chemical manufacturing, and food manufacturing facilities. Industrial land uses associated with the proposed General Plan would be required to comply with SCAQMD Rule 402. However, additional measures may be necessary to prevent an odor nuisance. Therefore, industrial land uses associated with the General Plan Update may generate a potentially significant odor impact to a substantial number of people.

Residential and commercial land uses could result in generation of odors such as exhaust from landscaping equipment. However, unlike industrial land uses, these land uses are not considered potential generators of odor that could affect a substantial number of people. Therefore, impacts from potential odors generated from residential and commercial land uses associated with the General Plan Update are considered less than significant

During construction activities, construction equipment exhaust, application of asphalt and architectural coatings would temporarily generate odors. Any construction-related odor emissions would be temporary and intermittent in nature. Additionally, noxious odors would be confined to the immediate vicinity of the construction equipment. By the time such emissions reach any sensitive receptor sites, they would be diluted to well below any level of air quality concern. Furthermore, short-term construction-related odors are expected to cease upon the drying or hardening of the odor-producing materials. Therefore, impacts associated with construction-generated odors are considered less than significant.

5.2.4 Relevant General Plan Policies

Land Use Element

Commercial Land Uses

LU-2.05 **Pedestrian, Bicycle and Transit Access**. We require commercial projects to be designed to promote convenient access to and from nearby neighborhoods, transit facilities, bikeways, and other amenities.

LU-2.07 **Environmental Compatibility and Quality.** We require commercial districts and uses to be compatible with their environmental setting, promote City environmental goals, and be designed and operated to avoid or mitigate environmental impacts.

Mixed Use

LU-3.01 **Horizontal and Vertical Mix.** We permit a range of horizontally and vertically mixed uses appropriate to key areas of the City.

LU-3.02 **Flexibility.** We apply flexible development standards to respond to changing market demands, where it can be demonstrated that by doing so, the proposed development or land use will help achieve General Plan goals.

Automobile-Related Land Uses

LU-5.04 **El Camino Real and Other Mixed Use and Pedestrian-Oriented Areas.** With the exception of automobile-related parts sales with no onsite installation of parts, we prohibit new and major expansions of automobile-related uses along El Camino Real and in other commercial and mixed-use areas of the City designated to promote pedestrian activity.

Camino de Los Mares Focus Area

LU-7.05 **Bike and Pedestrian Environment.** We provide a high quality bicycle and pedestrian environment with "living street" designs, consistent landscaping, lighting, sidewalks, bikeways and trails, consistent with the Bicycle and Pedestrian Master Plan, Tree Ordinance and Design Guidelines.

Rancho San Clemente Business Park Focus Area

LU-8.06 **Bike and Pedestrian Environment.** We provide a quality bicycle and pedestrian environment with "living street" designs, consistent landscaping, lighting, sidewalks, traffic calming measures, bikeways and trails, consistent with the Bicycle and Pedestrian Master Plan, Tree Ordinance and Design Guidelines.

Los Molinos Focus Area

LU-9.03 **Institutional, Residential, and Office Uses.** We encourage the transition of the Pico Plaza commercial center through means of a Professional/Office Overlay that requires a master plan for employment and or educational/institutional uses. The Pico Plaza is also identified in the House Element as having potential for mixed, residential, and commercial uses with an affordable housing component. Existing uses, including residential uses that are consistent with the underlying Community Commercial land use designation, will continue to be allowed.

LU-9.04 **Transit Opportunities.** As part of planning efforts to redevelop the existing Pico Plaza commercial center, we encourage the reservation of an adequate portion of the site to accommodate a transportation center in the event that coastal railroad tracks are relocated inland.

LU-9.05 **Bike and Pedestrian Environment.** We provide a quality bicycle and pedestrian environment with "living street" designs, consistent landscaping, lighting, sidewalks, traffic calming measures, bikeways and trails, consistent with the Bicycle and Pedestrian Master Plan, Tree Ordinance and Design Guidelines.

North Beach/North El Camino Real Focus Area

LU-10.06 **Quality Development.** We require that site, building, and landscape development be of high quality design and materials and that promote pedestrian activity, in accordance with the Urban Design Element, North Beach Specific Plan and Zoning Ordinance.

LU-10.09 **Bike and Pedestrian Environment.** We provide a quality bicycle and pedestrian environment with "living street" designs, consistent landscaping, lighting, sidewalks, traffic calming measures, bikeways and trails, consistent with the Bicycle and Pedestrian Master Plan, Tree Ordinance and Design Guidelines.**LU-10.10 Alleys/Paseos.** We consider improvements to our alleyways to provide alternative pedestrian and bicycle routes.

Del Mar/T-Zone Focus Area

LU-11.02 **Land Uses.** We prioritize and guide land uses, particularly retail uses, to the locations identified in the Del Mar/T-Zone Mixed Use Guide and consistent with the Land Use Plan and Zoning Ordinance.

LU-11.03 **Flexibility.** We allow flexibility to accommodate market changes for the mix of uses identified in the Del Mar/T-Zone Mixed Use Guide, if doing so promotes achieving the Area's vision and improves livability, reduces vehicular trips, creates community gathering places and activity nodes, or helps strengthen its character and identity.

LU-11.05 **Bike and Pedestrian Environment.** We provide a quality bicycle and pedestrian environment with "living street" designs, consistent landscaping, lighting, sidewalks, traffic calming measures, bikeways and trails, consistent with the Bicycle and Pedestrian Master Plan, Tree Ordinance and Design Guidelines.

LU-11.07 **Access Between Buildings.** Where feasible, we require new development to link buildings and sites with adjacent development and public alleys through the use of walkways or paseos, in addition to street-abutting sidewalks.

Pier Bowl Focus Area

LU-12.02 **Infill Development.** We accommodate development that is compatible with coastal-oriented and community-serving commercial uses (including overnight accommodations), mixed residential and commercial uses, residential uses, and public recreational uses whose function or scale are compatible with the Area's recreational character.

LU-12.04. **Connectivity to the Del Mar/T-Zone.** We provide effective visual and transportation connections to the Del Mar/T-Zone area with visual cues such as signage, landscaping and lighting and work with property owners and businesses to provide transit options for visitors seeking to visit both the Pier Bowl and Del Mar/T-Zone destinations.

LU-12.09 **Bike and Pedestrian Environment.** We provide a quality bicycle and pedestrian environment with "living street" designs, consistent landscaping, lighting, sidewalks, traffic calming measures, bikeways and trails, consistent with the Bicycle and Pedestrian Master Plan, Tree Ordinance and Design Guidelines.

South El Camino Real (West of Interstate 5)

LU-13.01 **Alleys/Paseos.** We consider improvements to our alleyways to provide alternative pedestrian and bicycle routes.

LU-13.02 **Bike and Pedestrian Environment.** We provide a quality bicycle and pedestrian environment with "living street" designs, consistent landscaping, lighting, sidewalks, traffic calming measures, bikeways and trails, consistent with the Bicycle and Pedestrian Master Plan, Tree Ordinance and Design Guidelines.

South El Camino Real (East of Interstate 5)

LU-14.05 **Bike and Pedestrian Environment.** We provide a quality bicycle and pedestrian environment with "living street" designs, consistent landscaping, lighting, sidewalks, traffic calming measures, bikeways and trails, consistent with the Bicycle and Pedestrian Master Plan, Tree Ordinance and Design Guidelines.

LU-14.06 **Transportation Improvements.** We support transportation improvements in the area that enhance the safety, convenience, and appearance of bicycle and pedestrian facilities and that minimize adverse impacts on adjacent neighborhood streets and parking, pursuant to the Mobility Element and Bicycle and Pedestrian Master Plan.

Urban Design Element

Public Places

UD-1.04 **Bicycle, Pedestrian and Transit Access.** We maintain bicycle and pedestrian routes and encourage the provision of public transit routes that link public places to improve accessibility and reduce reliance on the automobile.

Gateway

UD-2.04 **Circulation.** We require roadway improvements in gateway areas to enhance motor vehicle, bicycle, pedestrian, and transit circulation.

Economic Development Element

Competitive Employment Centers

ED-2.05 **Jobs-Housing Balance.** We shall give priority to City initiatives, investments, Council decisions and the allocation of City resources, and development approvals that improve the jobs/housing ratio by creating job opportunities for residents and housing opportunities for employees.

Mobility and Complete Streets Element

Roadway System

M-1.01 **Roadway System.** We require the City's roadways to:

a. Accommodate public transit, motor vehicles, bicyclists, skateboarders, and pedestrians within the public right-of-way wherever feasible.

e. Ensure that new roadways, ramps, traffic control devices, bridges or similar facilities, and significant changes to such facilities, are designed to accommodate multi-modal facilities, and where feasible, retrofit existing facilities to improve the balance for the users of the roadway.

M-1.02 **Transportation Infrastructure.** Traffic control devices and transportation infrastructure operate to serve the needs of all roadway users, including motorists, public transit, pedestrians, and cyclists.

M-1.03 **Level of Service.** When the City determines there is a suitable tool available, we will measure and evaluate roadway performance from a multi-modal, Complete Streets perspective.

M-1.05 **Intersection Improvements.** We evaluate impacts of intersection improvements on all modes of travel, including bicyclists, pedestrians, and transit.

M-1.06 **Driveway Access Points.** We require the number of driveway access points onto arterial roadways to be minimized and located to ensure the smooth and safe flow of vehicles and bicycles.

M-1.08 **Transportation Mode Choice.** We actively work to reduce automobile use and improve the efficiency of the roadways based on locally collected data and on goals set through a collaborative process involving City staff, residents and other stakeholders.

M-1.09 **Regional Coordination.** We participate in the planning of regional transportation improvements, such as interchange improvements along I-5, the extension of the SR-241, and other major freeway and arterial improvements.

M-1.10 **Innovative Design.** We support the design principles in the City's Design Manual of Living Streets. We will consider use of innovative transportation design features, such as, but not limited to Intelligent Transportation System improvements, modern day roundabouts, midblock and corner bulbouts and road diets where such changes can improve the balance of the roadway and its compatibility with surrounding land uses.

M-1.12 **Design Integration.** City supports development that is designed and/or retrofitted to incorporate, and be efficiently served by, public transit, pedestrian and bicycle facilities.

Non-Automotive Transportation System

M-2.01 **Electric Vehicles.** We support the use of neighborhood- and long-range electric vehicles and identify routes and designate special parking for such Neighborhood Electric Vehicles (NEVs) at beaches and commercial locations.

M-2.02 **Pedestrian Facilities.** Public streets shall provide pedestrian facilities in accordance with the adopted City standards.

M-2.03 **Accessible Pedestrian Facilities.** All new streets shall have provisions for the adequate and safe movement of pedestrians, including improvements for the elderly and disabled.

M-2.05 **Rail Facilities and Programs.** We support the retention of passenger rail facilities at North Beach and in the Pier Bowl to help meet inter-city and regional transportation needs.

M-2.06 **Regional Rail Service.** We support the expansion of Metrolink and Amtrak service by the Southern California Regional Rail Authority, OCTA, and other agencies to enhance San Clemente's regional transit accessibility for residents, employees and visitors.

M-2.07 **Coordinated Land Use Planning for Transit.** We encourage higher density, mixed-use development in areas with existing and planned transit service.

M-2.08 **Transit Service.** We support the maintenance of existing bus service and encourage transit service enhancements by OCTA to ensure all residents have access to adequate and safe transit.

M-2.10 **Transit Priority in Development Review Process.** Development should encourage transit ridership by including bus turnouts, passenger shelters, transportation kiosks, pedestrian connections to transit, and other measures.

M-2.12 **Integration of Bicycle Planning.** We integrate development of the bicycle facilities network into larger land use planning and development projects.

M-2.13 **Bicycle and Pedestrian Network.** We plan, develop and maintain a comprehensive bicycle and pedestrian network as specified in the San Clemente Bicycle and Pedestrian Master Plan.

M-2.14. **Bicycle Friendly Streets.** We consider every public street in San Clemente as a street that cyclists could use.

M-2.15 **Bicycle-Friendly Infrastructure.** We shall employ bicycle-friendly infrastructure design using new technologies and innovative treatments, where necessary to improve bicyclists' safety and convenience.

M-2.16 **Roadway Performance Evaluation.** We shall evaluate roadway level of performance from a multi-modal, Complete Streets perspective.

M-2.17 **Traffic Control Devices.** Traffic control devices and transportation infrastructure will be operated to serve the needs of all users of the roadway and pedestrians.

M-2.18 **Design Standards.** We support the design principles in the City's Design Manual of Living Streets in determining the appropriate standard to apply to a given situation, the City will seek to maximize cyclists' and pedestrians' comfort and convenience, in balance with other roadway users.

M-2.19 **Bicycle Facilities.** In preparing City Land Use plans and applicable Capital Improvement Programs, we address bicycle needs, including:

a. Attractive destination facilities, such as secure bicycle lockers, showers, and changing rooms that are conveniently located for bicyclists, i.e. a bike station);

b. Facilities for bicycle parking within newly-built and renovated multi-family residential developments, residential condominiums and apartment conversions to condominiums, multi-use and non-residential sites;

c. Safe, secure and convenient bicycle parking; and

d. Wayfinding systems and traffic control signage or markings for all bicycle facilities.

M-2.20 **Regional Bicycle and Pedestrian Coordination.** We coordinate regional trail and bicycle planning, acquisition and development efforts with adjacent jurisdictions.

M-2.21 **External Linkages.** We link on-road and off-road bicycle and pedestrian facilities within San Clemente to existing and planned facilities in in adjacent and regional jurisdictions.

M-2.22 **Off-Road Trail Linkages.** Where feasible, the City connects off-road trails with the on-road transportation network.

M-2.23 **Skateboarding.** We encourage and support skateboard use as an efficient and legitimate transportation mode to connect gaps between destination and transit stops and rail stations.

M-2.24 **Maintenance and Hazard Monitoring.** All bicycle facilities will be maintained according to a management plan to be adopted by the City.

M-2.26 **Bicycle and Pedestrian Facility Design Standards.** We shall utilize the Caltrans Highway Design Manual and other infrastructure guidelines as appropriate to design and maintain bicycle and pedestrian facilities to high safety standards. **M-2.28 Intersection Configuration.** We shall require the intersections of local roads with the I-5 freeways and the proposed Toll Road to be designed using a "complete streets" approach.

M-2.29 **Safety Awareness.** We encourage and support the creation of comprehensive safety awareness programs for pedestrians, skateboarders, cyclists and drivers.

M-2.30 **Walking and Biking Trips.** We encourage city staff, employees, residents and visitors to walk and bicycle as often as possible.

M-2.31 **Improvements Along Bicycle and Pedestrian Routes.** We improve and maintain alternative transportation infrastructure and assign a high priority to improvements along primary pedestrian and bicycle routes to schools.

M-2.32 **Non-Automotive Transportation Co-Benefits.** We utilize non-automotive transportation solutions as tools for achieving economic development and environmental sustainability goals.

M-2.33 **Grant Funding.** We pursue Federal, State, County, regional and other funding opportunities to increase bicycle and pedestrian mode share percentages, improve transportation system performance, and to improve air quality through a balanced, multi-modal transportation system.

M-2.34 **Deferred Street Improvements.** Should the City defer construction of street improvements as part of any development approval, the property owner may be required to sign an agreement to participate in the installation of the improvements when a more complete street improvement project is feasible.

M-2.36 **Sidewalks and Pathways.** Sidewalks or pathways are desirable in most areas, including coastal neighborhoods where, at a minimum, it may only be feasible to install sidewalk on one side of the street.

Safety

M-3.01 **Connected Roadway Network.** We require development projects to connect to and where necessary, improve local streets to allow travel by all modes and ensure connectivity with the larger City-wide roadway network.

M-3.02 **Complete Streets Roadway Standards.** We require that pedestrian, vehicular, and bicycle circulation on public and private property is coordinated and designed to maximize safety, comfort and aesthetics and is consistent with Federal, State, Orange County, and local laws, codes, and standards.

M-3.04 **Manage Traffic Speeds.** We use a combination of effective design and traffic code enforcement to manage traffic speeds.

M-3.05 **Safety Awareness Program.** We encourage and assign high priority to the creation of a comprehensive safety awareness program for pedestrians, skateboarders, cyclists, and motorists which addresses proper riding behavior, wearing helmets, using lights, and other issues as appropriate.

Parking

M-4.02 **Parking Management.** We manage and evaluate public and private parking resources in key destination areas.

M-4.04 **Alternative Parking Strategies.** We consider alternative parking strategies that address multi-modal parking needs, improve land use efficiency and enhance environmental quality, such as use of energy-saving/generating features, demand-based parking strategies, stacking, alternative paving, accommodating multiple uses, and parking elevators.

M-4.07 **Alternative Parking Requirements and Incentives.** We will consider incentives to encourage alternative parking, such as crediting bicycle, neighborhood electric vehicles (NEV), motorcycle and scooter parking spaces in meeting required automobile parking.

Beaches, Parks, and Recreation Element

Open Space and Trails

BPR-4.01 **Open Space Preservation.** We encourage and support the preservation of open space within and adjacent to the City.

Health and Wellness

BPR-6.04 **Interconnected Neighborhoods.** Neighborhoods should be interconnected with safe, well-designed and maintained walking and biking trails, sidewalks consistent with the City's Bicycle and Pedestrian Master Plan.

BPR-6.05 **Bike Parking.** We encourage the provision of safe, secure, convenient and aesthetically pleasing bike parking to promote alternative forms of transportation wherever public parking is required.

BPR-6.06 **Compact Neighborhoods.** We support compact, neighborhood-serving development that provides healthy foods or essential services within walking or biking distance from residential neighborhoods, schools and parks.

BPR-6.09 **Streetscape Amenities.** We encourage and support local, private investment in streetscape amenities (examples include: benches, street trees, decorative sidewalks) that enhance safety, walkability, neighborhood appeal, and help commercial neighborhoods stay clean, safe and attractive.

BPR-6.10 **Urban Forest/Trees**. We support best practices in the planting and maintenance of trees in the public realm to improve air quality and reduce "heat island" effects due to reflected heat from hardscape and urban uses.

Natural Resources Element

Air Quality

NR-5.01 **New Development.** We require new development to utilize appropriate SCAQMD air quality mitigation measures.

NR-5.03 **Greenhouse Gases (GHG) Emissions Reductions.** We will reduce GHG emissions in accordance with regional, State, and Federal regulations, consistent with the adopted Climate Action Plan.

NR-5.05 **Transportation.** We provide non-motorized, multi-modal mobility options (e.g. pedestrian and bicycle facilities) and work with other agencies and organizations to provide transit opportunities to reduce air pollutant emissions.

NR-5.06 **Alternative Fueling Stations.** We encourage the siting and installation of alternative fueling (non-fossil fuel) stations.

NR-5.08 **Street Trees.** We maintain a healthy stock of public area and street trees and encourage the planting of trees with significant canopies that provide numerous benefits, including reduced urban heat gain, natural shading and wind screening, air filtration, and oxygen production.

AIR QUALITY

Energy Conservation

NR-6.01 **Conservation Strategy.** We require conservation as the first strategy to be employed to meet energy-saving standards.

NR-6.02 **Site Planning and New Building Design.** We require energy-efficient subdivision, site planning, and building design. Measures to be considered include building orientation and shading, landscaping, maximum use of natural daylight, reflectance of building, natural ventilation, active and passive solar heating and hot water system, etc. In establishing these energy related design requirements, we balance energy-efficient design with good planning principles.

NR-6.03 **Retrofit of Commercial and Residential Buildings.** We encourage and provide incentives for voluntary retrofitting of commercial and residential buildings to reduce energy use.

NR-6.04 **Public Buildings.** We require all new and substantially renovated City buildings in excess of 10,000 square feet to achieve a LEED Silver Certification standard, as determined by the U.S. Green Building Council, or the equivalent.

NR-6.05 **City Operations.** We routinely seek ways to improve the energy efficiency of City operations to save energy, reduce consumption of non-renewable materials, reduce municipal costs and set a positive example for the community.

NR-6.06 **City Vehicles and Equipment.** We purchase and use vehicles and equipment that are fuel efficient and meet or surpass state emissions requirements and/or use no- or low-emission sources of energy, if economically feasible..

NR-6.07 **Renewable Energy Resources.** We work with other agencies and utility providers to develop safe, economical and renewable energy resources, and we help reduce non-renewable energy use through public education and participation in energy conservation programs.

NR-6.08 **Public Awareness.** We work with local utilities to develop and provide energy conservation information to the public.

NR-6.10 **Alternative Fueling Stations.** We encourage the private sector to provide vehicle fueling stations that cater to electric and other non-petroleum fueled vehicles and require such facilities for City operations and facilities, where appropriate.

Public Services Element

Energy

PSFU-9.03 **City Facilities.** We use energy efficient designs that consider life-cycle costs in the planning, construction, and operation of all major City facilities and seek outside funding sources to help support these efforts.

PSFU-9.04 **Energy Audits.** We perform energy efficiency and demand response program audits at City facilities to understand our civic energy demands and plan improvements accordingly.

PSFU-9.05 **Demonstration Projects.** We participate in demonstration projects for energy conservation and savings when feasible.

PSFU-9.06 **Education.** We cooperate with local utilities to provide energy conservation information to the public.

PSFU-9.07 **Renewable Energy Resources.** We work with other agencies and utility providers to develop safe, economical, and renewable energy resources in San Clemente.

PSFU-9.08 **Solar Energy/Heating.** We incentivize the use of solar energy or solar water heating on private development by waiving related fees, when financially feasible for the City to do so.

PSFU-9.09 **Funding.** We seek grants and other outside funding for energy efficiency improvements to public or private facilities and structures in San Clemente.

PSFU-9.10 **Land Use Planning.** We encourage the development of employment centers and other land uses to improve our jobs to housing balance and minimize vehicle trips in San Clemente.

5.2.5 Existing Regulations and Standard Conditions

- SCAQMD Rule 201: Permit to Construct
- SCAQMD Rule 402: Nuisance Odors
- SCAQMD Rule 403: Fugitive Dust
- SCAQMD Rule 1113: Architectural Coatings
- SCAQMD Rule 1403: Asbestos Emissions from Demolition/Renovation Activities
- SCAQMD Rule 1186: Street Sweeping
- CARB Rule 2480 (13 CCR 2480): Airborne Toxics Control Measure to Limit School Bus Idling and Idling at Schools: limits nonessential idling for commercial trucks and school buses within 100 feet of a school.
- CARB Rule 2485(13 CCR 2485): Airborne Toxic Control Measure to Limit Diesel-Fuel Commercial Vehicle Idling: limits nonessential idling to five minutes or less for commercial trucks.
- CARB Rule 2449(13 CCR 2449): In-Use Off-Road Diesel Idling Restricts: limits nonessential idling to five minutes or less for diesel-powered off-road equipment.
- Building Energy Efficiency Standards (Title 24)
- Appliance Energy Efficiency Standards (Title 20)
- Motor Vehicle Standards (AB 1493)

5.2.6 Level of Significance Before Mitigation

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

- Impact 5.2-1 The proposed General Plan would not be consistent with the SCAQMD Air Quality Management Plan because buildout of the Land Use Plan would exceed the current population and employment estimates and would cumulatively contribute to the nonattainment designations of the SoCAB.

- Impact 5.2-2 Construction activities associated with buildout of the proposed General Plan could generate short-term emissions that exceed the SCAQMD'S significance thresholds and would cumulatively contribute to the nonattainment designations of the SoCAB.
- Impact 5.2-3 Buildout of the proposed General Plan would generate long-term that would exceed the SCAQMD's significance thresholds and would cumulatively contribute to the nonattainment designations of the SoCAB.
- Impact 5.2-4 Buildout of the proposed General Plan could expose sensitive receptors to substantial toxic air contaminant concentrations.
- Impact 5.2-5 Buildout of the proposed General Plan could site sensitive land uses in proximity to air pollution sources and therefore expose sensitive receptors to substantial pollutant concentrations.
- Impact 5.6-6 Industrial land uses associated with buildout of the proposed General Plan have the potential to create objectionable odors that could affect a substantial number of people.

5.2.7 Mitigation Measures

Impact 5.2-1

Mitigation measures incorporated into future development projects for operation and construction phases described in Impacts 5.2-2 and 5.2-3 below would reduce criteria air pollutant emissions associated with buildout of the proposed General Plan. Goals and policies included in the proposed General Plan would facilitate continued City cooperation with SCAQMD and SCAG to achieve regional air quality improvement goals, promotion of energy conservation design and development techniques, encouragement of alternative transportation modes, and implementation of transportation demand management strategies. However, no mitigation measures are available that would reduce impacts associated with inconsistency with the AQMP.

Impact 5.2-2

Goals and policies are included in the Centennial General Plan that would reduce air pollutant emissions. However, due to the magnitude of emissions generated by future construction activities, no mitigation measures are available that would reduce impacts below SCAQMD's thresholds.

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

- Requiring fugitive dust control measures that exceed SCAQMD'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 3 (model year 2006 or newer) or Tier 4 (model year 2008 or newer) emission limits, applicable for engines between 50 and 750 horsepower.
- Ensuring construction equipment is properly serviced and maintained to the manufacturer's standards.
- 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 manufactures can be found on the SCAQMD's website at: http://www.aqmd.gov/prdas/brochures/Super-Compliant_AIM.pdf.

Impact 5.2-3

Goals and policies are included in the proposed General Plan that would reduce air pollutant emissions. Measures included as part of the Climate Action Plan, such as expansion of the pedestrian and bicycle networks, installation of electric vehicle charging stations, and development of policy in implementing energy efficient retrofits for residential and commercial buildings, would also reduce criteria air pollutants within the City. However, due to the magnitude of emissions generated by office, commercial, industrial, and warehousing land uses, no mitigation measures are available that would reduce impacts below SCAQMD's thresholds.

Impact 5.2-4

Goals and policies are included in the proposed General Plan that would reduce concentrations of criteria air pollutant emissions and air toxics generated by new development. Review of projects by SCAQMD for permitted sources of air toxics would ensure health risks are minimized. The following mitigation measure would ensure mobile sources of TACs not covered under SCAQMD permits are considered during subsequent project-level environmental review.

2-2 New industrial or warehousing land uses 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 (TRUs), 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 San Clemente Planning Department prior to future discretionary project approval. The HRA shall be prepared in accordance with policies and procedures of the state Office of Environmental Health Hazard Assessment and the South Coast Air Quality Management District. If the HRA shows that the incremental cancer risk exceeds one in one hundred thousand (1.0E-05) or the appropriate noncancer hazard index exceeds 1.0, the applicant will be required to identify and demonstrate that best available control technologies for toxics (T-BACTs) are capable of reducing potential cancer and noncancer risks to an acceptable level, including appropriate enforcement mechanisms. T-BACTs may include, but are not limited to, restricting idling onsite or electrifying warehousing docks to reduce diesel particulate matter, or requiring use of newer equipment and/or vehicles. T-BACTs identified in the HRA shall be identified as mitigation measures in the environmental document and/or incorporated into the site plan.

AIR QUALITY

Impact 5.2-5

2-3 The City of San Clemente shall evaluate new development proposals for sensitive land uses (e.g., residential, schools, day care centers) within the City for potential incompatibilities with regard to the California Air Resources Board's *Air Quality and Land Use Handbook: A Community Health Perspective* (April 2005). Applicants for sensitive land uses that are within the recommended buffer distances shall submit a health risk assessment (HRA) to the City of San Clemente prior to future discretionary project approval. The HRA shall be prepared in accordance with policies and procedures of the state Office of Environmental Health Hazard Assessment (OEHHA) and the South Coast Air Quality Management District. The latest OEHHA guidelines shall be used for the analysis, including age sensitivity factors, breathing rates, and body weights appropriate for children age 0 to 6 years. If the HRA shows that the incremental cancer risk exceeds ten in one million (10E-06) or the appropriate noncancer hazard index exceeds 1.0, the applicant will be required to identify and demonstrate that mitigation measures are capable of reducing potential cancer and noncancer risks to an acceptable level (i.e., below ten in one million or a hazard index of 1.0), including appropriate enforcement mechanisms. Measures to reduce risk may include but are not limited to:

- Air intakes away from high-volume roadways and/or truck loading zones.
- Heating, ventilation, and air conditioning systems of the buildings provided with appropriately sized maximum efficiency rating value (MERV) filters.

Mitigation measures identified in the HRA shall be identified as mitigation measures in the environmental document and/or incorporated into the site development plan as a component of the proposed project. The air intake design and MERV filter requirements shall be noted and/or reflected on all building plans submitted to the City and shall be verified by the City's Planning Department.

Impact 5.2-6

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

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

If an odor management plan is determined to be required through CEQA review, the City shall require the project applicant to submit the plan prior to approval to ensure compliance with the South Coast Air Quality Management District's Rule 402, for nuisance odors. If applicable, the Odor Management Plan shall identify the best available control technologies for toxics (T-BACTs) that will be utilized to reduce potential odors to acceptable levels, including appropriate enforcement mechanisms. T-BACTs may include but are not limited to scrubbers (e.g., air pollution control

devices) at the industrial facility. T-BACTs identified in the odor management plan shall be identified as mitigation measures in the environmental document and/or incorporated into the site plan.

5.2.8 Level of Significance After Mitigation

Impact 5.2-1

Mitigation measures incorporated into future development projects for operation and construction phases would reduce criteria air pollutant emissions associated with buildout of the proposed General Plan. Goals and policies included in the proposed General Plan would facilitate continued City cooperation with SCAQMD and SCAG to achieve regional air quality improvement goals, promotion of energy conservation design and development techniques, encouragement of alternative transportation modes, and implementation of transportation demand management strategies. However, no mitigation measures are available that would reduce impacts associated with inconsistency with the AQMP. Therefore, Impact 5.2-1 would remain significant and unavoidable.

Impact 5.2-2

Implementation of mitigation would reduce criteria air pollutant emissions from construction-related activities. However, due to the magnitude of emissions generated by future construction activities, no mitigation measures are available that would reduce impacts below SCAQMD's thresholds. Therefore, Impact 5.2-2 would remain significant and unavoidable.

Impact 5.2-3

Goals and policies are included in the proposed General Plan that would reduce air pollutant emissions. Measures included as part of the Climate Action Plan to reduce idling, natural gas use, and encourage use of alternative-fueled vehicles would also reduce criteria air pollutants within the City. However, due to the magnitude of emissions generated by office, commercial, industrial, and warehousing land uses, no mitigation measures are available that would reduce impacts below SCAQMD's thresholds. Therefore, Impact 5.2-3 would remain significant and unavoidable.

Impact 5.2-4

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

Review of projects by SCAQMD for permitted sources of air toxics (e.g., industrial facilities, dry cleaners, and gasoline dispensing facilities) would ensure health risks are minimized. Mitigation Measure 2-2 would ensure mobile sources of TACs not covered under SCAQMD permits are considered during subsequent project-level environmental review. Development of individual projects may achieve the incremental risk thresholds established by SCAQMD. However, the incremental increase in health risk associated with individual projects is considered cumulatively considerable and would contribute to already elevated levels of cancer and noncancer health risks in the SoCAB. Therefore, Impact 5.2-4 would remain significant and unavoidable.

Impact 5.2-5

Mitigation measure 2-3 would ensure that placement of sensitive receptors near major sources of air pollutants would achieve the incremental risk thresholds. Therefore, Impact 5.2-5 would be less than significant.

AIR QUALITY

Impact 5.2-6

Mitigation Measure 2-4 would ensure that odor impacts are minimized and facilities would comply with SCAQMD Rule 402. Therefore, Impact 5.2-6 would be less than significant.

5.3 BIOLOGICAL RESOURCES

The analysis in this section is based in part on documents and maps prepared for the Orange County Southern Subregion Habitat Conservation Plan (HCP) by Dudek (2006).

5.3.1 Environmental Setting

The City of San Clemente covers approximately 19.5 square miles of natural, semi-natural, and developed land cover. The City covers two topographical areas: a foothill area inland of I-5 and a coastal plain area on the ocean-side of I-5. The foothill area ranges from an elevation of approximately 200 feet above mean sea level along I-5 to nearly 1,000 feet elevation in the northeastern corner of the city and approximately 900 feet along the northern and eastern boundaries of the City. Two main streams flow through the City: Prima Deshecha Canada along the northern border, and Segunda Deshecha Canada in the central part of the City.

The habitats of the upland hills include grassland, chaparral, coastal sage scrub, oak woodland, with riparian vegetation in the intermittent streamcourses. The upland habitats support a variety of native plant and animal species, including sensitive animals (e.g., California gnatcatcher [*Polioptila californica californica*] and sensitive plants (e.g., thread-leaved brodiaea [*Brodiaea filifolia*] as well as more common wildlife such as mule deer (*Odocoileus hemionus*), coyote (*Canis familiaris*), and bobcat (*Lynx rufus*).

The coastal plain is largely developed with residential, commercial, and industrial land uses, but contains a number of coastal canyons with patches of native habitat intermixed with ornamental plantings. The near-shore waters support a rich assemblage of fishes, including croaker (*Umbrina roncador*), lizardfish (*Synodus lucioceps*), surfperch (various species), and corbina (*Menticirrhus undulatus)* in shallow sandy habitats. Species such as white seabass (*Atractoscion nobilis*), California halibut, (*Paralichthys californicus*), barracuda (*Sphyraena argentea*), and thresher sharks (*Alopias vulpinus*) occur in deeper waters and around kelp beds and rocky areas. All of these species have been caught by fishermen on the San Clemente Pier. Common marine mammals such as long beaked common dolphins (*Delphinus capensis*) and bottlenose dolphin (*Tursiops truncatus*) occur seaward of the surf zone. Gray whales (*Eschritchtius robustus*) can occur relatively close to the shoreline but these and other whales such as the blue whale (*Baleonoptera musculus*) and fin whale (*Baleonoptera physalus*) generally occur in deeper waters outside of San Clemente's jurisdiction.

5.3.1.1 Applicable Plans and Regulations

Federal and State Regulations

Endangered Species Act

The Federal Endangered Species Act (FESA) of 1973, as amended, was promulgated to protect and conserve any species of plant or animal that is endangered or threatened with extinction and the habitats in which 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." Critical habitat is formally designated by USFWS to provide guidance for planners/managers and biologists with an indication of where suitable habitat may occur and where high priority of preservation for a particular species should be given. Section 10 of the FESA provides the regulatory mechanism that allows the incidental take of a listed species by private interests and nonfederal government agencies during lawful activities. HCPs for the impacted species must be developed in support

of incidental take permits for nonfederal projects to minimize impacts to the species and develop viable mitigation measures to offset the unavoidable impacts.

Migratory Bird Treaty Act

The Migratory Bird Treaty Act of 1918 (MBTA) is the domestic law that affirms or implements the United States' commitment to four international conventions with Canada, Japan, Mexico, and Russia for the protection of shared migratory bird resources. The MBTA governs the taking, 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 activities, except under a valid permit or as permitted in the implementing regulations. USFWS administers permits to take migratory birds in accordance with MBTA regulations.

Clean Water Act, Section 404

The United States Army Corps of Engineers regulates discharges of dredged or fill material into "waters of the U.S."[1] (including wetlands and non-wetland bodies of water that meet specific criteria). Pursuant to Section 404 of the federal Clean Water Act (CWA), a permit is required for any filling or dredging within waters of the U.S. The permit review process entails an assessment of potential adverse impacts to Corps wetlands and jurisdictional waters, wherein the Corps may require mitigation measures. Where a federally listed species may be affected, a Section 7 consultation with USFWS may be required. If there is potential for cultural resources to be present, Section 106 review may be required. Also, where a Section 404 permit is required, a Section 401 Water Quality Certification would also be required from the Regional Water Quality Control Board (RWQCB).

Clean Water Act, Section 401and 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 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 Corps Section 404 permits and National Pollutant Discharge Elimination System (NPDES) permits issued by the Environmental Protection Agency (EPA) under Section 402 of the CWA. NPDES permits are issued by the applicable RWQCB. The City of San Clemente is within the jurisdiction of the San Diego RWQCB (Region 9).

California Fish and Game Code, Section 1600

Section 1600 of the California Fish and Game Code requires that a project proponent 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 a project and place conditions on the project as part of a Streambed Alteration Agreement (SAA). The conditions are intended to address potentially significant adverse impacts within CDFW's jurisdictional limits.

[1] "Waters of the United States," as it applies to the jurisdictional limits of the authority of the Corps under the Clean Water Act, includes: all waters which are currently used, or were used in the past, or may be susceptible to use in interstate or foreign commerce, including all waters which are subject to the ebb and flow of the tide; all interstate waters including interstate wetlands; 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, the use, degradation or destruction of which could affect interstate or foreign commerce; water impoundments; tributaries of waters; territorial seas; 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."

California Endangered Species Act

The California Endangered Species Act (CESA) generally parallels the main provisions of the FESA and is administered by the CDFG. 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 Data Base (CNDDB) project, which maintains a database 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

Chapter 3 of the California Coastal Act, California Public Resources Code Sections 30000 et seq., contains policies to protect water quality and the biological productivity of coastal waters; avoid and minimize dredging, diking, and filling sediments; and mitigate wetland impacts. Under the California Coastal Act, environmentally sensitive area means any area in which plant or animal life or their habitats are either rare or especially valuable because of their special nature or role in an ecosystem and which could be easily disturbed or degraded by human activities and developments. Implementation of Coastal Act policies is accomplished primarily through the preparation of a Local Coastal Program (LCP). The LCP is typically prepared and adopted by a municipality or county, and then it is reviewed and approved by the Coastal Commission. A LCP typically consists of a land use plan and an implementation plan. The land use plan indicates the kinds, location, and intensity of land uses, the applicable resource protection and development policies, and, where necessary, a listing of implementing actions. The implementation plan consists of the zoning ordinances, zoning district maps, and other legal instruments necessary to implement the land use plan.

City of San Clemente

The City's Canyon and Bluff Preservation Ordinance, Ordinance No. 1071, prohibits encroachment of development into the coastal canyons and bluffs.

Existing Conservation Plans and Areas

Southern Orange County Habitat Conservation Plan

The Orange County Southern Subregion HCP was approved by the USFWS in 2007; it has not been approved by the CDFW. At completion, the HCP preservation area will include 32,818 acres of habitat reserves within a plan area spanning 132,000 acres and extending north from the northern part of the City of San Clemente to just beyond the City of Lake Forest. HCP plan area and reserves in and next to the City of San Clemente are shown in Figure 5.3-1, *Habitat Conservation Plan*. The HCP protects 32 covered species, including seven federally listed species, and ten vegetation communities. Applicants for projects within the HCP Plan Area must apply to CDFW for incidental take permits, as authorized under Sections 2081(b) and (c) of the California Fish and Game Code, separately from coverage under the FESA through the HCP. CDFW issues some programmatic CESA permits to developers and other entities such as public utilities covering multiple species under California Fish and Game Code Section 2081(b). Programmatic CESA permits can include species under review for CESA listing; upon listing of such a species, the permittee must consult with CDFW regarding mitigation of impacts to that species. The three participating landowners in the HCP are the County of Orange, the Santa Margarita Water District, and the Rancho Mission Viejo Company. The HCP plan area is

divided into four subareas. The Sphere of Influence (SOI) (see Figure 5.3-1) and a small part of the northeastern part of the City are in subarea 1, and the balance of the City is in subarea 4. The proposed HCP reserve is being assembled in Subarea 1; the SOI and approximately 190 acres of the City are in the planned reserve. Nearly all of the important natural areas in subarea 4 have already been protected pursuant to the FESA (Dudek 2006).

Bellota Landslide Repair and Shorecliffs Mobile Home Park HCP

The Bellota Landslide Repair and Shorecliffs Mobile Home Park HCP protects one listed species, the coastal California gnatcatcher (*Polioptila californica californica*), in a total of 17.43 acres of protected habitat on two sites: one spanning 8.01 acres near the Shorecliffs Mobile Home Park near Villa Bellota in the City of San Clemente, and the second a 9.42-acre area near the intersection of Avenue Vista Hermosa and Avenida La Plata, also in San Clemente.[2] The USFWS issued a permit for the Bellota HCP in 2007 (USFWS 2013a).

Critical Habitat

Critical habitat is specific geographic area(s) essential for the conservation of a threatened or endangered species that may require special management and protection. Critical habitat may include an area that is not currently occupied by the species but that will be needed for its recovery. Federal agencies are required to consult with USFWS on actions they carry out, fund, or authorize to ensure that their actions will not destroy or adversely modify critical habitat.

Parts of the City are designated critical habitat for the coastal California gnatcatcher, arroyo toad (*Bufo californicus*), and/or thread-leaved brodiaea (*Brodiaea filifolia*) (USFWS 2013b; see Figure 5.3-2, *Critical Habitat*).

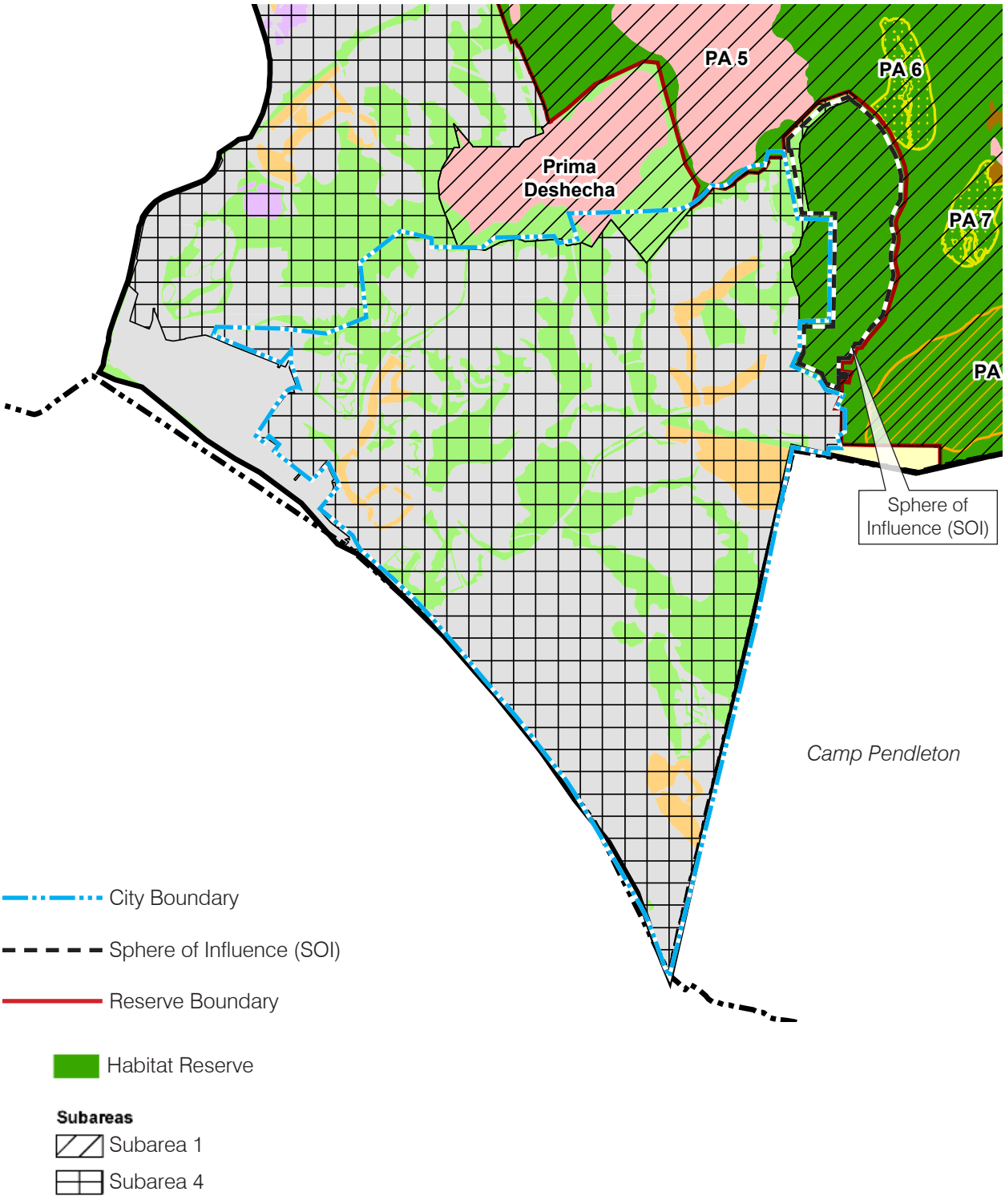
San Clemente Coastal Land Use Plan

Chapter 3 of the California Coastal Act contains policies to protect water quality and the biological productivity of coastal waters; avoid and minimize dredging, diking, and filling sediments; and mitigate wetland impacts. Under the California Coastal Act, environmentally sensitive area means any area in which plant or animal life or their habitats are either rare or especially valuable because of their special nature or role in an ecosystem and which could be easily disturbed or degraded by human activities and developments. Implementation of Coastal Act policies is accomplished primarily through the preparation of a Local Coastal Program (LCP). The LCP is typically prepared and adopted by a municipality or county and is reviewed and approved by the Coastal Commission. An LCP typically consists of a land use plan and an implementation plan. The land use plan indicates the kinds, location, and intensity of land uses, the applicable resource protection and development policies, and, where necessary, a listing of implementing actions. The implementation plan consists of the zoning ordinances, zoning district maps, and other legal instruments necessary to implement the land use plan.

The City's Land Use Plan certified by the California Coastal Commission is the Coastal Element certified in 1996. The Coastal Element has goals and policies for: coastal land use, shoreline access, recreational facilities, coastal visual and historic resources, water and marine resources, and environmentally sensitive habitat areas—that is, any ecosystem or habitat that has rare plant or animal life or is itself rare. The Coastal Zone boundary runs alternatively along or several hundred feet west of I-5 for nearly the whole length of the City from southeast to northwest.

[2] The HCP Summary on the USFWS Conservation Plans and Agreements Database gives the total area covered under the HCP as 21.43 acres. Jonathan Snyder, Orange County Division Chief for the USFWS, confirmed that the two conservation areas total 17.43 acres.

Habitat Conservation Plan



Source: Dudek 2006

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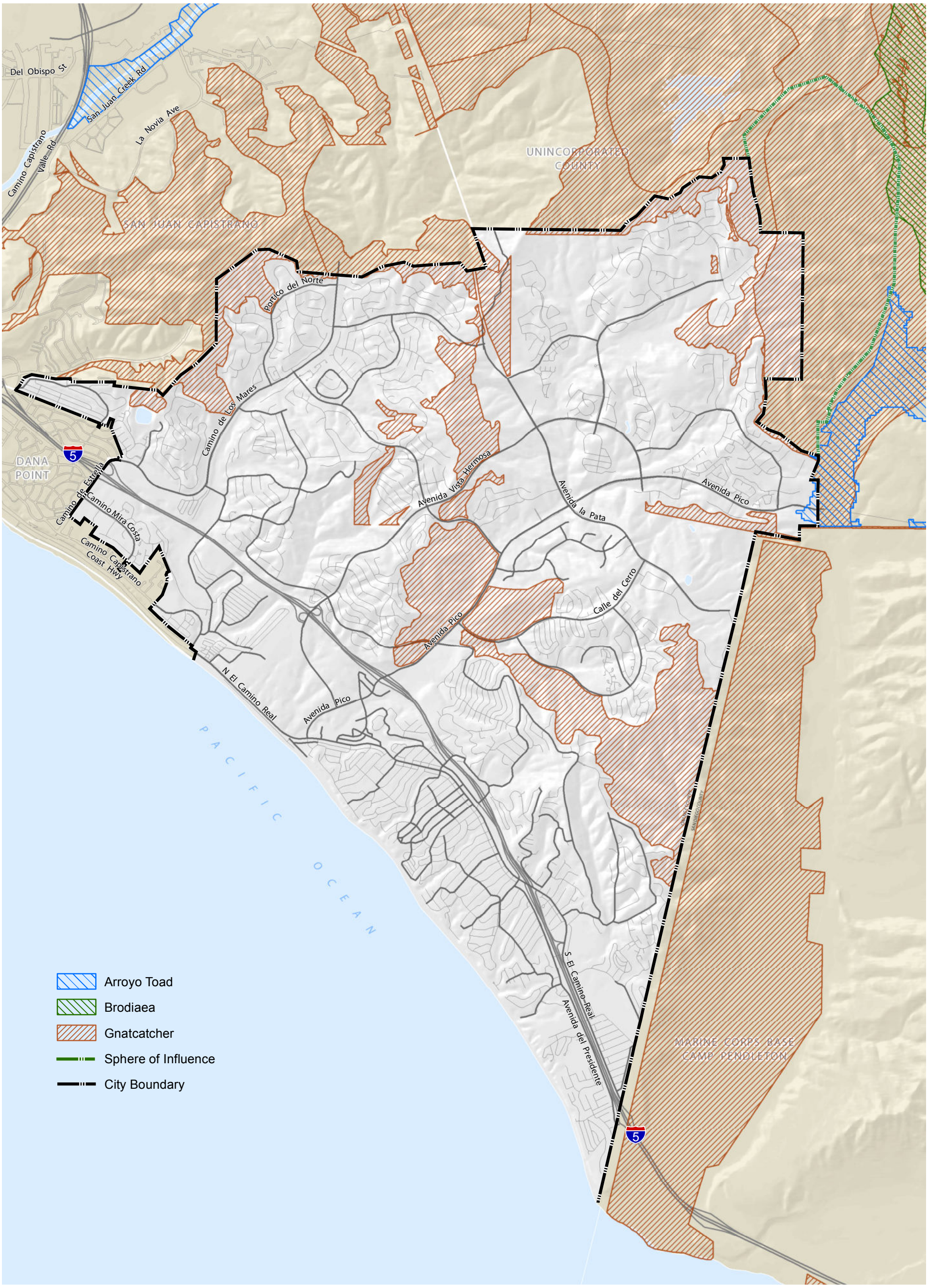
Critical Habitat



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Vegetation Types

Eleven vegetation or land cover types, briefly described below, were identified by Dudek in the City and SOI and are mapped on Figure 5.3-3, *Vegetation Types*. The descriptions are summarized from the Southern Orange County Habitat Conservation Plan (Dudek 2006).

- **Chaparral.** Chaparral is a shrub-dominated vegetation community that is composed largely of evergreen species that range from 3 to 13 feet in height and have hard leaves adapted to reduce water loss. Most of the chaparral in the City and SOI is in the eastern and northern parts of the City and in the SOI.
- **Cliff and Rock.** Cliff and rock habitat supports a variety of vascular plants and lichens, depending on the conditions, including the amount of water, at each site. There are a few acres of cliff and rock in the SOI.
- **Developed Area.** Developed area includes all urban areas, roads, nonnatural parks, and cleared and graded areas.
- **Disturbed Area.** Disturbed area includes cleared or graded, burned, and mined areas. Disturbed areas may be barren or support ruderal (weedy) vegetation.
- **Forest.** Coast Live Oak Forest and Coast Live Oak Riparian Forest vegetation is scattered in the SOI and the northeastern part of the City.
- **Grassland.** Grasslands in the City and SOI are annual grasslands containing a mix of native and introduced species. Grassland habitat is scattered across several areas of the City and occurs in the SOI. No native grasslands have been mapped in the City or SOI (Dudek 2006); however, this may reflect an absence of field studies rather than an absence of native grasslands.
- **Lake, Reservoir, and Basin.** Palisades Reservoir in the western part of the City is mapped as a reservoir.
- **Marine and Coastal.** A sandy beach extends the length of the City coastline.
- **Riparian.** Riparian habitats occur along the banks of rivers and streams. Riparian vegetation communities typically consist of one or more deciduous tree species with an understory of shrubs and herbs. The transition between riparian vegetation and adjacent non-riparian vegetation often is abrupt. Riparian habitats are scattered in several areas of the City and in the SOI.
- **Scrub.** Coastal sage scrub is dominated by aromatic, drought-deciduous shrubs and subshrub species generally one to six feet tall; although a few species reach the size of small trees. Coastal sage scrub vegetation is scattered widely within the City and SOI.
- **Watercourse.** There are small, mostly ephemeral, watercourses scattered throughout the City, with the highest number generally in the western and lower-elevation parts of the City.
- **Woodland.** Multiple small areas of Coast Live Oak Woodland habitat are scattered in the SOI. Forests are distinguished from woodlands in that the crowns of forest trees generally overlap; woodlands consist of open stands of trees, usually with 25 to 60 percent tree cover (The Nature Conservancy 1998).

Sensitive Resources

Sensitive Plant Communities/Habitats

Sensitive natural communities are natural communities that are considered rare in the region by regulatory agencies, or are known to support sensitive plant or animal species. The sensitive communities that have been mapped in San Clemente or its SOI are:

- Coastal sage scrub.
- Arroyo willow riparian forest
- Coast live oak riparian forest
- Southern willow scrub
- Southern arroyo willow riparian forest
- Valley needlegrass grassland. Valley needlegrass grasslands were not mapped in the City or SOI under the HCP; however, this may reflect an absence of field studies rather than an absence of native grasslands (Dudek 2006).

San Clemente Coastal Element, Environmentally Sensitive Habitat Areas (ESHAs)

According to the Coastal Element, which serves as a Local Coastal Plan for San Clemente under the California Coastal Act, the environmentally sensitive habitat areas (ESHA) in San Clemente's Coastal Zone are limited to the few remaining undeveloped areas in the Coastal Zone:

- Limited amounts of wetlands, riparian, native grasses, and coastal sage scrub on the 253-acre Marblehead Coastal site. The Marblehead Coastal Specific Plan designates 95 acres of Canyon Open Space as part of 125 acres of total open space, including passive and active open spaces (RBF 2007).[3]
- Coastal bluffs, vertical cliffs marking the inland margin of the beach. Some coastal bluffs have been developed; others have been graded for safety purposes
- Seven coastal canyons, each surrounded by residential development (from north to south): Marblehead Coastal Canyons, Palizada Canyon, Trafalgar Canyon, Toledo Canyon, Lobos Marinos Canyon, Riviera Canyon, Montalvo Canyon, and Calafia Canyon.

Sensitive Plant Species

Sensitive plant species known from the San Clemente Region are listed in Table 5.3-1. Occurrences of selected special status species in the City and SOI that were mapped by Dudek (2006) are shown in Figure 5.3-4, *Sensitive Plant Species*. All of the sensitive plant species reported by Dudek occur in the SOI and the northeast corner of the City, which reflects the geographic focus of the sensitive plant surveys carried out for the Orange County Southern Section HCP. Sensitive plant species have the potential to occur throughout the City and SOI in appropriate habitats.

[3] The Marblehead Coastal Specific Plan was approved by the City in 1998; the first amendment to the plan was approved by the City in 2007.

Table 5.3-1 Special Status Plant Species Known from the Project Region

Species	Status1 Federal/ State	Status1 CNPS/Local	Habitat Preference
Chaparral sand-verbena *Abronia villosa* var. *aurita*		CNPS 1B.1 NCCP: None	Sandy areas in chaparral and coastal scrub, and on floodplains.
Aphanisma *Aphanisma blitoides*		CNPS 1B.2 NCCP: CS	Coastal bluff scrub, coastal dunes, coastal scrub. Prefers sandy substrates.
Coulter's saltbush *Atriplex coulteri*		CNPS 1B.2 NCCP: None	Coastal bluff scrub, coastal dunes, coastal scrub, valley and foothill grassland on clay or alkaline soils.
South Coast saltscale *Atriplex pacifica*		CNPS 1B.2 NCCP: None	Coastal scrub and dunes, bluffs, mima mound terrain, and margins of vernal pools and playas, often on alkaline soils.
Thread-leaved brodiaea *Brodiaea filifolia*	FE SE	CNPS 1B.1	Moist grasslands and the periphery of vernal pools, playas, cismontane woodland, valley and foothill grasslands, and coastal scrub on clay or alkaline, silty-clay soils. Found in annual or perennial grasslands.
Catalina mariposa lily *Calochortus catalinae*		CNPS 4.2	Perennial & annual grasslands and coastal sage scrub
Plummer's mariposa lily *Calochortus plummerae*		CNPS 1B.2 NCCP: None	Coastal sage scrub or chaparral on granitic or alluvial soils, valley and foothill grassland.
Intermediate mariposa lily *Calochortus weedii* var. *intermedius*		CNPS: 1B.2 NCCP: None	Rocky and calcareous substrate. Chaparral, coastal scrub, valley and foothill grassland.
Southern tarplant *Centromadia parryi australis*		CNPS: 1B.1 NCCP: None	Alkali meadows and flats, mesic grasslands, margins of marshes and vernal pools, riparian herb habitats, and ruderal or disturbed sites.
Smooth tarplant *Centromadia pungens*		CNPS: 1B.1 NCCP: None	Chenopod scrub, meadows and seeps, playas, riparian woodland and valley and foothill grassland. Prefers alkaline soils.
Orcutt's pincushion *Chaenactis glabriuscula var. orcuttiana*		CNPS 1B.1 NCCP: None	Coastal bluff scrub, coastal dunes.
Long-spined spineflower *Chorizanthe polygonoides* var. *longispina*		CNPS: 1B.2 NCCP: None	Chaparral, coastal scrub, meadows and seeps, valley and foothill grassland, often in clay soils.
Summer holly *Comarostaphylis diversifolia* ssp. *diversifolia*		CNPS 1B.2 NCCP: None	Chaparral, cismontane woodland
Western dichondra *Dichondra occcidentalis*		CNPS 4.2 NCCP: none	Beneath shrubs in woodlands, coastal sage scrub and chaparral
Blochman's dudleya *Dudleya blochmaniae* ssp. *Blochmaniae*		CNPS 1B.1 NCCP: none	Coastal bluff scrub, chaparral, coastal scrub, valley and foothill grassland. Prefers rocky soils, often with clay or serpentine.
Santa Monica dudleya *Dudleya cymosa* ssp. *ovatifolia*	FT	CNPS: 1B.2 NCCP: None	Chaparral, coastal scrub. Prefers volcanic or sedimentary, rocky substrate.
Many-stemmed dudleya *Dudleya multicaulis*		CNPS: 1B.2 NCCP: CS	Chaparral, coastal scrub, valley and foothill grassland, often on clay soils or rock outcrops
Laguna Beach dudleya *Dudleya stolonifera*		CNPS: 1B.1 NCCP: None	Rocky outcrops and cliffs, and open rocky areas in chaparral, scrub, woodland, and grassland.
Sticky dudleya *Dudleya viscida*		CNPS: 1B.2 NCCP: CS	Coastal bluff scrub, chaparral, coastal scrub.

Table 5.3-1 Special Status Plant Species Known from the Project Region

Species	Status1		Habitat Preference
	Federal/ State	CNPS/Local	
Cliff spurge *Euphorbia misera*		CNPS 2.2 NCCP: none	Coastal bluff scrub, coastal sage scrub.
Palmer's grapplinghook *Harpagonella palmeri*		CNPS: 4.2 NCCP: CS	Chaparral, coastal scrub, valley and foothill grassland.
Tecate cypress *Hesperocyparis forbesii*		CNPS: 1B.1 NCCP: CS	Clay, gabbroic or metavolcanic, closed-cone coniferous forest, chaparral.
Mesa horkelia *Horkelia cuneata* ssp. *puberula*		CNPS 1B.1 NCCP: None	Chaparral, cismontane woodland, and coastal sage scrub in sandy or gravelly sites.
California satintail *Imperata brevifolia*		CNPS 2.1 NCCP: None	Chaparral, coastal scrub, Mojavean desert scrub, meadows and seeps often alkali, Riparian scrub. Prefers mesic soils.
Spiny rush *Juncus acutus leopoldii (= spaherocarpus)*		CNPS 4	Coastal dunes (mesic), meadows (alkaline), coastal salt marsh.
Robinson's peppergrass *Lepidium virginicum* var. *robinsonii*		CNPS 1B.2 NCCP: None	Openings within coastal scrub and chaparral.
Santa Catalina Island desert-thorn *Lycium brevipes* var. *hassei*		CNPS: 1B.1 NCCP: None	Coastal bluff scrub, coastal scrub.
Felt-leaved monardella *Monardella hypoleuca* ssp. *lanata*		CNPS: 1B.2 NCCP: CS	Chaparral, cismontane woodland.
Hall's monardella *Monardella macrantha* ssp. *hallii*		CNPS: 1B.3 NCCP: None	Broadleaved forest, chaparral, cismontane woodland, lower montane coniferous forest, valley and foothill grassland.
Little mousetail *Myosurus minimus* ssp. *apus*		CNPS: 3.1 NCCP: CS	Valley and foothill grassland, vernal pools (alkaline).
Mud nama *Nama stenocarpum*		CNPS 2.2 NCCP: None	Marshes and swamps, and margins of lakes and large pools.
Prostrate navarretia *Navarretia prostrata*		CNPS 1B.1 NCCP: None	Coastal scrub, meadows and seeps, valley and foothill grassland (alkaline), vernal pools. Prefers mesic soils.
Chaparral nolina *Nolina cismontana*		CNPS 1B.2 NCCP: None	Chaparral, coastal scrub. Prefers sandstone or Cieneba sandy loam soils.
Golden-rayed pentachaeta *Pentachaeta aurea alleni*		CNPS 1B.1 NCCP: None	Valley and foothill grasslands and coastal sage scrub. Prefers sandy substrate and openings.
White rabbit-tobacco *Pseudognaphalium leucocephalum*		CNPS: 2.2 NCCP: None	Chaparral, cismontane woodland, coastal scrub, riparian woodland, often on sandy or gravelly soils.
Nuttall's scrub oak *Quercus dumosa*		CNPS 1B.1 NCCP: None	Closed coniferous forest, chaparral, and coastal scrub, often on sandy, clay loam soils.
Engelmann's Oak *Quercus engelmannii*		CNPS 4 NCCP: None	Savanna, chaparral, cismontane woodland, riparian woodland, valley and foothill grassland.
Coulter's matilija poppy *Romneya coulteri*		CNPS 4.2 NCCP: None	Alluvial fan sage scrub, Sycamore woodland, coastal sage scrub, and chaparral.
San Miguel savory *Satureja chandleri*		CNPS: 1B.2 NCCP: CS	Chaparral, cismontane woodland, coastal scrub, riparian woodland, valley and foothill grassland, often on rocky soils.

Table 5.3-1 Special Status Plant Species Known from the Project Region

Species	Status1 Federal/ State	Status1 CNPS/Local	Habitat Preference
Rayless ragwort *Senecio aphanactis*		CNPS 2.2 NCCP: None	Clayish outcrops in coastal sage scrub, alkaline flats.
Salt spring checkered bloom *Sidalcea neomexicana*		CNPS: 2.2 NCCP: None	Chaparral, coastal scrub, lower montane coniferous forest, playas. Prefers alkaline and mesic soils.
Estuary seablite *Suaeda esteroa*		CNPS: 1B.2 NCCP: None	Marshes and swamps (coastal salt).
San Bernardino aster *Symphotrichum defoliatum*		CNPS 1B.2 NCCP: None	Cismontane woodland, coastal scrub, lower montane coniferous forest, meadows and seeps, marshes and swamps, valley and foothill grassland (vernally mesic). Prefers ditches, streams and springs.
Parry's tetracoccus *Tetracoccus dioicus*		CNPS: 1B.2 NCCP: CS	Chaparral, coastal scrub.
Big-leaved crownbeard *Verbesina dissita*	FT, ST	CNPS: 1B.1 NCCP: None	Chaparral (maritime) and coastal scrub.

[1] STATUS ABBREVIATIONS:
FED: Federal Classifications
FE Listed by the federal government as an endangered species.
FT Listed by the federal government as a threatened species.
S Forest Service Sensitive Plant Species

STATE: State Classifications
CE Listed as endangered by the State of California
CT Listed by the State of California as a threatened species
SP Listed as a Special Plant by the CNDDB (2007)

Other
LC Local concern

California Native Plant Society (CNPS)
CNPS 1A Plants presumed extinct in California.
CNPS 1B Plants considered rare, threatened, or endangered in California and elsewhere.
CNPS 2 Plants rare, threatened, or endangered in California but more common elsewhere.
CNPS 3 Plants about which we need more information - A review list.
CNPS 4 Plants of limited distribution - A watch list.

CNPS Threat Extensions
0.1 Seriously endangered in California
0.2 Fairly endangered in California
0.3 Not very endangered in California

Sensitive Animal Species

Sensitive animal species known from the San Clemente Region are listed in Table 5.3-2. Occurrences of sensitive animal species in the City and SOI are shown in Figure 5.3-5, *Sensitive Animal Species*. The locations of sensitive animal species reported by Dudek (2006) occur at a number of locations across the City. Additional surveys in appropriate habitats would be expected to yield more sensitive species locations for all of the species shown in Figure 5.3-5, Sensitive Animal Species, as well as locations for species identified in Table 5.3-2 for which no localities are included in the figure. Endangered marine mammals such as the blue whale (*Baleonoptera musculus*) and fin whale (*B. physalus*) occur off the coast, but not in the relatively shallow waters within the City's jurisdiction.

Table 5.3-2 Special Status Animal Species from Project Region

Species Name *Scientific Name*	*Status*[1]	*Habitat Preference*
INVERTEBRATES		
San Diego fairy shrimp *Branchinecta sandiegonensis*	FE NCCP: CS	Restricted to vernal pools in coastal southern California south to extreme northwestern Baja California, Mexico. Nearest record is for San Onofre bluffs, south of the planning area. Vernal pools may have occurred historically in the mesas in San Clemente, but it is not known if any vernal pools exist there today.
Riverside fairy shrimp *Streptocephalus woottoni*	FE NCCP: C S	Restricted to a few vernal pools in southwestern Riverside, Orange, and San Diego counties. There are several records for this species immediately northeast of the planning area on Camp Pendleton.
Monarch butterfly (wintering sites) *Danaus plexippus*	None	Winters along the coast in wind-protected trees (eucalyptus) with nectar sources.
Quino checkerspot butterfly *Euphydryas editha quino*	FE	Grassland and open areas within scrub and chaparral habitats. Probably not in plan area
Black abalone *Haliotis cracherodii*	FE	Prefers rocky intertidal areas with protective crevices and moderate to heavy surf action.
VERTEBRATES		
Fish		
Arroyo chub *Gila orcuttii*	CSC NCCP: None	Slow-moving, backwater sections of coastal streams
Tidewater goby *Eucyclogobius newberryi*	FE CSC	Shallow brackish lagoons and lower stream reaches
Southern steelhead *Oncorhynchus mykiss*	FE CSC	Open streams
Amphibians		
Arroyo toad *Bufo californicus*	FE CSC	Breeds in stream channels and use stream terraces and surrounding uplands for foraging and wintering. Favors shallow pools and open sand and gravel flood terraces of medium- to large-sized intermittent or perennial streams that are flooded regularly.
Western spadefoot *Spea hammondii*	CSC	Open areas with sandy or gravelly soils, in a variety of habitats including grasslands, chaparral, and sandy washes. Shallow pools in these habitats are necessary for reproduction. Breeds in ponds, streams, and rain pools that do not contain bullfrogs and fish, which prey on tadpoles.
Reptiles		
Southwestern pond turtle *Actinemys marmorata marmorata*	CSC	Slow-water aquatic habitats with available basking sites (e.g., submerged logs, open mud banks).
Silvery legless lizard *Anniella pulchra pulchra*	CSC	Moist loose soils and leaf litter in diverse plant communities, including chaparral, pine-oak and riparian woodlands, desert scrub, and sandy washes.
Belding's orange-throated whiptail *Aspidoscelis hyperythra beldingi*	CSC	Prefers coastal sage scrub and woodland habitats with sandy openings.
Coastal western whiptail *Aspidoscelis tigris stejnegeri*	SA	Occurs in coastal sage scrub, chaparral and wash habitats.
Northern red-diamond rattlesnake *Crotalus ruber ruber*	CSC	Arid scrub (including coastal sage scrub), chaparral, woodlands, and cultivated areas, often with large rocks or boulders.
Coronado skink *Eumeces skiltonianus interparietalis*	CSC	Occurs in variety of habitats including coastal sage, chaparral, oak woodlands, pinon-juniper, and riparian woodlands to pine forests. Within these, prefers more mesic (moist) associations

Table 5.3-2 Special Status Animal Species from Project Region

Species Name *Scientific Name*	*Status*[1]	*Habitat Preference*
Coastal Rosy Boa *Lichanura trivergata roseofusca*	S	Rocky areas in coastal sage scrub and chaparral.
San Diego horned lizard *Phrynosoma coronatum blainvillei*	CSC	Occurs in variety of habitats including coastal sage, grassland, chaparral, oak woodland, and riparian woodland with loose sandy soils and abundant native ants or other insects.
Coast patch-nosed snake *Salvadora hexalepis virgultea*	CSC	Semi-arid brushy areas and chaparral in canyons, rocky hillsides, and plains.
Two-striped garter snake *Thamnophis hammondii*	CSC	Rarely found far from water. Found around pools, creeks, cattle tanks, and other water sources, often in rocky areas, in oak woodland, chaparral, brushland, and coniferous forest.
Birds		
Sharp-shinned hawk (nesting) *Accipiter striatus*	CSC	Occurs in various woodland habitats, including riparian.
Cooper's hawk *Accipiter cooperii*	CSC (nesting only)	Occurs in various woodland habitats, including riparian.
Tricolored blackbird *Agelaius tricolor*	CSC (nesting colony only)	Occurs in freshwater marshes, dominated by cat-tails or bulrushes.
Golden Eagle *Aquila chrysaetos*	CSC, CFP BCC	Occurs in a variety of habitats, including woodlands, grasslands and fields.
Grasshopper sparrow *Ammodramus savannarum*	CSC	Grasslands and grassy coastal sage scrub
Bell's sage sparrow *Amphispiza belli belli*	CSC NCCP: CS	Occurs in coastal sage scrub and chaparral, preferably semi-open with shrubs 1–2 m high.
Southern California rufous-crowned sparrow *Aimophila ruficeps canescens*	CSC	Occurs in sparsely vegetated scrubland on hillsides and canyons, preferring coastal sage scrub dominated by California sagebrush (*Artemisia californica*) and grassy successional growth.
Burrowing owl *Athene cunicularia*	CSC	Open grassland, fallow fields, sparsely vegetated desert scrub, and edges of disturbed lands, where soil is friable for nesting burrows. Not observed during the biological survey.
Long-eared owl *Asio otus*	CSC	Open woodlands, forest edges, and riparian strips along rivers. Hunts in open rangeland, clearings, and fallow fields.
Coastal cactus wren *Campylorhynchus brunneicapillus cousei*	CSC	Occurs in coastal sage scrub and chaparral plant communities with substantial cacti (*Opuntia* sp.) stands.
Northern harrier (nesting) *Circus cyaneus*	CSC	Breeds and marsh and grassland habitats, forages in open wetlands, grasslands, wet pasture, old fields, dry uplands, and croplands.
Western yellow warbler *Dendroica petechia brewsteri*	CSC	Occurs in a range of woodland habitats but breeds in riparian woodlands.
White-tailed Kite *Elanus leucurus*	CFP	Variety of woodland and open habitats.
Southwestern willow flycatcher *Empidonax traillii extimus*	FE	Breeds in dense riparian habitats dominated by dense willows, mulefat, or other shrubs and medium-sized trees, and is known from the project region.
California horned lark *Eremophila alpestris actia*	CSC	Occurs in a variety of open habitats, and in southern California breeds mainly in open fields, grasslands, and rangelands.
Yellow-breasted chat *Icteria virens*	CSC	Occurs in dense riparian woodlands, willows thickets, and dense brush

Table 5.3-2 Special Status Animal Species from Project Region

Species Name *Scientific Name*	*Status*[1]	*Habitat Preference*
		along flowing streams.
Least Bittern *Ixobrychus exilis*	CSC	Freshwater marsh habitats
Loggerhead shrike *Lanius ludovicianus*	CSC (nesting)	Grassland, open sage scrub, chaparral, and desert scrub. Species apparently has declined dramatically in coastal southern California in recent years.
Coastal California gnatcatcher *Polioptila californica californica*	FT CSC	Occurs primarily in coastal sage scrub habitat, but also use chaparral, grassland, and riparian habitats where they occur in proximity to sage scrub.
California trasher *Toxostoma lecontei*	FSC	Chaparral, foothills, valley thickets, parks, gardens.
Vireo bellii pusillus Least Bell's vireo	FE SE	Cottonwood-willow forest, but may also occur in oak woodland, shrubby thickets, and dry washes with willow thickets at the edges.
MAMMALS		
Shrews and moles		
Southern California saltmarsh shrew *Sorex ornatus salicornicus*	CSC	Brackish or saline marshes
Bats		
Pallid bat *Antrozous pallidus*	CSC	Occurs in a variety of habitats, including woodlands, scrub, rocky canyons, farm land, and desert. Roosts in rock crevices, old buildings, bridges, caves, mines, and tree cavities. In the region this species is generally associated with sycamore and oak woodlands.
Mexican long-tongued bat *Choeronycteris mexicana*	CSC	Occurs in variety of habitats, from arid thorn scrub to tropical deciduous forest and mixed oak-conifer forest, most commonly in moist desert canyons. Roosts mainly in mines, caves and rock fissures, but has also been found in buildings.
Townsend's big-eared bat *Corynorhinus townsendii townsendii*	CSC	Occurs in a range of rural habitats from deserts to forests. Its presence is strongly correlated with the availability of caves, mines, or areas with substantial surface exposures of cavity-forming rock (e.g., limestone, sandstone, gypsum, or volcanic).
Spotted bat *Euderma maculatum*	CSC	Occurs in range of habitats (from desert scrub to montane coniferous forest) in association with rock cliffs.
Western mastiff bat *Eumops perotis californicus*	CSC	Variety of habitats, from desert scrub and chaparral to oak woodland and ponderosa pine, but only where there are significant rock features for roosting. Natural roosts are often found under large exfoliating slabs of granite, sandstone slabs, or in columnar basalt, on cliff faces, or in large boulders. Some roosts have been found in buildings.
Hoary bat *Lasiurus cinereus*	CSC	Occurs in variety of habitats, from lower elevation mixed coniferous/hardwood forest to higher elevation conifers. Known also from orchards. Migratory, spending winters in the northern part of state and summers along the coast. Solitary species that roosts primarily in coniferous and deciduous trees.
Rabbits and hares		
San Diego black-tailed jackrabblt *Lepus californicus bennetti*	CSC	Occurs in a variety of habitats, including sage scrubs, chaparral, agricultural lands and other disturbed habitats, but prefers open grassland.
Rodents		
Northwestern San Diego pocket mouse *Chaetodipus fallax fallax*	CSC	Occurs mainly in sage scrub, chaparral, and grassland habitats.

Table 5.3-2 Special Status Animal Species from Project Region

Species Name *Scientific Name*	*Status*[1]	*Habitat Preference*
Dulzura pocket mouse *Chaetodipus californicus femoralis*	CSC	Occurs in a variety of habitats, including coastal sage scrub, grassland, and hardwood forests
Southern grasshopper mouse *Onychomys torridus ramona*	CSC	Low desert with scattered shrubs such as creosote and mesquite.
Pacific pocket mouse *Perognathus longimembris pacificus*	FE CSC	Coastal sage scrub and other habitats on the coasts of Orange and San Diego counties, on sandy soils
San Diego desert woodrat *Neotoma bryanti intermedia*	CSC	Occurs in scrub and desert habitats, usually in association with rock outcroppings, boulders, cacti, or areas of dense undergrowth.
Carnivores		
American badger *Taxidea taxus*	CSC	Occurs in relatively open, uncultivated ground, in grassland, meadows, creosote bush, juniper, sagebrush.

[1] Status: Abbreviations

Federal	State	State Department of Fish and Game (CDFG)
FE Federally Endangered	SE State Endangered	CSC California Species of Concern
FT Federally Threatened	ST State Threatened	CFP California Fully-Protected Species
FPT Federally Proposed Threatened		SA Special Animal
FSC Federal Species of Concern (=BCC	NCCP CS Covered Species	

Wildlife Movement Corridors and Habitat Linkages

Wildlife corridors are typically narrow habitat patches that follow or connect riparian areas and support frequent movement of a wide range of animals. Habitat linkages are natural areas that connect blocks of habitat and are of sufficient area to serve as "live-in" habitat for plants and animals as well as for movement of many wildlife species, including larger animals such as whitetailed deer, coyote, and mountain lion. Both linkages and corridors support dispersal and gene flow of plants and animals and in the long term help reduce the effects of habitat fragmentation.

San Clemente contains open space areas that support a range of wildlife movement and habitat linkage functions within the City and between the City and adjoining jurisdictions. Wildlife corridors in an urban context include smaller land features and "micro-linkages" that are used by urban wildlife such as coyote, skunk, raccoon, and even mule deer. These corridors are distributed throughout the City and persist in even fully developed areas.

The small coastal canyons that occur west of I-5 support local movement of urban wildlife, but wildlife movement between the coastal plains west of I-5 and the upland areas to the east are greatly impeded by I-5. Open space areas inland of I-5 generally remain connected to the large open space areas in the inland foothills, including those in the SOI and adjoining areas to Cleveland National Forest. Within the open space areas of the City, species such as mule deer, bobcat, and coyote would generally move along ridgelines, drainage bottoms, and unpaved access roads (including fire roads and fire breaks).

The analysis of wildlife movement and habitat linkages in the South Orange County HCP identifies three wildlife major habitat linkages that occur in the City and/or SOI. These are shown on Figure 5.3-6, *Habitat Linkages* and described below.

- Habitats occurring in the hills west of Trampas Canyon (San Juan Capistrano) down to the northeastern corner of San Clemente support dispersal for California gnatcatchers and other species between Chiquita Ridge, San Juan Capistrano and San Clemente, as well as eastward dispersal between Trampas Canyon and the Talega development to the Rancho Mission Viejo Conservancy, Cristianitos Canyon, and Camp Pendleton. This linkage/corridor feature is labeled "K" on Figure 5.3-6.

- Cristianitos Canyon, which serves as an important habitat linkage for California gnatcatchers, links San Juan Creek with lower Gabino Creek and Camp Pendleton along lower Cristianitos Creek/San Mateo Creek. This linkage, labeled "N" on Figure 5.3-6, passes along the east boundary of the City and the SOI.

- Gabino Canyon, labeled "O" on Figure 5.3-6, provides a habitat linkage between the San Clemente SOI area, adjoining areas to the east, and Cleveland National Forest. This linkage supports movement by large mammals and possibly cactus wren and other species.

Jurisdictional Waters and Wetlands

There are no large rivers in the City or SOI, but there are numerous ephemeral and seasonal streams throughout the City and SOI. These would all be considered Waters of the State and/or U.S., and potentially be regulated by CDFW and the Corps. These agencies would also regulate dredge and fill activities in the Pacific Ocean, a "traditionally navigable water."

Wetlands are defined under the federal Clean Water Act as land that is flooded or saturated by surface water or groundwater at a frequency and duration sufficient to support, and that normally does support, a prevalence of vegetation adapted to life in saturated soils. Riparian habitats mapped in the City and SOI include willow riparian scrub, mulefat scrub, herbaceous riparian, and coast live oak riparian forest. Each of these would potentially be considered wetlands. The distribution of riparian habitats in the City and SOI mapped by Dudek (2006) are shown in Figure 5.3-7, *Riparian Habitats*.

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 Game or U.S. Fish and Wildlife Service.

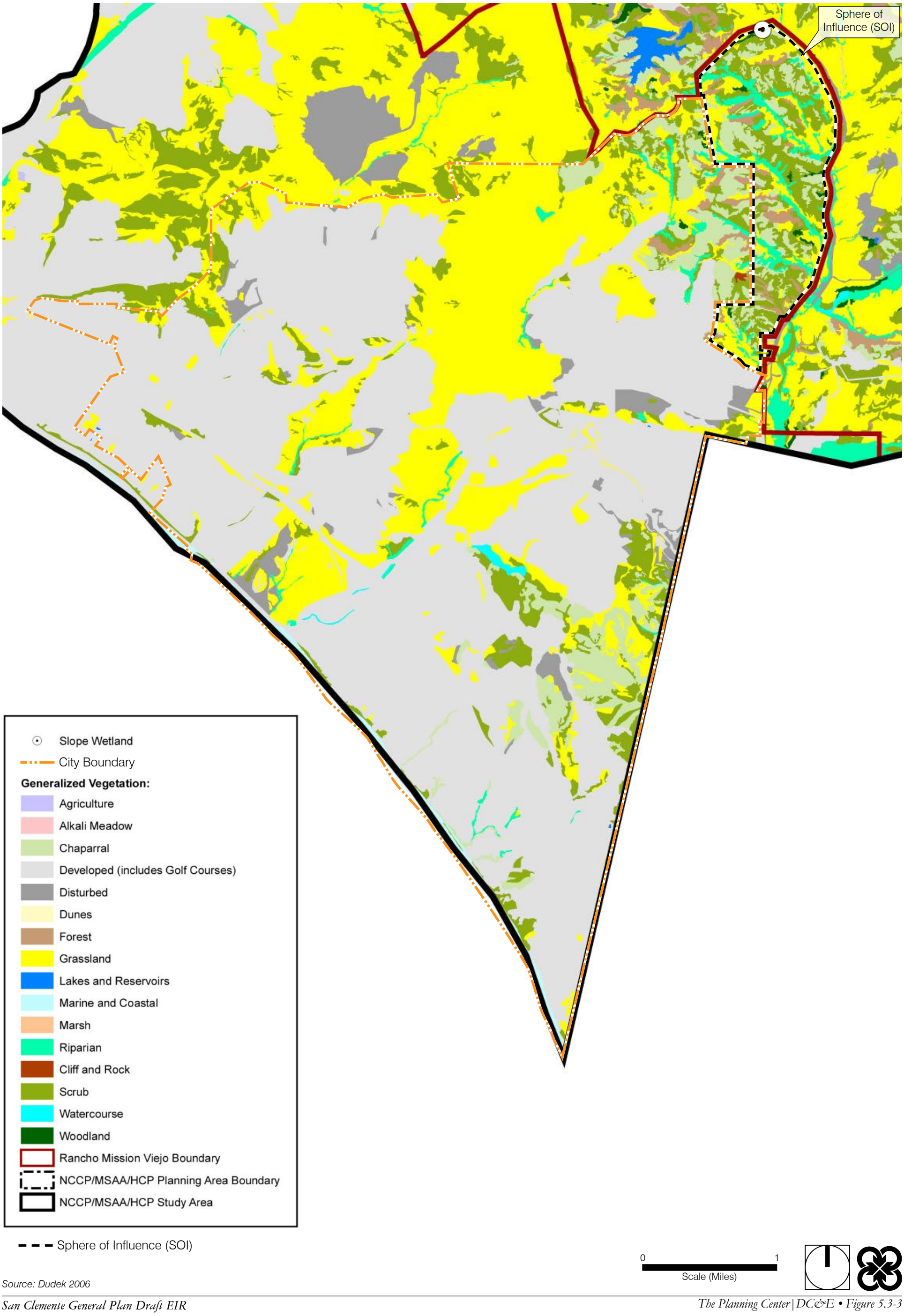
B-3 Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including but not limited to marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means.

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.

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.

Vegetation Types



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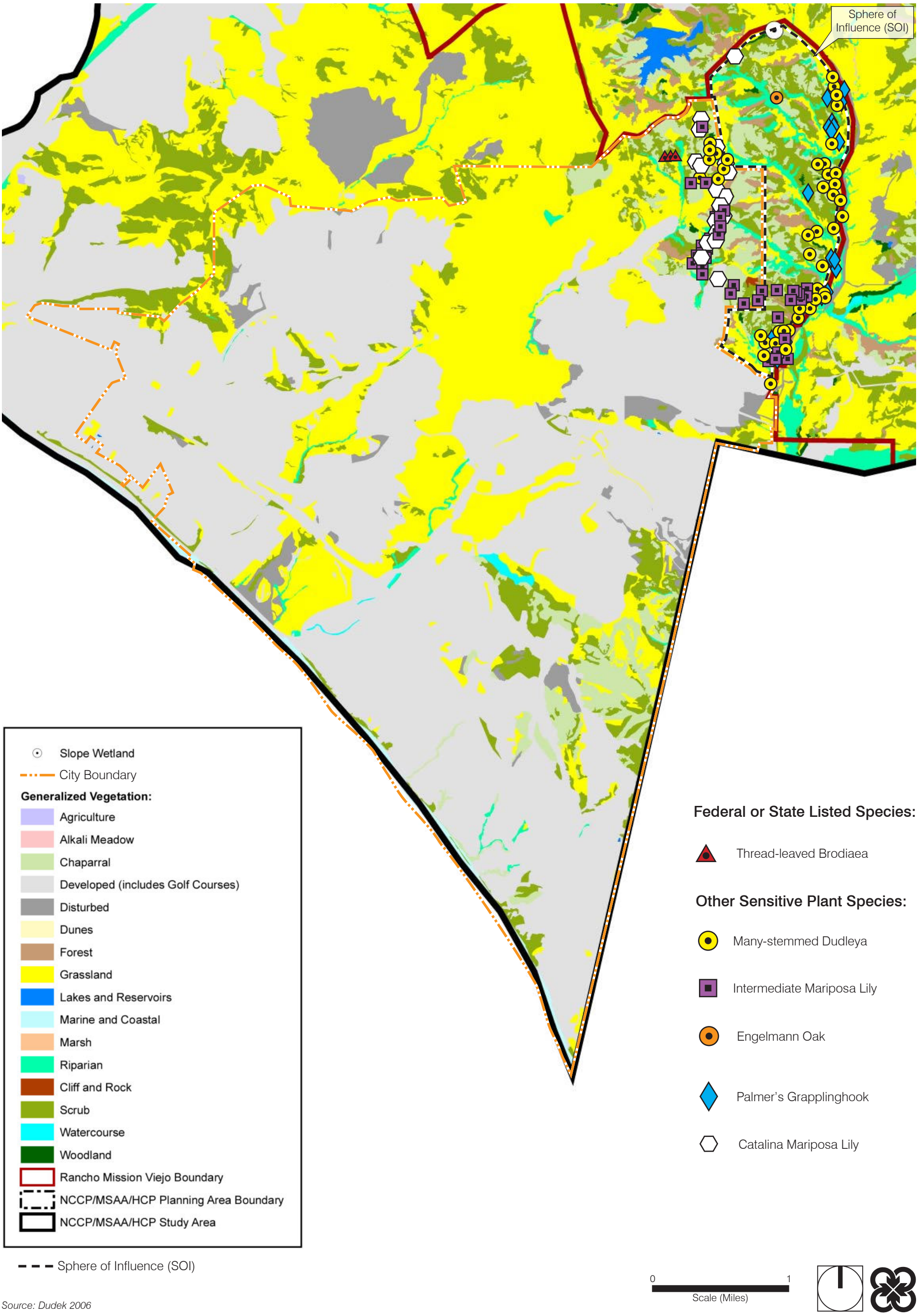
Sensitive Plant Species



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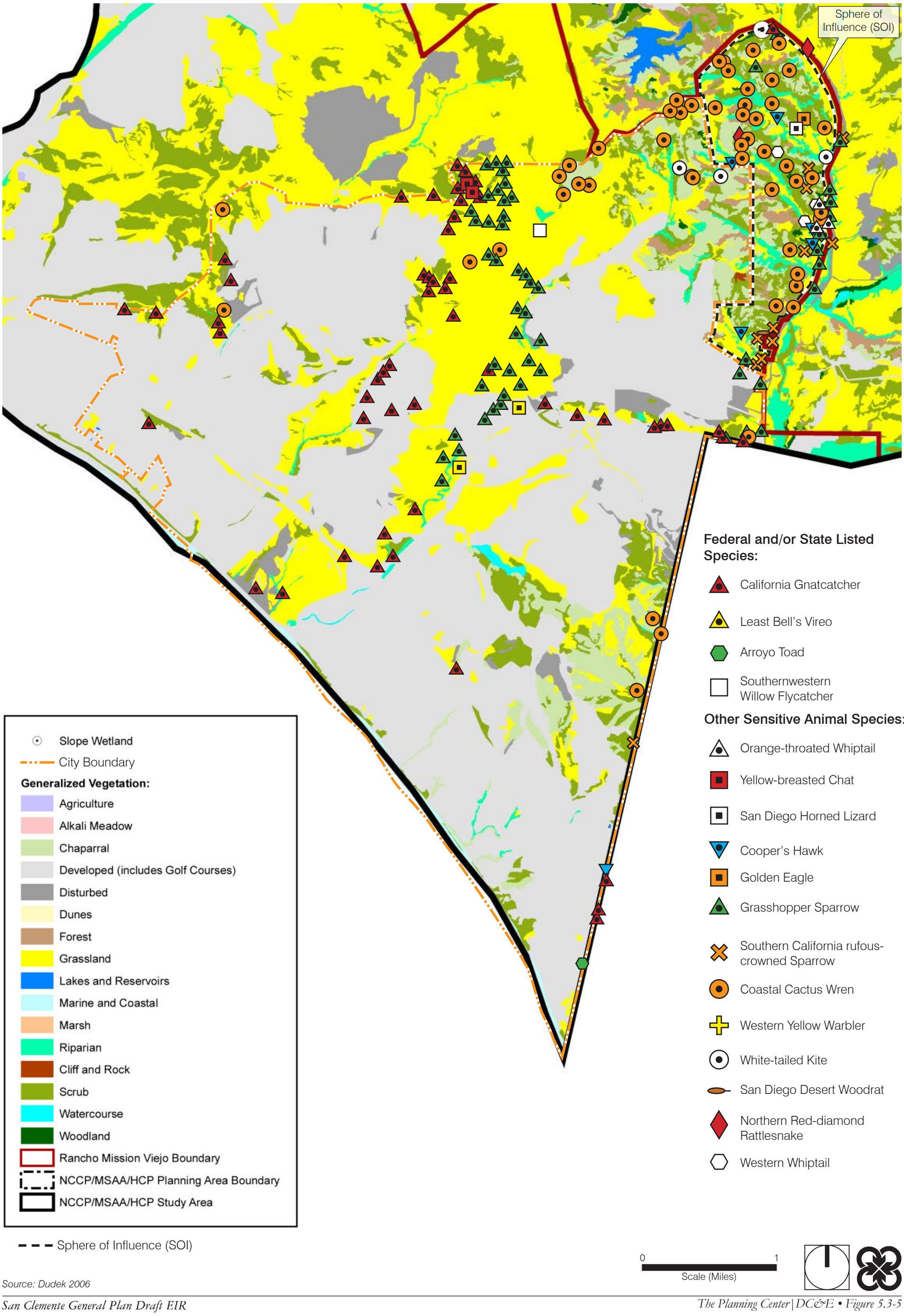
Sensitive Animal Species



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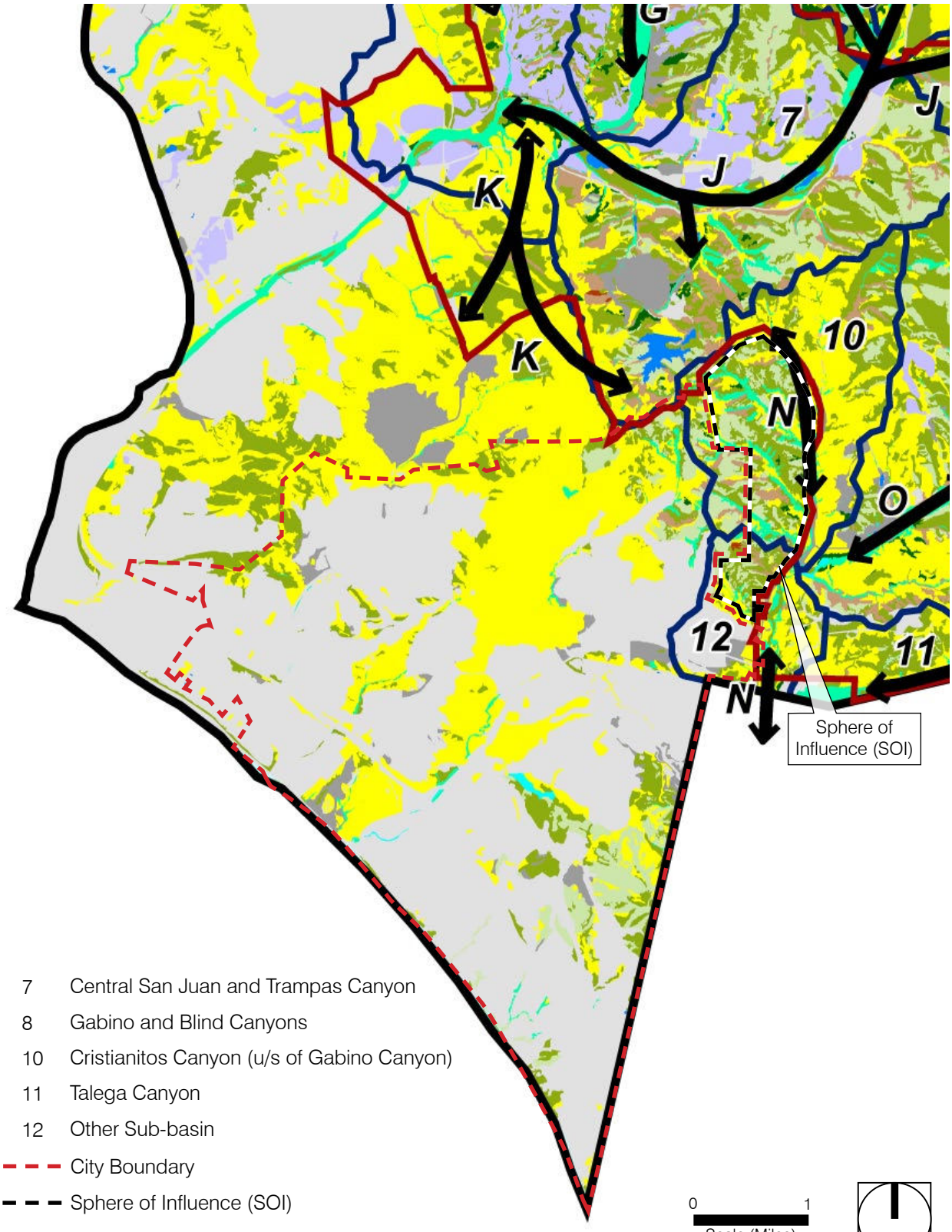
Habitat Linkages



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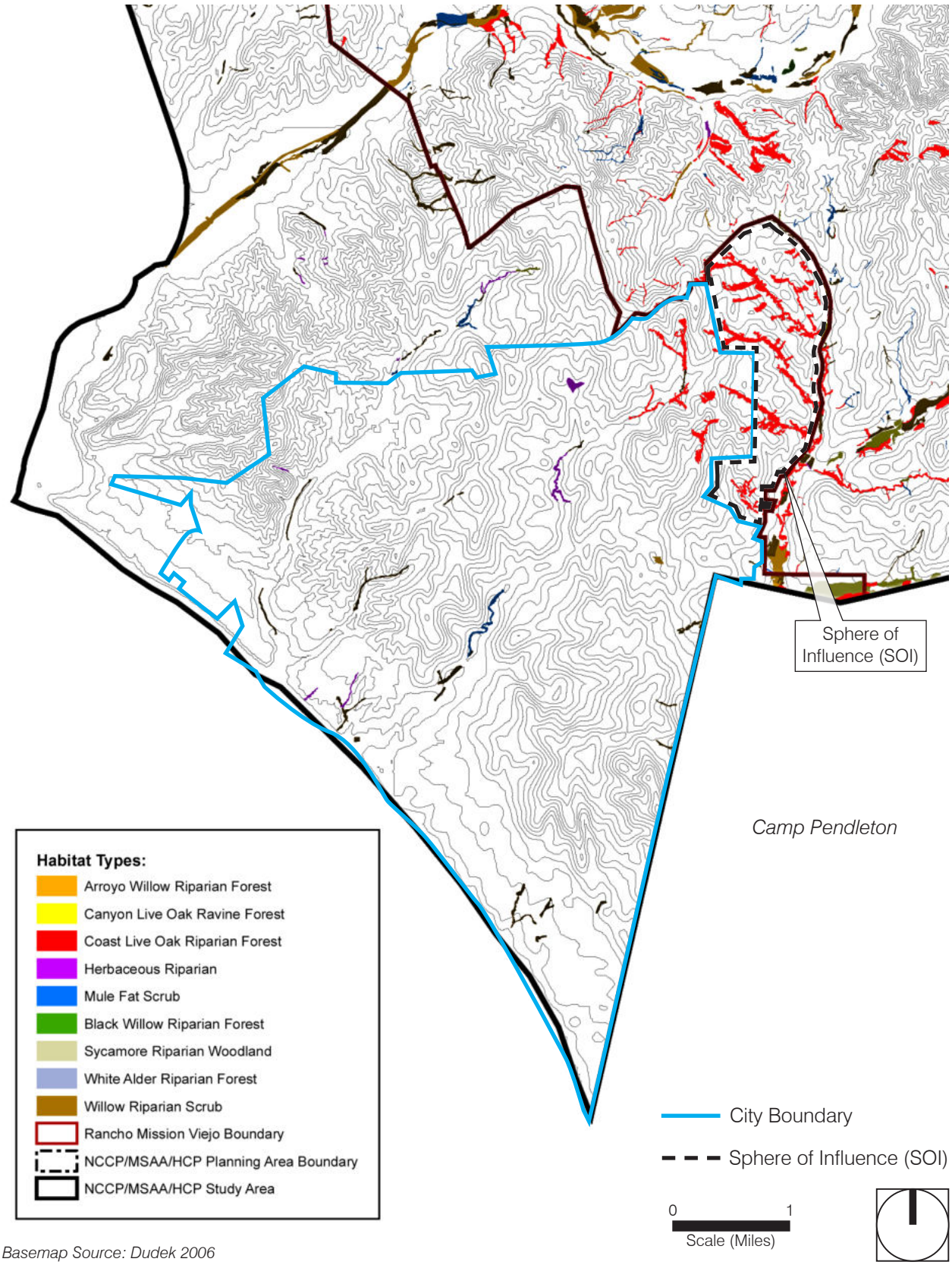
Riparian Habitats



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5.3.3 Environmental Impacts

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

Impact 5.3-1: Buildout of the proposed Centennial General Plan could impact sensitive species. [Threshold B-1]

Impact Analysis: The proposed General Plan is within the Orange County Southern Subregion HCP, which provides coverage for 32 plant and animal species, seven of which receive protection under FESA. Because CDFW has not approved the HCP, impacts to state-listed species could require issuance of an incidental take permit from the CDFW. Implementation of the Centennial General Plan would not result in direct removal of vegetation in the undeveloped parts of the City, because the General Plan does not imply direct development rights. However, development in accordance with the land use plan could allow for the introduction of developed (residential, commercial, industrial) uses into currently undeveloped sites resulting in loss of native vegetation and habitats that support sensitive species. Impacts to species could occur directly from habitat modification and removal and indirectly through increases in noise, light and glare, and altered drainage patterns.

Land use changes in the Centennial General Plan are predominantly within the eight focus areas. The changes relevant to the analysis of impacts to biological resources, and sensitive species in particular, are for changes in the land uses designations that occur: (1) in six of the eight focus areas (the Pier Bowl and South El Camino Real East of I-5 Focus Areas do not propose land use changes; see Figure 3-5, *Focus Areas*) and (2) at the Shorecliffs Golf Course, from commercial to medium density residential. In addition, buildout of the General Plan may result in development on lots that are currently vacant or contain some habitat value.

Focus Areas. The focus areas were developed decades ago and lack natural habitats. Changing the land use designations of the focus areas would not directly impact any sensitive species. However, sensitive species such as the California gnatcatcher can occur in coastal scrub habitats on hillsides that adjoin focus areas, such as the Rancho San Clemente Business Park and Los Molinos focus areas. Construction activities in these areas that adjoin habitat occupied by the California gnatcatcher could indirectly impact the species as a result of disturbance during the nesting season. This impact would be potentially significant, and could mitigated to a less than significant level by either avoiding construction in the nesting season or by implementing a minimum distance between construction activities and active nests during the nesting season.

Shorecliffs Golf Course. The Shorecliffs golf course is a traditional (not a natural links) golf course that is predominantly nonnative grassland bordered by hillsides with ornamental ground cover. Golf courses, with their scattered mature trees and year-round availability of water, provide habitat for urban wildlife. The conversion from golf course to commercial and residential uses that would occur under the General Plan would reduce habitat for urban wildlife species such as coyotes, skunks, and common birds that currently use the golf course. This impact would be adverse but less than significant.

Golf courses typically contain small islands of natural habitats that may be occupied by sensitive plant and animal species. Conversion of the golf course would therefore have a potentially significant impact on sensitive plants and animals. A project-level biological assessment of the golf course and its conversion development plan would be needed to determine whether any sensitive plants and animals would be directly or indirectly impacted by the conversion.

Open Space in City. The majority of natural habitats remaining in the City occur inland of I-5 and are distributed around clusters of developed land uses. Most of these areas are designated open space in the existing General Plan and would retain open space designation in the proposed General Plan under one of two land use designations: Open Space-Publicly Owned and Open Space-Privately Owned, with the latter being the predominant category. Under the proposed General Plan, development would not occur on lands designated publicly or privately owned open space; there would be no impacts to sensitive species in these areas. Some privately owned open space could be proposed for development in the future. However, this would require a general plan amendment and separate CEQA processing. No development within these designated open space areas is proposed as part of the General Plan.

Although the proposed General Plan would not result in land use changes that convert open space to other development uses, buildout would allow for the conversion of four parcels of natural habitat to developed uses, as shown in Figure 5.3-8, *Habitat Areas Designated for Development in Proposed General Plan*. The total area of these habitat patches is small (17.3, 24.3, 25.6, and 37.79 acres; 104.99 acres in total). Although the parcels are not shown as having sensitive species localities, the previous surveys occurred in 2006. Sensitive species that may now occur in these parcels could be impacted directly or indirectly by implementation of the proposed General Plan. Three of these areas are designated as open space under the City's existing Land Use Plan. The HCP indicates that impacts to covered sensitive species on lands that were designated as open space when the HCP became effective might not be eligible for regulatory coverage under the HCP. Impacts to sensitive species in these areas are potential significant.

Sphere of Influence. The SOI covers approximately 1,035 acres of natural habitat northeast of the City boundary in unincorporated Orange County. This land is part of a preserve under the management of the Donna O'Neill Land Conservancy, which was created as mitigation for impacts of the Talega residential development in San Clemente. The O'Neill preserve is managed for ecological, educational, charitable, conservation, open space, scientific, and recreational uses and is within a nature reserve identified under the Orange County Southern Subregion HCP. The proposed Centennial General Plan land use plan does not include the SOI. This area could be annexed by the City in the future, at which time a land use designation would be proposed. Inclusion of the lands in an SOI of the City would have no impact on sensitive species that occur there.

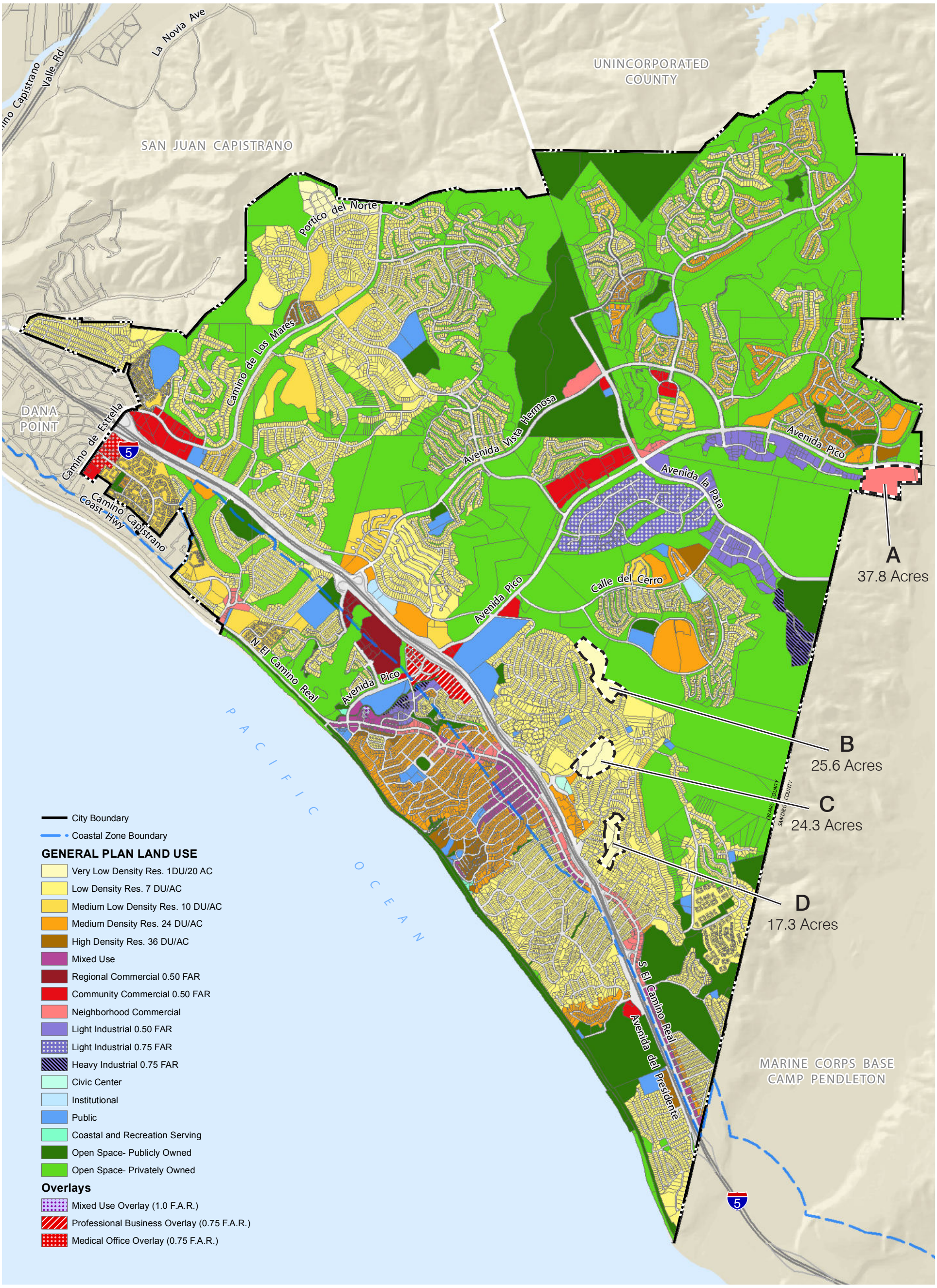
An additional approximately 190 acres adjoining the SOI in the northeast corner of the City are part of the O'Neill Preserve and also within the habitat reserve proposed under the HCP. This area is designated Open Space in the current General Plan, and designated Open Space-Privately Owned in the updated General Plan and would be protected and managed as habitat reserve under the HCP.

General Plan Natural Resources Element policies NR-1.01, NR-1.02, NR-1.03, NR-1.04, NR-1.05, and NR-1.06, as well as Coastal Element policies C-2.02, C-2.05, C-2.06, C-2.07, C-2.08, C-2.09, C-2.10, C-2.11, and C-2.12, would reduce impacts to sensitive species.

Impact 5.3-2: Buildout of the proposed General Plan could result in impacts to sensitive habitats. [Threshold B-2]

Impact Analysis: The sensitive habitats in the City and SOI include coastal sage scrub, coast live oak woodland and forest, and riparian communities such as mule fat scrub, southern willow scrub, and southern arroyo willow riparian forest. The majority of these sensitive habitats occur in land designated as Open Space-Publicly Owned or Open Space-Privately Owned, and would therefore not be impacted by implementation of the proposed General Plan. However, several patches of natural vegetation in the City are designated for residential development by the proposed General Plan, and there is the potential for direct impacts to sensitive communities in these areas.

Habitat Areas Designated for Development in Proposed General Plan



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The HCP states that impacts to covered vegetation (including the sensitive communities listed above) could be eligible for regulatory coverage under the HCP provided they are not inside areas designated open space (defined in the HCP as Supplemental Open Space, SOS). The HCP concludes that the long-term function of the proposed Habitat Reserve system does not depend on the SOS. General Plan Natural Resources Element policies NR-1.01, NR-1.02, NR-1.03, NR-1.04, NR-1.05, and NR-1.06, as well as Coastal Element policies C-2.02, C-2.05, C-2.06, C-2.07, C-2.08, C-2.09, C-2.10, C-2.11, and C-2.12, would reduce impacts to sensitive habitats. Impacts to covered sensitive communities inside of SOS areas would be considered potentially significant and would not be eligible for regulatory coverage under the HCP.

Impact 5.3-3: Buildout of the General Plan could impact jurisdictional waters and wetlands. [Threshold B-3]

Impact Analysis: The ephemeral and intermittent streams distributed throughout the City and SOI, and areas identified as supporting riparian vegetation are potential Corps and CDFW jurisdictional waters and wetlands. Projects considered for approval under the proposed General Plan could impact waters of the US, waters of the state, and wetlands. Such impacts would be subject to the requirements of applicable Section 404 permits from the Corps, Section 401 water quality certification, USFWS review, and CDFW 1600 Streambed Alteration Agreements. General Plan Natural Resources Element policies NR-1.02, 1.03, 1.04, 1.05, and 1.06 would reduce impacts to jurisdictional waters and wetlands. Impacts are potentially significant.

Impact 5.3-4: Buildout of the General Plan would impact wildlife movement. [Threshold B-4]

Impact Analysis: The major wildlife movement corridors identified by the Orange County Southern Subregion HCP (Dudek 2006) are along the northern and northeastern boundaries of the City and in the SOI. The SOI is a preserve managed by the Donna O'Neill Land Conservancy and is identified as a nature preserve in the HCP. The Centennial General Plan does not propose any development in the SOI, and its status as a preserve indicates that it would not be developed in the future.

The lands along the northeastern and eastern borders of the City adjoin the Cristianitos Canyon habitat linkage, and are designated by the General Plan as Open Space-Privately Held. The open space lands along the northern border of the City that adjoin the Trampas Canyon habitat linkage are public open space, and no development would occur in this open space. However, the General Plan proposes an extension of Avenida La Pata in the north-central part of the City that would connect its existing northern terminus with Camino del Rio and extend to the northern City limit. The Avenida La Pata would transect a relatively large area of natural habitat designated as Open Space Publicly Owned and Open Space Privately Owned. The proposed roadway would impact local wildlife movement within the designated open space, and has the potential to impact the major linkage/corridor feature labeled "K" in Figure 5.3-6. General Plan Natural Resources Element policies NR-1.02, NR-1.03, and NR-1.06 would reduce impacts to habitat linkages. Any future street extension or development proposal in these areas designated open space could impact wildlife movement and is potentially significant.

Impact 5.3-5: Buildout of the Centennial General Plan would not conflict with the Orange County Southern Subregion HCP. [Thresholds B-5 and B-6]

Impact Analysis: The City and SOI are within the Plan Area of the Orange County Southern Subregion Habitat Conservation Plan, which serves as an HCP for the "take" of selected federally threatened species, including the

California gnatcatcher. The City of San Clemente is one of the signatories of the HCP. The land within the SOI (approximately 1,035 acres) and approximately 190 acres that adjoin the SOI in the northeastern corner of the City are part of a current preserve managed by the Donna O'Neill Land Conservancy. The O'Neill preserve, while still privately owned, is a designated part of the Habitat Reserve under the HCP. The Centennial General Plan does not propose any development in the SOI, and therefore would not impact the protected status of the O'Neill preserve.

The approximately 190 acres of land in the City that is also part of the O'Neill preserve is designated by the General Plan as Open Space-Privately Held. Implementation of the General Plan would not allow development within this area. If development projects are proposed in these areas in the future, they would be subject to CEQA review and a biological assessment of the impact on the HCP, with appropriate mitigation to reduce impacts to a less than significant level. The General Plan would not prevent or interfere with assembly of the proposed Habitat Reserve system of the HCP.

The HCP identifies the other remaining patches of open space in San Clemente as "supplemental open space," which reflect the open space land use designations in the current General Plan. The HCP acknowledges that SOS areas could be developed based on future General Plan or zoning amendments to the open space designation, but that impacts to covered vegetation communities, species, and jurisdictional areas within SOS areas would not be eligible for regulatory coverage under the HCP (i.e., separate federal permits would be required). The HCP concludes that the long-term function of the proposed Habitat Reserve does not depend on the SOS.

Future development projects within sensitive biological resources areas would also be required to conduct project-level biological assessments. Since the project does not propose development or land use changes within the HCP Reserve area, it would not conflict with the Orange County Southern Subregion HCP.

Impact 5.3-6 The proposed General Plan would not conflict with the City's Coastal Element. [Threshold B-5]

Impact Analysis: The seven canyons identified as ESHAs in the Coastal Element include three canyons that are entirely or partly within publicly owned open space. These include Calafia Canyon (within San Clemente State Beach and Calafia Park), Trafalgar Canyon (northern part), and Palizada Canyon (part within Linda Lane Park). The remaining canyons are within areas already developed with residential land uses.

Six of the focus areas—all but the Camino de Estrella/Camino de los Mares and Rancho San Clemente Business Park areas—and the Shorecliff Golf Course are wholly or partly within the Coastal Zone. Policy NR-1.05 of the Natural Resources Element of the proposed General Plan, as well as policies C-2.02 through C-2.12 and implementation actions 1, 12, and 13 of the Coastal Element, would require that projects considered for approval by the City under the proposed General Plan comply with Coastal Commission policies and goals and policies of the City's planned Local Coastal Plan. The proposed General Plan would not conflict with the Coastal Element.

ESHAs in San Clemente would also be protected under policies NR-1.03 (Sensitive Habitats), NR-1.05 (Coastal Canyons), and C-2.10 (ESHAs) of the proposed General Plan.

5.3.4 Relevant General Plan Policies

Natural Resources Element

NR-1.01 **Information.** We acquire and maintain the most current information available regarding the status and location of sensitive biological elements (species and natural communities) and use this information to guide decisions that could affect biological resources.

NR-1.02 **Natural Areas.** In natural areas that are undeveloped or essentially so, we require applicants for proposed projects to:

a. avoid significant impacts, including retention of sufficient natural space where appropriate;

b. retain watercourses, riparian habitat, and wetlands in their natural condition;

c. maintain habitat linkages (wildlife corridors) between adjacent open spaces, water sources and other habitat areas and incorporate these into transportation projects and other development projects to maintain habitat connectivity;

d. incorporate visually open fences, or vegetative cover to preserve views, ensure continued access and to buffer habitat areas, open space linkages or wildlife corridors from development, as appropriate;

e. locate and design roads such that conflicts with biological resources, habitat areas, linkages or corridors are minimized; and

f. utilize open space or conservation easements when necessary to protect sensitive species or their habitats.

NR-1.03 **Sensitive Habitats.** We prohibit development and grading which alters the biological integrity of sensitive habitats, including Riparian Corridors unless no feasible project alternative exists which reduces environmental impacts to less than significant levels, or it is replaced with habitat of equivalent value, as acceptable to the City Council.

a. Where no environmentally feasible alternative exists, development within Riparian Corridors shall avoid removal of native vegetation; prevent erosion, sedimentation and runoff; provide for sufficient passage of native and anadromous fish; prevent wastewater discharges and entrapment; prevent groundwater depletion or substantial interference with surface and subsurface flows; and protect and re-establish natural vegetation buffers.

NR-1.04 **Threatened and Endangered Species.** We preserve the habitat of threatened and endangered species in place as the preferred habitat conservation strategy.

NR-1.05 **Coastal Canyons.** We encourage activities which improve the natural biological value, integrity and corridor function of the coastal canyons through vegetation restoration, control of non-native species, and landscape buffering of urban uses and development.

NR-1.06 **Habitat Conservation Plan.** We support and will follow the U.S. Fish and Wildlife Services Orange County Southern Subregion Habitat Conservation Plan (HCP) and Habitat Management Program.

Coastal Element

Policies

C-2.02 **Development Proposals.** We protect the natural resources found in the Coastal Zone by evaluating development proposals, as required under the California Environmental Quality Act and as described in the Zoning Ordinance.

C-2.05 **Natural Resources.** We protect our natural resources by prohibiting the encroachment of development, incompatible land uses and sensitive habitat disturbance into designated coastal canyon and coastal bluff areas, consistent with the Local Coastal Program.

C-2.06 **Native Landscaping.** We ensure that new landscaping for new development in coastal bluffs, coastal canyons or sensitive habitat areas or ESHAs within the Coastal Zone uses primarily plants that are native to the local region, as described in Zoning Ordinance, Coastal Zone (-CZ) Overlay District, and prohibit the planting of invasive plant species.

C-2.07 **Landscape Restoration.** We encourage restoration of native landscaping in coastal canyon and bluff areas.

C-2.08 **Wetlands.** We recognize and protect wetlands for their scenic, recreational, water quality, and habitat values.

C-2.09 **Coordination with State and Federal Agencies.** We work with the state and federal resource protection agencies, businesses, private organizations and individuals to protect our natural and marine resources.

C-2.10 **ESHAs.** We protect Environmentally Sensitive Habitat Areas (ESHAs) by restricting development in ESHAs to those that are resource-dependent, such as restoration, limited public access improvements, signage, placement of boardwalks, fencing, minor educational, interpretative and research activities consistent with the California Coastal Act.

C-2.11 **Uses within the Marine Environment.** We require that uses of and in the marine environment be conducted to 1) maintain the long-term biological productivity of coastal waters, 2) help ensure the continuation of a healthy, self-renewing marine ecosystem, and 3) help ensure the long-term survival of healthy populations of marine plants and animals.

C-2.12 **Non-Native Species.** We seek to prevent the introduction, reproduction or spread of harmful non-native plant and animal species through public education, maintenance of marine facilities and by assisting local, state and federal agencies enforce laws protecting marine resources.

Implementation Actions:

Local Coastal Program

1. Prepare a Local Coastal Program and secure California Coastal Commission certification.

Environmentally Sensitive Habitat

12. Advocate and support the preservation and creation of coastal terrestrial wildlife or plant sanctuaries.

13. Develop informational aids for where native plants are required to be planted in coastal canyon and bluff areas, their planting and care, for the removal of officially designated invasive plant species, and for Orange County Fire Authority landscaping requirements for fire safety.

5.3.5 Existing Regulations and Standard Conditions

Federal

- United States Code, Title 16, Sections 1531 et seq.: Endangered Species Act
- United States Code, Title 16, Sections 703-712: Migratory Bird Treaty Act
- United States Code, Title 33, Sections 1251 et seq.: Clean Water Act

State

- California Fish and Game Code, Section 2080: Endangered Species Act
- California Fish and Game Code, Section 1600: Lakes and Streambeds
- California Public Resources Code Sections 30000 et seq.: California Coastal Act

City of San Clemente

- Ordinance No. 1071: Canyon and Bluff Preservation Ordinance
- Coastal Element (Land Use Plan certified by Coastal Commission)

5.3.6 Level of Significance Before Mitigation

Upon implementation of regulatory requirements and standard conditions of approval, the following impacts would be less than significant: 5.3-4, 5.3-5, and 5.3-6.

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

- Impact 5.3-1 Implementation of the proposed General Plan could impact sensitive species.
- Impact 5.3-2 Buildout of the proposed General Plan could impact sensitive habitats.
- Impact 5.3-3 Buildout of the proposed General Plan could impact jurisdictional waters and wetlands.
- Impact 5.3-4 Buildout of the General Plan would impact wildlife movement.

5.3.7 Mitigation Measures

Impact 5.3-1

3-1 The City of San Clemente shall require applicants of future development projects that disturb undeveloped land to prepare a biological resources survey. The biological resources survey shall be conducted by a qualified biologist and submitted to the City's Planning Department. The biological resources survey shall include, but not be limited to: Analysis of available literature and biological databases, such as the California Natural Diversity Database, to determine sensitive biological resources that have been reported historically from the proposed development project vicinity; review of current land use and land ownership within the proposed development project vicinity; Assessment and mapping of vegetation communities present within the proposed development project vicinity; and general assessment of potential jurisdictional areas, including wetlands and riparian habitats.

a) If the proposed development project site supports vegetation communities that may provide habitat for special status plant or wildlife species, a focused habitat assessment shall be conducted by a qualified biologist to determine the potential for special status plant and/or animal species to occur within or adjacent to the proposed development project area.

b) If one or more special status species has the potential to occur within the proposed development project area, focused species surveys shall be conducted to determine the presence/absence of these species to adequately evaluate potential direct and/or indirect impacts to these species.

c) If construction activities are not initiated immediately after focused surveys have been completed, additional preconstruction special status species surveys may be required, in accordance with the California Endangered Species Act and Federal Endangered Species Act, to assure impacts are avoided or minimized to the extent feasible. If preconstruction activities are required, a qualified biologist would perform these surveys as required for each special status species that is known to occur or has a potential to occur within or adjacent to the proposed development project area.

d) If sensitive biological resources or wildlife corridors are identified within or adjacent to the proposed development project area, as outlined in the biological resources report, the construction limits shall be clearly flagged to assure impacts to sensitive biological resources and the wildlife corridor are avoided or minimized, to the extent feasible. Prior to implementing construction activities, the City of San Clemente shall require applicants to contract with a qualified biologist to verify that the flagging clearly delineates the construction limits and sensitive resources to be avoided.

e) If sensitive biological resources are known to occur within or adjacent to the proposed development project area, as outlined in the biological resources report, the City of San Clemente shall require applicants to contract with a qualified biologist to develop and implement a project-specific contractor training program to educate project contractors on the sensitive biological resources within and adjacent to the proposed development project area and measures being implemented to avoid and/or minimize impacts to these species.

f) If sensitive biological resources are present within or adjacent to the proposed development project area and impacts may result from construction activities, as outlined in the biological resources report, a qualified biological monitor may be required during a portion or all of the construction activities to assure impacts to the sensitive biological resources are avoided or minimized to the extent feasible. The specific biological monitoring requirements shall be determined on a project-by-project basis. The qualified biological monitor shall be approved by the City on a project-by-project basis based on applicable experience with the sensitive biological resources that may be impacted by the proposed development project activities.

3-2 The City of San Clemente shall require applicants of development projects that have the potential to affect listed species to obtain written authorization from the U.S. Fish and Wildlife Service that the grading or construction activity is in compliance with regulations on the "take" of the listed species that would directly or indirectly be impacted. Any mitigation requirements set forth by such agencies shall be incorporated into the project's final design plans.

Impact 5.3-2

Implementation of Mitigation Measures 3-1 and 3-2.

Impact 5.3-3

3-3 The City of San Clemente shall require applicants of development projects that have the potential to affect listed species to obtain written authorization from the U.S. Fish and Wildlife Service that the grading or construction activity is in compliance with regulations on the "take" of the listed species that would directly or indirectly be impacted. Any mitigation requirements set forth by such agencies shall be incorporated into the project's final design plans.

3-4 The City of San Clemente shall require applicants of development projects that have the potential to affect jurisdictional resources to contract with a qualified biologist to conduct a jurisdictional delineation following the methods outlined in the 1987 US Army Corps of Engineers Wetland Delineation Manual and the Regional Supplement to the USACE Wetland Delineation Manual: Arid West Region (2008) to map the extent of wetlands and nonwetland waters, determine jurisdiction, and assess potential impacts. The results of the delineation shall be presented in a wetland delineation letter report and shall be incorporated into the CEQA document(s) required for approval and permitting of the proposed development project.

3-5 The City of San Clemente shall require applicants of development projects that have the potential to impact jurisdictional features to obtain permits and authorizations from the US Army Corps of Engineers, California Department of Fish and Wildlife, and/or Santa Ana Regional Water Quality Control Board. The agency authorization would include impact avoidance and minimization measures as well as mitigation measures for unavoidable impacts. Specific avoidance, minimization, and mitigation measures for impacts to jurisdictional resources shall be determined through discussions with the regulatory agencies during the proposed development project permitting process and may include monetary contributions to a mitigation bank or habitat creation, restoration, or enhancement.

Impact 5.3-4

3-6 The City of San Clemente shall require applicants of future development projects that are within designated open space or identified as a major linkage/corridor (see Figure 5.3-6) to prepare a habitat connectivity evaluation. The results of the evaluation will be incorporated into the project's biological report required under Mitigation Measure 3-1. The habitat connectivity evaluation shall assess the potential for the project to adversely affect the intended functions of the wildlife corridor. The evaluation shall also identify project design features that would reduce potential impacts and maintain functionality as habitat and for wildlife movement. To this end, the City shall incorporate the following measures, to the extent practicable, into projects that would propose development within these areas:

- Avoid known sensitive biological resources
- Any lighting associated with the project in this area, including street lights and residential lights, shall be of the minimum output required and shall be down-shielded to prevent excessive light bleed into adjacent areas
- Encourage development plans that maximize wildlife movement
- Provide buffers between development and sensitive habitat areas
- Any road crossings, bridges, culverts, etc., shall be constructed with soft bottoms with an openness ratio of at least 0.9 (openness ratio=height x width/length) or as recommended by CDFW
- Use native, drought-resistant plant species in landscape design

5.3.8 Level of Significance After Mitigation

The mitigation measures identified above would reduce potential impacts associated with biological resources to a level that is less than significant. Therefore, no significant unavoidable adverse impacts relating to biological resources remain.

5.4 CULTURAL RESOURCES

Cultural resources include places, objects, and settlements that reflect group or individual religious, archaeological, architectural, or paleontological activities. Such resources provide information on scientific progress, environmental adaptations, group ideology, or other human advancements. This section of the Draft Environmental Impact Report (DEIR) evaluates the potential for implementation of the San Clemente General Plan to impact cultural resources in the City of San Clemente and its sphere of influence (SOI).

The information in this section is based in part on a cultural records search completed at the South Central Coastal Information Center (SCCIC) at California State University Fullerton on April 10, 2013. A summary of that records search is included as Appendix D of this Draft EIR. Confidential information identified in that records search is held by the South Central Coastal Information Center and is not available to the public.

Chronological and cultural information about Native American habitation in the region is summarized from a cultural resources survey prepared for the Pacific Golf and Residential project on the Pacific Golf and Country Club next to the eastern City boundary and just north of Avenida La Pata, by SWCA Environmental Consultants in June 2005, and incorporated by reference.

5.4.1 Environmental Setting

Regulatory Background

Federal and State Regulations

National Historic Preservation Act

The National Historic Preservation Act of 1966 authorized the National Register of Historic Places and coordinates public and private efforts to identify, evaluate, and protect the nation's historical and archaeological resources. The National Register includes 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 National Historic Preservation Act of 1966 (NHPA) requires federal agencies to take into account the effects of their undertakings on historic properties. Section 106 Review refers to the federal review process designed to ensure that historic properties are considered during federal project planning and implementation. The Advisory Council on Historic Preservation, an independent federal agency, administers the review process, with assistance from State Historic Preservation Offices.

Archaeological Resources Protection Act

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

Native American Graves Protection and Repatriation Act

The Native American Graves Protection and Repatriation Act (NAGPRA) 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.

California Public Resources Code

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

- California Public Resources Code 5020–5029.5 continued the former Historical Landmarks Advisory Committee as the State Historical Resources Commission. The commission oversees the administration of the California Register of Historical Resources and is responsible for the designation of State Historical Landmarks and Historical Points of Interest.

- California Public Resources Code 5079–5079.65 define the functions and duties of the Office of Historic Preservation (OHP). The OHP is responsible for the administration of federally and state-mandated historic preservation programs in California and the California Heritage Fund.

- California Public Resources Code 5097.9–5097.991 provide protection to Native American historical and cultural resources and sacred sites and identify 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.

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 or 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.

Senate Bill 18 was signed into law in September 2004 and went into effect on March 1, 2005, as California Government Code Sections 65352.3 et seq. It places new requirements upon local governments for developments within or near Traditional Tribal Cultural Places (TTCP). Per SB 18, the law requires local jurisdictions to provide opportunities for involvement of California Native Americans tribes in the land planning process for the purpose of preserving traditional tribal cultural places. The Final Tribal Guidelines recommends that the NAHC provide written information as soon as possible but no later than 30 days to inform the lead agency if the proposed project is determined to be in proximity to a TTCP and another 90 days for tribes to respond to a local government if they want to consult with the local government to determine whether the project would have an adverse impact on the TTCP. There is no statutory limit on the consultation duration. The CEQA public distribution list may include tribes listed by the NAHC who have requested consultation or it may not. If the NAHC, the tribe, and interested parties agree upon the mitigation measures necessary for the proposed project, it may be included in the project's EIR. If both the lead agency and the tribe agree that adequate mitigation or preservation measures cannot be taken, then neither party is obligated to take action.

Per SB 18, the law institutes a new process which would require a city or county to consult with the NAHC and any appropriate Native American tribe for the purpose of preserving relevant TTCP prior to the adoption, revision, amendment, or update of a city's or county's general plan. Although SB 18 does not specifically mention consultation or notice requirements for adoption or amendment of specific plans, the Final Tribal Guidelines advises that SB 18 requirements extend to specific plans. State planning law also requires local governments to use the same process for amendment or adoption of specific plans as for general plans (defined in Government Code § 65453). In addition, SB 18 provides a new definition of TTCP requiring a traditional association of the site with Native American traditional

beliefs, cultural practices, or ceremonies, or the site must be shown to actually have been used for activities related to traditional beliefs, cultural practices, or ceremonies. Previously, the site was defined to require only an association with traditional beliefs, practices, lifeways, and ceremonial activities. In addition, SB 18 law also 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.

2010 California Historic Building Code

The 2010 California Historic Building Code—California Code of Regulations, Title 24, Part 8—provides regulations for the preservation, restoration, rehabilitation, relocation, or reconstruction of buildings or properties designated as qualified historical buildings or properties. The CHBC 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.

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.

San Clemente City Ordinances

Historic Resources and Historic Landmarks

Criteria and procedures for including or deleting resources on the City's Historic Resources and Historic Landmarks lists are in City Municipal Code Sections 17.16.160 et seq. Such resources may be places; sites; buildings; structures; objects; or improvements, man-made or natural.

Cultural Heritage Permits

Cultural Heritage Permits are issued by the City of San Clemente and authorized under City Municipal Code Sections 17.16.100 et seq. provide for review of projects affecting the City's cultural and/or historic resources. Review includes Design Review Subcommittee review and Planning Commission approval. The code sections describe the buildings for which Cultural Heritage Permits are required and size thresholds for additions and new construction requiring the permits.

Natural Setting

San Clemente is in the southern foothills of the Santa Ana Mountains. Most of the City of San Clemente and SOI consist of hills and canyons, which are steeper east of I-5 and have gentler grades west of I-5.

Cultural Setting

Prehistory

The archaeological record of southern California is traditionally divided chronologically based on changes in artifact types and styles. The following chronology for Native American habitation in prehistoric southern California is based on archaeological data and correlations with ethnographic data. The chronology is from a cultural resources survey prepared for the Pacific Golf and Residential project next to the City's eastern boundary and just north of Avenida La Pata. Information about that project site or project area that does not apply to the entire City and SOI, has been omitted.

The earliest extensive human remains in coastal Orange and San Diego counties are today identified as the San Dieguito Culture. Radiocarbon dates from the San Dieguito levels of an archaeological site in the flood plain of the San

Dieguito River in San Diego County indicate occupation around 7,000 to 6,500 B.C. The San Dieguito people's food sources were mainly plants and animals living in chaparral and coastal marine resources. The distinctive artifacts from the San Dieguito are large, rather crude projectile points, scrapers, and choppers; crescent-shaped objects of uncertain utility; and other tools such as gravers.

By the Middle Archaic period, 6,000 to about 4,000 B.C., Native Americans had learned to use the hard seeds of coastal sage scrub and chaparral plants. The tools used for processing the hard seeds, manos and metates,[1] appear in large numbers for the first time and are the hallmarks of the Encinitas Tradition, a Middle and Late Archaic tradition of coastal southern California.

The Pacific Period began around 2,000 B.C. and persisted until Spanish contact. The mortar and pestle, used to grind acorns, were introduced in the Pacific Period. Evidence of trade is pronounced during this period.

The *Late* Prehistoric *(*Shoshonean*)* Tradition began around A.D. 500 and lasted until Spanish contact. Large populations mark the Late Prehistoric Tradition, with some coastal camps (many permanent) containing as many as 1,500 persons. Many striking objects of stone, bone, wood, and shell were manufactured. During the Late Prehistoric period, migrants from the Great Basin appeared in the Los Angeles and Orange County area.

Acjachemen (Juaneño) Culture

The region was inhabited by the Juaneño at the time of European contact. (The native term Acjachemen is today gaining currency.) Currently, there are at least two Juaneño groups in Orange County. Juaneño population during the precontact period is not known. Approximately 1,300 Juaneño resided at Mission San Juan Capistrano in 1800. A formal tribal government was established in the 1890s. The Juaneño territory was bounded by Aliso Creek, the Santa Ana Mountains, San Onofre Creek, and the coastline (Cogstone 2013).

The Acjachemen/Juaneño were organized into villages of 35 to 300 people that were headed by a hereditary chief and generally located near permanent water sources. Each village used a specific territory that included satellite locations for seasonal food-gathering. Food sources were mostly plants—acorns were the most important single food source—and also included a variety of animals including deer, rabbits, rodents, birds, and fish.

Historic Setting

Mission San Juan Capistrano was founded in 1776 almost two miles northwest of the current San Clemente city boundary.

The present-day City and SOI were part of three land grants from the Mexican government in the 1840s: Rancho Boca de la Playa in the western part of the City, Rancho Mission Viejo in the northern part, and Rancho Santa Margarita y Las Flores in the eastern part of the City.

In 1888 the San Bernardino and San Diego Railway finished building a railway between Oceanside and Santa Ana through San Clemente, completing the coastal rail route between San Diego and Los Angeles (PSRMA 2013).[2]

Incorporated in 1928, the City of San Clemente was among the first master-planned communities in the U.S. built from totally open land. Before erecting a single structure on the rolling coastal hills, the City's founder, Ole Hanson, laid out a detailed plan based on his vision of a Spanish village by the sea. Hanson used the Spanish Colonial Revival

[1] *Manos* and *metates* are grinding stones. A metate is a stone slab; a mano is slid by hand against a metate. By contrast, a mortar is a bowl and a pestle is rotated within a mortar (Gust 2013).
[2] The railroad track in San Clemente is now owned by the Orange County Transportation Authority and Metrolink. Metrolink commuter trains, Amtrak passenger trains, and BNSF freight trains operate on the track.

architectural style and promoted the area's natural gifts and recreational opportunities. The plan included restaurants, a clubhouse, residences, public parks, a public pool, a fishing pier, and even equestrian trails.

Camp Pendleton, a US Marine Corps facility, was dedicated on nearly 123,000 acres abutting the City's southern boundary in September 1942 (USMC 2013).

Unit One of the San Onofre Nuclear Generating Station (SONGS) began operating in 1968 along the coast in unincorporated San Diego County; the edge of the SONGS property is 2.2 miles southeast of the City boundary.

In 1969 President Richard Nixon purchased the 1926 Cotton Estate near the City's south corner; renamed "Casa Pacifica," it served as the Western White House from 1969 to 1974.

Historical Topographic Maps

Historical topographic maps of the City and SOI were obtained from the US Geological Survey's website and are included in Appendix D of this Draft EIR. Buildings shown on 1929 Sanborn Maps are also provided in Appendix D.

- **1902 Capistrano Quadrangle**, scale 1:125,000 (1.97 miles per inch): The only two readily identifiable man-made structures in what would become the City of San Clemente are the Southern California (Surf Line) Railroad and El Camino Real. There are a few black dots within the future City that may represent buildings, but it is difficult to distinguish such features from other features, such as contour lines, on a map of this scale and age.

- **1948 San Clemente and Dana Point Quadrangles**, scale 1:24,000 (2.65 inches per mile): Most of the development in the City is between the coast and US 101 (El Camino Real), which is a four-lane highway. The majority of the development shown in the City is in the historical core. The northern City boundary is far to the south of its current boundary, and the west boundary is east of its current boundary. The railroad along the coast is the Atchison, Topeka, and Santa Fe. Camp Pendleton Naval Reservation [Marine Corps Base] is shown abutting the east City boundary in San Diego County.

- **1968 San Clemente and Dana Point Quadrangles**, scale 1:24,000 (2.65 inches per mile): I-5 now bisects the City. Almost all development in the City is between the coast and two-thirds of a mile inland of I-5; land inland of that is shown as entirely vacant except for Pico Avenue (paved), a few water tanks, a radio facility, and a few structures in Prima Deshecha Cañada. The City boundaries are close to their current locations.

Cultural Resources

Historical Resources

Searches for historical resources of the study area in the National Register of Historic Places, California Historical Resources (Office of Historic Preservation), California Historical Landmarks, and California Points of Historic Interest. Resources in the City listed on the National Register of Historic Places or as California Points of Historical Interest are described in Table 5.4-1. Local Landmarks approved by the City Council in 2007 are listed in Table 5.4-2.

Table 5.4-1 Historical Resources on the National Register of Historic Places or California Points of Historical Interest

Resource	Location	Listing		Description
		National Register of Historic Places	California Point of Historical Interest	
Casa Romantica	415 Avenida Granada	X		Large single-family residence designed in Spanish Revival style for Ole Hanson, original planner of San Clemente; completed 1928.
Easley, Oscar, Block	101 El Camino Real	X		Two-story office building designed in Spanish-Moorish Revival style; completed 1929.
Goldschmidt House	243 Avenida La Cuesta	X		Single-family dwelling designed in Spanish Colonial Revival style; completed 1928.
Hotel San Clemente	114 Avenida Del Mar	X		Three-story hotel designed in Spanish Colonial Revival style; completed 1927; now used as apartment building.
San Clemente Beach Club	105 W. Avenida Pico	X		Two-story recreation venue with community center and swimming pool; built in 1927; designed in Spanish style.
Bartlett Building	100 S. El Camino Real		X	Two-story commercial building built in 1926.

Sources: NPS 2012; OHP 2012.

Table 5.4-2 City of San Clemente Local Landmarks

Landmark	Location	Description
L.S. Frasier House	304 Avenida Cabrillo	One of the few remaining adobe buildings; built 1938.
Cotton Estate Gate	Avenida del las Palmeras	Gate served as entrance to Cotton Estate at south end of town; built 1928.
Hotel San Clemente	114 Avenida Del Mar	Listed on National Register; see Table 5.4-1.
Casa Romantica	415 Avenida Granada	Listed on National Register; see Table 5.4-1.
Campbell House	233 Avenida la Cuesta	House designed in Hollywood Regency style, rare in San Clemente; built 1941.
Goldschmidt House	243 Avenida la Cuesta	Listed on National Register; see Table 5.4-1.
San Clemente Beach Club	105 W. Avenida Pico	Listed on National Register; see Table 5.4-1.
Casino San Clemente	140 W. Avenida Pico	Built 1936; served as a regional entertainment facility.
Municipal Pier	611 Avenida Victoria	Built 1928.
Casa Pacifica	4100 Calle Isabella	Cotton Estate built 1926; Western White House of President Richard Nixon 1969–1974.
Community Center / Ole Hanson Room	100 N. Calle Seville	Not available (NA)
Warner House	412 Cazador Lane	NA
Bartlett Building	100 S. El Camino Real	Two-story commercial building built in 1926.
Easley, Oscar, Block	101 S. El Camino Real	Listed on National Register; see Table 5.4-1.
Administration Building	104-118 N. El Camino Real	Early City administration building; now commercial building; built 1926.
San Onofre Inn	1426 N. El Camino Real	Two-story apartment building
Old City Hall	408 N. El Camino Real	City's first civic center; built 1928.
Moulton House	1209 Buena Vista	NA
Residence	418 Cazador Lane	NA
Ann Harding House	420 Cazador Lane	NA
Swigart House	230 W. Marquita	NA
St. Clement's Church	202 Avenida Aragon	NA

Source: SCHS 2007.

Historic Properties in Focus Areas

The cultural records search conducted by the SCCIC included a search for historic properties within each of the eight focus areas. Results of that search are in Table 5.4-3. No historic properties were identified in Focus Area 1 (Camino de Estrella/Camino de los Mares).

Table 5.4-3 Historic Properties in Focus Areas Identified in the Cultural Records Search

Address	Property Name	Year Built	Description	Listing/Eligibility Status[1]
Focus Area 2: Rancho San Clemente Business Park				
Archaeological site number ORA-000907/H.	Not available	NA	Archaeological site	EL-NR-I
Focus Area 3: Los Molinos				
529 Avenida Pico	Not available	1964	Not available	I-NR
Focus Area 4: North Beach /North El Camino Real				
1608 Calle las Bolas	Vista Del Mar Apartments	1929	Two-story apartment building	AEL-NR-CNRED
1638 Calle las Bolas	Not available	1936	Single-family residence	AEL-NR-CNRED
115 E. Canada	Not available	1929	Single-family residence	AEL-NR-CNRED
1426 N. El Camino Real	San Onofre Inn	1928	Two-story apartment building	EL-NR-CNRED
1533 N. El Camino Real	No available	1928	Commercial	AEL-NR-CNRED
1700 N. El Camino Real	Miramar Theater/San Clemente Theater	1937	Cinema	AEL-NR-I/CNRED
1814 N. El Camino Real	Aquarium Café/Anchor Inn	1931	Restaurant	AEL-NR-CNRED
105 W. Avenida Pico	San Clemente Beach Club	1927	Two-story recreation venue with community center and swimming pool; designed in Spanish style.	L- NR, CR- I
101 W. Escalones	Not available	1928	Single-family residence	AEL-NR-CNRED
Focus Area 5: Del Mar/T-Zone				
117 Avenida Cabrillo	Not available	1927	Commercial	AEL-NR-CNRED
101 Avenida Del Mar	Latham Building/Post Office Building	1926	Commercial	AEL-NR-CNRED
104 Avenida Del Mar	Stanford Court	1927	Commercial, in 114 Avenida Del Mar building	AEL-NR-CNRED
106 Avenida Del Mar	Taylor Building	1926	Commercial, in 114 Avenida Del Mar building	AEL-NR-CNRED
114 Avenida Del Mar	Hotel San Clemente	1927	Three-story hotel designed in Spanish Colonial Revival style; now used as apartment building.	L- NR, CR- I
122 Avenida Del Mar	Not available	1932	Not available	AEL-NR-CNRED
125 Avenida Del Mar	Not available	1930	Commercial	AEL-NR-CNRED
130 Avenida Del Mar	Not available	1927	Commercial	AEL-NR-CNRED
222 Avenida Del Mar	Not available	1941	Commercial	AEL-NR-CNRED
228 Avenida Del Mar	Not available	1928	Commercial	AEL-NR-CNRED
229 Avenida Del Mar	Not available	1928	Commercial	AEL-NR-CNRED
251 Avenida Del Mar	Not available	1927	Single-family residence	AEL-NR-CNRED
130 Avenida Granada	Stepping Stone Pre-School	1938	Single-family residence	L-SC-CSCED
142 Avenida Granada	Not available	1926	Commercial	AEL-NR-CNRED
143 Avenida Granada	Not available	1934	Commercial	AEL-NR-CNRED
209 Avenida Granada	Not available	1945	Single-family residence	L-SC-CSCED
246 Avenida Granada	Not available	1929	Residential	AEL-NR-CNRED

Table 5.4-3 Historic Properties in Focus Areas Identified in the Cultural Records Search

Address	Property Name	Year Built	Description	Listing/Eligibility Status[1]
251 Avenida Granada	Not available	1930	Single-family residence	AEL-NR-CNRED
107 Avenida Miramar	Not available	1928	Commercial	AEL-NR-CNRED
130 Avenida Miramar	Casa de Juan	1929	Single-family residence	AEL-NR-CNRED
132 Avenida Miramar	Not available	1926	Single-family residence	L-SC-CSCED
140 Avenida Miramar	Not available	1927	Single-family residence	AEL-NR-CNRED
147 Avenida Rosa	Not available	1946	Single-family residence	I-SC
110 Avenida Serra	Not available	1928	Single-family residence	AEL-NR-CNRED
116 Avenida Serra	Not available	1947	Residential	L-SC-CSCED
137 Avenida Serra	Not available	1928	Single-family residence	AEL-NR-CNRED
146 Avenida Serra	Not available	1927	Single-family residence	L-SC-CSCED
207 Avenida Victoria	Not available	1928	Single-family residence	AEL-NR-CNRED
215 Avenida Victoria	Not available	1926	Single-family residence	AEL-NR-CNRED
219 Avenida Victoria	Not available	1926	Single-family residence	AEL-NR-CNRED
234 Avenida Victoria	Not available	1929	Single-family residence	AEL-NR-CNRED
235 Avenida Victoria	Not available	1941	Single-family residence	L-SC-CSCED
101 S. El Camino Real	Oscar Beasley Block, House of Music	1929	Two-story office building designed in Spanish-Moorish Revival style.	L- NR, CR- I
1426 El Camino Real	San Onofre Inn	1928	Two-story apartment building	EL-NR-CNRED
104 N. El Camino Real	Administration Building/Ole Hanson	1926	Early City administration building; now commercial building.	AEL-NR-I/CNRED
313 N. El Camino Real	Riley's Waffle & Coffee Shop	1927	Commercial	AEL-NR-CNRED
408 N. El Camino Real	Not available	1928	Commercial	AEL-NR-CNRED
413 N. El Camino Real	Not available	1928	Commercial	AEL-NR-CNRED
420 N. El Camino Real	Not available	1926	Commercial	AEL-NR-CNRED
100 S. El Camino Real	Bartlett Building	1926	Two-story commercial building	L-CR SHL AEL-NR-CNRED
105 S. El Camino Real	Not available		Commercial	AEL-NR-CNRED
204 S. El Camino Real	Not available		Commercial	AEL-NR-CNRED
206 S. El Camino Real	White House Restaurant/El Fao		Restaurant	L-SC-CSCED
215 S. El Camino Real			Commercial	L-SC-CSCED
Focus Area 6: Pier Bowl				
103 Alameda Lane	Not available	1949	Residential	I- NR, CR, SC
109 Alameda Lane	Not available	1927	Single-family residence	AEL-NR-CNRED
310 Avenida Granada	Not available	1927	Single-family residence	AEL-NR-CNRED
410 Avenida Granada	Not available	1927	Single-family residence	AEL-NR-CNRED
415 Avenida Granada	Casa Romantica	1927	Large single-family residence designed in Spanish Revival style for Ole Hanson, original planner of San Clemente. Now used as cultural center.	L- NR, CR- I

Table 5.4-3 Historic Properties in Focus Areas Identified in the Cultural Records Search

Address	Property Name	Year Built	Description	Listing/Eligibility Status[1]
415 Avenida Granada	Casa Romantica-1, -2, and -3	1960	Not available	I- NR
306 Avenida Victoria	Not available	1941	Single-family residence	L-SC-CSCED
308 Avenida Victoria	Not available	1946	Single-family residence	L-SC-CSCED
309 Avenida Victoria	Not available	1944	Single-family residence	L-SC-CSCED
529 Avenida Victoria	Beachcomber Motel/Tepper Apartments	1947	Motel	AEL-NR-I/CNRED
606 Avenida Victoria	Not available	1929	MFR	AEL-NR-CNRED
611 Avenida Victoria	Municipal Pier	1940	Pier	LSC-I/CSCED
102 Corona Lane	Not available	1928	Single-family residence	AEL-NR-CNRED
117 Coronado Lane	Not available		Single-family residence	L-SC-CSCED
404 Monterey Lane	Nattkemper House	1927	Single-family residence	AEL-NR-CNRED
411 Monterey Lane	Not available	1928	Single-family residence	AEL-NR-CNRED
504 Monterey Lane	Not available	1927	Single-family residence	AEL-NR-CNRED
Focus Area 7: South El Camino Real (West of I-5)				
613 S. El Camino Real	Not available	1932	Commercial	AEL-NR-CNRED
Focus Area 8: South El Camino (East of I-5)				
7 W Avenida Junipero	Not available	1941	Single-family residence	L-SC-CSCED
124 Avenida San Dimas	Not available	1929	Single-family residence	AEL-NR-CNRED
ORA-000022	Not available	NA	Archaeological site	L-CR EL-NR-CNRED

Source: SCCIC 2013.
1. Listing Status/Eligibility Codes

Code	Register	Listing/Eligibility Status
L-NR,CR-I	National Register of Historic Places (NRHP)	Listed as Individual Property
	California Register of Historic Resources (CRHR)	Listed as Individual Property
L-CR	CRHR	Listed
L-SC-CSCED	City of San Clemente Historic Resource (SCHR)	Listed: Contributes to a City of San Clemente-Eligible District
L-SC-I/CSCED	SCHR	Listed: As Individual Property and Contributes to a City of San Clemente-Eligible District
EL-NR-I	NRHP	Eligible for Listing as Individual Property
EL-NR-CNRED	NRHP	Eligible for Listing: Contributes to a National Register-Eligible District
AEL-NR-CNRED	NRHP	Appears Eligible for Listing: Contributes to a National Register-Eligible District
AEL-NR-I/CNRED	NRHP	Appears Eligible for Listing: As Individual Property and Contributes to a National Register-Eligible District
I-NR, CR, SC	NRHP CRHR SCHR	*Ineligible* for listing on any of the three registers.
I-NR	NRHP	*Ineligible* for listing
I-SC	SCHR	*Ineligible* for listing

Archaeological Resources

Numbers of archaeological resources in and within 0.5 mile of each Focus Area are listed in Table 5.4-4. Archaeological sites include prehistoric and historic sites.[3] An isolate is fewer than three isolated artifacts and does not contain enough

[3] An archaeological site is the location of a significant event, a prehistoric or historic occupation or activity, or a building or structure, whether standing, ruined, or vanished, where the location itself possesses historic, cultural, or archaeological value regardless of the value of any existing structure (OHP 1995).

associated artifacts to form an archaeological site. Isolates are not considered cultural resources, but are used in determining sensitivity for archaeological resources. Isolates may consist of either prehistoric or historic artifacts. All eight focus areas are potentially sensitive for archaeological resources.

Table 5.4-4 Numbers of Cultural Resources and Isolates In and Near Each Focus Area

Focus Area	Cultural Resources in Focus Area			Cultural Resources within 0.5 Mile of Focus Area[1]		
	Archaeological Sites	Isolates	Built Environment Resources	Archaeological Sites	Isolates	Built Environment Resources
1	0	0	2	1	0	9
2	9	0	2	20	11	0
3	0	0	3	5	2	6
4	2	0	3	3	1	10
5	1	0	5	3	1	6
6	0	0	3	2	1	7
7	0	0	2	1	1	4
8	1	0	2	2	0	2

Source: SCCIC 2013.
[1] Resources are not totaled for the eight focus areas because the 0.5-mile radii from some of the focus areas overlap with those of some other focus areas.

Paleontological Resources

Paleontological resources are fossils, that is, recognizable remains or evidence of past life on earth; including bones, shells, leaves, tracks, burrows, and impressions.

Monterey Formation sandstone and siltstone contains abundant fossils of fish and foraminifera, that is, single-celled and colonial microorganisms consisting of cells with nuclei (USGS 2005). Monterey Formation rock is of middle to late Miocene age.[4] Numerous fossil fish and marine mammal remains have been recovered from this important formation, such as in the Irvine coast and Laguna Hills area (Cooper 2011). Monterey shale cliffs at Upper Newport Bay contain fish scales, fish bones, and microfossils (IVC 2013). Monterey Formation soils occur in northeastern San Clemente.

The Sespe Formation contains important microvertebrate specimens, such as teeth and jaw fragments, and is of late Eocene to early Miocene in age. Sespe Formation sandstone occurs in a small area in the northeastern part of the SOI.

The Capistrano Formation has produced abundant and diverse marine vertebrates, including fish, shark, whale, dolphin, porpoise, sea lion, sea cow, and sea-going birds. The Marblehead project near San Clemente yielded numerous important animal fossil specimens from Capistrano Formation rock. Capistrano Formation rock is present across wide areas of the City and SOI and is of late Miocene to early Pliocene age.

The Vaqueros Formation has produced abundant invertebrate and some important vertebrate fossils, including early Miocene marine mammals Vaqueros Formation rock occurs in a small area in the northeastern part of the SOI. Occurrences of the above-mentioned rock formations at the ground surface in the City and SOI are mapped on Figure 5.5-2, *Geologic Map*.

[4] The geologic time scale in epochs from earliest to latest:
Eocene: 55.8 million years ago (mya) to 33.9 mya
Oligocene: 33.9 to 23 mya
Miocene 23 to 5.3 mya
Pliocene 5.3 to 1.8 mya

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 (Pub. Res. Code Section 5024.1, Title 14 CCR, Section 4852), including the following:

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

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

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

C-1 Cause a substantial adverse change in the significance of an historical resource pursuant to Section 15064.5.

C-2 Cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5.

C-3 Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature.

C-4 Disturb any human remains, including those interred outside of formal cemeteries.

5.4.3 Environmental Impacts

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

Impact 5.4-1: Developments pursuant to the proposed General Plan could impact identified historic resources. [Threshold C-1]

Impact Analysis: There are a number of historic resources in the City that are listed or eligible for listing on the National, California, or Local Registers of Historic Plans. Historic properties within the focus areas were shown on previous Tables 5.4-3 and 5.4-4. The number of historic properties in each focus area is summarized in Table 5.4-5.

Table 5.4-5 Historic Properties in Eight Focus Areas Summarized from Table 5.4-3

	National Register of Historic Places			California Register of Historic Resources	San Clemente Historic Resource
	Listed	Eligible for Listing	Appears Eligible for Listing	Listed	Listed
1 – Camino de Estrella/ Camino de los Mares	0	0	0	0	0
2 – Rancho San Clemente Business Park	0	1	0	0	0
3 – Los Molinos	0	0	0	0	0
4 – North Beach/North El Camino Real	1	1	7	1	0
5 – Del Mar/T-Zone	2	1	31	3	8
6 – Pier Bowl	1	0	9	1	5
7 – S. El Camino Real (West of I-5)	0	0	1	0	0
8 - S. El Camino Real (East of I-5)	0	0	2	1	1
Total	**4**	**3**	**50**	**6**	**14**

Source: SCCIC 2013.

Adoption of the Centennial General Plan in itself would not directly affect any historical structures or resources. However, identified historic structures and sites that are eligible or potentially eligible for National Register of Historic Resources listing may be vulnerable to development activities in accordance with the General Plan. The proposed changes in land use and land use intensity are located predominantly in the eight focus areas, which collectively have 14 properties on the Local Register, 6 on the California Register, 4 on the National Register, 3 eligible for the National Register, and 50 potentially eligible for listing. Other structures that could meet the National Register criteria upon reaching 50 years of age might be impacted by development activity. There are also sensitive historical resources of local interest that are protected under Section 17.16.160 of the San Clemente Municipal Code, which determines whether places, sites, buildings, structures, objects or improvements, manmade or natural, shall be included on designated historic resources or landmarks lists.

Implementation of the General Plan would not demolish or materially alter historic resources. The development of new buildings adjacent to a historic resource may result in indirect impacts relating to visibility. For example, site specific development in the Del Mar/T-Zone would need to be evaluated to ensure that no indirect impacts occur with respect to the properties that are listed or eligible for listing. General Plan Policy LU-11.01 requires the preservation of historic resources in the Del Mar/T-Zone through the Historic Preservation Element. Development and redevelopment in the area would be required to be consistent with the surrounding historic resources by incorporating high quality design and materials into the architecture design. Adherence to Policy 2.05 would require the proposed development to evaluate the proposed design to ensure the structure is compatible with any adjacent historic resource in accordance with the Secretary of the Interior's Standards.

Buildout of the Centennial General Plan could impact an identified or unidentified historic resource. At the time development or redevelopment projects are proposed, the project-level CEQA document would need to identify any impacts to known or potential historical sites and structures. The Historic Preservation Element section of the proposed General Plan contains numerous polices that specifically address sensitive historical resources and their protection. Policy HP-2.03 requires mitigation of significant, adverse impacts to onsite and nearby historic resources as

part of applications for general plan amendments, zoning changes, or any projects requiring environmental review. Consistent with CEQA Guidelines, Policy HP-2.05 ensures projects follow the Secretary of Interior Standards for the Treatment of Historic Properties and standards and guidelines prescribed by the State Office of Historic Preservation for any listed historic resources or properties eligible for historic listing. In addition, the City encourages adaptive reuse to preserve historic resources and prevent architecturally inappropriate changes, disrepair, and demolition through Policy HP-2.03. Further, all new development adjacent to or within a 300-foot radius of a historic resource must be compatible with the historic resource in terms of scale, massing, building materials, and general architectural treatment (Policy HP-2.06). The San Clemente Municipal Code Section 17.16.170 identifies specific procedures and CEQA findings required prior to demolition of buildings, structures and other resources on the City's Designated Historic Resources List, and buildings, structures, and other resources on or eligible for listing in the California Register of Historic Resources. The General Plan polices, municipal code, and state and federal regulations restricting alteration, relocation, and demolition of historical resources ensures impacts would be less than significant.

Impact 5.4-2: Buildout of the proposed General Plan could impact archaeological resources or paleontological resources. [Thresholds C-2 and C-3]

Impact Analysis:

Archeological Resources

Development of projects pursuant to the proposed General Plan could impact known archaeological sites; 13 known archaeological sites are within the eight focus areas (see Table 5.4-4). Locations of archaeological sites and types of resources in each site are kept confidential due to their sensitive nature. The City, including the focus areas, is considered potentially sensitive for archaeological resources. Thus, ground disturbance has a high potential for uncovering archaeological resources.

Paleontological Resources

Ground disturbance from development of projects pursuant to the proposed General Plan could damage fossils buried in soils. Abundant fossils occur in several rock formations in San Clemente, including the Capistrano Formation, which is present across much of the City and SOI. This formation has produced numerous important animal fossil specimens in recent years. The Monterey, Sespe, and Vaqueros Formations in the northeastern portions part of the City and SOI also contain abundant fossils. Therefore, the City may contain significant, nonrenewable, paleontological resources and is considered to have high sensitivity.

Conclusion

Implementation of the proposed Land Use Plan has the potential to impact archeological and paleontological resources. However, existing federal, state, and local regulations address: the provision of studies to identify archaeological and paleontological resources; application review for projects that would potentially involve land disturbance; project-level standard conditions of approval that address unanticipated archaeological and or paleontological discoveries; and requirements to develop specific mitigation measures if resources are encountered during any development activity. The proposed Natural Resources Element contains policies that address the management of artifacts (see Policy NR-3.01) and the notification and inventory of archeological and paleontological resources (Policies NR-3.02 and 3.03).

Review and protection of archaeological and paleontological resources is also afforded by CEQA for individual projects subject to discretionary actions that are implemented in accordance with the preferred land use plan. Per

section 21083.2 of CEQA, the lead agency shall determine whether the 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 EIR shall address the issue of those resources. The potential to uncover undiscovered archeological and paleontological resources is high. In the event of an unanticipated discovery of archaeological resources during grading and excavation of the site, a qualified archaeologist would assess the find and develop a course of action to preserve the find, as indicated in Mitigation Measures 4-1 and 4-2.

Impact 5.4-3: Grading activities could potentially disturb human remains. [Threshold C-4]

Impact Analysis: There are 13 archaeological sites within the eight focus areas alone, and human habitation in coastal Orange and San Diego counties is known to date to at least approximately 7,000 years B.C. Therefore, human remains could be buried in soils in San Clemente. Ground disturbance by projects developed pursuant to the proposed General Plan could disturb these remains.

California Health and Safety Code Section 7050.5 requires that if human remains are discovered within the project site, disturbance of the site shall halt and remain halted until the coroner has conducted an investigation and made recommendations 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 if the coroner recognizes or has reason to believe the human remains to be those of a Native American, he or she shall contact, by telephone within 24 hours, the Native American Heritage Commission. Public Resources Code Section 5097.98, mandates the process to be followed in the event of a discovery of any human remains and would mitigate all potential impacts.

5.4.4 Relevant General Plan Policies

Historic Preservation Element

Heritage Promotion

HP-1.01 **Historic Preservation Program.** We maintain and continue to implement a comprehensive, citywide, historic preservation program.

HP-1.02 **Historic Resources Survey.** We maintain an up-to-date historic resources survey, seek designation of new historic resources and apply historic preservation policies to the resources identified on the Designated Historic Landmarks and Resources Lists to increase awareness and protection of historic sites.

HP-1.03 **Preserve America and Certified Local Government.** We promote San Clemente as a Preserve America City and Certified Local Government.

HP-1.04 **Education.** We conduct City sponsored educational programs to educate property owners, land developers, construction personnel and City staff about the importance of historical resources and the legal framework for their protection. We also support the preparation of educational materials to be made publicly available.

HP-1.05 **Schools.** In collaboration with our non-profit partners, we encourage local schools to integrate local and architectural history into their curricula and resources.

Historic Preservation Standards and Regulations

HP-2.01 **Leadership.** We provide leadership in the field of historic preservation by preserving and adaptively reusing City-owned historic resources in compliance with the Secretary of the Interior's Standards for the Treatment of Historic Properties and other standards and guidelines as prescribed by the State Office of Historic Preservation.

HP-2.02 **Property Maintenance.** Through the City of San Clemente Municipal Code, we require owners of historic resources to maintain their property in a manner which preserves the property's historic integrity.

HP-2.03 **CEQA Requirement.** We require mitigation of significant, adverse impacts to onsite and nearby historic resources as part of applications for general plan amendments, zoning changes, or any projects requiring environmental review per the California Environmental Quality Act (CEQA).

HP-2.04 **Adaptive Reuse.** We encourage adaptive reuse of historic resources to preserve them and prevent architecturally inappropriate changes, disrepair and demolition.

HP-2.05 **State and Federal Standards.** We ensure projects follow the Secretary of Interior Standards for the Treatment of Historic Properties and standards and guidelines as prescribed by the State Office of Historic Preservation for any listed historic resources or properties eligible for historic listing.

HP-2.06 **New Development.** We require that new development abutting single-family and multi-family dwellings and adjacent to or within a 300-foot radius from a historic resource be compatible with the historic resource in terms of scale, massing, building materials and general architectural treatment.

HP-2.07 **Flexible Standards.** We apply flexible development standards where appropriate and necessary to help preserve historic integrity and character of buildings and sites and to comply with zoning regulations. In the event of an earthquake, flood or other natural disaster, or in the event of arson, we take all reasonable steps to promote the preservation, repair and restoration of damaged historic structures, consistent with Zoning Ordinance requirements for the re-establishment of legal, non-conforming structures. If a historic building is damaged so that it is physically infeasible to restore, we require the replacement building to reflect the former building's architectural character.

HP-2.09 **Planning.** We incorporate historic and cultural preservation as an integral part of planning, development and environmental review.

Preservation Incentives

HP-3.01 **Assistance.** We provide assistance to residents who are restoring qualified historic properties by offering them technical assistance, development incentives or identifying additional federal and state preservation incentives.

HP-3.02 **Process.** We maintain regulations, policies, and fees that support, encourage, and ease the process for historic preservation, rehabilitation, restoration, and adaptive reuse.

HP-3.03 **Incentives.** We pursue and support the use of appropriate federal, state, local, and private grants, loans, fee waivers and tax credits and relief to promote historic preservation.

HP-3.04 **State Historic Building Code.** We use the State Historical Building code as a regulatory incentive, where appropriate.

HP-3.05 **Mills Act.** We maintain the Mills Act program as an incentive for historic preservation.

HP-3.06 **Public Investment.** We invest public funds to purchase, protect or preserve threatened properties listed on or eligible for listing on the National Register of Historic Places.

Historic Preservation for Economic Development

HP-4.01 **Promotion.** We promote workshops, exhibits, programs and events that celebrate the City's heritage and recognize the value and importance of San Clemente's historic resources as an economic development tool.

HP-4.02 **Coordination.** We work with public agencies, private and nonprofit organizations, property owners, area businesses and other interested groups and individuals to coordinate historic preservation activities, promote heritage tourism and provide public information on the value of historic preservation.

HP-4.03 **Tours.** We work with property owners, businesses and non-profit organizations to promote walking tours, house tours, commercial building tours, signs, public art, and visitor attractions that showcase the City's history.

Natural Resources Element

Archaeological and Paleontological Resources

NR-3.01 **Project Impacts.** We require assessment and mitigation of potential impacts to archaeological and paleontological resources as part of applications for general plan amendments, zoning changes, or any projects requiring environmental review per the California Environmental Quality Act (CEQA).

NR-3.02 **Notification.** We require the notification of cultural organizations, including California Native American organizations, of proposed projects that have the potential to adversely impact archaeological or cultural resources.

NR-3.03 **Inventory of Archeological and Paleontological Resources.** We maintain up-to-date information regarding archaeological and paleontological resources and contact information for responsible organizations and qualified individuals who can analyze, record, and preserve findings.

5.4.5 Existing Regulations

Federal

- United States Code, Title 16, Sections 470 et seq.: National Historic Preservation Act
- United States Code, Title 16, Sections 470aa et seq.: Archaeological Resources Protection Act
- United States Code, Title 25, Sections 3001 et seq.: Native American Graves Protection and Repatriation Act

State

- California Health and Safety Code Section 7050.5: Disturbance of Human Remains
- California Public Resources Code Sections 5020–5029.5: Authorized State Historical Resources Commission.
- California Public Resources Code Sections 5079–5079.65: Authorized Office of Historic Preservation.

- California Public Resources Code Sections 5097.9–5097.99: Protections for Native American historical and cultural resources and sacred sites; authorized Native American Heritage Commission (NAHC); prescribes responsibilities respecting discoveries of Native American human remains.
- California Government Code Sections 65352.3 et seq. (Senate Bill 18): Native American consultation
- California Code of Regulations, Title 24, Part 8: 2010 California Historic Building Code
- California Government Code Sections 50280 et seq.: Mills Act

City of San Clemente

- Municipal Code Sections 17.16.160 et seq.: Historic Resources and Historic Landmark Lists
- Municipal Code Sections 17.16.170 et seq.: Demolition of Historic Properties
- Municipal Code Sections 17.16.100 et seq.: Cultural Heritage Permits

5.4.6 Level of Significance Before Mitigation

Upon implementation of regulatory requirements and standard conditions of approval, the following impacts would be less than significant: 5.4-1 and 5.4-3.

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

- Impact 5.4-2 General Plan buildout could impact archaeological and paleontological resources.

5.4.7 Mitigation Measures

Impact 5.4-3

4-1 City staff shall require applicants for development permits to provide studies by qualified archaeologists assessing the cultural and historical significance of any known archaeological resources on or next to each respective development site; and assessing the sensitivity of sites for buried archaeological resources. On properties where resources are identified, or that are determined to be moderately to highly sensitive for buried archaeological resources, such studies shall provide a detailed mitigation plan, including a monitoring program and recovery and/or in situ preservation plan, based on the recommendations of a qualified cultural preservation expert. The mitigation plan shall include the following requirements:

a. An archaeologist shall be retained for the project and will be on call during grading and other significant ground-disturbing activities.

b. Should any cultural/scientific resources be discovered, no further grading shall occur in the area of the discovery until the Community Development Director concurs in writing that adequate provisions are in place to protect these resources.

c. Unanticipated discoveries shall be evaluated for significance by an Orange County Certified Professional Archaeologist. If significance criteria are met, then the project shall be required to perform data recovery, professional identification, radiocarbon dates as applicable, and other special studies; submit materials to the California State University Fullerton; and provide a

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

4-2 City staff shall require applicants for development permits to provide studies by qualified paleontologists assessing the sensitivity of sites for buried paleontological resources. On properties determined to be moderately to highly sensitive for paleontological resources, such studies shall provide a detailed mitigation plan, including a monitoring program and recovery and/or in situ preservation plan, based on the recommendations of a qualified paleontologist. The mitigation plan shall include the following requirements:

a. A paleontologist shall be retained for the project and will be on call during grading and other significant ground-disturbing activities.

b. Should any potentially significant fossil resources be discovered, no further grading shall occur in the area of the discovery until the Community Development Director concurs in writing that adequate provisions are in place to protect these resources.

c. Unanticipated discoveries shall be evaluated for significance by an Orange County Certified Professional Paleontologist. If significance criteria are met, then the project shall be required to perform data recovery, professional identification, radiocarbon dates as applicable, and other special studies; submit materials to the California State University Fullerton; and provide a comprehensive final report, including catalog with museum numbers.

5.4.8 Level of Significance After Mitigation

The mitigation measures identified above would reduce potential impacts associated with cultural resources to a level that is less than significant. Therefore, no significant unavoidable adverse impacts relating to cultural and paleontological resources have been identified.

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5.5 GEOLOGY AND SOILS

This section of the Draft Environmental Impact Report (DEIR) evaluates the potential for implementation of the General Plan to impact geological and soil resources in the City of San Clemente and its sphere of influence (SOI).

5.5.1 Environmental Setting

Geologic Setting

San Clemente lies in the northern part of the Peninsular Ranges Geomorphic Province, which is characterized by northwest-trending mountains and valleys extending from the Los Angeles Basin into Baja California. The province is bounded by the San Andreas fault zone on the east—which passes about 51 miles northeast of the SOI—and extends offshore to the west.

San Clemente is in the southern foothills of the Santa Ana Mountains, one of the mountain ranges in the Peninsular Ranges Geomorphic Province. San Clemente lies on a block of earth bounded by the Elsinore Fault, which passes about 17 miles northeast of the City, and the Newport-Inglewood Fault offshore (CGS 2002). Most of the City of San Clemente and SOI consist of hills and canyons that are steeper east of I-5. A topographic map of the City and SOI is shown on Figure 5.5-1, *Topographic Map*.

Geologic Units

Generalized geologic units in San Clemente are described below in order from southwest to northeast, inland from the coast to the northern and northeastern SOI boundary. Geologic units are mapped on Figure 5.5-2, *Geologic Map*. The units are listed here in order by age from youngest to oldest.

- **Qya:** Young alluvial fan deposits (Holocene and late Pleistocene).[1] Flood plain deposits.
- **Qls:** Landslide deposits undivided (Holocene and Pleistocene): Highly fragmented to largely coherent landslide deposits. Unconsolidated to moderately well consolidated. Most mapped landslides contain scarp area as well as slide deposit. Much of the land surface in San Clemente and its SOI consists of landslides, especially the parts of the City and SOI northeast of the I-5, as shown in Figure 5.5-3, *Landslides*.
- **Qop, Qop_1, Qop_2, Qop_{1-2}, and Qop_6:** mostly poorly sorted, moderately permeable, reddish-brown, interfingered strandline, beach, estuarine and colluvial deposits of siltstone, sandstone, and conglomerate. Late to middle Pleistocene.
- **Tcs:** Capistrano Formation (early Pliocene and late Miocene): white to pale-gray, massive to crudely bedded, friable, marine siltstone, mudstone, and diatomaceous shale.[2]
- **Tm:** Monterey Formation (middle and late Miocene): marine siltstone and sandstone. Mostly interbedded white to pale-brown, thinly laminated siltstone and tan fine- to medium-grained sandstone.

[1] The geologic time scale used in the description of map units is:

Holocene:	Present–11,500 years before present (ybp)	Miocene:	5.3–23 million ybp
Pleistocene:	11,500–1.8 million ybp	Oligocene:	23–33.9 million ybp
Pliocene:	1.8–5.3 million ybp	Eocene:	33.9– 58 million ybp

[2] Diatomaceous shale consists largely of fossils of diatoms, a type of hard-shelled algae.

- **Tsa:** Santiago Formation (middle Eocene): Sandstone; some conglomerate in lower elevations of formation (USGS 2005).

- **Tsv:** Sespe and Vaqueros Formations undivided (early Miocene, Oligocene, and late Eocene): Marine interbedded siltstone, mudstone, and sandstone of the Vaqueros Formation interlayered with nonmarine sandstone of the Sespe Formation.

Groundwater

The northern part of the San Mateo Groundwater Basin (SMGWB) underlies Cristianitos Canyon and its tributary canyons along the northeastern boundary of the City and SOI (DWR 2003). The San Clemente Subbasin straddles the east City boundary; parts of the subbasin underlie Vista Bahia Park and the northern part of the San Clemente Municipal Golf Course (Boyle Engineering Corp. 1987). Groundwater also occurs in the City in the lower parts of the Prima Deshecha and Segunda Deshecha canyons. Measured groundwater depths range from 6 to 40 feet below ground surface (bgs), while assumed historic high groundwater depths in those areas range from 5 to 20 feet (CGS 2002; CGS 2001). Most of the City and SOI are underlain by bedrock that was not evaluated for groundwater depth during preparation of Seismic Hazard Zone Reports for the San Clemente and Dana Point quadrangles issued by the California Geological Survey (CGS) in 2002 and 2001, respectively.

Water is extracted from the San Clemente Subbasin for municipal use. In 2009, the most recent year for which data are available, 554 acre-feet, or about 181 million gallons, were extracted from the subbasin. The City of San Clemente has established a safe yield for the San Clemente Subbasin of 1,100 acre-feet per year to avoid both overdraft of the subbasin and seawater intrusion (Malcolm Pirnie 2011).[3]

Seismic Hazards

A fault is a break or fracture between moving blocks of rock. Faults showing evidence of surface displacement within approximately the last 11,000 years are considered active.

Measuring Earthquakes

Energy Released

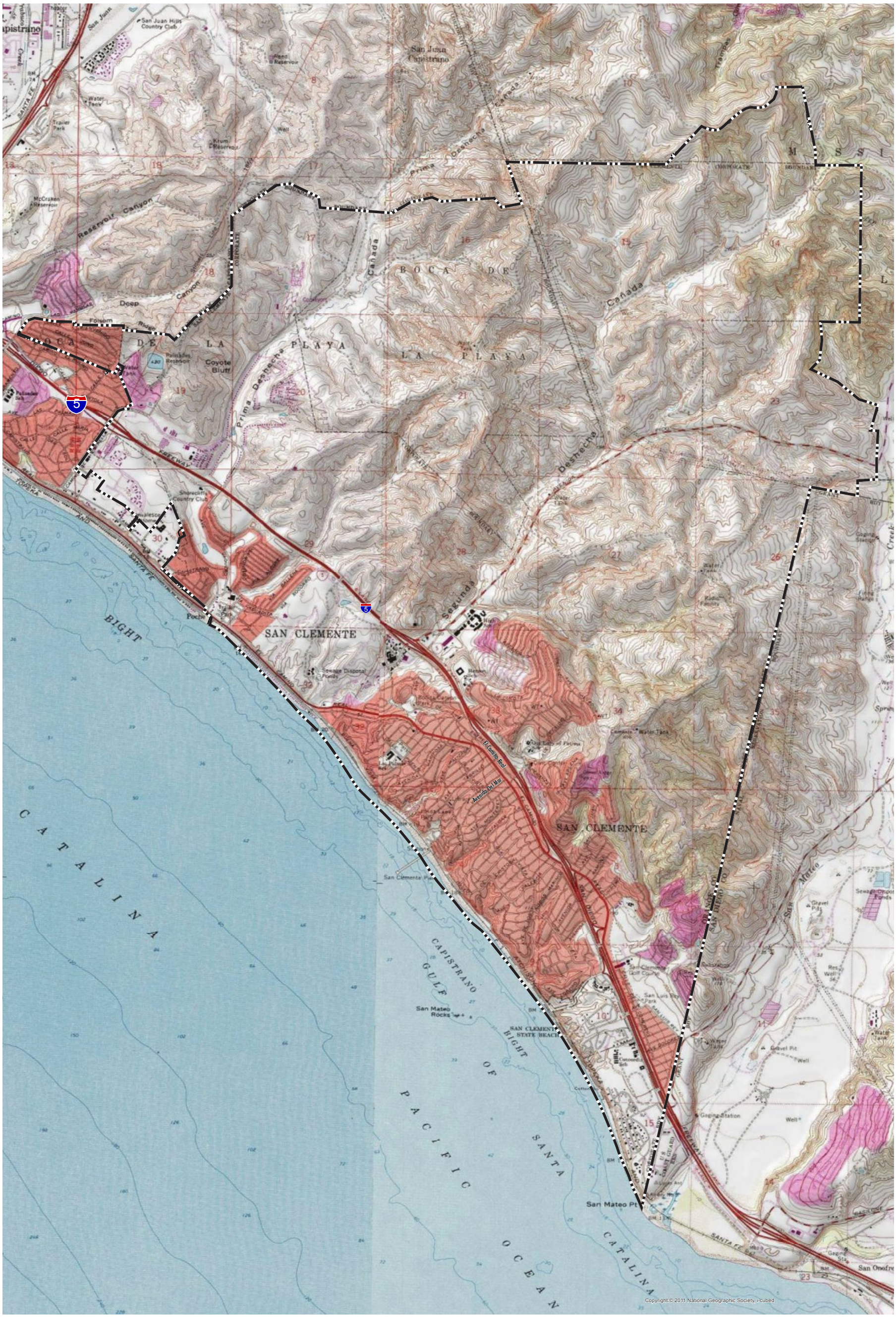
The energy released by an earthquake is measured as moment magnitude (Mw). The moment magnitude scale is logarithmic; therefore, each one-point increase in magnitude represents a tenfold increase in amplitude of the waves as measured at a specific location and a 32-fold increase in energy. For example, a magnitude 7 earthquake produces 100 times (10 x 10) the ground motion amplitude of a magnitude 5 earthquake.

Ground motion

Motion at the ground surface during an earthquake is measured as horizontal ground acceleration in g, where g is the acceleration of gravity.

[3] 1 acre-foot is about 325,851 gallons.

Topographic Map



City Boundary

0 1
Scale (Miles)

Data Source: USGS Topographic Map 7.5 Series.

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Geologic Map

Site Boundary

Sphere of Influence (SOI)

0 1
Scale (Miles)

Source: CDC 2005

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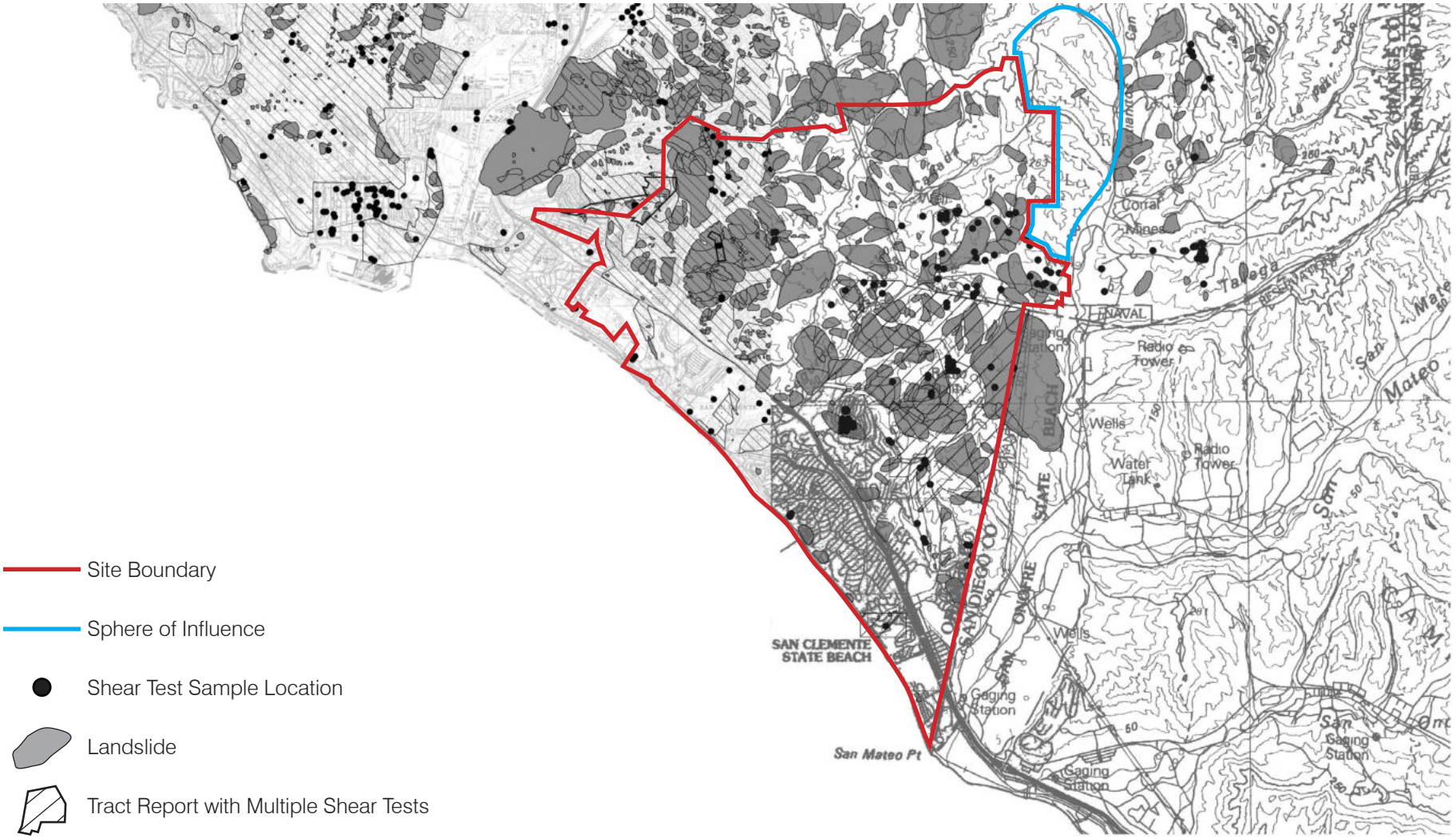
Landslides



Source: CGS 2001, CGS 2002

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Effects on Buildings

The Modified Mercalli Intensity (MMI) Scale is a qualitative scale of how earthquakes are felt by people and earthquakes' effects on buildings. The MMI is a 12-point scale ranging from Intensity I, which is rarely felt by people, to Intensity XII, in which damage to structures is total and objects are thrown into the air (USGS 2012). In California, the estimated relationship between peak ground acceleration and MMI intensity is shown in Table 5.5-1.

Table 5.5-1 Estimated Relationship between Peak Ground Acceleration and Intensity

Peak Ground Acceleration, g	MMI	Effects
0.039–0.092	V	Felt by nearly everyone; many awakened. Some dishes, windows broken. Unstable objects overturned. Pendulum clocks may stop.
0.092–0.18	VI	Felt by all, many frightened. Some heavy furniture moved; a few instances of fallen plaster. Damage slight.
0.18–0.34	VII	Damage negligible in buildings of good design and construction; slight to moderate in well-built ordinary structures; considerable damage in poorly built or badly designed structures; some chimneys broken.
0.34–0.65	VIII	Damage slight in specially designed structures; considerable damage in ordinary substantial buildings with partial collapse. Damage great in poorly built structures. Fall of chimneys, factory stacks, columns, monuments, walls. Heavy furniture overturned.
0.65–1.24	IX	Damage considerable in specially designed structures; well-designed frame structures thrown out of plumb. Damage great in substantial buildings, with partial collapse. Buildings shifted off foundations.
>1.24	X+	MMI X: Some well-built wooden structures destroyed; most masonry and frame structures destroyed with foundations. Rails bent. MMI XII: Damage total. Lines of sight and level are distorted. Objects thrown into the air.

Source: Wald 1999.

Faults

The two nearest active faults to San Clemente are the Glen Ivy North fault in the Elsinore Fault Zone about 17 miles northeast of the SOI, and an unnamed offshore fault 11 miles southwest of the City, as shown on the 2010 Fault Activity Map prepared by the CGS. A segment of the Newport-Inglewood Fault is 19 miles northwest of the City, and a segment of the Newport Inglewood – Rose Canyon Fault is 19 miles south-southeast of the City; both are mapped as active (CGS 2013).

The Cristianitos Fault, which is not classified active, extends roughly north–south through the northeast part of the City and the eastern part of the planning area. Several other smaller faults are mapped in the City and SOI, as shown on Figure 5.5-4, *Fault Map*. None of those smaller faults are classified active. The Casa Loma Fault in the San Jacinto Fault Zone, 37 miles northeast of the SOI, is classified active (CGS 2013).

Ground Shaking

The peak horizontal ground acceleration (PHGA) with a 10 percent chance of exceedance in 50 years in the City and SOI is approximately 0.34 g on and near the coast, and declines to about 0.31g in the northeastern part of the City and SOI. Those estimates are for ground consisting of alluvium; estimates for soft rock conditions and firm rock conditions were also made in the same CGS reports containing the estimates for alluvium. The estimates for soft rock and firm rock conditions are slightly lower than those for alluvium; the estimates for alluvium are used here as conservative estimates (CGS 2002; CGS 2001). MMI intensity VIII corresponds to 0.34 g.

Hazardous Buildings (Unreinforced Masonry)

The principal threat in an earthquake is not limited to ground shaking, fault rupture, or liquefaction, but the damage that the earthquake causes to buildings that house people or an essential function. Continuing advances in engineering design and building code standards over the past decade have greatly reduced the potential for collapse in an earthquake of most new buildings. However, many buildings were built before some of the earthquake design standards were incorporated into the building code. Several specific building types are a particular concern in this regard.

- **Unreinforced Masonry Buildings:** In the late 1800s and early 1900s, unreinforced masonry was the most common type of construction for larger downtown commercial structures, multistory apartments and hotels. These were recognized as a collapse hazard following the San Francisco earthquake of 1906, the Santa Barbara earthquake of 1925, and again after the Long Beach earthquake of 1933. These buildings are the most hazardous buildings in an earthquake.

  Per Senate Bill 547, local jurisdictions are required to enact structural hazard reduction programs by (a) inventorying pre-1943 unreinforced masonry buildings, and (b) developing mitigation programs to correct the structural hazards. Two buildings have been identified as unreinforced masonry in the City: 153/155 Avenida Del Mar and 109/111 S El Camino Real.

- **Pre-cast Concrete Tilt-up Buildings:** This building type was introduced following World War II and gained popularity in light industrial buildings during the late 1950s and 1960s. Extensive damage to concrete tilt-up buildings in the 1971 San Fernando earthquake revealed the need for better anchoring of walls to the roof, floor, and foundation elements of the building and for stronger roof diaphragms.[4] In the typical damage to these buildings, the concrete wall panels would fall outward and the roof would collapse, creating a direct hazard. Tilt-up buildings in the City were built staring in the 1980's with the Rancho San Clemente Business Park.

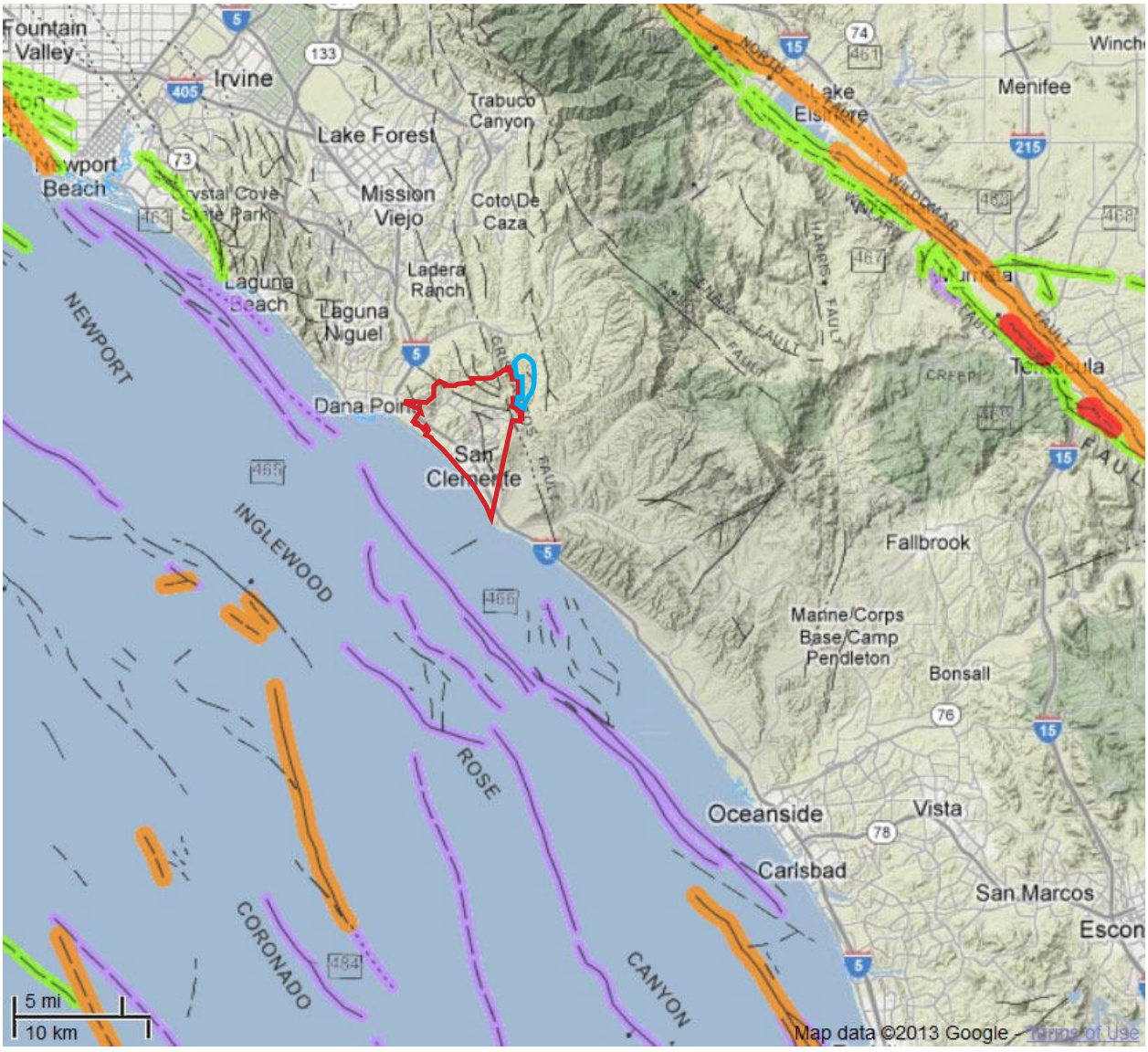
- **Soft-Story Buildings:** Soft-story buildings are those in which at least one story, commonly the ground floor, has significantly less rigidity and/or strength than the rest of the structure. This can form a weak link in the structure unless special design features are incorporated to give the building 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 mid-rise concrete frame structures.

- **Nonductile Concrete Frame Buildings:** The brittle behavior of nonductile concrete frame buildings can create major damage and even collapse under strong ground shaking. This type of construction, which generally lacks masonry shear walls, was common in the very early days on reinforced concrete buildings, and they continued to be built until the codes were changed in 1973 to require ductility in the moment-resisting frame. This construction type is not prevalent in San Clemente.

There were large numbers of these buildings built for commercial and light industrial use in California's older, densely populated cities. Although many have four to eight stories, many are also in the lower height range. This category also includes one-story parking garages with heavy concrete roof systems supported by nonductile concrete columns.

[4] A roof diaphragm is a structural roof deck that is capable of resisting shear that is produced by lateral forces, such as wind or seismic loads.

Fault Map



Fault along which historic (last 200 years) displacement has occurred

Holocene fault displacement (during past 11,700 years) without historic record

Late Quaternary fault displacement

Quaternary fault (age undifferentiated; Quaternary Period extends from the present to 1.6 million years before present)

Pre-Quaternary

Site Boundary

Sphere of Influence

NOTE: Fault traces on land are indicated by solid lines where well located, by dashed lines where approximately located or inferred, and by dotted lines where concealed by younger rocks or by lakes or bays.

0 10
Scale (Miles)

Source: CGS 2005

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Liquefaction

Liquefaction is a loss of strength and stiffness in soil due to ground shaking; it typically occurs within 50 feet of the surface, in saturated, loose, fine- to medium-grained sandy to silty soils. Liquefaction can substantially damage structures and can cause structures to sink or tilt. Three conditions are needed for liquefaction: ground shaking with acceleration of about 0.2 g or greater; loose, unconsolidated sediments; and saturated soil within about 50 feet of the surface. Liquefaction-induced ground failure historically has been a major cause of earthquake damage in southern California. During the 1971 San Fernando and 1994 Northridge earthquakes, significant damage to roads, utility pipelines, buildings, and other structures in the Los Angeles area was caused by liquefaction-induced ground displacement (CGS 2001).

Liquefaction potential in the San Clemente and Dana Point quadrangles was evaluated by the California Geologic Survey (CGS) during preparation of the Seismic Hazard Zone Reports for the two quadrangles in 2002 and 2001, respectively. There are zones of required investigation for liquefaction in San Clemente designated by the CGS near the beach; along Prima Deshecha Canyon, Segunda Deshecha Canyon, and Cristianitos Canyon; and in some tributary canyons to those three canyons (CGS 2001; CGS 2002). (See Figure 5.5-5, *Seismic Hazard Zones*.) Geotechnical investigations for projects proposed in zones of required investigation for liquefaction must assess the potential for liquefaction onsite and recommend measures for mitigating liquefaction hazard, pursuant to California Code of Regulations Title 14 Section 3724.

Lateral Spreading

Lateral spreading is the displacement of surficial blocks of soil as a result of liquefaction in the subsurface layer. Once liquefaction transforms the subsurface layer into a fluid-like mass, gravity plus inertial forces caused by the earthquake may move the mass downslope toward a cut slope or free face (such as a river channel of a canal). Lateral spreading most commonly occurs on gentle slopes that range between 0.3 and 3 degrees, and can displace the ground surface by several to tens of meters. Such movement damages pipelines, utilities, bridges, roads, and other structures.

Earthquake-Induced Landslides

Known landslides mapped by the CGS in 2002 are shown on Figure 5.5-3, *Landslides*. As shown, landslides cover much of the surface of the City and SOI, especially the parts of the City and SOI northeast of the I-5. Existing landslides can be reactivated by earthquake movements; and a significant number of deep-seated landslide movements have occurred during or soon after several recent earthquakes (CGS 2001).

Much of the City and SOI are in zones of required investigation for earthquake-induced landslides designated by the CGS (CGS 2001; CGS 2002), as shown on Figure 5.5-5, *Seismic Hazard Zones*. Geotechnical investigations for projects proposed in zones of required investigation for earthquake-induced landslides are required to assess the potential for landslide onsite and recommend measures for mitigating landslide hazard.

Tsunami Flood Hazards

A tsunami is a series of ocean waves caused by a sudden displacement of the ocean floor, most often due to earthquakes. Areas of San Clemente that would be flooded by a 30-foot tsunami are limited to the beach and adjoining low-lying areas (CGS 2009) due to the presence of cliffs near the beach along the San Clemente coastline (see Figure 5.5-6, *Tsunami Inundation Map*). The City Emergency Planning Program has designated tsunami hazard zones and tsunami evacuation routes. Tsunami flood hazards are discussed further in Section 5.8, *Hydrology and Water Quality*, of this DEIR.

GEOLOGY AND SOILS

Geologic Hazards

Soils Conditions

Surface soils and sediments in the City of San Clemente include unconsolidated clay, silt, sand, and gravel. The fine-grained clay and silt are mainly derived from the weathering and erosion of the principal rock formation in the area, the Capistrano Formation. These clays and silts are highly expansive, creep prone, and responsible for much of the earth movements that occur on slopes and bluffs in San Clemente (City of San Clemente 2004).

Coarse silt, sand, and gravel deposits are mainly found in ephemeral or seasonal stream channels. Heavy storm flows can transport large amounts of silt, sand, and gravel downstream. Some of these flood deposits eventually contribute to beach sands.

Landslides

Many landslides in San Clemente and its SOI are mapped by the CGS (CGS 2002; CGS 2001); (See Figure 5.5-3, *Landslides*.) Landslides in and around San Clemente are common in Capistrano Formation, Monterey Formation, and Santiago Formation rock. Most of the known landslides in the San Clemente quadrangle are deep rock slides involving masses of bedrock (CGS 2002). Clays and silts derived from Capistrano Formation rock are also prone to creep, that is, imperceptibly slow movement of soil. Creep is identified by curved tree trunks, bent or tilted poles or fences, and small soil ripples or ridges (City of San Clemente 2004; USGS 2004). Rock bedding surfaces angled in the same direction as a slope and at a lower angle to the horizontal than the slope contribute to susceptibility to sliding (CGS 2002).

Expansive Soils

Expansive soils shrink or swell as the moisture content decreases or increases; the shrinking or swelling can shift, crack, or break structures built on such soils. Clay soils derived from Capistrano Formation rock tend to be highly expansive.

Collapsible Soils

Collapsible soils shrink upon being wetted, being subject to a load, or under both conditions. Native soils within a few feet of the ground surface are often collapsible.

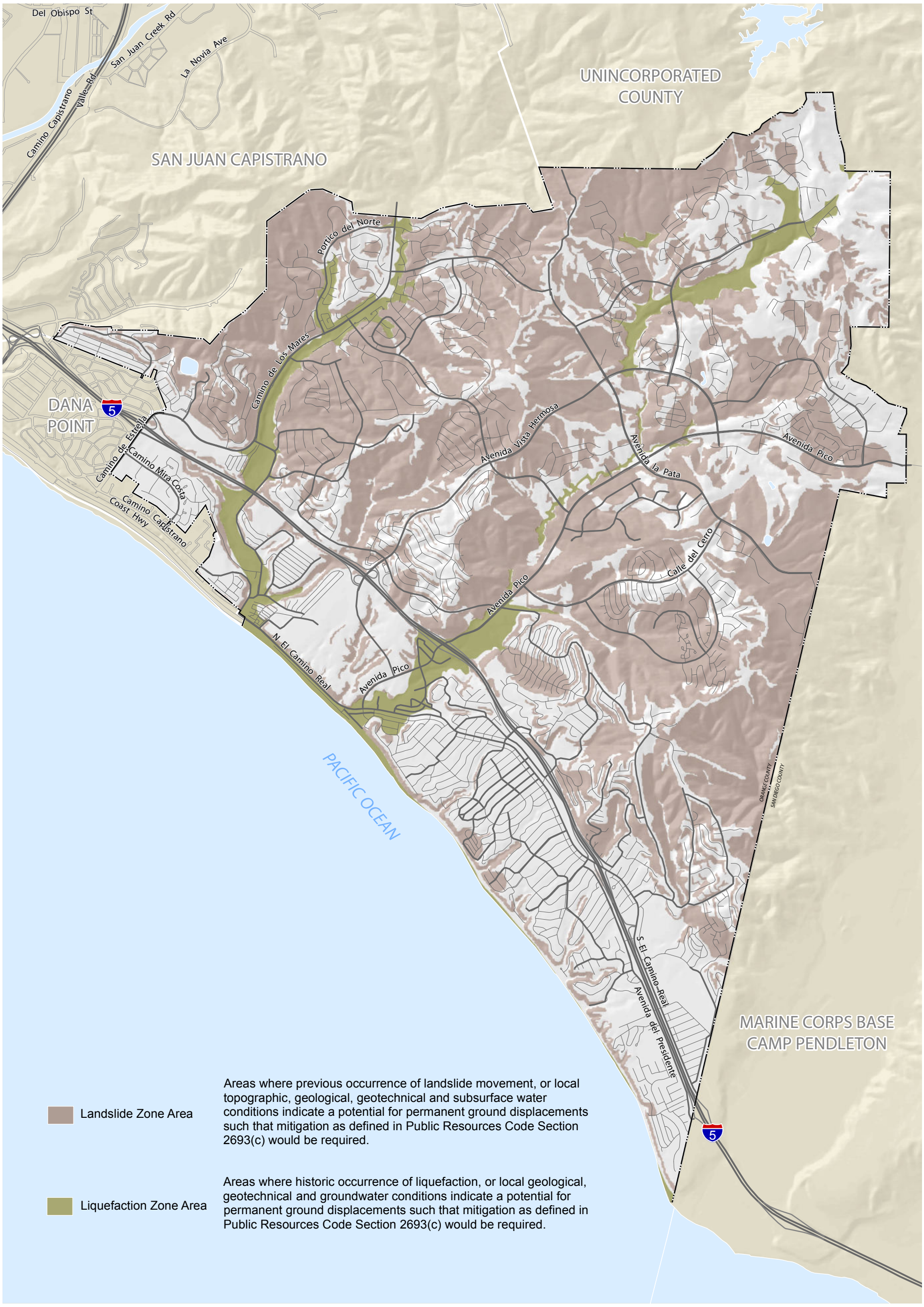
Ground Subsidence

The major cause of ground subsidence is withdrawal of groundwater. Only small areas of the City and SOI, in Cristianitos Canyon and some of its tributary canyons, are underlain by a groundwater basin (the San Mateo Groundwater Basin) mapped by the California Department of Water Resources. Extraction of groundwater for municipal use only occurs in the San Clemente subbasin near the east City boundary in the southeast part of the City. The safe yield for the subbasin, set at 1,100 acre-feet per year, is intended to prevent both overdraft of the subbasin and seawater intrusion. In 2009, 554 acre-feet were extracted from the subbasin (Malcolm Pirnie 2011). Thus, ground subsidence is not considered a major hazard in San Clemente.

Soil Erosion

Erosion is the movement of rock and soil; common natural agents of erosion are wind and flowing water. Erosion can be increased greatly by ground-disturbing activities if effective erosion control measures are not used. Soil can be transported off a construction site by being tracked offsite by vehicles, as well as by wind and water. Eroded soil transported in water—that is, sediment—can increase the turbidity (cloudiness) of water, clog fish gills, reduce spawning habitat, lower survival rates of young aquatic organisms, smother bottom-dwelling organisms, and suppress aquatic vegetation growth.

Seismic Hazard Zones



Source: CGS 2001, CGS 2002

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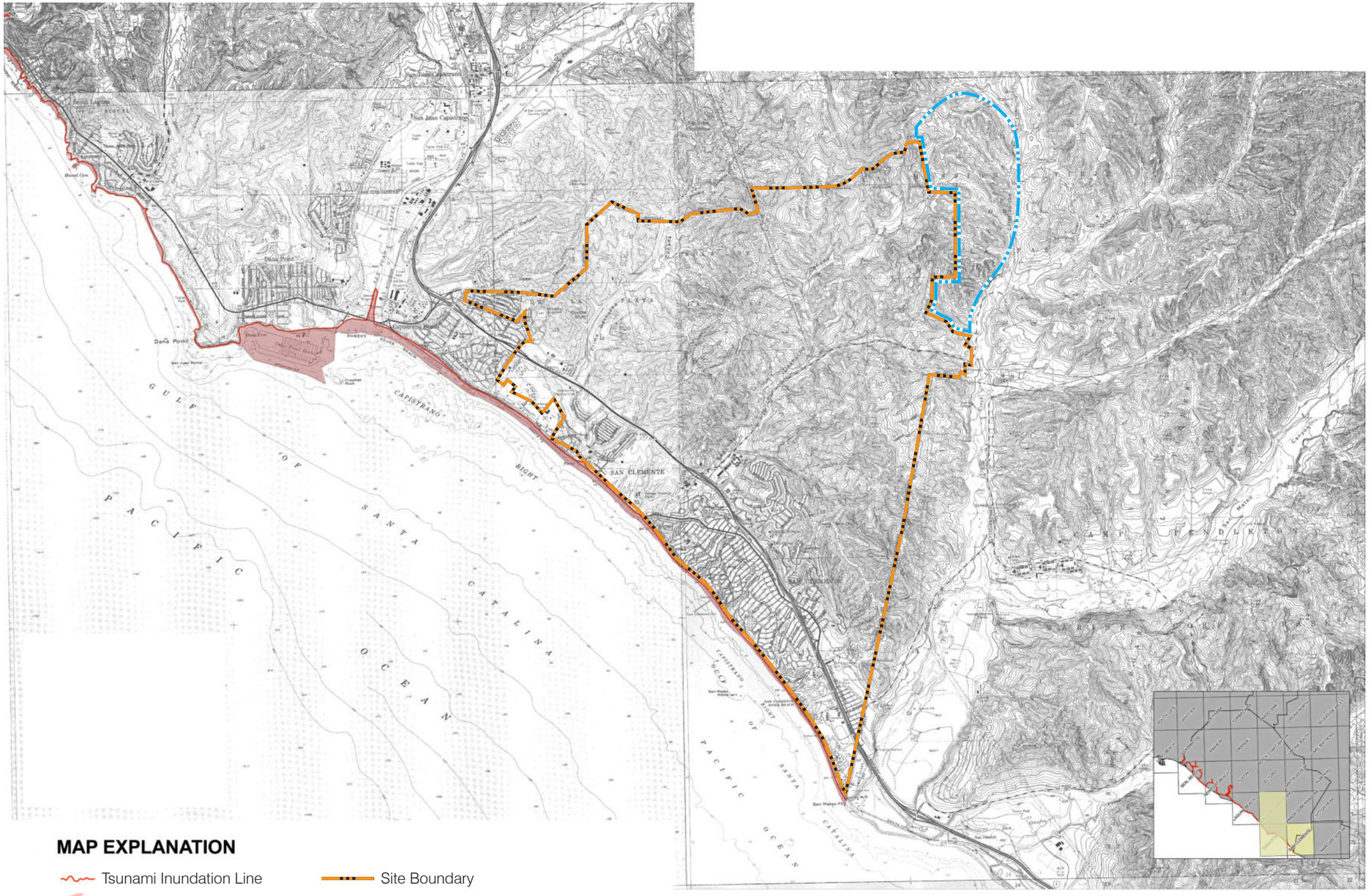
Tsunami Inundation Map



Source: CEMA 2009

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Implementation of best management practices (BMPs) for erosion control by construction projects over one acre in area is required to obtain coverage under the Statewide General Construction Activity permit issued by the State Water Resources Control Board.

Regulatory Setting

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

2010 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 2010 version of the CBC, 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 onsite, and the strength of ground shaking with specified probability of occurring at a site.

California Alquist-Priolo Earthquake Fault Zoning Act

The Alquist-Priolo Earthquake Fault Zoning Act was signed into state law in 1972, as amended; its primary purpose is to mitigate the hazard of fault rupture by prohibiting the location of structures for human occupancy across the trace of an active fault. The act requires the State Geologist to delineate "Earthquake Fault Zones" along faults that are "sufficiently active" and "well defined." The act also requires that cities and counties withhold development permits for sites within an earthquake fault zone until geologic investigations demonstrate that the sites are not threatened by surface displacement from future faulting. Pursuant to this act, structures for human occupancy are not allowed within 50 feet of the trace of an active fault.

Statewide General Construction Activity Permit and Storm Water Pollution Prevention Plans

The State Water Resources Control Board (SWRCB) issued a statewide general National Pollution Discharge Elimination System (NPDES) Permit for storm water discharges from construction sites (NPDES No. CAS000002) in 2009. Under this Statewide General Construction Activity permit, discharges of storm water from construction sites with a disturbed area of one or more acres are required to either obtain individual NPDES permits for storm water discharges or to be covered by the General Permit. Coverage by the General Permit is accomplished by completing and filing a Notice of Intent with the SWRCB and developing and implementing a Storm Water Pollution Prevention Plan (SWPPP). Each applicant under the General Construction Activity Permit must ensure that a SWPPP is prepared prior to grading and is implemented during construction. The SWPPP must list BMPs implemented on the construction site to protect storm water runoff, and must contain a visual monitoring program; a chemical monitoring program for "nonvisible" pollutants to be implemented if there is a failure of BMPs; and a monitoring plan if the site discharges directly to a water body listed on the state's 303(d) list of impaired waters.

Requirements for Geotechnical Investigations

Requirements for geotechnical investigations are included in 2010 CBC Appendix J Section J104; additional requirements for subdivisions requiring tentative and final maps and for other specified types of structures are

contained in California Health and Safety Code Sections 17953 to 17955 and in Section 1802 of the 2010 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.

City of San Clemente Building Code

City ordinances relevant to geologic and soils hazards, and mitigation of such hazards, are contained in the following chapters: Chapter 15.08, *Building Code*, and Chapter 15.36, *Excavations and Grading*, of the City's Municipal Code.

5.5.2 Thresholds of Significance

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

G-1 Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:

i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault. (Refer to Division of Mines and Geology Special Publication 42.)

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 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.

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

- Thresholds G-1.i, G-5

These impacts will not be addressed in the following analysis.

5.5.3 Environmental Impacts

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

Increased Development Potential, Population, and Employment due to General Plan Buildout

General Plan Buildout may involve development of up to 3,585 additional residential units, 10.09 million square feet of nonresidential land uses; and would result in net increases in population and employment in the City and SOI of 12,339 and 11,613, respectively.

Impact 5.5-1: Buildout of the Centennial General Plan would expose people and structures to strong ground shaking. [Threshold G-1.ii]

Impact Analysis: Buildout of the General Plan would increase the numbers of residential units, nonresidential structures, residents, and workers in the City. The City is in a seismically active region; strong ground shaking is very likely to occur in the City during the useful lives of structures that would be developed or redeveloped pursuant to the General Plan. As described above, the two nearest active faults to San Clemente are the Glen Ivy North fault in the Elsinore Fault Zone about 17 miles northeast of the SOI, and an unnamed offshore fault 11 miles southwest of the City. In addition, two segments of the active Newport-Inglewood fault are located 19 miles northwest and 19 miles south-southeast (Rose Canyon) of the City (CGS 2013). Peak horizontal ground acceleration from these faults is 0.34 g (MMI intensity VIII) on and near the coast, and declines to about 0.31 g in the northeastern part of the City and SOI.

Each development project considered for approval by the City under the proposed General Plan would be required to comply with seismic safety provisions of the CBC (Title 24, Part 2 of the California Code of Regulations) and have a geotechnical investigation conducted for the affected project site. The geotechnical investigation would calculate seismic design parameters pursuant to CBC requirements, and would include foundation and structural design recommendations, as needed, to reduce hazards to people and structures arising from ground shaking.

Impact 5.5-2: Buildout of the proposed General Plan could subject people and structures to hazards from liquefaction and other seismic ground failure. [Threshold G-1.iii and G-3 (Part)]

Impact Analysis:

Liquefaction

General Plan implementation would increase numbers of residents, workers, and structures in the City. Parts of the City are in zones of required investigation for liquefaction hazard designated by the CGS (see Figure 5.5-5, *Seismic Hazard Zones*). The zones of required investigation are mostly concentrated along the coast and in lower-elevation portions of Cristianitos, Prima Deshecha, and Segunda Deshecha Canyons, and some tributary canyons to those three canyons (CGS 2001; CGS 2002). General Plan buildout would place increased numbers of residents, workers, and structures at risk from liquefaction and other seismic ground failure.

Geotechnical investigations for projects considered for approval by the City under the proposed General Plan would be required to evaluate the potential for liquefaction and other seismic ground failure such as lateral spreading, under the respective project sites. Geotechnical investigation reports would provide recommendations for grading and for foundation design to reduce hazards to people and structures arising from liquefaction and other ground failure. Each

project would be required to comply with recommendations in the geotechnical investigation report and comply with the CBC, thereby reducing such hazards.

Seismically Induced Settlement

Areas underlain by young, unconsolidated alluvial deposits and artificial fill may be susceptible to seismically induced settlement (see Figure 5.5-21). Implementation of the Centennial General Plan could increase the numbers of persons and structures in the City that could be subjected to earthquake-related hazards. Projects developed pursuant to General Plan would be required to meet the most current seismic safety requirements in the CBC. Chapter 16 of the CBC contains requirements for design and construction of structures to resist loads, including earthquake loads. Chapter 18 contains requirements for excavation, grading, and fill; load-bearing values of soils; and foundations, footings, and piles. Compliance with those requirements would ensure that there would not be substantial impacts related to ground shaking, liquefaction, or seismic settlement. The General Plan Policy S-1.05 would require that all new habitable structures be designed to mitigate impacts related to geologic and soil hazards.

Impact 5.5-3: General Plan implementation could pose hazards to people and structures from earthquake-induced landslides. [Threshold G-1.iv]

Impact Analysis: General Plan buildout would increase numbers of residents, workers, and structures in the City and SOI. Much of the land surface in the City and SOI consists of areas subject to landslides (see Figure 5.5-3, *Landslides Map)*. Much of the City and SOI, including most of the City and SOI northeast of the I-5, are designated Zones of Required Investigation for earthquake-induced landslides (see Figure 5.5-5, *Seismic Hazard Zones*). Thus, General Plan implementation would pose hazards from landslides and earthquake-induced landslides to increased numbers of residents, workers, and structures.

San Clemente has development restrictions and processes to mitigate landslide risks. A soil engineering and engineering geology report is required for development projects, which includes a slope stability analyses for suspect slopes. The report would require mitigation for unstable slope conditions, which may include construction of retaining structures, buttress fills, drainage devices, or by other means. If it is not feasible to mitigate unstable slope conditions, the City may recommend building setbacks, or may deny a project. The San Clemente Municipal Code gives the City Engineer authority to deny a grading permit where the development is liable to "constitute a hazard to property or result in the deposition of debris on any public way or interfere with any existing drainage course."

Geotechnical investigations for projects considered for approval by the City under the proposed General Plan would evaluate the potential for earthquake-induced landslides on the respective project sites, and would provide recommendations to reduce hazards to people and structures from landslides, including earthquake-induced landslides. Such recommendations may include removing landslides; burying landslides under engineered fill during site grading; buttressing, that is, placement of engineered fill on the toe of a landslide to resist further movement; or shear keys, that is, slots excavated into natural slopes in order to stabilize the upper portion of the slope without grading encroachment into the lower portion of the slope (Day 2002). Each project would be required to comply with recommendations in the geotechnical investigation report for its project site.

Impact 5.5-4: General Plan buildout could result in substantial soil erosion. [Threshold G-2]

Impact Analysis: General Plan buildout would involve ground disturbance in various parts of the City and SOI, particularly in the eight Focus Areas. During future development, soil would be graded and excavated, exposed, moved,

and stockpiled. Construction and site grading of projects developed pursuant to the General Plan could cause substantial soil erosion without effective soil erosion measures.

Construction projects on sites of one acre or larger are required to prepare and implement a SWPPP. The SWPPP is required to obtain coverage under the Statewide General Construction Activity permit issued by the State Water Resources Control Board. The SWPPP would specify BMPs that would be used by the construction phase of each affected project to minimize water pollution, including pollution with sediment. Categories of BMPs used in SWPPPs are described in Table 5.5-2.

Table 5.5-2 Construction BMPs

Category	Purpose	Examples
Erosion Controls	Cover and/or bind soil surface, to prevent soil particles from being detached and transported by water or wind	Mulch, geotextiles, mats, hydroseeding, earth dikes, swales
Sediment Controls	Filter out soil particles that have been detached and transported in water.	Barriers such as straw bales, sandbags, fiber rolls, and gravel bag berms; desilting basin; cleaning measures such as street sweeping
Wind Erosion Controls	The aims and methods of wind erosion control are similar to those of "Erosion Control," above.	See "Erosion Controls," above.
Tracking Controls	Minimize the tracking of soil offsite by vehicles	Stabilized construction roadways and construction entrances/exits; entrance/outlet tire wash.
Non-Storm Water Management Controls	Prohibit discharge of materials other than stormwater, such as discharges from the cleaning, maintenance, and fueling of vehicles and equipment. 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.	BMPs specifying methods for: paving and grinding operations; cleaning, fueling, and maintenance of vehicles and equipment; concrete curing; concrete finishing.
Waste Management and Controls (i.e., good housekeeping practices)	Management of materials and wastes to avoid contamination of stormwater.	Spill prevention and control, stockpile management, and management of solid wastes and hazardous wastes.

In addition to the requirement to prepare a SWPPP, development projects are subject to erosion control measures in the City's municipal code (Chapter 15.36 Excavations and Grading, Art. XII - Erosion Control). This code includes restrictions and practices that must be followed by developers in the City. The faces of cut-and-fill slopes and project sites shall be prepared and maintained to control against erosion. Erosion control measures may include temporary and/or permanent erosion control devices such as desilting basins, check dams, riprap or other devices or methods, as approved by the City Engineer. Consequently, impacts would be less than significant.

Impact 5.5-5 General Plan implementation would not expose people or structures to substantial hazards from ground subsidence. [Threshold G-3 (part)]

Impact Analysis: Ground subsidence is not considered a major hazard in San Clemente. The major cause of ground subsidence is withdrawal of groundwater. Most of the City and SOI are not underlain by groundwater basins, with the exception of small areas in Cristianitos Canyon and some of its tributary canyons. Groundwater is extracted for

municipal use from one area of the City, the San Clemente subbasin in the southeast part of the City. Groundwater extraction from the San Clemente subbasin is maintained below the safe yield set by the City to avoid both overdraft of the subbasin and seawater intrusion. Impacts are less than significant.

Impact 5.5-6 General Plan implementation could expose people or structures to substantial hazards arising from collapsible soils. [Threshold G-3 (part)]

Impact Analysis: General Plan buildout would increase numbers of residents, workers, and structures in the City and SOI. Native soils within a few feet of the ground surface are often characterized as collapsible. The potential for soils to collapse must be evaluated on a site-specific basis as part of the geotechnical studies for development. A number of construction-related mitigation techniques reduce the risk of soil collapse. These techniques include excavation and recompaction, or the in-place presaturation and preloading of the susceptible soils to induce collapse. After construction, infiltration of water into the subsurface oils should be minimized by proper surface drainage design, which directs excess runoff to catch basins and storm drains. Each project considered for approval under the General Plan would be required to have a geotechnical investigation conducted of its project site. The geotechnical investigation would evaluate site soils for collapsibility, and provide recommendations for grading and for engineering and placement of fill soils to minimize hazards from collapsible soils. Each project would be required to comply with recommendations in the geotechnical investigation report for its project site. Consequently, impacts would be less than significant.

Impact 5.5-7 General Plan implementation could subject people and structures to hazards from expansive soils. [Threshold G-4]

Impact Analysis: Buildout of the General Plan would increase numbers of residents, workers, and structures in the City and SOI. Clay soils derived from Capistrano Formation rock, which underlies much of the City and SOI, tend to be highly expansive. Therefore, General Plan implementation could expose people and structures to substantial geologic risk from expansive soils. Geotechnical investigations for projects considered for approval by the City under the proposed General Plan would evaluate soils on each affected project site for expansion potential and would provide recommendations for grading and for foundation design to reduce hazards from expansive soils. Each project would be required to comply with recommendations in the geotechnical investigation report for its project site. Consequently, impacts would be less than significant.

5.5.4 Relevant General Plan Policies

Safety Element

Geologic, Seismic and Soil Hazards

S-1.01 **Up to Date Information.** We collect and maintain relevant data on fault locations, soils reports and other information that can help identify seismic or liquefaction potential and areas at risk of landslides.

S-1.02 **Alquist-Priolo Act.** If active or potentially active faults are identified, we will implement mandatory development restrictions and investigation requirements pursuant to the Alquist-Priolo Act.

S-1.03 **Unreinforced Masonry Buildings.** We require the retrofitting of unreinforced masonry buildings during remodels to minimize hazards to life and property due to an earthquake or other geologic hazards.

S-1.04 **Landslide Risk.** Where development is proposed on unstable terrain, excessively-steep slopes and other areas deemed hazardous due to landslide risk, it is prohibited unless acceptable mitigation measures are implemented.

S-1.05 **Assessment and Mitigation.** Where appropriate, we require new development to assess the potential for liquefaction, slope instability and landslides and require that appropriate measures be incorporated into the project to mitigate such hazards.

S-**1.06** **Critical Facilities.** We encourage property owners and agencies to ensure that existing buildings housing critical public facilities such as schools, hospitals and emergency services are seismically strengthened to meet applicable building codes.

5.5.5 Existing Regulations and Standard Conditions

State

- California Public Resources Code Sections 2621 et seq.: Alquist-Priolo Earthquake Fault Zoning Act
- California Public Resources Code Section 2695: Seismic Hazard Mapping Act
- California Code of Regulations Title 24, Part 2: 2010 California Building Code
- 2010 California Building Code Appendix J: Grading
- California Health and Safety Code Sections 17953 et seq.: Geotechnical Investigations
- Order No. 2009-0009-DWQ, State Water Resources Control Board: General Construction Permit
- California Code of Regulations Title 24, Section 3724: Required Investigations in Seismic Hazard Zones

City of San Clemente

- San Clemente Municipal Code
    - Chapter 15.08: Building Code
    - Chapter 15.36: Excavations and Grading

5.5.6 Level of Significance Before Mitigation

Upon implementation of regulatory requirements and standard conditions of approval, the following impacts would be less than significant: 5.5-1, 5.5-2, 5.5-3, 5.5-4, 5.5-5, 5.5-6, and 5.5-7.

5.5.7 Mitigation Measures

No mitigation is required.

5.5.8 Level of Significance After Mitigation

Impacts would be less than significant, and no significant and unavoidable impacts to geology and soils would occur.

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5.6 GREENHOUSE GAS EMISSIONS

This section of the Draft Environmental Impact Report (DEIR) evaluates the potential for the land use changes within the Centennial General Plan to cumulatively contribute to greenhouse gas (GHG) emissions impacts. Because no single project is large enough to result in a measurable increase in global concentrations of GHG emissions, climate change impacts of a project are considered on a cumulative basis.

The analysis is based on the population and employment projections anticipated within the City of San Clemente at full buildout of the Centennial General Plan (2035) as well as the demographic changes anticipated in the City in year 2020. Furthermore, the analysis is based on buildout of the proposed land use plan; vehicle miles traveled (VMT), provided by Fehr and Peers as modeled by the Citywide Travel Demand Model (TDM) and the Southern California Association of Government's (SCAG) TDM; electricity and natural gas use provided by San Diego Gas & Electric (SDG&E) and the Southern California Gas Company (SoCalGas); waste generation identified for the City of San Clemente by the California Department of Resources, Recycling, and Recovery (CalRecycle); and water use for the City based on the City of San Clemente's 2010 Urban Water Management Plan (UWMP). GHG emissions modeling is included in Appendix C of this EIR.

5.6.1 Environmental Setting

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 GHG, to the atmosphere. Climate change is the variation of the Earth's climate over time, whether due to natural variability or as a result of human activities. The primary source of these GHG is fossil fuel use. The Intergovernmental Panel on Climate Change (IPCC) has identified four major GHGs—water vapor,[1] carbon (CO_2), methane (CH_4), and ozone (O_3)—that are the likely cause of an increase in global average temperatures observed within the 20th and 21st centuries. Other GHGs identified by the IPCC that contribute to global warming, to a lesser extent, include nitrous oxide (N_2O), sulfur hexafluoride (SF_6), hydrofluorocarbons, perfluorocarbons, and chlorofluorocarbons (IPCC 2001). Table 5.6-1, *GHG and Their Relative Global Warming Potential Compared to CO_2*, lists the GHG applicable to the proposed project and their relative global warming potentials (GWP) compared to CO_2. The major GHG contributors are briefly described below.

- **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 municipal landfills and water treatment facilities.

- **Nitrous oxide (N2O)** is emitted during agricultural and industrial activities as well as during combustion of fossil fuels and solid waste.

[1] Water vapor (H_2O) is the strongest GHG and the most variable in its phases (vapor, cloud droplets, ice crystals). However, water vapor is not considered a pollutant.

Table 5.6-1 GHG and Their Relative Global Warming Potential Compared to CO_2

GHG	Atmospheric Lifetime (years)	Global Warming Potential Relative to CO_2[1]
Carbon Dioxide (CO_2)	50 to 200	1
Methane (CH_4)[2]	12 (±3)	21
Nitrous Oxide (N_2O)	120	310
Hydrofluorocarbons:		
HFC-23	264	11,700
HFC-32	5.6	650
HFC-125	32.6	2,800
HFC-134a	14.6	1,300
HFC-143a	48.3	3,800
HFC-152a	1.5	140
HFC-227ea	36.5	2,900
HFC-236fa	209	6,300
HFC-4310mee	17.1	1,300
Perfluoromethane: CF_4	50,000	6,500
Perfluoroethane: C_2F_6	10,000	9,200
Perfluorobutane: C_4F_{10}	2,600	7,000
Perfluoro-2-methylpentane: C_6F_{14}	3,200	7,400
Sulfur Hexafluoride (SF_6)	3,200	23,900

Source: USEPA 2008; IPCC 2001.
[1] Based on 100-Year Time Horizon of the GWP of the air pollutant relative to CO_2.
[2] The methane GWP includes the direct effects and those indirect effects due to the production of tropospheric ozone and stratospheric water vapor. The indirect effect due to the production of CO_2 is not included.

- Fluorinated gases are synthetic, strong GHGs that are emitted from a variety of industrial processes. Fluorinated gases are sometimes used as substitutes for ozone-depleting substances. These gases are typically emitted in smaller quantities, but because they are potent GHGs, they are sometimes referred to as high GWP gases.

- **Chlorofluorocarbons (CFCs)** are GHGs covered under the 1987 Montreal Protocol and used for refrigeration, air conditioning, packaging, insulation, solvents, or aerosol propellants. Since they are not destroyed in the lower atmosphere (troposphere, stratosphere), CFCs drift into the upper atmosphere where, given suitable conditions, they break down ozone. These gases are also ozone-depleting gases and are therefore being replaced by other GHG compounds covered under the Kyoto Protocol.

- **Perfluorocarbons (PFCs)** are a group of human-made chemicals composed of carbon and fluorine only. These chemicals (predominantly perfluoromethane [CF_4] and perfluoroethane [C_2F_6]) were introduced as alternatives, along with HFCs, to the ozone-depleting substances. In addition, PFCs are emitted as by-products of industrial processes and are also used in manufacturing. PFCs do not harm the stratospheric ozone layer, but they have a high global warming potential.

- **Sulfur Hexafluoride (SF_6)** is a colorless gas soluble in alcohol and ether, slightly soluble in water. SF_6 is a strong GHG used primarily in electrical transmission and distribution systems as an insulator.

- **Hydrochlorofluorocarbons (HCFCs)** contain hydrogen, fluorine, chlorine, and carbon atoms. Although ozone-depleting substances, they are less potent at destroying stratospheric ozone than CFCs. They have been introduced as temporary replacements for CFCs and are also GHGs.

- **Hydrofluorocarbons (HFCs)** contain only hydrogen, fluorine, and carbon atoms. They were introduced as alternatives to ozone-depleting substances to serve many industrial, commercial, and personal needs. HFCs are emitted as by-products of industrial processes and are also used in manufacturing. They do not significantly deplete the stratospheric ozone layer, but they are strong GHGs (USEPA 2012).

California's GHG Sources and Relative Contribution

California is the second largest emitter of GHG in the United States, only surpassed by Texas, and the tenth largest GHG emitter in the world. However, California also has over 12 million more people than the state of Texas. Because of more stringent air emission regulations, in 2001 California ranked fourth lowest in carbon emissions per capita and fifth lowest among states in CO_2 emissions from fossil fuel consumption per unit of Gross State Product (total economic output of goods and services) (CEC 2006).

CARB's latest update to the statewide GHG emissions inventory was conducted in 2012 for year 2009 emissions.[2] In 2009, California produced 457 million metric tons (MMT) of CO_2-equivalent (CO_2e) emissions.[3] California's transportation sector is the single largest generator of GHG emissions, producing 37.9 percent of the state's total emissions. Electricity consumption is the second largest source, comprising 22.7 percent. Industrial activities are California's third largest source of GHG emissions, comprising 17.8 percent of the state's total emissions. Other major sources of GHG emissions include commercial and residential, recycling and waste, high global warming potential GHGs, agriculture, and forestry (CARB 2012).

Human Influence on Climate Change

For approximately 1,000 years before the Industrial Revolution, the amount of GHG in the atmosphere remained relatively constant. During the 20th century, however, scientists observed a rapid change in the climate and climate change pollutants that are attributable to human activities. The amount of CO_2 has increased by more than 35 percent since preindustrial times and has increased at an average rate of 1.4 parts per million (ppm) per year since 1960, mainly due to combustion of fossil fuels and deforestation (IPCC 2007). These recent changes in climate change pollutants far exceed the extremes of the ice ages, and the global mean temperature is 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).

Climate change scenarios are affected by varying degrees of uncertainty. IPCC's 2007 Fourth Assessment Report projects that the global mean temperature increase from 1990 to 2100, under different climate-change scenarios, will range from 1.4 to 5.8°C (2.5 to 10.4°F). In the past, gradual changes in the earth's temperature changed the distribution of species, availability of water, etc. However, human activities are accelerating this process so that environmental impacts associated with climate change no longer occur in a geologic timeframe but within a human lifetime (CAT 2006).

[2] Methodology for determining the statewide GHG inventory is not the same as the methodology used to determine statewide GHG emissions under Assembly Bill 32 (AB 32).

[3] CO_2-equivalence is used to show the relative potential that different GHGs have to retain infrared radiation in the atmosphere and contribute to the greenhouse effect. The global warming potential of a GHG is also dependent on the lifetime, or persistence, of the gas molecule in the atmosphere.

Potential Climate Change Impacts for California

Like the variability in the projections of the expected increase in global surface temperatures, the environmental consequences of gradual changes in the Earth's temperature are also difficult to predict. In California and western North America, observations of the climate have shown: 1) a trend toward warmer winter and spring temperatures, 2) a smaller fraction of precipitation is falling as snow, 3) a decrease in the amount of spring snow accumulation in the lower and middle elevation mountain zones, 4) an advance snowmelt of 5 to 30 days earlier in spring, and 5) a similar shift (5 to 30 days earlier) in the timing of spring flower blooms (CAT 2006). According to the California Climate Action Team (CAT), even if actions could be taken to immediately curtail climate change emissions, the potency of emissions that have already built up, their long atmospheric lifetimes (see Table 5.6-2, *Summary of Global Climate Change Risks to California*), and the inertia of the Earth's climate system could produce as much as 0.6°C (1.1°F) of additional warming. Consequently, some impacts from climate change are now considered unavoidable. Global climate change risks are shown in Table 5.6-2 and include impacts to public health, water resources, agriculture, sea level, forest and biological resources, and electricity. Specific climate change impacts that could affect the project include health impacts from a reduction in air quality, water resources impacts from a reduction in water supply, increased energy demand, and sea level rise.

Table 5.6-2 Summary of Global Climate Change Risks to California

Impact Category	Potential Risk
Public Health Impacts	• Poor air quality made worse • More severe heat
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	• Increasing risk and severity of wildfires • Lengthening of the wildfire season • Movement of forest areas • Conversion of forest to grassland • Increasing threats from pest and pathogens • Declining forest productivity • Shifting vegetation and species distribution • Altered timing of migration and mating habits • Loss of sensitive or slow-moving species
Electricity	• Potential reduction in hydropower • Increased energy demand

Sources: CEC 2006; CEC 2008.

Regulatory Setting

Federal Laws and Regulations

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

The EPA's endangerment finding covers emissions of six key GHGs—CO_2, CH_4, N_2O, hydrofluorocarbons, perfluorocarbons, and SF_6—which 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).

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 metric tons (MT) or more per year are required to submit an annual report.

State Regulations

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

Executive Order S-03-05

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

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

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

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

AB 32 directed CARB to adopt discrete early action measures to reduce GHG emissions and outline additional reduction measures to meet the 2020 target. Based on the GHG emissions inventory conducted for the Scoping Plan by CARB, GHG emissions in California by 2020 are anticipated to be approximately 596 $MMTCO_2e$. In December 2007, CARB approved a 2020 emissions limit of 427 $MMTCO_2e$ (471 million tons) for the state. The 2020 target requires a total emissions reduction of 169 $MMTCO_2e$, 28.5 percent from the projected emissions of the business-as-usual (BAU) scenario for the year 2020 (i.e., 28.5 percent of 596 $MMTCO_2e$) (CARB 2008).[4]

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

In order to effectively implement the emissions cap, AB 32 directed CARB to establish a mandatory reporting system to track and monitor GHG emissions levels for large stationary sources that generate more than 25,000 MT of CO_2e per year, prepare a plan demonstrating how the 2020 deadline can be met, and develop appropriate regulations and programs to implement the plan by 2012. The Climate Action Registry Reporting Online Tool was established through the Climate Action Registry to track GHG emissions.

CARB 2008 Scoping Plan. The final Scoping Plan was adopted by CARB on December 11, 2008. Key elements of CARB's GHG reduction plan that may be applicable to the proposed project include:

- Expanding and strengthening existing energy efficiency programs as well as building and appliance standards (adopted and cycle updates in progress).
- Achieving a mix of 33 percent for energy generation from renewable sources (anticipated by 2020).
- A California cap-and-trade program that links with other Western Climate Initiative (WCI) partner programs to create a regional market system for large stationary sources (adopted 2011).
- Establishing targets for transportation-related GHG emissions for regions throughout California, and pursuing policies and incentives to achieve those targets (several Sustainable Communities Strategies have been adopted).
- Adopting and implementing measures pursuant to state laws and policies, including California's clean car standards (amendments to the Pavley Standards adopted 2009; Advanced Clean Car standard adopted 2012), goods movement measures, and the Low Carbon Fuel Standard (LCFS) (adopted 2009).5
- Creating target fees, including a public goods charge on water use, fees on high global warming potential gases, and a fee to fund the administrative costs of the state's long-term commitment to AB 32 implementation (in progress).

Table 5.6-3, *Scoping Plan GHG Reduction Measures and Reductions toward 2020 Target,* shows the proposed reductions from regulations and programs outlined in the Scoping Plan. Though local government operations were not accounted for in achieving the 2020 emissions reduction, CARB estimates that land use changes implemented by local governments that integrate jobs, housing, and services result in a reduction of 5 $MMTCO_2e$, which is approximately 3 percent of the 2020 GHG emissions reduction goal. In recognition of the critical role local governments play in successful implementation of AB 32, in 2008 CARB recommended GHG reduction goals of 15 percent of today's levels by 2020 to ensure that municipal and community-wide emissions match the state's reduction target.[6] Pursuant to the Scoping Plan Appendix C, "The Role of Local Government,' and Table C, local governments are encouraged to take a number of potential actions to reduce local GHG emissions, which include shifts in land use patterns to emphasize compact, low-impact growth over development in greenfields, resulting in fewer VMT (CARB 2008).

[5] On December 29, 2011, the U.S. District Court for the Eastern District of California issued several rulings in the federal lawsuits challenging the LCFS. One of the court's rulings preliminarily enjoins the CARB from enforcing the regulation during the pendency of the litigation. In January 2012, CARB appealed the decision and on April 23, 2012, the Ninth Circuit Court granted CARB's motion for a stay of the injunction while it continues to consider CARB's appeal of the lower court's decision.

[6] While the Scoping Plan references a goal for local governments to reduce community GHG emissions by 15 percent from current (interpreted as 2008) levels by 2020, the Scoping Plan does not rely on local GHG reduction targets established by local governments to meet the state's GHG reduction target of AB 32. Table 5.6-3 lists the recommended reduction measures, which do not include additional reductions from local measures.

Table 5.6-3 Scoping Plan GHG Reduction Measures and Reductions toward 2020 Target

Recommended Reduction Measures	Reductions Counted toward 2020 Target of 169 MMT CO_2e	Percentage of Statewide 2020 Target
Cap and Trade Program and Associated Measures		
California Light-Duty Vehicle GHG Standards	31.7	19%
Energy Efficiency	26.3	16%
Renewable Portfolio Standard (33 percent by 2020)	21.3	13%
Low Carbon Fuel Standard	15	9%
Regional Transportation-Related GHG Targets[1]	5	3%
Vehicle Efficiency Measures	4.5	3%
Goods Movement	3.7	2%
Million Solar Roofs	2.1	1%
Medium/Heavy Duty Vehicles	1.4	1%
High Speed Rail	1.0	1%
Industrial Measures	0.3	0%
Additional Reduction Necessary to Achieve Cap	34.4	20%
Total Cap and Trade Program Reductions	**146.7**	**87%**
Uncapped Sources/Sectors Measures		
High Global Warming Potential Gas Measures	20.2	12%
Sustainable Forests	5	3%
Industrial Measures (for sources not covered under cap and trade program)	1.1	1%
Recycling and Waste (landfill methane capture)	1	1%
Total Uncapped Sources/Sectors Reductions	**27.3**	**16%**
Total Reductions Counted toward 2020 Target	**174**	**100%**
Other Recommended Measures – Not Counted toward 2020 Target		
State Government Operations	1.0 to 2.0	1%
Local Government Operations	To Be Determined	NA
Green Buildings	26	15%
Recycling and Waste	9	5%
Water Sector Measures	4.8	3%
Methane Capture at Large Dairies	1	1%
Total Other Recommended Measures – Not Counted toward 2020 Target	**42.8**	**NA**

Source: CARB 2008.

Notes: The percentages in the right-hand column add up to more than 100 percent because the emissions reduction goal is 169 $MMTCO_2e$ and the Scoping Plan identifies 174 $MTCO_2e$ of emissions reductions strategies.

$MMTCO_2e$: million metric tons of CO_2e

[1] Reductions represent an estimate of what may be achieved from local land use changes. It is not the SB 375 regional target.

[2] According to the Measure Documentation Supplement to the Scoping Plan, local government actions and targets are anticipated to reduce vehicle miles by approximately 2 percent through land use planning, resulting in a potential GHG reduction of 2 million metric tons of CO_2e (or approximately 1.2 percent of the GHG reduction target). However, these reductions were not included in the Scoping Plan reductions to achieve the 2020 target.

Since the Scoping Plan was adopted, CARB implemented and continues to implement of the reduction measures. The legislature has also passed legislation implementing the reduction measures. For example, the cap-and-trade regulations became effective January 2, 2012, and the compliance obligation for GHG emissions began on January 1, 2013. The legislature also passed Senate Bill X1-2 (SBX1-2) in 2011, increasing the amount of electricity generated from eligible renewable energy resources to at least 33 percent per year by December 31, 2020.

Senate Bill 375

In 2008, SB 375 was adopted and was intended to represent the implementation mechanism necessary to achieve the GHG emissions reductions targets established in the Scoping Plan for the transportation sector as it relates to local land use decisions that affect travel behavior. Implementation is intended 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 with local land use planning to reduce VMT and vehicle trips. Specifically, SB 375 requires CARB to establish GHG emissions reduction targets for each of the 17 regions in California managed by a metropolitan planning organization (MPO). 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.

Southern California Association of Governments is the MPO for the southern California region, which includes the counties of Los Angeles, Orange, San Bernardino County, Riverside, Ventura, and Imperial. SCAG's targets are an 8 percent per capita reduction from 2005 GHG emission levels by 2020 and a 13 percent per capita reduction from 2005 GHG emission levels by 2035. The 2020 targets are smaller than the 2035 targets because a significant portion of the built environment in 2020 has been defined by decisions that have already been made. In general, the 2020 scenarios reflect that more time is needed for large land use and transportation infrastructure changes. Most of the reductions in the interim are anticipated to come from improving the efficiency of the region's existing transportation network. The proposed targets would result in 3 $MMTCO_2e$ of reductions by 2020 and 15 $MMTCO_2e$ of reductions by 2035. Based on these reductions, the passenger vehicle target in CARB's Scoping Plan (for AB 32) would be met (CARB 2010).

SB 375 requires the MPOs to prepare a Sustainable Communities Strategy (SCS) in their regional transportation plan. For the SCAG region, the 2012 RTP/SCS was adopted in April 2012 (SCAG 2012). The SCS sets forth a development pattern for the region, which, when integrated with the transportation network and other transportation measures and policies, would reduce GHG emissions from transportation (excluding goods movement). The SCS is meant to provide growth strategies that will achieve the regional GHG emissions reduction targets. However, the SCS does not require that local general plans, specific plans, or zoning be consistent with the SCS, but provides incentives for consistency for governments and developers.

Assembly Bill 1493

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

Executive Order S-01-07

On January 18, 2007, the state set a new low carbon fuel standard for transportation fuels sold within the state. Executive Order S-1-07 sets a declining standard for GHG emissions measured in $C0_2e$ gram per unit of fuel energy sold in California. The LCFS requires a reduction of 2.5 percent in the carbon intensity of California's transportation fuels by 2015 and a reduction of at least 10 percent by 2020. The LCFS applies to refiners, blenders, producers, and importers of transportation fuels and would use market-based mechanisms to allow these providers to choose how they reduce emissions during the fuel cycle using the most economically feasible methods.

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

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

California Building Code

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

On July 17, 2008, the California Building Standards Commission adopted the nation's first green building standards. The California Green Building Standards Code (CALGreen) was adopted as part of the California Building Standards Code (24CCR11). 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.

2006 Appliance Efficiency Regulations

The 2006 Appliance Efficiency Regulations (20 CCR, Sections 1601 through 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 nonfederally regulated appliances.

Regional Regulations

2012 Regional Transportation Plan/Sustainable Communities Strategy

In 2008, SB 375 was adopted and as the implementation mechanism necessary to achieve the GHG emissions reductions targets established in the Scoping Plan for the transportation sector as it relates to local land use decisions that affect travel behavior. Implementation is intended 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 with local land use planning to reduce vehicle miles traveled and vehicle trips. Specifically, SB 375 requires CARB to establish GHG emissions reduction targets for each of the 17 regions in California managed by a MPO. Pursuant to the recommendations of the Regional Transportation Advisory Committee, CARB adopted per capita reduction targets for each of the MPOs rather than a total magnitude reduction target. SCAG is the MPO for the southern California region, which includes the counties of Los Angeles, Orange, San

Bernardino County, Riverside, Ventura, and Imperial. SCAG's targets are an 8 percent per capita reduction from 2005 GHG emission levels by 2020 and a 13 percent per capita reduction from 2005 GHG emission levels by 2035.

The 2020 targets are smaller than the 2035 targets because a significant portion of the built environment in 2020 has been defined by decisions that have already been made. In general, the 2020 scenarios reflect that more time is needed for large land use and transportation infrastructure changes. Most of the reductions in the interim are anticipated to come from improving the efficiency of the region's existing transportation network. The proposed targets would result in 3 $MMTCO_2e$ of reductions by 2020 and 15 $MMTCO_2e$ of reductions by 2035. Based on these reductions, the passenger vehicle target in CARB's Scoping Plan (for AB 32) would be met (CARB 2010).

SB 375 requires the MPOs to prepare a Sustainable Communities Strategy in their regional transportation plan. For the SCAG region, the Regional Transportation Plan/Sustainable Communities Strategy (RPS/SCS) was adopted April 2012 (SCAG 2012). The 2012 RTP/SCS integrates the Orange County Transportation Authority's (OCTA) SCS, which was adopted separately in 2011 (Orange County SCS). The SCS sets forth a development pattern for the region, which, when integrated with the transportation network and other transportation measures and policies, would reduce GHG emissions from transportation (excluding goods movement). The SCS is meant to provide growth strategies that will achieve the regional GHG emissions reduction targets. However, the SCS does not require that local general plans, specific plans, or zoning be consistent with the SCS, but provides incentives for consistency for governments and developers.

Existing Setting

2012 Greenhouse Gas Emissions Inventory

An existing emissions inventory of the City of San Clemente was conducted based on the existing land uses and is shown in Table 5.6-4. The existing GHG emissions were calculated using OFFROAD2007, EMFAC2011, and emission factors identified in CalEEMod.

Table 5.6-4 Existing City of San Clemente Greenhouse Gas Emissions Inventory

Sector	Existing (CEQA Baseline), 2012, GHG Emissions	
	$MTCO_2e$/year	Percent of Total
Transportation[1]	500,151	67%
Energy – Residential[2]	117,818	16%
Energy – Nonresidential[2]	82,367	11%
Energy – City/Municipal[2]	426	<1%
Waste[3]	9,346	1%
Water/Wastewater[4]	19,657	3%
Other – Off-road Equipment[5]	17,964	2%
Existing Community-wide Emissions Total	747,728	100%
$MTCO_2e$/Service Population (SP)[6]	91,908	NA

Notes: Emissions may not total to 100% due to rounding.
1 EMFAC2011. Model runs were based on daily per capita VMT data provided by Fehr and Peers.
2 Electricity use was modeled using data provided by SDG&E. Natural gas use was modeled using data provided by SDG&E and SoCal Gas. The carbon intensity of SDG&E's purchased electricity is based on the CO_2 intensity factor as reported in SDG&E's 2009 Annual Emissions report submitted to the California Climate Action Registry in addition to the intensity factors for CH_4 and N_20 provided by the USEPA e-GRID data for year 2009.
3 WARM model, version 12, based on waste disposal (municipal solid waste and alternative daily cover) and waste characterization data from CalRecycle (CalRecycle 2013). Modeling assumes a 75 percent reduction in fugitive GHG emissions from the landfill's gas capture system.
4 LGOP, version 1.1, based on the City's 2010 UWMP.
5 OFFROAD2007 for Orange County proportioned based on the City of San Clemente as a percentage of Orange County based on data from the US Census. Area sources exclude emissions from fireplaces and consumer products in the City.
6 Based on a service population of existing: 91,908 people (64,208 residents and 27,700 employees).

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:

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.

South Coast Air Quality Management District

SCAQMD has adopted a significance threshold of 10,000 $MTCO_2e$ per year for permitted (stationary) sources of GHG emissions for which SCAQMD is the designated lead agency. To provide guidance to local lead agencies on determining significance for GHG emissions in their CEQA documents, SCAQMD has convened a GHG CEQA Significance Threshold Working Group (Working Group). Based on the last Working Group meeting held in September 2010 (Meeting No. 15), SCAQMD is proposing to adopt a tiered approach for evaluating GHG emissions for development projects where SCAQMD is not the lead agency:

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

For projects that are not exempt or where no qualifying GHG reduction plans are directly applicable, SCAQMD requires an assessment of GHG emissions. SCAQMD is proposing a "bright-line" screening-level threshold of 3,000 $MTCO_2e$ annually for all land use types or the following land-use-specific thresholds: 1,400 $MTCO_2e$ for commercial projects, 3,500 $MTCO_2e$ for residential projects, or 3,000 $MTCO_2e$ for mixed-use projects. This bright-line threshold is based on a review of the Governor's Office of Planning and Research database of CEQA projects. Based on their review of 711 CEQA projects, 90 percent of CEQA projects would exceed the bright-line thresholds identified above. Therefore, projects that do not exceed the bright-line threshold would have a nominal, and therefore, less than cumulatively considerable impact on GHG emissions:

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

SCAQMD has proposed an efficiency target for projects that exceed the screening threshold. The current recommended approach is per capita efficiency targets. SCAQMD is not recommending use of a percent emissions reduction target. Instead, SCAQMD proposes a 2020 efficiency target of 4.8 $MTCO_2e$ per year per service population ($MTCO_2e$/year/SP) for project-level analyses and 6.6 $MTCO_2e$/year/SP for plan level projects (e.g., program-level projects such as general plans). The per capita efficiency targets are based on the AB 32 GHG reduction target and

2020 GHG emissions inventory prepared for CARB's 2008 Scoping Plan.[7] Because the proposed project is a revision of the City's General Plan, project emissions are compared to the SCAQMD's plan-level efficiency threshold of 6.6 $MTCO_2e$/year/SP, for year 2020. Year 2035 emissions are compared to the efficiency threshold of 4.0 $MTCO_2e$/year/SP which is based on the long-term GHG reduction target for 2050 (i.e., 80 percent below 1990 levels) interpolated from Executive Order S-03-05. If projects exceed this per capita efficiency target, GHG emissions would be considered potentially significant in the absence of mitigation measures.

5.6.3 Environmental Impacts

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 proposed General Plan.[8] The City's GHG emissions inventory includes the following sectors:

- **Transportation:** Transportation emissions forecasts were modeled using CARB's EMFAC2011. Model runs were based on daily per capita VMT data provided by Fehr and Peers using the Citywide TDM and SCAG TDM and 2012 (existing), 2020, and 2035 emission rates. The VMT provided in the model includes the full trip length for land uses in the City (origin-destination approach) and for external-internal/internal-external trips (i.e., trips that either start or end within the City limits). Adjusted daily VMT was multiplied by 347 days per year to account for reduced traffic on weekends and holidays to estimate annual emissions. This assumption is consistent with CARB's methodology within the Climate Change Scoping Plan Measure Documentation Supplement. Modeling was conducted for both a BAU scenario, which does not include GHG emissions reduction from the Pavley Fuel Efficiency Standard and LCFS, and for the adjusted BAU (ABAU) scenario, which includes these statewide regulations.

- **Residential:** Natural gas and electricity use for residential land uses in the City were modeled using data provided by SDG&E and SoCal Gas. Natural gas and electricity use are based on a four-year average (2012, 2011, 2010, and 2009) to account for fluctuation in annual natural use as a result of natural variations in climate. Forecasts are adjusted for increases in population in the City. The carbon intensity of SDG&E's purchased electricity is based on the California Public Utilities Commission's (CPUC) WCI 2008 Emission Factor Calculator (Version 2 for the Western Electricity Coordinating Council [WECC] Region). The ABAU scenario for residential electricity use includes a reduction in carbon intensity of SDG&E's energy supply required under the 33 percent RPS (CEC 2012).

- **Nonresidential:** Natural gas and electricity use for nonresidential land uses in the City, including City facilities, were modeled using data provided by SDG&E and SoCal Gas. Natural gas and electricity use are based on a four-year average (2012, 2011, 2010, and 2009) to account for fluctuation in annual natural use as a result of natural variations in climate. Forecasts are adjusted for increases in employment (in the City. The carbon intensity of SDG&E's purchased electricity is based on the CPUC's WCI 2008 Emission Factor Calculator (Version 2 for the WECC Region). The ABAU scenario for residential electricity use includes a reduction in carbon intensity of SDG&E's energy supply required under the 33 percent RPS (CEC 2012).

[7] SCAQMD took the 2020 statewide GHG reduction target for land use only GHG emissions sectors and divided it by the 2020 statewide employment for the land use sectors to derive a per capita GHG efficiency metric that coincides with the GHG reduction targets of AB 32 for year 2020.
[8] The methodology utilized in completing the GHG inventory was employed for purposes of fulfilling the requirements of CEQA and may differ from the methodology utilized in completing the GHG inventory found in the City's Climate Action Plan.

- **Waste:** Modeling of landfilled waste disposed of by residents and employees in the City is based on the waste commitment method using the EPA's WARM model, version 12, based on waste disposal (municipal solid waste and alternative daily cover) and waste characterization data from CalRecycle (CalRecycle 2013). Landfills in California have gas capture systems, but because the landfill gas captured is not under the jurisdiction of the City, the landfill gas emissions from the capture system are not included in the City's inventory. Only fugitive sources of GHG emissions from landfill are included. Modeling assumes a 75 percent reduction in fugitive GHG emissions from the landfill's gas capture system. The landfill gas capture efficiency is based on CARB's Local Government Operations Protocol (LGOP), Version 1.1. Forecasts are adjusted for increases in population and employment in the City.

- **Water/Wastewater:** GHG emissions from water and wastewater include indirect GHG emissions from the embodied energy of water and wastewater. Total water generation in the City is based on the City's 2010 UWMP. Forecasts are adjusted for increases in population and employment and are based on the target per capita SBx7-7.[9] Energy use from water use and wastewater treatment is estimated using energy rates identified by the CEC (CEC 2006) and carbon intensity of energy identified by the CPUC (see Residential and Nonresidential and City energy identified above). In addition to the indirect emissions associated with the embodied energy of water use and wastewater treatment, wastewater treatment also results in fugitive GHG emissions from wastewater processing from septic tanks (existing) and the proposed wastewater treatment plant (future). Fugitive emissions from wastewater treatment in the City were calculated using the emission factors in CARB's LGOP, Version 1.1. Forecasts are adjusted for increases in population and employment in the City.

- **Other Sources:** OFFROAD2007 was used to estimate GHG emissions from landscaping equipment, light commercial equipment, and construction equipment in the City. OFFROAD2007 is a database of equipment use and associated emissions for each county compiled by CARB. Annual emissions were compiled using OFFROAD2007 for the County of Orange for year 2012. In order to determine the percentage of emissions attributable to the City of San Clemente, landscaping and light commercial equipment is estimated based on population (Landscaping) and employment (Light Commercial Equipment) for the City of San Clemente as a percentage of Orange County. Construction equipment use is estimated based on building permit data for the City of San Clemente and County of Orange from data compiled by the U.S. Census. Daily off-road construction emissions are multiplied by 347 days per year to account for reduced/limited construction activity on weekends and holidays. Forecasts are adjusted for increases in population and employment in the City, with the exception of construction activities, which assume that construction emissions for the forecast year would be similar to historical levels. Area sources exclude emissions from fireplaces and consumer products in the City.

- **Lifecycle:** Life cycle emissions are not included in this analysis because not enough information is available for the proposed project, and therefore life cycle GHG emissions would be speculative.

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

[9] SBx7-7 (2009) requires all water suppliers to reduce per capita urban water use by 20 percent by 2020, with incremental progress towards this goal (10 percent by 2015). The 2010 UWMPs contain water use targets to meet this requirement. Effective 2016, urban retail water suppliers who do not meet the water conservation requirements established by SBx7-7 are not eligible for state water grants or loans.

Impact 5.6-1: Buildout of the proposed General Plan would not result in an increase in GHG emissions as a result of federal, state, and local GHG reduction measures; however, the City would not achieve the long-term GHG reductions goals under Executive Order S-03-05. [Threshold GHG-1 and GHG-2]

Impact Analysis: Buildout of the City of San Clemente would contribute to global climate change through direct and indirect GHG emissions. The increase in GHG emissions is based on the difference between existing land uses and land uses associated with buildout of the proposed General Plan (see Table 3-3, *San Clemente Centennial General Plan Buildout Projects [2035]*) as well as an estimate of population employment within the City in year 2035.

Communitywide GHG Emissions and Statewide Targets

2020 – AB 32 Target Year – Community-Wide GHG Inventory

The community-wide GHG BAU and ABAU emissions inventory for the City in 2020 compared to existing conditions (CEQA Baseline) is included in Table 5.6-5.[10] The ABAU inventory includes reductions from federal and state measures identified in CARB's Scoping Plan, including the Pavley fuel efficiency standards, LCFS for fuel use (transportation and off-road), and a reduction in carbon intensity from electricity use (see the discussion of the inventory methodology). For 2020, the Scoping Plan measures account for a reduction of 171,240 $MTCO_2e$ of GHG compared to BAU (21 percent reduction in GHG emissions). Compared to the City's existing emissions inventory, the City will experience a decrease of 111,718 $MTCO_2e$ of GHG emissions (15 percent reduction in GHG emissions from 2012 conditions). Consequently, GHG emissions within the City would decrease as a result of GHG reduction measures implemented by the federal, state, regional, and local agencies. The project would not generate a substantial increase in GHG emissions.

Consistency with AB 32 Target

AB 32 set a target of achieving 1990 levels of GHG emissions by 2020. Table 5.6-5 identifies the per capita community-wide ABAU GHG emissions in the City compared to SCAQMD's efficiency metric, which represents the GHG reduction goal under AB 32. As shown in this table, the per service population emissions for year 2020 in the City would meet the SCAQMD efficiency threshold of 6.6 $MTCO_2e$/year/SP. Therefore, GHG impacts would be consistent with the GHG reduction goals under AB 32

Horizon Year 2035 Community-Wide GHG Inventory

The community-wide GHG emissions inventory for the City compared to existing conditions is included in Table 5.6-6. As shown in this table, buildout of the proposed General Plan would result in a decrease of 43,253 $MTCO_2e$ of GHG emissions (6 percent reduction in GHG emissions from existing conditions). In addition, the Scoping Plan measures would result in a reduction of 245,505 $MTCO_2e$ of GHG emissions (26 percent reduction) in year 2035 compared to BAU. Consequently, GHG emissions within the City would decrease as a result of GHG reduction measures implemented by the federal, state, regional, and local agencies. The project would not generate a substantial increase in GHG emissions.

Consistency with the Long-Term Goal of Executive Order S-03-05

Executive Order S-03-05 identified a long goal of reducing GHG emissions to 80 percent of 1990 levels by 2050. CARB is currently updating the Scoping Plan to identify additional measures to achieve the long-term GHG reduction targets. At this time, there is no plan past 2020 that achieves the long-term GHG reduction goal established under S-

[10] The CEQA Baseline differs from "existing conditions" identified as the base year in AB 32. The CEQA baseline is modeled using 2012 emission rates; whereas "existing conditions" under AB 32 is defined as conditions and emission rates in 2005.

03-05. As identified by the California Council on Science and Technology, the state cannot meet the 2050 goal without major advancements in technology (CCST 2012). Likewise, the community-wide ABAU GHG emissions in the City would not meet the efficiency threshold of 4.0 $MTCO_2e$/year/SP, which assumes progress toward the long-term goal of reducing GHG emissions to 80 percent of 1990 levels by 2050. Therefore, GHG impacts within the City of San Clemente from full buildout of the proposed General Plan would not achieve the long-term GHG reductions goals under Executive Order S-03-05 and would cumulatively contribute to the long-term GHG emissions in the state.

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Table 5.6-5 2020 Community-Wide GHG Emissions Inventory for the City of San Clemente

Pollutant	2020 GHG Emissions ($MTCO_2e$/Year)				
	2012	2020 BAU	2020 ABAU	ABAU Change from 2012	ABAU Change from 2020 BAU
Transportation[1]	500,151	541,453	412,863	(87,287)	(128,590)
Energy – Residential[2]	117,818	125,694	110,095	(7,723)	(15,599)
Energy – Nonresidential[2]	82,367	94,378	73,236	(9,131)	(21,142)
Energy – City/Municipal	426	465	465	39	0
Waste[3]	9,346	10,193	10,193	847	0
Water/Wastewater[4]	19,657	16,666	12,596	(7,061)	(4,069)
Other – Off-road Equipment[5]	17,964	18,401	16,561	(1,403)	(1,840)
Total Community Emissions	747,728	807,2500	636,010	(111,718)	(171,240)
Net Change in Percentage	N/A	N/A	N/A	(15%)	(21%)
Service Population (SP)[6]	91,908	100,240	100,240	N/A	N/A
Emissions Per Service Population (SP)	8.1 $MTCO_2e$/Year/SP	8.1 $MTCO_2e$/Year/SP	6.3 $MTCO_2e$/Year/SP	N/A	N/A
SCAQMD Proposed Plan-Level Efficiency Standard	N/A	6.6 $MTCO_2e$/Year/SP	6.6 $MTCO_2e$/Year/SP	N/A	N/A

Notes: Emissions forecast based on changes in population (residential energy), employment (nonresidential energy), or service population (City energy, waste, water/wastewater, transportation).
ABAU includes reductions identified in the Scoping Plan associated with transportation (Pavley+LCFS), energy & water/wastewater (33% RPS), and other (LCFS). The current inventory does not account for reductions in building energy use from Title 24 cycle updates.
Emissions may not total to 100% due to rounding.

[1] EMFAC2011 based on daily per capita VMT data provided by Fehr and Peers. Modeling was conducted for both a BAU scenario, which does not include GHG emissions reduction from the Pavley Fuel Efficiency Standard and LCFS, and for the ABAU scenario, which includes these statewide regulations.

[2] Electricity use was modeled using data provided by SDG&E. Natural gas use was modeled using data provided by SDG&E and SoCal Gas. The carbon intensity of SDG&E's purchased electricity is based on the CO_2 intensity factor as reported in SDG&E's 2009 Annual Emissions report submitted to the California Climate Action Registry in addition to the intensity factors for CH_4 and N_20 provided by the EPA e-GRID data for year 2009. The ABAU scenario for residential electricity use includes a reduction in carbon intensity of SDG&E's energy supply required under the 33 percent RPS (CEC 2012).

[3] WARM model, version 12, based on waste disposal (municipal solid waste and alternative daily cover) and waste characterization data from CalRecycle (CalRecycle 2013). Modeling assumes a 75 percent reduction in fugitive GHG emissions from the landfill's gas capture system.

[4] LGOP, version 1.1, based on the City's 2010 UWMP. Forecasts are adjusted for increases in population and employment and are based on the target per capita of SBx7-7. The ABAU scenario for residential electricity use includes a reduction in carbon intensity of SDG&E's energy supply required under the 33 percent RPS (CEC 2012).

[5] OFFROAD2007 for Orange County proportioned based on the City of San Clemente as a percentage of Orange County, based on data from the US Census. Area sources exclude emissions from fireplaces and consumer products in the City. The ABAU includes reductions from the LCFS.

[7] Based on a service population of existing: 91,908 people (64,208 residents and 27,700 employees); and 2020: 100,240 people (68,501 residents and 31,739 employees).

Table 5.6-6 Horizon Year 2035 Community-Wide GHG Emissions Inventory for the City of San Clemente

Pollutant	2035 GHG Emissions ($MTCO_2e$/Year)				
	2012	2035 BAU	2035 ABAU	ABAU Change from 2012	ABAU Change from 2035
Transportation[1]	500,151	642,155	446,813	(53,338)	(195,343)
Energy – Residential[2]	117,818	140,463	123,031	5,213	(17,432)
Energy – Nonresidential[2]	82,367	116,899	90,712	8,345	(26,186)
Energy – City/Municipal	426	537	537	0	0
Waste[3]	9,346	11,782	11,782	2,436	0
Water/Wastewater[4]	19,657	18,924	14,302	(5,356)	(4,622)
Other – Off-road Equipment[5]	17,964	19,221	17,298	(665)	(1,922)
Total Community Emissions	747,728	949,980	704,475	(43,253)	(245,505)
Net Change in Percentage	N/A	N/A	N/A	(6%)	(26%)
Service Population (SP)[6]	91,908	115,862	115,862	N/A	N/A
Emissions per Service Population	8.1 $MTCO_2e$/Year/SP	8.2 $MTCO_2e$/Year/SP	6.1 $MTCO_2e$/Year/SP	N/A	N/A
SCAQMD Proposed Plan-Level Efficiency Standard	N/A	4.0 $MTCO_2e$/Year/SP	4.0 $MTCO_2e$/Year/SP	N/A	N/A

Notes: Emissions forecast based on changes in population (residential energy), employment (nonresidential energy), or service population (City energy, waste, water/wastewater, transportation).
ABAU includes reductions identified in the Scoping Plan associated with transportation (Pavley+LCFS), energy & water/wastewater (33% RPS), and other (LCFS). The current inventory does not account for reductions in building energy use from Title 24 cycle updates.
Emissions may not total to 100% due to rounding.

1 EMFAC2011 based on daily per capita VMT data provided by Fehr and Peers. Modeling was conducted for both a BAU scenario, which does not include GHG emissions reduction from the Pavley Fuel Efficiency Standard and LCFS, and for the ABAU scenario, which includes these statewide regulations.

2 Electricity use was modeled using data provided by SDG&E. Natural gas use was modeled using data provided by SDG&E and SoCal Gas. The carbon intensity of SDG&E's purchased electricity is based on the CO_2 intensity factor as reported in SDG&E's 2009 Annual Emissions report submitted to the California Climate Action Registry in addition to the intensity factors for CH_4 and N_20 provided by the EPA e-GRID data for year 2009. The ABAU scenario for residential electricity use includes a reduction in carbon intensity of SDG&E's energy supply required under the 33 percent RPS (CEC 2012).

3 WARM model, version 12, based on waste disposal (municipal solid waste and alternative daily cover) and waste characterization data from CalRecycle (CalRecycle 2013). Modeling assumes a 75 percent reduction in fugitive GHG emissions from the landfill's gas capture system.

4 LGOP, version 1.1, based on the City's 2010 UWMP. Forecasts are adjusted for increases in population and employment and are based on the target per capita of SBx7-7. The ABAU scenario for residential electricity use includes a reduction in carbon intensity of SDG&E's energy supply required under the 33 percent RPS (CEC 2012).

5 OFFROAD2007 for Orange County proportioned based on the City of San Clemente as a percentage of Orange County, based on data from the US Census. Area sources exclude emissions from fireplaces and consumer products in the City. The ABAU includes reductions from the LCFS.

7 Based on a service population of existing: 91,908 people (64,208 residents and 27,700 employees); and 2035: 100,240 people (68,501 residents and 31,739 employees).

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Consistency with GHG Reduction Plan Measures

CARB Scoping Plan

In accordance with AB 32, CARB developed the Scoping Plan to outline the state's strategy to achieve 1990 level emissions by year 2020. To estimate the reductions necessary, CARB projected statewide 2020 BAU GHG emissions and identified that the state as a whole would be required to reduce GHG emissions by 28.5 percent from year 2020 BAU to achieve the targets of AB 32 (CARB 2008). Since release of the 2008 Scoping Plan, CARB has updated the 2020 GHG BAU forecast to reflect GHG emissions in light of the economic downturn and measures not previously considered in the 2008 Scoping Plan baseline inventory. The revised BAU 2020 forecast shows that the state would have to reduce GHG emissions by 21.6 percent from BAU without Pavley and the 33 percent RPS or 15.7 percent from the adjusted baseline (i.e., with Pavley and 33 percent RPS) (CARB 2012c).

Since adoption of the 2008 Scoping Plan, state agencies have adopted programs identified in the Plan, and the legislature has passed additional legislation to achieve the GHG reduction targets. Statewide strategies to reduce GHG emissions include the LCFS and changes in the corporate average fuel economy standards (e.g., Pavley I and 2017–2025 CAFE standards). The GHG emissions in Table 5.6-5 include reductions associated with the Pavley fuel efficiency improvements (adopted in 2009).

City of San Clemente Climate Action Plan

To achieve the local goals identified in CARB's 2008 Scoping Plan, the City of San Clemente has prepared a CAP (see Appendix C of this DEIR).[11] The City's CAP identifies and evaluates feasible and effective policies to reduce GHG emissions in order to reduce energy costs, protect air quality, and improve the economy and the environment. The policies identified in the CAP represent the City's actions to achieve the GHG reduction targets of AB 32. A consistency analysis with the goals and actions of the proposed General Plan to the community actions in the CAP is shown in Table 5.6-7. As identified in this table, the proposed General Plan would include policies and actions consistent with the City's CAP. In addition, the CAP has been identified as one of the implementation actions of the General Plan. The CAP identifies that the City would achieve the local GHG reduction goals under AB 32. Therefore, impacts are less than significant.

[11] The GHG emissions inventory prepared for the General Plan was prepared using different inventory methodology, baseline year, and forecast year data.

Table 5.6-7 Consistency with City of San Clemente Climate Action Plan

Greenhouse Gas Reduction Measures	Project Consistency
Expand "Pedestrian Network" through widening sidewalks, completing gaps in the sidewalk network, or extending sidewalks to provide access to desired areas of the City.	**Consistent:** The proposed General Plan includes various policies that would support expansion of the pedestrian network. Policy LU-7.06: ***Bike and Pedestrian Environment.*** We provide a high quality bicycle and pedestrian environment with "living street" designs, consistent landscaping, lighting, sidewalks, traffic calming measures, bikeways and trails, consistent with the Bicycle and Pedestrian Master Plan, Tree Ordinance and Design Guidelines. Policy LU-10.04: ***Beach Access***. We preserve and enhance safe, convenient pedestrian and bicycle linkages to the shoreline for community and visitor access. Policy LU-10.10: ***Alleys/Paseos.*** We consider improvements to our alleyways to provide alternative pedestrian and bicycle routes, where appropriate. Policy UD-1.04: ***Bicycle, Pedestrian and Transit Access.*** We maintain bicycle and pedestrian routes and encourage the provision of public transit routes that link public places to improve accessibility and reduce reliance on the automobile. Policy UD-1.05: ***Streetscape Design.*** We design new and, when necessary, retrofit existing streets to strengthen connectivity, beautify and enhance community character through public right-of-way improvements, including sidewalks, street trees, parkways, curbs, signs, street lighting and street furniture. Policy UD-1.06: ***Streets.*** We recognize that public streets are important public spaces as well as transportation routes and support their occasional closure for community events, where feasible. Sidewalks, street trees, landscaping, and other amenities should be provided and maintained to keep these spaces attractive. Policy UD-1.07: ***Sidewalks.*** We design our sidewalks to accommodate pedestrians in a manner that meets City standards and we seek to ensure they are ADA compliant, well lit, safe, comfortable and consistent in style and construction materials. Sidewalk designs and paving materials shall be architecturally compatible with the district or neighborhood in which they are located. Policy UD-4.06: ***Maintenance of Infrastructure and the Public Realm.*** As resources allow, we maintain and where appropriate, improve infrastructure and the public realm, including landscaping, sidewalks, signage, furniture and other streetscape elements. We keep public facilities clean. Policy UD-5.04: ***Site Access and Entries.*** Downtown site and building designs shall be integrated with the public sidewalk, street and where applicable, alleys to create inviting and attractive commercial and residential areas and public spaces. Policy M-2.02: ***Pedestrian Facilities.*** Public streets shall provide pedestrian facilities in accordance with the adopted City standards. Policy M-2.03: ***Accessible Pedestrian Facilities.*** All new streets shall have provisions for the adequate and safe movement of pedestrians, including improvements for the elderly and disabled. Policy M-2.20: ***Regional Bicycle and Pedestrian Coordination.*** We coordinate regional trail and bicycle planning, acquisition and development efforts with adjacent jurisdictions.

Table 5.6-7 Consistency with City of San Clemente Climate Action Plan

Greenhouse Gas Reduction Measures	Project Consistency
	Policy M-2.21: ***External Linkages.*** We link on-road and off-road bicycle and pedestrian facilities within San Clemente to existing and planned facilities in adjacent and regional jurisdictions. Policy M-2.31: ***Improvements along Bicycle and Pedestrian Routes.*** We improve and maintain alternative transportation infrastructure and assign a high priority to improvements along primary pedestrian and bicycle routes to schools. Policy M-2.36: ***Sidewalks and Pathways.*** Sidewalks or pathways are desirable in most areas, including coastal neighborhoods where, at a minimum, it may only be feasible to install sidewalk on one side of the street. Policy BPR-3.04: ***Pedestrian and Bicycle Connectivity.*** We encourage connectivity by developing and maintaining pedestrian and bicycle trails, where appropriate, along our coastline, including designated railroad crossings for pedestrians. Policy BPR-6.04: ***Interconnected Neighborhoods.*** Neighborhoods should be interconnected with safe, well-designed and maintained walking and biking trails, sidewalks, consistent with the City's Bicycle and Pedestrian Master Plan.
Require Bicycle Parking. One way to facilitate bicycle travel is to require bicycle parking for both public and private uses. This strategy would identify additional opportunities to place public use bicycle parking or to modify existing parking requirements for bicycle with the aim of increasing the supply of parking.	**Consistent:** The proposed General Plan would support installation of bicycle parking facilities. Policy M-2.19: ***Bicycle Facilities.*** In preparing City Land Use plans and applicable Capital Improvement Programs, we address bicycle needs, including: a) Attractive destination facilities, such as secure bicycle lockers, showers, and changing rooms that are conveniently located for bicyclists, i.e. a bike station); b) Facilities for bicycle parking within newly-built and renovated multi-family residential developments, residential condominiums and apartment conversions to condominiums, multi-use and non-residential sites; c) Safe, secure, attractive and convenient bicycle parking; d) Wayfinding systems and traffic control signage or markings for all bicycle facilities
Develop Off-Street Bicycle Facilities. Another means to encourage bicycle travel is to develop and implement offstreet bicycle trails which can be used for both recreational travel and commuting purposes.	**Consistent:** The proposed General Plan would support development of off-street bicycle facilities through its policies and the Bike and Pedestrian Master Plan, which would include Class 1 bicycle facilities. Policy LU-14.06: ***Transportation Improvements.*** We support transportation improvements in the area that enhance the safety, convenience and appearance of bicycle and pedestrian facilities and that minimize adverse impacts on adjacent neighborhood streets and parking, pursuant to the Mobility Element and Bicycle and Pedestrian Master Plan. Policy M-2.13: ***Bicycle and Pedestrian Network.*** We plan, develop and maintain a comprehensive bicycle and pedestrian network as specified in the San Clemente Bicycle and Pedestrian Master Plan. Policy M-2.21: ***External Linkages.*** We link on-road and off-road bicycle and pedestrian facilities within San Clemente to existing and planned facilities in in adjacent and regional jurisdictions.

Table 5.6-7 Consistency with City of San Clemente Climate Action Plan

Greenhouse Gas Reduction Measures	Project Consistency
Incorporate Bike Lane Street Design Through San Clemente Bicycle and Pedestrian Master Plan. The City's Bicycle and Pedestrian Master Plan incorporates bicycle lanes, routes, and shared-use paths into street systems, new subdivisions, and large developments. These on-street bike accommodations will be created to provide a continuous network of routes, facilitated with markings and signage. These improvements can help reduce peak hour vehicle trips by making commuting by bike easier and more convenient for more people. In addition, improved bicycle facilities can increase access to and from transit hubs, thereby expanding the "catchment area" of these transit stops or stations and increasing ridership. Bicycle access can also reduce parking pressure on heavily used and/or heavily subsidized feeder bus lines and auto-oriented park-and ride facilities.	**Consistent:** The proposed General Plan would support development of on-street bicycle facilities through its policies and the Bike and Pedestrian Master Plan. Policy LU-10.09: ***Bike and Pedestrian Environment.*** We provide a high quality bicycle and pedestrian environment with "living street" designs, consistent landscaping, lighting, sidewalks, traffic calming measures, bikeways and trails, consistent with the Bicycle and Pedestrian Master Plan, Tree Ordinance and Design Guidelines. Policy LU-14.06: ***Transportation Improvements.*** We support transportation improvements in the area that enhance the safety, convenience and appearance of bicycle and pedestrian facilities and that minimize adverse impacts on adjacent neighborhood streets and parking, pursuant to the Mobility Element and Bicycle and Pedestrian Master Plan. Policy UD-1.04: ***Bicycle, Pedestrian and Transit Access.*** We maintain bicycle and pedestrian routes and encourage the provision of public transit routes that link public places to improve accessibility and reduce reliance on the automobile. Policy UD-2.04: ***Circulation.*** We encourage roadway improvements in gateway areas to enhance motor vehicle, bicycle, pedestrian, and transit circulation. Policy M-1.12: ***Design Integration.*** City supports development that is designed and/or retrofitted to incorporate, and be efficiently served by, public transit, pedestrian and bicycle facilities. Policy M-2.11: ***Bicycle and Pedestrian Wayfinding***. Bicycle and pedestrian network wayfinding and information shall be provided through signs, street markings or other technologies. Policy M-2.12: ***Integration of Bicycle Planning***. We integrate development of the bicycle facilities network into larger land use planning and development projects. Policy M-2.13: ***Bicycle and Pedestrian Network.*** We plan, develop and maintain a comprehensive bicycle and pedestrian network as specified in the San Clemente Bicycle and Pedestrian Master Plan. Policy M-2.14: ***Bicycle Friendly Streets.*** We consider every public street in San Clemente as a street that cyclists could use. Policy M-2.15: ***Bicycle-Friendly Infrastructure.*** We shall employ bicycle-friendly infrastructure design using new technologies and innovative treatments, where necessary to improve bicyclists' safety and convenience. Policy M-2.31: ***Improvements along Bicycle and Pedestrian Routes.*** We improve and maintain alternative transportation infrastructure and assign a high priority to improvements along primary pedestrian and bicycle routes to schools.

Table 5.6-7 Consistency with City of San Clemente Climate Action Plan

Greenhouse Gas Reduction Measures	Project Consistency
Adopt a voluntary Energy Efficiency and Conservation Policy for commercial and residential retrofits. The calculations assume 10% of existing residential homes are retrofitted to reduce energy use by 30% per unit by 2020, and 15% of existing residential homes are retrofit for an energy savings of 30% per unit by 2030. The calculations assume 10% of existing non-residential square footage is retrofit to reduce energy use by 30% per square foot by 2020, and 15% of existing non-residential homes are retrofit for an energy savings of 30% per unit by 2030. Potential voluntary retrofit measures include light bulb replacement, increased insulation, etc.	**Consistent:** The proposed General Plan includes policies that support energy efficiency and conservation measures for residential and commercial retrofits. Policy NR-6.03: ***Retrofit of Commercial and Residential Buildings.*** We encourage and provide incentives for voluntary retrofitting of commercial and residential buildings to reduce energy use. Policy NR-6.07: ***Renewable Energy Resources.*** We work with other agencies and utility providers to develop safe, economical and renewable energy resources, and we help reduce non-renewable energy use through public education and participation in energy conservation programs. Policy NR-6.08: ***Public Awareness.*** We work with local utilities to develop and provide energy conservation information to the public. Policy PSFU-9.09: ***Funding.*** We seek grants and other outside funding for energy efficiency improvements to public or private facilities and structures in San Clemente.
Adopt a voluntary Energy Efficiency and Conservation Policy for new constructions that would become mandatory only if necessary participation is not achieved by 2016. The program would encourage energy efficiency standards above current State energy standards. Under this option the City would adopt voluntary energy efficiency standards for new construction higher than current Title-24. The program could apply to residential and commercial. It would require new construction to exceed Title-24 energy efficiency standards by 15%, a level comparable to GreenPoint minimum requirements, Energy Star Rated Homes, and achieving the California Green Building Code Tier I performance criteria. The City calculations assume that 15% of residential projects participate through 2016 and then 100% of projects participate through 2020 (assuming that the anticipated level of is not achieved by 2016).	**Consistent:** The proposed General Plan includes policies that support energy efficiency and conservation measures for new construction. Policy NR-6.02: ***Site Planning and New Building Design.*** We require energy-efficient subdivision, site planning and building design. Measures to be considered include building orientation and shading, landscaping, maximum use of natural daylight, reflectance of building, natural ventilation, active and passive solar heating and hot water system, etc. In establishing these energy related design requirements, we balance energy-efficient design with good planning principles. Policy NR-6.07: ***Renewable Energy Resources.*** We work with other agencies and utility providers to develop safe, economical and renewable energy resources, and we help reduce non-renewable energy use through public education and participation in energy conservation programs. Policy NR-6.08: ***Public Awareness.*** We work with local utilities to develop and provide energy conservation information to the public.
Promote the California Solar Initiative's solar water heating incentive program to subsidize the purchase of solar water heaters and replace/ recycle old water heaters in homes and commercial buildings. The City estimate assumes that solar water heaters are installed in combination with both electric and natural gas water heaters. We further assume that 40% offset electric water heaters and 60% of the systems offset natural gas water heaters.	**Consistent:** The proposed General Plan includes policies that would provide support in promoting this program. Policy NR-6.07: ***Renewable Energy Resources.*** We work with other agencies and utility providers to develop safe, economical and renewable energy resources, and we help reduce non-renewable energy use through public education and participation in energy conservation programs. Policy NR-6.08: ***Public Awareness.*** We work with local utilities to develop and provide energy conservation information to the public. Policy PSFU-9.08: ***Solar Energy/Heating.*** We incentivize the use of solar energy or solar water heating on private development by waiving related fees, when financially feasible for the City to do so.

Table 5.6-7 Consistency with City of San Clemente Climate Action Plan

Greenhouse Gas Reduction Measures	Project Consistency
Adopt a Waste Diversion Ordinance that would require waste diversion of 75 percent by 2020 and 90 percent by 2030. The City of San Clemente has estimated that baseline citywide waste is 50,571 tons per year with 71% of total waste diverted from landfill and/or recycled. The City is targeting a 75% diversion rate by 2020 and 90% diversion rate by 2030. This would be accomplished by adopting an ordinance that requires the contracted waste haulers to achieve and demonstrate the prescribed reduction rates.	**Consistent:** The proposed General Plan includes policies that would support waste diversion. Policy PSFU-8.01: ***Coordination.*** We coordinate with contractors and other public agencies to identify and implement cost-effective solid waste and recycling strategies. Policy PSFU-8.02: ***AB 939 Monitoring.*** We monitor our solid waste generation and disposal/recycling facilities to ensure we meet or exceed AB 939 requirements for the diversion of solid waste, including construction and demolition waste. Policy PSFU-8.03: ***Education.*** We provide educational materials on waste reduction and recycling to local residents, businesses, and schools, and support school recycling programs. Policy PSFU-8.06: ***Recycling (City Facilities/Events).*** We recycle solid waste materials at all City facilities and events. Policy PSFU-8.07: ***Building Materials.*** We use recycled materials for building and facility construction, when financially feasible and safe to do so.

Source: San Clemente 2012.

SCAG's 2012 RTP/SCS

SCAG adopted its 2012 RTP/SCS on April 4, 2012, pursuant to the requirements of SB 375. SCAG's RTP/SCS is a regional growth management strategy that targets per capita GHG reduction from passenger vehicles and light duty trucks in the Southern California region. The 2012 RTP/SCS incorporates local land use projections and circulation networks in the cities' and counties' general plans. The projected regional development pattern—including location of land uses and residential densities in local general plans—when integrated with the proposed regional transportation network in the 2012 RTP/SCS, would reduce per capita vehicular travel-related GHG emissions and achieve the subregional GHG reduction per capita targets for the SCAG region. Key strategies identified in the Orange County subregional SCS that were incorporated into the 2012 RTP/SCS are listed in Table 5.6-8. As shown in the table, the proposed General Plan would be consistent with SCAG's 2012 RTP/SCS.

Table 5.6-8 Orange County Subregional SCS Consistency Analysis

Sustainability Strategies	Project Consistency
Support transit-oriented development.	**Consistent:** The proposed General Plan includes policies that would directly or indirectly support transit-oriented development. Policy LU-1.02: ***Access to Amenities.*** We require residential developments to be designed to promote safe and convenient access to nearby commercial centers, community facilities, parks, open space, transit facilities, bikeways, trails and other amenities, as applicable. Policy LU-2.05: ***Pedestrian, Bicycle and Transit Access.*** We require commercial projects to be designed to promote convenient access to and from nearby neighborhoods, transit facilities, bikeways, and other amenities. Policy LU-7.05: ***Bike and Pedestrian Environment.*** We provide a high quality bicycle and pedestrian environment with "living street" designs, consistent landscaping, lighting, sidewalks, traffic calming measures, bikeways and trails, consistent with the Bicycle and Pedestrian Master Plan, Tree Ordinance and Design Guidelines. Policy LU-9.04: ***Transit Opportunities.*** As part of planning efforts to redevelop the existing Pico Plaza commercial center, we encourage the reservation of an adequate portion of the site to accommodate a transportation center in the event that coastal railroad tracks are relocated inland. Policy LU-13.01: ***Alleys/Paseos.*** We consider improvements to our alleyways to provide alternative pedestrian and bicycle routes. Policy LU-14.06: ***Transportation Improvements.*** We support transportation improvements in the area that enhance the safety, convenience and appearance of bicycle and pedestrian facilities and that minimize adverse impacts on adjacent neighborhood streets and parking, pursuant to the Mobility Element and Bicycle and Pedestrian Master Plan. Policy UD-1.04: ***Bicycle, Pedestrian and Transit Access.*** We maintain bicycle and pedestrian routes and encourage the provision of public transit routes that link public places to improve accessibility and reduce reliance on the automobile. Policy UD-2.04: ***Circulation.*** We require roadway improvements in gateway areas to enhance motor vehicle, bicycle, pedestrian, and transit circulation. Policy M-1.10: ***Innovative Design.*** We support the design principles in the City's Design Manual of Living Streets. We will consider use of innovative transportation design features, such as, but not limited to Intelligent Transportation System improvements, modern day roundabouts, midblock and corner bulbouts, and road diets where such changes can improve the balance of the roadway and its compatibility with surrounding land uses. Policy M-1.12: ***Design Integration.*** City supports development that is designed and/or retrofitted to incorporate, and be efficiently served by, public transit, pedestrian and bicycle facilities. Policy M-2.06: ***Regional Rail Service.*** We support the expansion of Metrolink and Amtrak service by the Southern California Regional Rail Authority, OCTA, and other agencies to enhance San Clemente's regional transit accessibility for residents, employees and visitors.

Table 5.6-8 Orange County Subregional SCS Consistency Analysis

Sustainability Strategies	Project Consistency
	Policy M-2.07: ***Coordinated Land Use Planning for Transit.*** We encourage higher density, mixed-use development in areas with existing and planned transit service. Policy M-2.08: ***Transit Service.*** We support the maintenance of existing bus service and encourage transit service enhancements by OCTA to ensure all residents have access to adequate and safe transit. Policy M-2.10: ***Transit Priority in Development Review Process.*** Development should encourage transit ridership by including bus turnouts, passenger shelters, transportation kiosks, pedestrian connections to transit, and other measures. Policy M-2.12: ***Integration of Bicycle Planning***. We integrate development of the bicycle facilities network into larger land use planning and development projects. Policy M-2.13: ***Bicycle and Pedestrian Network.*** We plan, develop and maintain a comprehensive bicycle and pedestrian network as specified in the San Clemente Bicycle and Pedestrian Master Plan. Policy M-2.14: ***Bicycle Friendly Streets.*** We consider every public street in San Clemente as a street that cyclists could use. Policy M-2.15: ***Bicycle-Friendly Infrastructure.*** We shall employ bicycle-friendly infrastructure design using new technologies and innovative treatments, where necessary to improve bicyclists' safety and convenience. Policy M-2.16: ***Roadway Performance Evaluation.*** We shall evaluate roadway level of performance from a multi-modal, Complete Streets perspective. Policy M-2.17: ***Traffic Control Devices***. Traffic control devices and transportation infrastructure will be operated to serve the needs of all users of the roadway and pedestrians. Policy M-2.18: ***Design Standards.*** We support the design principles in the City's Design Manual of Living Streets in determining the appropriate standard to apply to a given situation, the City will seek to maximize cyclists' and pedestrians' comfort and convenience, in balance with other roadway users. Policy M-2.19: Policy M-2.19: ***Bicycle Facilities.*** In preparing City Land Use plans and applicable Capital Improvement Programs, we address bicycle needs, including: a) Attractive destination facilities, such as secure bicycle lockers, showers, and changing rooms that are conveniently located for bicyclists, i.e. a bike station); b) Facilities for bicycle parking within newly-built and renovated multi-family residential developments, residential condominiums and apartment conversions to condominiums, multi-use and non-residential sites; c) Safe, secure, attractive and convenient bicycle parking; d) Wayfinding systems and traffic control signage or markings for all bicycle facilities. Policy M-2.21: ***External Linkages.*** We link on-road and off-road bicycle and pedestrian facilities within San Clemente to existing and planned facilities in in adjacent and regional jurisdictions.

Table 5.6-8 Orange County Subregional SCS Consistency Analysis

Sustainability Strategies	Project Consistency
	Policy M-2.24: ***Maintenance and Hazard Monitoring.*** We maintain bicycle and pedestrian facilities according to a management plan to be adopted by the City. Policy M-2.28: ***Intersection Configuration.*** We shall require the intersections of local roads with the I-5 freeways and the proposed Toll Road to be designed using a "complete streets" approach. Policy M-2.31: ***Improvements along Bicycle and Pedestrian Routes.*** We improve and maintain alternative transportation infrastructure and assign a high priority to improvements along primary pedestrian and bicycle routes to schools. Policy M-2.34: ***Deferred Street Improvements.*** Should the City defer construction of street improvements as part of any development approval, the property owner may be required to sign an agreement to participate in the installation of the improvements when a more complete street improvement project is feasible. Policy M-3.01: ***Connected Roadway Network.*** We require development projects to connect to and where necessary, improve local streets to allow travel by all modes and ensure connectivity with the larger City-wide roadway network. Policy M-3.02: ***Complete Streets Roadway Standards.*** We require that pedestrian, vehicular, and bicycle circulation on public and private property is coordinated and designed to maximize safety, comfort and aesthetics and is consistent with Federal, State, Orange County, and local laws, codes, and standards. Policy M-3.04: ***Manage Traffic Speeds.*** We use a combination of effective design and traffic code enforcement to manage traffic speeds. Policy BPR-6.05: ***Bike Parking.*** We encourage the provision of safe, secure, convenient and aesthetically pleasing bike parking to promote alternative forms of transportation wherever public parking is required. Policy BPR-6.06: ***Compact Neighborhoods.*** We support compact, neighborhood-serving development that provides healthy foods or essential services within walking or biking distance from residential neighborhoods, schools and parks. Policy NR-5.05: ***Transportation.*** We provide non-motorized, multi-modal mobility options (e.g. pedestrian and bicycle facilities) and work with other agencies and organizations to provide transit opportunities to reduce air pollutant emissions. Policy NR-5.06: ***Alternative Fueling Stations.*** We encourage the siting and installation of alternative fueling (non-fossil fuel) stations. Policy NR-6.10: ***Alternative Fueling Stations.*** We encourage the private sector to provide vehicle fueling stations that cater to electric and other non-petroleum fueled vehicles and require such facilities for City operations and facilities, where appropriate.
Support infill housing development and redevelopment	**Consistent:** The proposed General Plan includes policies that would support infill housing development and redevelopment. Policy LU-1.01: ***General.*** We accommodate the development of a variety of housing types, styles, tenure and densities that are accessible to and meet preferences for different neighborhood types

Table 5.6-8 Orange County Subregional SCS Consistency Analysis

Sustainability Strategies	Project Consistency
	(e.g., mixed use pedestrian environments and traditional suburban neighborhoods), physical abilities and income levels, pursuant to the Land Use Plan and Housing Element. Policy LU-3.02: ***Flexibility.*** We apply flexible development standards to respond to changing market demands, where it can be demonstrated that by doing so, the proposed development or land use will help achieve General Plan goals. Policy LU-12.02: ***Infill Development.*** We accommodate development that is compatible with coastal-oriented and community-serving commercial uses (including overnight accommodations), mixed residential and commercial uses, residential uses, and public recreational uses whose function or scale are compatible with the Area's recreational character. Policy PSFU-9.10: ***Land Use Planning.*** We encourage the development of employment centers and other land uses to improve our jobs to housing balance and minimize vehicle trips in San Clemente.
Support mixed-use development and thereby improve walkability of communities.	**Consistent:** The proposed General Plan includes policies that support mixed-use development. Policy LU-1.01: ***General.*** We accommodate the development of a variety of housing types, styles, tenure and densities that are accessible to and meet preferences for different neighborhood types (e.g., mixed use pedestrian environments and traditional suburban neighborhoods), physical abilities and income levels, pursuant to the Land Use Plan and Housing Element. Policy LU-3.01: ***Horizontal and Vertical Mix.*** We permit a range of horizontally and vertically mixed uses appropriate to key areas of the City. Policy LU-3.02: ***Flexibility.*** We apply flexible development standards to respond to changing market demands, where it can be demonstrated that by doing so, the proposed development or land use will help achieve General Plan goals. Policy LU-9.03: ***Institutional, Residential and Office Uses***. We encourage the transition of the Pico Plaza commercial center through means of a Professional/Office Overlay that requires a master plan for employment and or educational/institutional uses. The Pico Plaza is also identified in the Housing Element as having potential for mixed, residential and commercial uses with an affordable housing component. Existing uses, including residential uses that are consistent with the underlying Community Commercial land use designation, will continue to be allowed. Policy LU-11.03: ***Flexibility.*** We allow flexibility to accommodate market changes for the mix of uses identified in the Del Mar/T-Zone Mixed Use Guide, if doing so promotes achieving the Area's vision and improves livability, reduces vehicular trips, creates community gathering places and activity nodes, or helps strengthen the its character and identity. Policy M-2.07: ***Coordinated Land Use Planning for Transit.*** We encourage higher density, mixed-use development in areas with existing and planned transit service.

Table 5.6-8 Orange County Subregional SCS Consistency Analysis

Sustainability Strategies	Project Consistency
	Policy BPR-6.06: ***Compact Neighborhoods.*** We support compact, neighborhood-serving development that provides healthy foods or essential services within walking or biking distance from residential neighborhoods, schools and parks. Policy PSFU-9.10: ***Land Use Planning.*** We encourage the development of employment centers and other land uses to improve our jobs to housing balance and minimize vehicle trips in San Clemente.
Improve jobs-to-house ratio.	**Consistent:** The following policies within the proposed General Plan would be consistent with this strategy. Policy ED-2.05: ***Jobs-Housing Balance.*** We shall give priority to City initiatives, investments, Council decisions and the allocation of City resources, and development approvals that improve the jobs/housing ratio by creating job opportunities for residents and housing opportunities for employees. Policy PSFU-9.10: ***Land Use Planning.*** We encourage the development of employment centers and other land uses to improve our jobs to housing balance and minimize vehicle trips in San Clemente.
Promote land use patterns that encourage the use of alternatives to single-occupant automobile use.	**Consistent:** The following policies included as part of the proposed General Plan would support the promotion of land use patterns that encourage the use of alternatives to single-occupant automobile use. Policy LU-2.05: ***Pedestrian, Bicycle and Transit Access.*** We require commercial projects to be designed to promote convenient access to and from nearby neighborhoods, transit facilities, bikeways, and other amenities. Policy LU-5.04: ***El Camino Real and Other Mixed Use and Pedestrian-Oriented Areas.*** With the exception of automobile-related parts sales with no onsite installation of parts, we prohibit new and major expansions of automobile-related uses along El Camino Real and in other commercial and mixed-use areas of the City designated to promote pedestrian activity. Policy LU-7.06: ***Bike and Pedestrian Environment.*** We provide a high quality bicycle and pedestrian environment with "living street" designs, consistent landscaping, lighting, sidewalks, traffic calming measures, bikeways and trails, consistent with the Bicycle and Pedestrian Master Plan, Tree Ordinance and Design Guidelines. Policy LU-9.04: ***Transit Opportunities.*** As part of planning efforts to redevelop the existing Pico Plaza commercial center, we encourage the reservation of an adequate portion of the site to accommodate a transportation center in the event that coastal railroad tracks are relocated inland. Policy LU-10.06: ***Quality Development.*** We require that site, building and landscape development be of high quality design and materials and that promote pedestrian activity, in accordance with the Urban Design Element, North Beach Specific Plan and Zoning Ordinance.

Table 5.6-8 Orange County Subregional SCS Consistency Analysis

Sustainability Strategies	Project Consistency
	Policy LU-11.03: ***Flexibility.*** We allow flexibility to accommodate market changes for the mix of uses identified in the Del Mar/T-Zone Mixed Use Guide, if doing so promotes achieving the Area's vision and improves livability, reduces vehicular trips, creates community gathering places and activity nodes, or helps strengthen the its character and identity. Policy LU-11.08: ***Access Between Buildings.*** Where feasible, we require new development to link buildings and sites with adjacent development and public alleys through the use of walkways or paseos, in addition to street-abutting sidewalks. Policy LU-12.02: ***Infill Development.*** We accommodate development that is compatible with coastal-oriented and community-serving commercial uses (including overnight accommodations), mixed residential and commercial uses, residential uses, and public recreational uses whose function or scale are compatible with the Area's recreational character. Policy LU-14.06: ***Transportation Improvements.*** We support transportation improvements in the area that enhance the safety, convenience and appearance of bicycle and pedestrian facilities and that minimize adverse impacts on adjacent neighborhood streets and parking, pursuant to the Mobility Element and Bicycle and Pedestrian Master Plan. Policy UD-1.04: ***Bicycle, Pedestrian and Transit Access.*** We maintain bicycle and pedestrian routes and encourage the provision of public transit routes that link public places to improve accessibility and reduce reliance on the automobile. Policy UD-2.04: ***Circulation.*** We encourage roadway improvements in gateway areas to enhance motor vehicle, bicycle, pedestrian, and transit circulation. Policy M-1.01: ***Roadway system***. We require the City's roadways to: a) Accommodate public transit, motor vehicles, bicyclists, skateboarders and pedestrians within the public right-of-way wherever feasible. b) Consider Federal, State, Orange County and City standards for roadway design, maintenance and operation. c) Comply with Orange County Transportation Authority (OCTA) requirements for arterial highways as determined through the Master Plan of Arterial Highways (MPAH). Maintain at least a Level of Service (LOS) D or better at all intersections, except where flexibility is warranted based on a multi-modal LOS evaluation, or where LOS E is deemed appropriate to accommodate complete streets facilities. d) Provide future capacity as called for by this Element and as shown in the Future Roadway System map. e) Ensure that new roadways, ramps, traffic control devices, bridges or similar facilities, and significant changes to such facilities, are designed to accommodate multi-modal facilities, and where feasible, retrofit existing facilities to improve the balance for the users of the roadway.

Table 5.6-8 Orange County Subregional SCS Consistency Analysis

Sustainability Strategies	Project Consistency
	Policy M-1.12: ***Design Integration.*** City supports development that is designed and/or retrofitted to incorporate, and be efficiently served by, public transit, pedestrian and bicycle facilities. Policy M-2.01: ***Electric Vehicles.*** We support the use of neighborhood- and long-range electric vehicles and identify routes and designate special parking for such Neighborhood Electric Vehicles (NEVs) at beaches and commercial locations. Policy M-2.02: ***Pedestrian Facilities.*** Public streets shall provide pedestrian facilities in accordance with the adopted City standards. Policy M-2.03: ***Accessible Pedestrian Facilities.*** All new streets shall have provisions for the adequate and safe movement of pedestrians, including improvements for the elderly and disabled. Policy M-2.05: ***Rail Facilities and Programs.*** We support the retention of passenger rail facilities at North Beach and in the Pier Bowl to help meet inter-city and regional transportation needs. Policy M-2.06: ***Regional Rail Service.*** We support the expansion of Metrolink and Amtrak service by the Southern California Regional Rail Authority, OCTA, and other agencies to enhance San Clemente's regional transit accessibility for residents, employees and visitors. Policy M-2.07: ***Coordinated Land Use Planning for Transit.*** We encourage higher density, mixed-use development in areas with existing and planned transit service. Policy M-2.08: ***Transit Service.*** We support the maintenance of existing bus service and encourage transit service enhancements by OCTA to ensure all residents have access to adequate and safe transit. Policy M-2.12: ***Integration of Bicycle Planning***. We integrate development of the bicycle facilities network into larger land use planning and development projects. Policy M-2.13: ***Bicycle and Pedestrian Network.*** We plan, develop and maintain a comprehensive bicycle and pedestrian network as specified in the San Clemente Bicycle and Pedestrian Master Plan. Policy M-2.14: ***Bicycle Friendly Streets.*** We consider every public street in San Clemente as a street that cyclists could use. Policy M-2.15: ***Bicycle-Friendly Infrastructure.*** We shall employ bicycle-friendly infrastructure design using new technologies and innovative treatments, where necessary to improve bicyclists' safety and convenience. Policy M-2.20: ***Regional Bicycle and Pedestrian Coordination.*** We coordinate regional trail and bicycle planning, acquisition and development efforts with adjacent jurisdictions. Policy M-2.21: ***External Linkages.*** We link on-road and off-road bicycle and pedestrian facilities within San Clemente to existing and planned facilities in in adjacent and regional jurisdictions. Policy M-2.22: ***Off-Road Trail Linkages.*** Where feasible, the City connects off-road trails with the on-road transportation network. Policy M-2.26: ***Bicycle and Pedestrian Facility Design Standards.*** We shall utilize the Caltrans Highway Design Manual and other infrastructure guidelines as appropriate to design and maintain bicycle and pedestrian facilities to high safety standards.

Table 5.6-8 Orange County Subregional SCS Consistency Analysis

Sustainability Strategies	Project Consistency
	Policy M-2.31: ***Improvements along Bicycle and Pedestrian Routes.*** We improve and maintain alternative transportation infrastructure and assign a high priority to improvements along primary pedestrian and bicycle routes to schools. Policy M-3.01: ***Connected Roadway Network.*** We require development projects to connect to and where necessary, improve local streets to allow travel by all modes and ensure connectivity with the larger City-wide roadway network. M-3.02: ***Complete Streets Roadway Standards.*** We require that pedestrian, vehicular, and bicycle circulation on public and private property is coordinated and designed to maximize safety, comfort and aesthetics and is consistent with Federal, State, Orange County, and local laws, codes, and standards. Policy M-4.07: ***Alternative Parking Requirements and Incentives.*** We will consider incentives to encourage alternative parking, such as crediting bicycle, neighborhood electric vehicles (NEV), motorcycle and scooter parking spaces in meeting required automobile parking. Policy BPR-6.04: ***Interconnected Neighborhoods.*** Neighborhoods should be interconnected with safe, well-designed and maintained walking and biking trails, sidewalks, consistent with the City's Bicycle and Pedestrian Master Plan. Policy BPR-6.05: ***Bike Parking.*** We encourage the provision of safe, secure, convenient and aesthetically pleasing bike parking to promote alternative forms of transportation wherever public parking is required. Policy BPR-6.06: ***Compact Neighborhoods.*** We support compact, neighborhood-serving development that provides healthy foods or essential services within walking or biking distance from residential neighborhoods, schools and parks. Policy BPR-6.09: ***Streetscape Amenities.*** We encourage and support local, private investment in streetscape amenities (examples include: benches, street trees, decorative sidewalks) that enhance safety, walkability, neighborhood appeal, and help commercial neighborhoods stay clean, safe and attractive. Policy NR-5.05: ***Transportation.*** We provide non-motorized, multi-modal mobility options (e.g. pedestrian and bicycle facilities) and work with other agencies and organizations to provide transit opportunities to reduce air pollutant emissions. Policy NR-5.06: ***Alternative Fueling Stations.*** We encourage the siting and installation of alternative fueling (non-fossil fuel) stations. Policy NR-6.10: ***Alternative Fueling Stations.*** We encourage the private sector to provide vehicle fueling stations that cater to electric and other non-petroleum fueled vehicles and require such facilities for City operations and facilities, where appropriate. Policy PSFU-9.10: ***Land Use Planning.*** We encourage the development of employment centers and other land uses to improve our jobs to housing balance and minimize vehicle trips in San Clemente.

Table 5.6-8 Orange County Subregional SCS Consistency Analysis

Sustainability Strategies	Project Consistency
Support retention and/or development of affordable housing.	**Consistent:** The following policy included in the proposed General Plan would be consistent with this strategy. Policy LU-9.03: ***Institutional, Residential and Office Uses***. We encourage the transition of the Pico Plaza commercial center through means of a Professional/Office Overlay that requires a master plan for employment and or educational/institutional uses. The Pico Plaza is also identified in the Housing Element as having potential for mixed, residential and commercial uses with an affordable housing component. Existing uses, including residential uses that are consistent with the underlying Community Commercial land use designation, will continue to be allowed.
Support natural land restoration and conservation and/or protection offering significant carbon mitigation potential via both sequestration and avoidance of increased emissions due to land conversion.	**Consistent:** The following policy in the proposed General Plan would be consistent with this strategy. Policy BPR-4.01: ***Open Space Preservation.*** We encourage and support the preservation of open space within and adjacent to the City.
Eliminate bottlenecks and reduce delay on freeways, toll roads, and arterials.	**Consistent:** The following policies in the proposed General Plan would support a more efficient operation of roadways. Policy LU-14.06: ***Transportation Improvements.*** We support transportation improvements in the area that enhance the safety, convenience and appearance of bicycle and pedestrian facilities and that minimize adverse impacts on adjacent neighborhood streets and parking, pursuant to the Mobility Element and Bicycle and Pedestrian Master Plan. Policy UD-1.04: ***Bicycle, Pedestrian and Transit Access.*** We maintain bicycle and pedestrian routes and encourage the provision of public transit routes that link public places to improve accessibility and reduce reliance on the automobile. Policy UD-2.04: ***Circulation.*** We require roadway improvements in gateway areas to enhance motor vehicle, bicycle, pedestrian, and transit circulation. Policy M-1.07: ***Transportation Monitoring.*** We regularly monitor the transportation system and the travel needs and behavior of residents and visitors to help guide transportation decisions. Policy M-1.08: ***Transportation Mode Choice.*** We actively work to reduce automobile use based on locally collected data and on goals set through a collaborative process involving City staff, residents and other stakeholders. Policy M-1.09: ***Regional Coordination.*** We participate in the planning of regional transportation improvements, such as interchange improvements along I-5, the extension of the SR-241, and other major freeway and arterial improvements. Policy M-1.10: ***Innovative Design.*** We support the design principles in the City's Design Manual of Living Streets. We will consider use of innovative transportation design features, such as, but not limited to Intelligent Transportation System improvements, intersection roundabouts, midblock and corner bulbouts, and road diets where such changes can improve the balance of the roadway and its

Table 5.6-8 Orange County Subregional SCS Consistency Analysis

Sustainability Strategies	Project Consistency
	compatibility with surrounding land uses. Policy M-2.17: ***Traffic Control Devices***. Traffic control devices and transportation infrastructure will be operated to serve the needs of all users of the roadway and pedestrians. Policy M-2.33: ***Grant Funding.*** We pursue Federal, State, County, regional and other funding opportunities to increase bicycle and pedestrian mode share percentages, improve transportation system performance, and to improve air quality through a balanced, multi-modal transportation system. Policy M2-34: ***Deferred Street Improvements.*** Should the City defer construction of street improvements as part of any development approval, the property owner may be required to sign an agreement to participate in the installation of the improvements when a more complete street improvement project is feasible.
Apply Transportation System Management and Complete Street practices to arterials and freeways to maximize efficiency.	**Consistent**: The following policies in the proposed General Plan would provide support in maximizing the efficiency of arterials and freeways. Policy M-1.02 ***Transportation Infrastructure.*** Traffic control devices and transportation infrastructure operate to serve the needs of all roadway users, including motorists, public transit, pedestrians and cyclists. Policy M-1.03: ***Level of Service.*** When the City determines there is a suitable tool available, we will measure and evaluate roadway performance from a multi-modal, Complete Streets perspective. Policy M-1.05: ***Intersection Improvements.*** We evaluate impacts of intersection improvements on all modes of travel, including bicyclists, pedestrians, and transit. Policy M-1.10: ***Innovative Design.*** We support the design principles in the City's Design Manual of Living Streets. We will consider use of innovative transportation design features, such as, but not limited to Intelligent Transportation System improvements, modern day roundabouts, midblock and corner bulbouts, and road diets where such changes can improve the balance of the roadway and its compatibility with surrounding land uses. Policy M-2.16: ***Roadway Performance Evaluation.*** We shall evaluate roadway level of performance from a multi-modal, Complete Streets perspective. Policy M-2.28: ***Intersection Configuration.*** We shall require the intersections of local roads with the I-5 freeways and the proposed Toll Road to be designed using a "complete streets" approach. Policy M-2.34: ***Deferred Street Improvements.*** Should the City defer construction of street improvements as part of any development approval, the property owner may be required to sign an agreement to participate in the installation of the improvements when a more complete street improvement project is feasible. Policy M-3.02: ***Complete Streets Roadway Standards.*** We require that pedestrian, vehicular, and bicycle circulation on public and private property is coordinated and designed to maximize safety, comfort and aesthetics and is consistent with Federal, State, Orange County, and local laws, codes, and standards.

Table 5.6-8 Orange County Subregional SCS Consistency Analysis

Sustainability Strategies	Project Consistency
Improve modes through enhanced service, frequency, convenience, and choices.	**Consistent**: The following policies in the proposed General Plan would support this strategy. Policy LU-2.05: ***Pedestrian, Bicycle and Transit Access.*** We require commercial projects to be designed to promote convenient access to and from nearby neighborhoods, transit facilities, bikeways, and other amenities. Policy LU-9.05: ***Bike and Pedestrian Environment.*** We provide a quality bicycle and pedestrian environment with "living street" designs, consistent landscaping, lighting, sidewalks, traffic calming measures, bikeways and trails, consistent with the Bicycle and Pedestrian Master Plan, Tree Ordinance and Design Guidelines. Policy UD-5.04: ***Site Access and Entries.*** Downtown site and building designs shall be integrated with the public sidewalk, street and where applicable, alleys to create inviting and attractive commercial and residential areas and public spaces. Policy M-1.01: ***Roadway system***. We require the City's roadways to: a) Accommodate public transit, motor vehicles, bicyclists, skateboarders and pedestrians within the public right-of-way wherever feasible. b) Consider Federal, State, Orange County and City standards for roadway design, maintenance and operation. c) Comply with Orange County Transportation Authority (OCTA) requirements for arterial highways as determined through the Master Plan of Arterial Highways (MPAH). Maintain at least a Level of Service (LOS) D or better at all intersections, except where flexibility is warranted based on a multi-modal LOS evaluation, or where LOS E is deemed appropriate to accommodate complete streets facilities. d) Provide future capacity as called for by this Element and as shown in the Future Roadway System map. e) Ensure that new roadways, ramps, traffic control devices, bridges or similar facilities, and significant changes to such facilities, are designed to accommodate multi-modal facilities, and where feasible, retrofit existing facilities to improve the balance for the users of the roadway. Policy M-1.02: ***Transportation Infrastructure.*** Traffic control devices and transportation infrastructure operate to serve the needs of all roadway users, including motorists, public transit, pedestrians and cyclists. Policy M-1.12: ***Design Integration.*** City supports development that is designed and/or retrofitted to incorporate, and be efficiently served by, public transit, pedestrian and bicycle facilities. Policy M-2.05: ***Rail Facilities and Programs.*** We support the retention of passenger rail facilities at North Beach and in the Pier Bowl to help meet inter-city and regional transportation needs. Policy M-2.06: ***Regional Rail Service.*** We support the expansion of Metrolink and Amtrak service by the Southern California Regional Rail Authority, OCTA, and other agencies to enhance San Clemente's regional transit accessibility for residents, employees

Table 5.6-8 Orange County Subregional SCS Consistency Analysis

Sustainability Strategies	Project Consistency
	and visitors. Policy M-2.07: ***Coordinated Land Use Planning for Transit.*** We encourage higher density, mixed-use development in areas with existing and planned transit service. Policy M-2.08: ***Transit Service.*** We support the maintenance of existing bus service and encourage transit service enhancements by OCTA to ensure all residents have access to adequate and safe transit. Policy M-2.10: ***Transit Priority in Development Review Process.*** Development should encourage transit ridership by including bus turnouts, passenger shelters, transportation kiosks, pedestrian connections to transit, and other measures.
Expand and enhance Transportation Demand Management practices to reduce barriers to alternative travel modes and attract commuters away from single occupant vehicle travel.	**Consistent**: The proposed General Plan includes policies that would support Transportation Demand Management practices. Policy LU-2.05: ***Pedestrian, Bicycle and Transit Access.*** We require commercial projects to be designed to promote convenient access to and from nearby neighborhoods, transit facilities, bikeways, and other amenities. Policy LU-9.05: ***Bike and Pedestrian Environment.*** We provide a quality bicycle and pedestrian environment with "living street" designs, consistent landscaping, lighting, sidewalks, traffic calming measures, bikeways and trails, consistent with the Bicycle and Pedestrian Master Plan, Tree Ordinance and Design Guidelines. Policy UD-5.04: ***Site Access and Entries.*** Downtown site and building designs shall be integrated with the public sidewalk, street and where applicable, alleys to create inviting and attractive commercial and residential areas and public spaces. Policy M-1.01: ***Roadway system***. We require the City's roadways to: a) Accommodate public transit, motor vehicles, bicyclists, skateboarders and pedestrians within the public right-of-way wherever feasible. b) Consider Federal, State, Orange County and City standards for roadway design, maintenance and operation. c) Comply with Orange County Transportation Authority (OCTA) requirements for arterial highways as determined through the Master Plan of Arterial Highways (MPAH). Maintain at least a Level of Service (LOS) D or better at all intersections, except where flexibility is warranted based on a multi-modal LOS evaluation, or where LOS E is deemed appropriate to accommodate complete streets facilities. d) Provide future capacity as called for by this Element and as shown in the Future Roadway System map. e) Ensure that new roadways, ramps, traffic control devices, bridges or similar facilities, and significant changes to such facilities, are designed to accommodate multi-modal facilities, and where feasible, retrofit existing facilities to improve the balance for the users of the roadway. Policy M-1.02: ***Transportation Infrastructure.*** Traffic control devices and transportation infrastructure operate to serve the needs

Table 5.6-8 Orange County Subregional SCS Consistency Analysis

Sustainability Strategies	Project Consistency
	of all roadway users, including motorists, public transit, pedestrians and cyclists. Policy M-1.12: ***Design Integration.*** City supports development that is designed and/or retrofitted to incorporate, and be efficiently served by, public transit, pedestrian and bicycle facilities. Policy M-2.05: ***Rail Facilities and Programs.*** We support the retention of passenger rail facilities at North Beach and in the Pier Bowl to help meet inter-city and regional transportation needs. Policy M-2.06: ***Regional Rail Service.*** We support the expansion of Metrolink and Amtrak service by the Southern California Regional Rail Authority, OCTA, and other agencies to enhance San Clemente's regional transit accessibility for residents, employees and visitors. Policy M-2.07: ***Coordinated Land Use Planning for Transit.*** We encourage higher density, mixed-use development in areas with existing and planned transit service. Policy M-2.08: ***Transit Service.*** We support the maintenance of existing bus service and encourage transit service enhancements by OCTA to ensure all residents have access to adequate and safe transit. Policy M-2.10: ***Transit Priority in Development Review Process.*** Development should encourage transit ridership by including (T5-Intent) bus turnouts, passenger shelters, transportation kiosks, pedestrian connections to transit, and other measures. Policy M-2.34: ***Deferred Street Improvements.*** Should the City defer construction of street improvements as part of any development approval, the property owner may be required to sign an agreement to participate in the installation of the improvements when a more complete street improvement project is feasible. Policy M-3.02: ***Complete Streets Roadway Standards.*** We require that pedestrian, vehicular, and bicycle circulation on public and private property is coordinated and designed to maximize safety, comfort and aesthetics and is consistent with Federal, State, Orange County, and local laws, codes, and standards.
Continue existing, and explore expansion of, highway pricing strategies.	Inconsistent: The proposed General Plan does not contain any policies that would support this strategy.
Implement near-term (Transportation Improvement Program and Measure M2 Early Capital Action Plan) and long-term (LRTP 2035 Preferred Plan) transportation improvements to provide mobility choices and sustainable transportation options.	**Consistent**: The proposed General Plan would be consistent with this strategy. Policy M-1.01: ***Roadway system***. We require the City's roadways to: a) Accommodate public transit, motor vehicles, bicyclists, skateboarders and pedestrians within the public right-of-way wherever feasible. b) Consider Federal, State, Orange County and City standards for roadway design, maintenance and operation. c) Comply with Orange County Transportation Authority (OCTA) requirements for arterial highways as determined through the Master Plan of Arterial Highways (MPAH). Maintain at least a Level of Service (LOS) D or better at all intersections, except where flexibility is warranted based on

Table 5.6-8 Orange County Subregional SCS Consistency Analysis

Sustainability Strategies	Project Consistency
	a multi-modal LOS evaluation, or where LOS E is deemed appropriate to accommodate complete streets facilities. d) Provide future capacity as called for by this Element and as shown in the Future Roadway System map. e) Ensure that new roadways, ramps, traffic control devices, bridges or similar facilities, and significant changes to such facilities, are designed to accommodate multi-modal facilities, and where feasible, retrofit existing facilities to improve the balance for the users of the roadway.
Acknowledge current sustainability strategies practiced by Orange County jurisdictions and continue to implement strategies that will result in or support the reduction of GHG emissions.	**Consistent**: The policies presented within this table would all contribute in reducing GHG emissions.

Source: SCAG 2012 RTP/SCS, Orange County Subregional SCS.

5.6.4 Relevant General Plan Policies

Land Use Element

Residential Land Uses

LU-1.01 **General.** We accommodate the development of a variety of housing types, styles, tenure, and densities that are accessible to and meet preferences for different neighborhood types (e.g., mixed use pedestrian environments and traditional suburban neighborhoods), physical abilities and income levels, pursuant to the Land Use Plan and Housing Element.

LU-1.02 **Access to Amenities.** We require residential development to be designed to promote safe and convenient access to nearby commercial centers, community facilities, parks, open space, transit facilities, bikeways, trails, and other amenities, as applicable.

Commercial Land Uses

LU-2.05 **Pedestrian, Bicycle and Transit Access.** We require commercial projects to be designed to promote convenient access to and from nearby neighborhoods, transit facilities, bikeways, and other amenities.

LU-2.07 **Environmental Compatibility and Quality.** We require commercial districts and uses to be compatible with their environmental setting, promote City environmental goals, and be designed and operated to avoid or mitigate environmental impacts.

Mixed Use

LU-3.01 **Horizontal and Vertical Mix.** We permit a range of horizontally and vertically mixed uses appropriate to key areas of the City.

LU-3.02 **Flexibility.** We apply flexible development standards to respond to changing market demands, where it can be demonstrated that by doing so, the proposed development or land use will help achieve General Plan goals.

Automobile-Related Land Uses

LU-5.04 **El Camino Real and Other Mixed Use and Pedestrian-Oriented Areas.** With the exception of automobile-related parts sales with no onsite installation of parts, we prohibit new and major expansions of automobile-related uses along El Camino Real and in other commercial and mixed-use areas of the City designated to promote pedestrian activity.

Camino de Los Mares Focus Area

LU-7.05 **Bike and Pedestrian Environment.** We provide a high quality bicycle and pedestrian environment with "living street" designs, consistent landscaping, lighting, sidewalks, bikeways and trails, consistent with the Bicycle and Pedestrian Master Plan, Tree Ordinance and Design Guidelines.

Rancho San Clemente Business Park Focus Area

LU-8.06 **Bike and Pedestrian Environment.** We provide a quality bicycle and pedestrian environment with "living street" designs, consistent landscaping, lighting, sidewalks, traffic calming measures, bikeways and trails, consistent with the Bicycle and Pedestrian Master Plan, Tree Ordinance and Design Guidelines.

Los Molinos Focus Area

LU-9.03 **Institutional, Residential, and Office Uses.** We encourage the transition of the Pico Plaza commercial center through means of a Professional/Office Overlay that requires a master plan for employment and or educational/institutional uses. The Pico Plaza is also identified in the House Element as having potential for mixed, residential, and commercial uses with an affordable housing component. Existing uses, including residential uses that are consistent with the underlying Community Commercial land use designation, will continue to be allowed.

LU-9.04 **Transit Opportunities.** As part of planning efforts to redevelop the existing Pico Plaza commercial center, we encourage the reservation of an adequate portion of the site to accommodate a transportation center in the event that coastal railroad tracks are relocated inland.

LU-9.05 **Bike and Pedestrian Environment.** We provide a quality bicycle and pedestrian environment with "living street" designs, consistent landscaping, lighting, sidewalks, traffic calming measures, bikeways and trails, consistent with the Bicycle and Pedestrian Master Plan, Tree Ordinance and Design Guidelines.

North Beach/North El Camino Real Focus Area

LU-10.06 **Quality Development.** We require that site, building, and landscape development be of high quality design and materials and that promote pedestrian activity, in accordance with the Urban Design Element, North Beach Specific Plan and Zoning Ordinance.

LU-10.09 **Bike and Pedestrian Environment.** We provide a high quality bicycle and pedestrian environment with "living street" designs, consistent landscaping, lighting, sidewalks, traffic calming measures, bikeways and trails, consistent with the Bicycle and Pedestrian Master Plan, Tree Ordinance and Design Guidelines.

LU-10.10 **Alleys/Paseos.** We consider improvements to our alleyways to provide alternative pedestrian and bicycle routes, where appropriate.

Del Mar/T-Zone Focus Area

LU-11.02 **Land Uses.** We prioritize and guide land uses, particularly retail uses, to the locations identified in the Del Mar/T-Zone Mixed Use Guide and consistent with the Land Use Plan and Zoning Ordinance.

LU-11.03 **Flexibility.** We allow flexibility to accommodate market changes for the mix of uses identified in the Del Mar/T-Zone Mixed Use Guide, if doing so promotes achieving the Area's vision and improves livability, reduces vehicular trips, creates community gathering places and activity nodes, or helps strengthen its character and identity.

LU-11.04 **Outdoor Dining.** We encourage the development of outdoor dining and other similar uses which do not impede pedestrian use of the sidewalks.

LU-11.05 **Bike and Pedestrian Environment.** We provide a high-quality bicycle and pedestrian environment with "living street" designs, consistent landscaping, lighting, sidewalks, traffic calming measures, bikeways and trails, consistent with the Bicycle and Pedestrian Master Plan, Tree Ordinance and Design Guidelines.

LU-11.08 **Access Between Buildings.** Where feasible, we require new development to link buildings and sites with adjacent development and public alleys through the use of walkways or paseos, in addition to street-abutting sidewalks.

Pier Bowl Focus Area

LU-12.02 **Infill Development.** We accommodate development that is compatible with coastal-oriented and community-serving commercial uses (including overnight accommodations), mixed residential and commercial uses, residential uses, and public recreational uses whose function or scale are compatible with the Area's recreational character.

LU-12.04 **Connectivity to the Del Mar/T-Zone.** We provide effective visual and transportation connections to the Del Mar/T-Zone area with visual cues such as signage, landscaping and lighting and work with property owners and businesses to provide transit options for visitors seeking to visit both the Pier Bowl and Del Mar/T-Zone destinations.

LU-12.09 **Bike and Pedestrian Environment.** We provide a high-quality bicycle and pedestrian environment with "living street" designs, consistent landscaping, lighting, sidewalks, traffic calming measures, bikeways and trails, consistent with the Bicycle and Pedestrian Master Plan, Tree Ordinance and Design Guidelines.

South El Camino Real (West of Interstate 5)

LU-13.01 **Alleys/Paseos.** We consider improvements to our alleyways to provide alternative pedestrian and bicycle routes.

LU-13.02 **Bike and Pedestrian Environment.** We provide a quality bicycle and pedestrian environment with "living street" designs, consistent landscaping, lighting, sidewalks, traffic calming measures, bikeways and trails, consistent with the Bicycle and Pedestrian Master Plan, Tree Ordinance and Design Guidelines.

South El Camino Real (East of Interstate 5)

LU-14.05 **Bike and Pedestrian Environment.** We provide a high-quality bicycle and pedestrian environment with "living street" designs, consistent landscaping, lighting, sidewalks, traffic

calming measures, bikeways and trails, consistent with the Bicycle and Pedestrian Master Plan, Tree Ordinance and Design Guidelines.

LU-14.06 **Transportation Improvements.** We support transportation improvements in the area that enhances the safety, convenience, and appearance of bicycle and pedestrian facilities and that minimize adverse impacts on adjacent neighborhood streets and parking, pursuant to the Mobility Element and Bicycle and Pedestrian Master Plan.

Urban Design Element

Public Places

UD-1.04 **Bicycle, Pedestrian and Transit Access.** We maintain bicycle and pedestrian routes and encourage the provision of public transit routes that link public places to improve accessibility and reduce reliance on the automobile.

Gateway

UD-2.04 **Circulation.** We require roadway improvements in gateway areas to enhance motor vehicle, bicycle, pedestrian, and transit circulation.

Architecture and Landscaping

UD-5.18 **Drought Tolerant/Native Species Landscaping.** Ornamental plantings in new, non-residential development should consist primarily of drought tolerant and California native species. Only in small areas and special public locations, such as high-use areas of parks, should lawns or other high water use vegetation be used.

Urban Forest/Trees

UD-6.02 **Natural Open Space and Conservation Areas.** In open space and conservation areas, we support natural and indigenous landscaping.

Economic Development Element

Competitive Employment Centers

ED-2.05 **Jobs-Housing Balance.** We shall give priority to City initiatives, investments, Council decisions and the allocation of City resources, and development approvals that improve the jobs/housing ratio by creating job opportunities for residents and housing opportunities for employees.

Mobility and Complete Streets Element

Roadway System

M-1.01 **Roadway System.** We require the City's roadways to:

a. Accommodate public transit, motor vehicles, bicyclists, skateboarders, and pedestrians within the public right-of-way wherever feasible.

e. Ensure that new roadways, ramps, traffic control devices, bridges or similar facilities, and significant changes to such facilities, are designed to accommodate multi-modal facilities, and where feasible, retrofit existing facilities to improve the balance for the users of the roadway.

M-1.02 **Transportation Infrastructure.** Traffic control devices and transportation infrastructure operate to serve the needs of all roadway users, including motorists, public transit, pedestrians, and cyclists.

M-1.03 **Level of Service.** When the City determines there is a suitable tool available, we will measure and evaluate roadway performance from a multi-modal, Complete Streets perspective.

M-1.05 **Intersection Improvements.** We evaluate impacts of intersection improvements on all modes of travel, including bicyclists, pedestrians, and transit.

M-1.06 **Driveway Access Points.** We require the number of driveway access points onto arterial roadways to be minimized and located to ensure the smooth and safe flow of vehicles and bicycles.

M-1.08 **Transportation Mode Choice.** We actively work to reduce automobile use and improve the efficiency of the roadways based on locally collected data on goals set through a collaborative process involving City staff, residents, and other stakeholders.

M-1.09 **Regional Coordination.** We participate in the planning of regional transportation improvements, such as interchange improvements along I-5, the extension of the SR-241, and other major freeway and arterial improvements.

M-1.10 **Innovative Design.** We support the design principles in the City's Design Manual of Living Streets. We will consider use of innovative transportation design features, such as, but not limited to Intelligent Transportation System improvements, modern day roundabouts, midblock and corner bulbouts and road diets where such changes can improve the balance of the roadway and its compatibility with surrounding land uses.

M-1.12 **Design Integration.** City supports development that is designed and/or retrofitted to incorporate, and be efficiently served by public transit, pedestrian, and bicycle facilities.

Non-Automotive Transportation System

M-2.01 **Electric Vehicles.** We support the use of neighborhood- and long-range electric vehicles and identify routes and designate special parking for such Neighborhood Electric Vehicles (NEVs) at beaches and commercial locations.

M-2.02 **Pedestrian Facilities.** Public streets shall provide pedestrian facilities in accordance with the adopted City standards.

M-2.03 **Accessible Pedestrian Facilities.** All new streets shall have provisions for the adequate and safe movement of pedestrians, including improvements for the elderly and disabled.

M-2.05 **Rail Facilities and Programs.** We support the retention of passenger rail facilities at North Beach and in the Pier Bowl to help meet inter-city and regional transportation needs.

M-2.06 **Regional Rail Service.** We support the expansion of Metrolink and Amtrak service by the Southern California Regional Rail Authority, OCTA, and other agencies to enhance San Clemente's regional transit accessibility for residents, employees and visitors.

M-2.07 **Coordinated Land Use Planning for Transit.** We encourage higher density, mixed-use development in areas with existing and planned transit service.

M-2.08 **Transit Service.** We support the maintenance of existing bus service and encourage transit service enhancements by OCTA to ensure all residents have access to adequate and safe transit.

M-2.10 **Transit Priority in Development Review Process.** Development should encourage transit ridership by including bus turnouts, passenger shelters, transportation kiosks, pedestrian connections to transit, and other measures.

M-2.12 **Integration of Bicycle Planning.** We integrate development of the bicycle facilities network into larger land use planning and development projects.

M-2.13 **Bicycle and Pedestrian Network.** We plan, develop and maintain a comprehensive bicycle and pedestrian network as specified in the San Clemente Bicycle and Pedestrian Master Plan.

M-2.14 **Bicycle Friendly Streets.** We consider every public street in San Clemente as a street that cyclists could use.

M-2.15 **Bicycle-Friendly Infrastructure.** We shall employ bicycle-friendly infrastructure design using new technologies and innovative treatments, where necessary to improve bicyclists' safety and convenience.

M-2.16 **Roadway Performance Evaluation.** We shall evaluate roadway level of performance from a multi-modal, Complete Streets perspective.

M-2.17 **Traffic Control Devices.** Traffic control devices and transportation infrastructure will be operated to serve the needs of all users of the roadway and pedestrians.

M-2.18 **Design Standards.** We support the design principles in the City's Design Manual of Living Streets in determining the appropriate standard to apply to a given situation, the City will seek to maximize cyclists' and pedestrians' comfort and convenience, in balance with other roadway users.

M-2.19 **Bicycle Facilities.** In preparing City Land Use plans and applicable Capital Improvement Programs, we address bicycle needs, including:

a. Attractive destination facilities, such as secure bicycle lockers, showers, and changing rooms that are conveniently located for bicyclists, i.e. a bike station);

b. Facilities for bicycle parking within newly-built and renovated multi-family residential developments, residential condominiums and apartment conversions to condominiums, multi-use and non-residential sites;

c. Safe, secure, attractive and convenient bicycle parking; and

d. Wayfinding systems and traffic control signage or markings for all bicycle facilities.

M-2.20 **Regional Bicycle and Pedestrian Coordination.** We coordinate regional trail and bicycle planning, acquisition and development efforts with adjacent jurisdictions.

M-2.21 **External Linkages.** We link on-road and off-road bicycle and pedestrian facilities within San Clemente to existing and planned facilities in in adjacent and regional jurisdictions.

M-2.22 **Off-Road Trail Linkages.** Where feasible, the City connects off-road trails with the on-road transportation network.

M-2.23 **Skateboarding.** We encourage and support skateboard use as an efficient and legitimate transportation mode to connect gaps between destination and transit stops and rail stations.

M-2.24 **Maintenance and Hazard Monitoring.** We maintain bicycle and pedestrian facilities according to a management plan to be adopted by the City.

M-2.26 **Bicycle and Pedestrian Facility Design Standards.** We shall utilize the Caltrans Highway Design Manual and other infrastructure guidelines as appropriate to design and maintain bicycle and pedestrian facilities to high safety standards.

M-2.28 **Intersection Configuration.** We shall require the intersections of local roads with the I-5 freeways and the proposed Toll Road to be designed using a "complete streets" approach.

M-2.29 **Safety Awareness.** We encourage and support the creation of comprehensive safety awareness programs for pedestrians, skateboarders, cyclists and drivers.

M-2.30 **Walking and Biking Trips.** We encourage city staff, employees, residents and visitors to walk and bicycle as often as possible.

M-2.31 **Improvements along Bicycle and Pedestrian Routes.** We improve and maintain alternative transportation infrastructure and assign a high priority to improvements along primary pedestrian and bicycle routes to schools.

M-2.32 **Non-Automotive Transportation Co-Benefits.** We utilize non-automotive transportation solutions as tools for achieving economic development and environmental sustainability goals.

M-2.33 **Grand Funding.** We pursue Federal, State, County, regional and other funding opportunities to increase bicycle and pedestrian mode share percentages, improve transportation system performance, and to improve air quality through a balanced, multi-modal transportation system.

M-2.34 **Deferred Street Improvements.** Should the City defer construction of street improvements as part of any development approval, the property owner may be required to sign an agreement to participate in the installation of the improvements when a more complete street improvement project is feasible.

M-2.36 **Sidewalks and Pathways.** Sidewalks or pathways are desirable in most areas, including coastal neighborhoods where, at a minimum, it may only be feasible to install sidewalks on one side of the street.

Safety

M-3.01 **Connected Roadway Network.** We require development projects to connect to and where necessary, improve local streets to allow travel by all modes and ensure connectivity with the larger City-wide roadway network.

M-3.02 **Complete Streets Roadway Standards.** We require that pedestrian, vehicular, and bicycle circulation on public and private property is coordinated and designed to maximize safety, comfort and aesthetics and is consistent with Federal, State, Orange County, and local laws, codes, and standards.

M-3.04 **Manage Traffic Speeds.** We use a combination of effective design and traffic code enforcement to manage traffic speeds.

M-3.05 **Safety Awareness Program.** We encourage and assign high priority to the creation of a comprehensive safety awareness program for pedestrians, skateboarders, cyclists, and motorists which addresses proper riding behavior, wearing helmets, using lights, and other issues as appropriate.

Parking

M-4.02 **Parking Management.** We manage and evaluate public and private parking resources in key destination areas.

M-4.04 **Alternative Parking Strategies.** We consider alternative parking strategies that address multi-modal parking needs, improve land use efficiency and enhance environmental quality, such as use of energy-saving/generating features, demand-based parking strategies, stacking, alternative paving, accommodating multiple uses, and parking elevators.

M-4.07 **Alternative Parking Requirements and Incentives.** We will consider incentives to encourage alternative parking, such as crediting bicycle, neighborhood electric vehicles (NEV), motorcycle and scooter parking spaces toward meeting a portion of the required automobile parking.

Beaches, Parks, and Recreation Element

Open Space and Trails

BPR-4.01 **Open Space Preservation.** We encourage and support the preservation of open space within and adjacent to the City.

Health and Wellness

BPR-6.04 **Interconnected Neighborhoods.** Neighborhoods should be interconnected with safe, well-designed and maintained walking and biking trails, sidewalks, consistent with the City's Bicycle and Pedestrian Master Plan.

BPR-6.05 **Bike Parking.** We encourage the provision of safe, secure, convenient and aesthetically pleasing bike parking to promote alternative forms of transportation wherever public parking is required.

BPR-6.06 **Compact Neighborhoods.** We support compact, neighborhood-serving development that provides healthy foods or essential services within walking or biking distance from residential neighborhoods, schools and parks.

BPR-6.09 **Streetscape Amenities.** We encourage and support local, private investment in streetscape amenities (examples include: benches, street trees, decorative sidewalks) that enhance safety, walkability, neighborhood appeal, and help commercial neighborhoods stay clean, safe and attractive.

BPR-6.10 **Urban Forest/Trees.** We support best practices in the planting and maintenance of trees in the public realm to improve air quality and reduce "heat island" effects due to reflected heat from hardscape and urban uses.

Natural Resources Element

Air Quality

NR-5.01 **New Development.** We require new development to utilize appropriate SCAQMD air quality mitigation measures.

NR-5.03 **Greenhouse Gases (GHG) Emissions Reductions.** We will reduce GHG emissions in accordance with regional, State, and Federal regulations, consistent with the adopted Climate Action Plan.

NR-5.05 **Transportation.** We provide non-motorized, multi-modal mobility options (e.g. pedestrian and bicycle facilities) and work with other agencies and organizations to provide transit opportunities to reduce air pollutant emissions.

NR-5.06 **Alternative Fueling Stations.** We encourage the siting and installation of alternative fueling (non-fossil fuel) stations.

NR-5.08 **Street Trees.** We maintain a healthy stock of public area and street trees and encourage the planting of trees with significant canopies that provide numerous benefits, including reduced urban heat gain, natural shading and wind screening, air filtration, and oxygen production.

Energy Conservation

NR-6.01 **Conservation Strategy.** We require conservation as the first strategy to be employed to meet energy-saving standards.

NR-6.02 **Site Planning and New Building Design.** We require energy-efficient subdivision, site planning, and building design. Measures to be considered include building orientation and shading, landscaping, maximum use of natural daylight, reflectance of building, natural ventilation, active and passive solar heating and hot water system, etc. In establishing these energy related design requirements, we balance energy-efficient design with good planning principles.

NR-6.03 **Retrofit of Commercial and Residential Buildings.** We encourage and provide incentives for voluntary retrofitting of commercial and residential buildings to reduce energy use.

NR-6.04 **Public Buildings.** We require all new and substantially renovated City buildings in excess of 10,000 square feet to achieve a LEED Silver Certification standard, as determined by the U.S. Green Building Council, or the equivalent.

NR-6.05 **City Operations.** We routinely seek ways to improve the energy efficiency of City operations to save energy, reduce consumption of non-renewable materials, reduce municipal costs and set a positive example for the community.

NR-6.06 **City Vehicles and Equipment.** We purchase and use vehicles and equipment that are fuel efficient and meet or surpass state emissions requirements and/or use no- or low-emission sources of energy, if economically feasible.

NR-6.07 **Renewable Energy Resources.** We work with other agencies and utility providers to develop safe, economical and renewable energy resources, and we help reduce non-renewable energy use through public education and participation in energy conservation programs.

NR-6.08 **Public Awareness.** We work with local utilities to develop and provide energy conservation information to the public.

NR-6.09 **Reduce Water Consumption.** We will continue to help reduce per capita potable water consumption and related energy use through implementation of water conservation programs and through public education and outreach.

NR-6.10 **Alternative Fueling Stations.** We encourage the private sector to provide vehicle fueling stations that cater to electric and other non-petroleum fueled vehicles and require such facilities for City operations and facilities, where appropriate.

Public Services Element

Water Quality and Wastewater

PSFU-5.02 **Conservation Policies and Ordinances.** We review City policies, codes, development fees and service charges to ensure best management practices are followed to conserve water and ensure

adequate funding for the operation, maintenance, and development of water and wastewater facilities and services.

PSFU-5.07 **Public Education**. We use public education to promote rebate programs, water conservation and household strategies to minimize impacts to water quality (e.g., disposal methods for fats, grease and oils).

PFSU-5.11 **Xeriscape Planting to Conserve Water.** To conserve water, we require new development to plant drought-tolerant landscaping, consisting of at least 60 percent (by landscaped area) California Native plants, and encourage such plantings in existing development.

Energy

PSFU-9.03 **City Facilities.** We use energy efficient designs that consider life-cycle costs in the planning, construction, and operation of all major City facilities and seek outside funding sources to help support these efforts.

PSFU-9.04 **Energy Audits.** We perform energy efficiency and demand response program audits at City facilities to understand our civic energy demands and plan improvements accordingly.

PSFU-9.05 **Demonstration Projects.** We participate in demonstration projects for energy conservation and savings when feasible.

PSFU-9.06 **Education.** We cooperate with local utilities to provide energy conservation information to the public.

PSFU-9.07 **Renewable Energy Resources.** We work with other agencies and utility providers to develop safe, economical, and renewable energy resources in San Clemente.

PSFU-9.08 **Solar Energy/Heating.** We incentivize the use of solar energy or solar water heating on private development by waiving related fees, when financially feasible for the City to do so.

PSFU-9.09 **Funding**. We seek grants and other outside funding for energy efficiency improvements to public or private facilities and structures in San Clemente.

PSFU-9.10 **Land Use Planning.** We encourage the development of employment centers and other land uses to improve our jobs to housing balance and minimize vehicle trips in San Clemente.

5.6.5 Existing Plans, Policies, and Programs

- AB 32: California Global Warming Solutions Act
- Executive Order S-3-05: Greenhouse Gas Emission Reduction Targets
- Low Carbon Fuel Standard (Title 17 CCR)
- Building Energy Efficiency Standards (CCR Title 24)
- Appliance Energy Efficiency Standards (CCR Title 20)
- Pavley Motor Vehicle Standards (AB 1493)
- California Water Conservation in Landscaping Act of 2006 (AB 1881)
- Statewide Retail Provider Emissions Performance Standards (SB 1368). R
- Renewable Portfolio Standards (SB 1078)

5.6.6 Level of Significance Before Mitigation

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

- Impact 5.6-1 The City would not achieve the long-term GHG reductions goals under Executive Order S-03-05.

5.6.7 Mitigation Measures

Impact 5.6-1

The City of San Clemente's Climate Action Plan is included as part of the proposed General Plan. The CAP sets GHG reduction targets for the City to achieve. Additionally, the CAP includes measures for the City to implement in support of achieving the reduction targets. As shown in Table 5.6-8, the policies in the proposed General Plan are consistent with the CAP. No other additional measures to reduce GHG emissions are available.

5.6.8 Level of Significance After Mitigation

Impact 5.6-1

The City's CAP would ensure that GHG emissions from buildout of the proposed General Plan would be minimized. However, additional statewide measures would be necessary to reduce GHG emissions under the proposed General Plan to meet the long-term GHG reduction goals under Executive Order S-03-05, which identified a goal to reduce GHG emissions to 80 percent of 1990 levels by 2050. CARB is currently updating the Scoping Plan to identify additional measures to achieve the long-term GHG reduction targets. At this time, there is no plan past 2020 that achieves the long-term GHG reduction goal established under S-03-05. As identified by the California Council on Science and Technology, the state cannot meet the 2050 goal without major advancements in technology (CCST 2012). Since no additional statewide measures are currently available, Impact 5.6-1 would remain significant and unavoidable.

5.7 HAZARDS AND HAZARDOUS MATERIALS

This section of the Draft Environmental Impact Report (DEIR) evaluates the safety hazards in the City of San Clemente, specifically environmental hazards associated with hazardous materials, hazardous waste disposal, emergency preparedness, and wildland fire. Background information on these safety hazards provides a basis for the siting of land uses to help reduce unreasonable risks and protect public health and welfare. Various federal and state programs that regulate the use, storage, and transportation of hazardous materials are also discussed.

Geologic hazards and flood hazards are addressed separately in Sections 5.5, *Geology and Soils*, and 5.8, *Hydrology and Water Quality*, respectively. Water quality and pollution discharge are also addressed in Section 5.8.

5.7.1 Environmental Setting

5.7.1.1 Existing Conditions

Hazardous Materials Sites

Hazardous materials sites in San Clemente and its SOI listed on either the GeoTracker database maintained by the State Water Resources Control Board or the EnviroStor database maintained by the Department of Toxic Substances Control are described below in Table 5.7-1. Searches were done on April 11, 2013.

Table 5.7-1 Hazardous Materials Sites in San Clemente Listed on GeoTracker or EnviroStor Databases

Site Name	Address	Type of Site	Material Released	Media Affected	Cleanup Status
Arco #5111	2749 El Camino Real	Leaking Underground Storage Tank (LUST)	Gasoline	Groundwater, non-drinking-water	Open - Site Assessment
Arco Station No 9748	590 Camino de Estrella	LUST	Gasoline	Soil	Completed - Case Closed
Avery Rentals Inc.	125 Calle de los Melinos		Gasoline	Groundwater, non-drinking-water	Completed - Case Closed
Celebrity Cleaners	638 Camino de los Mares, Ste. C100	Department of Toxic Substances Control (DTSC) Evaluation	None specified	None specified	Referred to local agency
Chevron	525 Avenida Pico	LUST	Gasoline	Groundwater, non-drinking-water	Completed - Case Closed
Chevron	1729 El Camino Real	LUST	Gasoline	Groundwater, non-drinking-water	Completed - Case Closed
City Of San Clemente	1801 Ave Estacion	LUST	Diesel	Soil	Completed - Case Closed
Denaults Hardware	717 El Camino Real	LUST	Stoddard Solvent / Mineral Spirits / Distillates	Groundwater, non-drinking-water	Completed - Case Closed
Dick Watson Auto Center	2345 El Camino Real	LUST	Gasoline	Soil	Completed - Case Closed
Exxon	504 Ave de la Estrella	LUST	Gasoline	Groundwater, non-drinking-water	Completed - Case Closed
Exxon	101 Avenida Calafia	LUST	Gasoline	Groundwater, non-drinking-water	Completed - Case Closed

Table 5.7-1 Hazardous Materials Sites in San Clemente Listed on GeoTracker or EnviroStor Databases

Site Name	Address	Type of Site	Material Released	Media Affected	Cleanup Status
Exxon	151 Avenida Vaquero	LUST	Gasoline	Groundwater, non-drinking-water	Completed - Case Closed
Flagg Station	422 Avenida De La Estrella	LUST	Diesel, Gasoline	Soil	Open - Verification Monitoring
Fluorocarbon	415 Avenida Pico	LUST	Waste Oil / Motor / Hydraulic / Lubricating	Under investigation	Completed - Case Closed
Former Reeves Rubber, Inc.	415 Avenida Pico	Cleanup Program Site	Petroleum/Fuels/Oils, Volatile Organic Compounds	Aquifer- drinking water	Completed - Case Closed
Franks Foreign Car	509 El Camino Real	LUST	Diesel	Groundwater, non-drinking-water	Completed - Case Closed
Franks Independent Auto	509 El Camino Real	LUST	Waste Oil / Motor / Hydraulic / Lubricating	Soil	Completed - Case Closed
Fred Stier Auto Sales Lot	1645 El Camino Real	LUST	Gasoline	Soil vapor, soil	Open - Site Assessment
Grubstake Service Station	908 El Camino Real	LUST	Gasoline	Under investigation	Completed - Case Closed
Hacienda Ford	535 El Camino Real	LUST	Gasoline, Waste Oil / Motor / Hydraulic / Lubricating	Under investigation	Completed - Case Closed
Home Investment & Loans	1736 El Camino Real	LUST	Gasoline	Groundwater, non-drinking-water	Completed - Case Closed
K & S Cleaners	114 South El Camino Real	DTSC Evaluation	None specified	None specified	Refer: 1248 Local Agency
Ken Carroll Automotive	902 El Camino Real	LUST	Gasoline	Groundwater, non-drinking-water	Completed - Case Closed
Kmart	550 Camino de Estrella	LUST	Waste Oil / Motor / Hydraulic / Lubricating	Under investigation	Completed - Case Closed
Luca Realty	26921 Camino De Estrella	LUST	Diesel, Gasoline	Soil	Completed - Case Closed
Lyman's Ready Mix	116 Rincon	LUST	Gasoline	Under investigation	Completed - Case Closed
Lyman's Ready-Mix	116 Rincon	LUST	Diesel	Soil	Completed - Case Closed
Marina Automotive Repair	1606 El Camino Real	LUST	Waste Oil / Motor / Hydraulic / Lubricating	Soil	Completed - Case Closed
Mission Valley Bank	501 El Camino Real	LUST	Gasoline	Soil	Completed - Case Closed
Mobil	600 Avenida Pico	LUST	Gasoline	Soil	Completed - Case Closed
Mobil #18-HHF	1430 El Camino Real	LUST	Gasoline	Soil	Completed - Case Closed
Mobil Service Station	1430 El Camino Real	LUST	Gasoline	Soil	Completed - Case Closed
Mobil Station 18-HH1	600 Avenida Pico	LUST	Gasoline	Soil	Completed - Case Closed
Northrop	33000 Avenida	Cleanup Program	Chromium, Freon,	Groundwater, non-	Open - Assessment &

Table 5.7-1 Hazardous Materials Sites in San Clemente Listed on GeoTracker or EnviroStor Databases

Site Name	Address	Type of Site	Material Released	Media Affected	Cleanup Status
Grumman Capistrano Test Site - Northrop Grumman CTS - Bldg. 41a Valve Shop And Pond Area	Pico	Site	Ndma - N-Nitrosodimethylamine, Perchlorate, Trichloroethylene (TCE)	drinking-water; soil vapor; soil	Interim Remedial Action
Northrop Grumman Capistrano Test Site - Northrop Grumman CTS - Chemical Lab Area	33000 Avenida Pico	Cleanup Program Site	Freon, Trichloroethylene (TCE), Xylene	Soil	Open - Site Assessment
Northrop Grumman Capistrano Test Site - Northrop Grumman CTS - FETS Area	33000 Avenida Pico	Cleanup Program Site	Benzene, Freon, Other Chlorinated Hydrocarbons	Groundwater, non-drinking-water; soil vapor; soil	Open - Site Assessment
Pacific Golf & Country Club	200 Avenida La Pata	LUST	Gasoline	Under investigation	Completed - Case Closed
Public Works	404 Calle Bahia	LUST	Diesel	soil	Completed - Case Closed
Robertson's Ready Mix	116 Rincon	LUST	Diesel	soil	Completed - Case Closed
Samaritan Medical Center	654 Camino de los Mares	LUST	Diesel	Soil	Completed - Case Closed
San Clemente Burn Dump	Vista Bahia Park	Cleanup Program Site	Copper, Lead, Other Metal, Polynuclear Aromatic Hydrocarbons (PAHs)	Soil	Open - Inactive
San Clemente Car Wash	1731 El Camino Real	LUST	Gasoline	Groundwater, non-drinking-water	Open - Site Assessment
San Clemente Commercial	108 Rincon	LUST	Diesel, Gasoline	Soil	Completed - Case Closed
San Clemente Motors	842 El Camino Real	LUST	Gasoline, Waste Oil / Motor / Hydraulic / Lubricating	Soil	Completed - Case Closed
San Clemente State Beach	3030 Ave del Presidente	LUST	Diesel, Gasoline	Soil	Completed - Case Closed
San Clemente Water Reclamation Plant Maintenance	390 Avenida Pico	LUST	Gasoline	Soil	Completed - Case Closed
San Clemente Water Treatment Plant	380 Avenida Pico	LUST	Diesel	Groundwater, non-drinking-water	Completed - Case Closed

Table 5.7-1 Hazardous Materials Sites in San Clemente Listed on GeoTracker or EnviroStor Databases

Site Name	Address	Type of Site	Material Released	Media Affected	Cleanup Status
San Juan Hills High School No. 6	La Pata Avenue	School investigation	None found	None affected	No Action Required
Scalzo Brothers	512 El Camino Real	LUST	Waste Oil / Motor / Hydraulic / Lubricating	Soil	Completed - Case Closed
Shell Oil	2400 El Camino Real	LUST	Gasoline	Groundwater, non-drinking-water	Open - Site Assessment
Texaco	530 Avenida Pico	LUST	Gasoline	Groundwater, non-drinking	Completed - Case Closed
Texaco	795 El Camino Real	LUST	Gasoline	Groundwater, non-drinking-water	Completed - Case Closed
Thrifty #125	1201 El Camino Real	LUST	Gasoline	Soil	Completed - Case Closed
Thrifty Oil	1010 El Camino Real	LUST	Gasoline	Under investigation	Completed - Case Closed
Thrifty Oil	590 Camino de Estrella	LUST	Gasoline	Groundwater, non-drinking-water	Completed - Case Closed
Tosco -76 #7486	1201 El Camino Real	LUST	Gasoline	Soil	Completed - Case Closed
U Haul Center #717-21	310 Avenida Pico	LUST	Diesel, Gasoline	Soil	Completed - Case Closed
Unocal	606 Camino de los Mares	LUST	Gasoline	Groundwater, non-drinking-water	Completed - Case Closed
Unocal	606 Camino De Los Mares	LUST	Waste Oil / Motor / Hydraulic / Lubricating	Soil	Completed - Case Closed
Unocal #5058	2360 El Camino Real	LUST	Gasoline	Groundwater, non-drinking-water	Completed - Case Closed
Vaquero Pump Station	608 Avenida Vaquero	LUST	Diesel	Soil	Completed - Case Closed
Vista Del Mar	Avenida Talega/Calle Portofino	School investigation	None found	None affected	No Action Required

Historic Land Uses (Historic Topographic Maps)

Sanborn Fire Insurance maps from 1929 and Historic topographic maps of the City and SOI were obtained from the US Geological Survey's website and are included in Appendix D of this draft EIR.

- **1902 Capistrano Quadrangle**, scale 1:125,000 (1.97 miles per inch): The only two readily identifiable manmade structures in what would become the City of San Clemente are the Southern California (Surf Line) Railroad and El Camino Real. There are a few black dots within the future City that may represent buildings, but it is difficult to distinguish such features from other features, such as contour lines, on a map of this scale and this age.

- **1948 San Clemente and Dana Point Quadrangles**, scale 1:24,000 (2.65 inches per mile): Most of the development in the City is between the coast and US 101 (El Camino Real), which is a four-lane highway. The majority of the development shown in the City is in the historical core. The northern City boundary is far to the south of the current boundary, and the west boundary is east of the current boundary. The railroad along the coast

is now the Atchison, Topeka, and Santa Fe. Camp Pendleton Naval Reservation [Marine Corps Base] is shown abutting the east City boundary in San Diego County.

- **1968 San Clemente and Dana Point Quadrangles**, scale 1:24,000 (2.65 inches per mile): Interstate 5 now bisects the City. Almost all development in the City is between the coast and two-thirds of a mile inland of I-5; land inland of that is shown as entirely vacant except for Pico Avenue (paved), a few water tanks, a radio facility, and a few structures in Prima Deshecha Cañada. The City boundaries are close to their current locations.

Wildfire Hazard Zones

Parts of the City are in Very High Fire Hazard Severity Zones (VHFHSZ) designated by the California Department of Forestry and Fire Prevention (CAL FIRE 2011). These VHFHSZs are in Local Responsibility Areas, meaning that the Orange County Fire Authority and the City of San Clemente are financially responsible for fire suppression in those areas. All of the SOI is in a VHFHSZ designated by CAL FIRE as a State Responsibility Area, where the state bears the cost of suppressing wildfires (CAL FIRE 2007) (see Figure 5.7-1, *Wildfire Hazard Zones*).

Emergency Planning

City of San Clemente

The City of San Clemente Emergency Planning Department's responsibilities include:

- Preparing and maintaining the City of San Clemente's Multi-Hazard Emergency Plan
- Maintaining the City Emergency Operations Center and communications equipment
- Training City staff who may be called upon to serve in time of disaster
- Conducting emergency exercises in coordination with county, state, and federal agencies
- Working with other government agencies to develop and maintain integrated emergency plans for response to an incident at the San Onofre Nuclear Generating Station (SONGS).

County of Orange

The City of San Clemente is a member jurisdiction of the Orange County Operational Area. The Orange County Sheriff's Department Emergency Management Division (EMD) is responsible for emergency planning in the Operational Area. EMD would coordinate emergency response assistance to the City of San Clemente as needed.

The Orange County Health Care Agency's Health Disaster Management Division provides disaster preparedness training.

All fire departments in Orange County participate in an automatic aid agreement to ensure that the closest resources are dispatched to an emergency. Automatic aid includes engines, trucks, paramedics and battalion chiefs (Hernandez 2013). The Orange County Fire Authority provides fire protection to San Clemente.

5.7.1.2 Regulatory Setting

Hazardous Materials and Waste

Hazardous materials refer generally to hazardous substances that exhibit corrosive, poisonous, flammable, and/or reactive properties and have the potential to harm human health and/or the environment. Hazardous materials are

used in products (household cleaners, industrial solvents, paint, pesticides, etc.) and in the manufacturing of products (e.g., electronics, newspapers, plastic products) or in energy generation. Hazardous materials can include petroleum, natural gas, synthetic gas, radioactive materials, acutely toxic chemicals, and other toxic chemicals that are used in agriculture, commercial, and industrial uses; businesses; hospitals; and households. Accidental releases of hazardous materials can occur from a variety of causes, including highway incidents, warehouse fires, train derailments, shipping accidents, and industrial incidents.

Hazardous Materials and Waste Regulation

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 hazardous substances may pose to people and businesses under normal daily circumstances and as a result of emergencies and disasters. The regulations are listed below and summarized in Appendix I of this DEIR. Responsibility agencies and programs that regulate hazardous materials and waste are also provided in Appendix I.

- Resource Conservation and Recovery Act (RCRA)
- Comprehensive Environmental Response, Compensation, and Liability Act (CERLA)
- Superfund Amendments and Reauthorization Act (SARA)
- Emergency Planning & Community Right to Know Act
- Toxic Substances Control Act

Emergency Preparedness

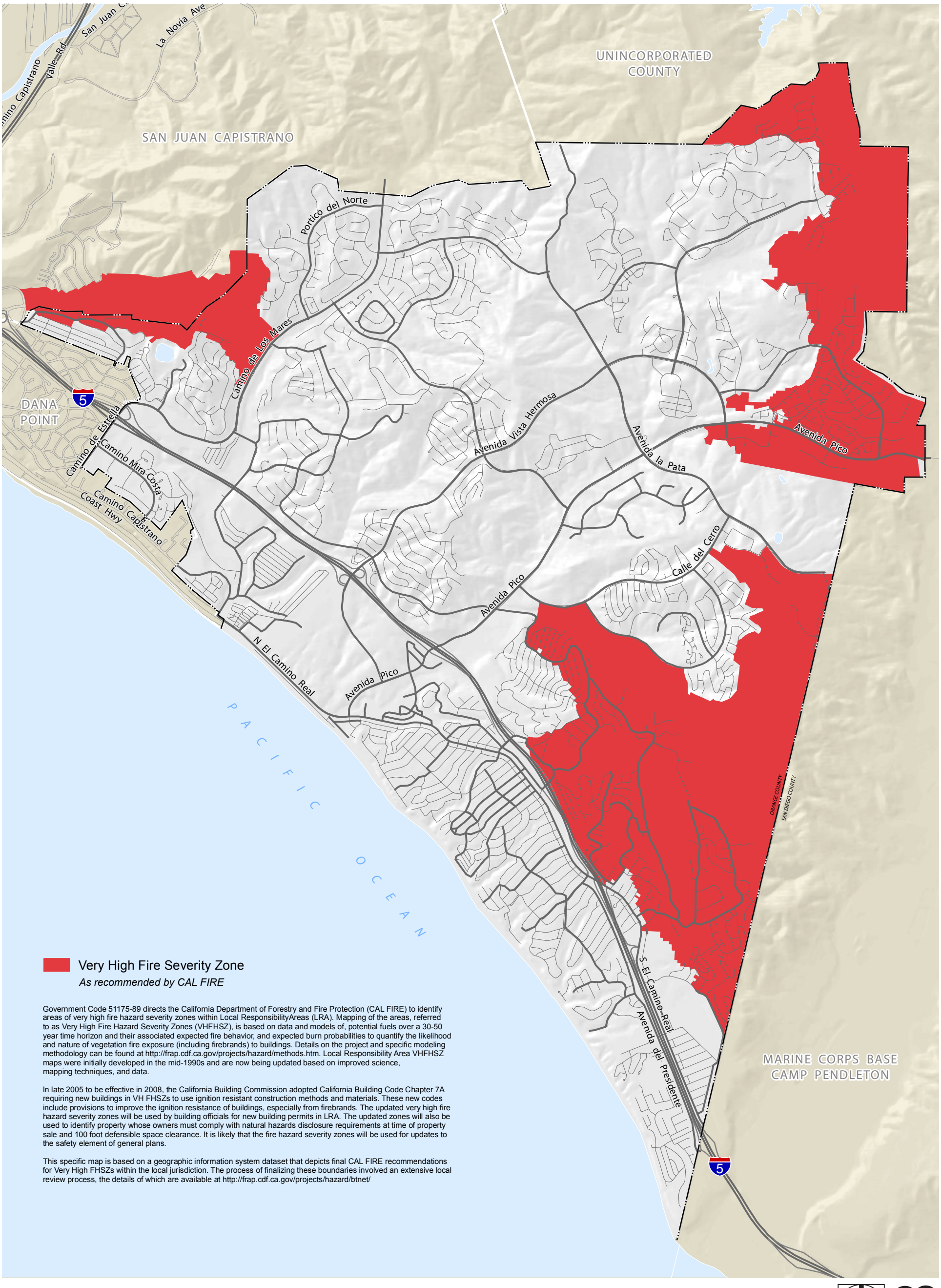
Orange County Office of Emergency Services

The goal of the OES is to improve public and private sector readiness and to mitigate local impacts resulting from natural or man-made emergencies through disaster preparedness planning and appropriate response efforts with city departments and local and state agencies. While OES does not directly manage field operations, it manages an incident command post to ensure coordination of disaster response and recovery efforts through its day-to-day program management and during an incident/disaster. The division also manages and operates the Emergency Operations Center (EOC), which is the primary coordination point for disasters and major emergencies. The City of San Clemente is a participant of Prepare OC, the County of Orange Incident Preparedness, Response & Recovery Program. PrepareOC is the County of Orange's comprehensive incident preparedness, response, and recovery program. The goal of PrepareOC is to develop a coordinated approach to preparedness planning for county government, local governments and organizations, and the county's constituents.

Fire Safety

In 2012, the California Legislature passed SB 1241, which requires city and county general plan safety elements to be updated to incorporate additional wildfire hazard considerations for State Responsibility Areas (SRA) and lands within very high fire hazard severity zones. This bill also requires cities and counties to make specific findings before approving tentative maps for areas in an SRA or a very high fire hazard severity zone.

Wildfire Hazard Zones



Very High Fire Severity Zone

As recommended by CAL FIRE

Government Code 51175-89 directs the California Department of Forestry and Fire Protection (CAL FIRE) to identify areas of very high fire hazard severity zones within Local ResponsibilityAreas (LRA). Mapping of the areas, referred to as Very High Fire Hazard Severity Zones (VHFHSZ), is based on data and models of, potential fuels over a 30-50 year time horizon and their associated expected fire behavior, and expected burn probabilities to quantify the likelihood and nature of vegetation fire exposure (including firebrands) to buildings. Details on the project and specific modeling methodology can be found at http://frap.cdf.ca.gov/projects/hazard/methods.htm. Local Responsibility Area VHFHSZ maps were initially developed in the mid-1990s and are now being updated based on improved science, mapping techniques, and data.

In late 2005 to be effective in 2008, the California Building Commission adopted California Building Code Chapter 7A requiring new buildings in VH FHSZs to use ignition resistant construction methods and materials. These new codes include provisions to improve the ignition resistance of buildings, especially from firebrands. The updated very high fire hazard severity zones will be used by building officials for new building permits in LRA. The updated zones will also be used to identify property whose owners must comply with natural hazards disclosure requirements at time of property sale and 100 foot defensible space clearance. It is likely that the fire hazard severity zones will be used for updates to the safety element of general plans.

This specific map is based on a geographic information system dataset that depicts final CAL FIRE recommendations for Very High FHSZs within the local jurisdiction. The process of finalizing these boundaries involved an extensive local review process, the details of which are available at http://frap.cdf.ca.gov/projects/hazard/btnet/

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California Department of Forestry and Fire Protection

The California Department of Forestry and Fire Protection (CAL FIRE) is dedicated to the fire protection and stewardship of over 31 million acres of California's wildlands. The Office of the State Fire Marshal (OSFM) supports the CAL FIRE mission to protect life and property through fire prevention engineering programs, law and code enforcement, and education. The OSFM provides for fire prevention by enforcing fire-related laws in state-owned or -operated buildings, investigating arson fires in California, licensing those who inspect and service fire protection systems, approving fireworks as safe and sane 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.

California Fire Plan

The California Fire Plan is the state's road map for reducing the risk of wildfire through planning and prevention to reduce firefighting costs and property losses, increase firefighter safety, and to 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 Fire Code

The California Fire Code (Title 24 California Code of Regulations, Part 9) is based on the 2000 Uniform Fire Code and includes amendments from the State of California fully integrated into the code. The California Fire Code contains fire safety-related building standards that are referenced in other parts of Title 24 of the California Code of Regulations.

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:

H-1 Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials.

H-2 Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment.

H-3 Emit hazardous emissions or handle hazardous or acutely hazardous materials, substance, or waste within one-quarter mile of an existing or proposed school.

H-4 Be located on a site which is included on a list of hazardous materials compiled pursuant to Government Code Section 65962.5 and, as a result, would create a significant hazard to the public or the environment.

H-5 For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would result in a safety hazard for people residing or working in the project area.

H-6 For a project in the vicinity of a private airstrip, result in a safety hazard for people residing or working in the project area.

H-7 Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan.

H-8 Expose people or structures to a significant risk of loss, injury, or death involving wildland fires, including where wildlands are adjacent to the urbanized areas or where residences are intermixed with wildlands.

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

- Threshold H-5
- Threshold H-6

These impacts will not be addressed in the following analysis.

5.7.3 Environmental Impacts

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

IMPACT 5.7.1: Buildout in accordance with the San Clemente Centennial General Plan would involve the transport, use, and/or disposal of hazardous materials. [Thresholds H-1, H-2, and H-3]

Impact Analysis: The San Clemente General Plan involves the designations of residential, commercial, mixed-use, industrial, open space, recreation, and public uses. San Clemente has and will allow additional industrial uses and businesses that may manufacture, transport, store, use, and dispose of hazardous materials and waste. The transport of hazardous materials along I-5, the railroad, and the City's local roadways creates potential risks for spills or leaks from nonstationary sources. Seismic activity, flooding, marine hazards, and fires can result in hazardous materials being released onto land or into the air and water, contaminating the environment and endangering public safety. The goal of the Hazardous Materials Section of the General Plan is to protect life, property, and the natural environment by minimizing the potential for exposure to and contamination from hazardous materials and waste.

The alteration of land uses may also contribute to public exposure and environmental hazards during transport, use, or disposal of hazardous materials. A plan for future development in the Los Molinos area includes the potential for a future rail transit station and the development of auto-related uses in the North Beach/North El Camino Real area. Development under the General Plan will increase the number of residents and businesses within the City, resulting in an increase in the number of hazardous materials being transported, used, and stored, and the amount of people being exposed to these materials. This would also result in an increase in the frequency of transport, use, and disposal of hazardous materials associated with commercial and industrial growth within San Clemente.

An increase in the transport of hazardous waste from an increased demand for transport, use, and disposal, within or outside the City, could result in upset or accidental conditions resulting in the release of hazardous materials. However, the increase in the transport of hazardous materials as a result of the proposed project would be limited to areas along interstates and rail lines, where commercial and industrial uses would be concentrated. Some transport of hazardous materials may occur near small commercial pockets proposed throughout various areas of the City. No facilities that are registered transporters of hazardous wastes were identified on the Active Hazardous Waste Transporter Database for Orange County.

Capistrano Unified School District serves the City of San Clemente. Development in accordance with the San Clemente Centennial General Plan would allow development of vacant land, intensification of existing land uses, and the introduction of new land uses on parcels throughout the City. These land use changes may result in impacts related

to the emission or handling of hazardous materials near schools. For new school sites that receive state funding or for existing school sites with new construction, the DTSC oversees school site approval for potential hazards in soil at the site or from potential hazardous waste impact from nearby parcels. California Department of Education oversees the evaluation of air quality hazards within a ¼ mile of permitted and nonpermitted hazardous emission sources to new and expanding school sites.

Redevelopment under the General Plan may involve demolition of older buildings that contain asbestos-containing materials (ACM) or lead-based paint (LBP). Future development requiring demolition would be required to comply with the California Health and Safety Code, Occupational Safety and Health Administration (OSHA), and South Coast Air Quality Management District (SCAQMD) Rule 1403 related to removal of ACMs and LBPs. Compliance would require the preparation LBP and ACM surveys for any building demolitions and appropriate remediation measures for removal of LBP and ACM during demolition activities.

Potential hazardous material transport, use, or disposal would be limited to those commonly used in residential and commercial areas (e.g., pool cleaning agents, disinfectants, fertilizers, herbicides, pesticides). All residential, commercial and industrial uses of hazardous chemicals in the City of San Clemente would be subject to compliance with various state and federal regulations that promote public health and safety by governing the transport, use and disposal of hazardous materials. Current City ordinances regulate hazardous materials management in accordance with state law and CalARP managed by the Orange County Fire Authority. The CalARP program maintains inventories of chemicals stored, handled, and used within the City and coordinates hazardous materials emergency plans. Chapter 8.36 of the City Code of Ordinances outlines the filing of hazardous material disclosure forms with the OCFA for businesses using or handling hazardous materials. The General Plan also contains policies and programs to ensure compliance with federal, state, and local regulations relating to hazardous wastes (see Policies S-6.01– 6.06). The impact related to the transport, use and disposal of hazardous materials would be less than significant with adherence to the existing regulations.

IMPACT 5.7-2: The project site is included on a list of hazardous materials sites. [Threshold H-4]

Impact Analysis: The City of San Clemente General Plan has ordinances regulating hazardous materials management in accordance with state law; Orange County Environmental Management Agency policies; and Orange County Fire Authority, Safety and Environmental Services Section. In addition, the San Clemente General Plan contains policies and programs to ensure compliance with federal, state, and local regulations relating to hazardous waste production, use, storage, transport, or disposal of hazardous materials so that impacts to the environment and sensitive land uses are mitigated.

The National Pipeline Mapping System shows no major high-pressure or hazardous liquid pipelines running through the City of San Clemente. Out of the 62 identified potentially contaminated sites that were listed on the DTSC Envirostor or RWQCB Geotracker websites for the City of San Clemente, 5 were leaking underground storage tank sites that were being remediated or monitored, 2 were dry cleaning facilities that were referred to other agencies, 3 were for site assessment activities at the Northrop Grumman facility, and 1 was a former burn dump. The remaining identified sites have received regulatory agency closure approval. The dry cleaning facilities entered into remedial action agreements with the County of Orange Health Care Agency. An old municipal waste burn dump was identified as an open inactive site located at the San Clemente Municipal Golf Course near Calle Bahia and the Vista Bahia Park. The former Northrop Grumman San Juan Capistrano test site is on 2,800 acres leased from Mission Viejo Ranch in northeast San Clemente. Of these 2,800 acres, 500 were developed and used to conduct research by Northrop Grumman who stopped activities in 2011. The remaining 2,300 acres of undeveloped land provided a buffer to the

surrounding areas from site testing activities and has been used by the Mission Viejo Ranch to support ranching activities. Remedial actions at the facility have occurred under the oversight of the Orange County Health Care Agency, and additional investigations including groundwater monitoring and site characterization are ongoing. No NPL sites or landfill disposal sites were identified in the City of San Clemente.

The General Plan proposes new commercial and industrial development primarily focused within specific areas. A new medical office overlay would be created in the Camino de Estrella/Camino de los Mares focus area and an increase in FAR to encourage new and expanded businesses would occur in the Rancho San Clemente Business Park. Mixed uses would also be allowed within the North Beach/North El Camino Real and South of El Camino Real focus areas. New businesses/users would be required to follow the same regulations as existing businesses/users, and the number of sites would not increase substantially from the existing quantity. The Orange County Health Care Agency Environmental Health Division implements the Hazardous Waste Inspection Program for business in San Clemente to ensure that all hazardous wastes generated by businesses are properly handled, recycled, treated, stored, and disposed. The General Plan also contains policies and programs to ensure compliance with federal, state, and local regulations relating to hazardous wastes (see Policies S-6.01– 6.06). The majority of new businesses would also be in the same general areas that they are now and would not be expanded into sensitive communities. All environmental investigations, sampling, and/or remediation for projects within the City shall be conducted under the oversight of a regulatory agency that has jurisdiction. There would not be any significant impacts.

Impact 5.7-3: Project development could affect the implementation of an emergency response or evacuation plan. [Threshold H-7]

Impact Analysis: Disaster preparedness is managed through the Emergency Planning Office of the City of San Clemente. This Office is in the Public Works Department and is responsible for preparing the community for natural or human-caused disasters by preparing and maintaining the City of San Clemente's Multi-Hazard Emergency Plan. Additional responsibilities include maintaining the City Emergency Operations Center and communications equipment; training City staff who may be called upon to serve in time of disaster; assisting the City Manager with issues relating to emergency services; conducting emergency exercises in coordination with county, state, and federal agencies; working with other government agencies to develop and maintain integrated emergency plans for response to an incident at the San Onofre Nuclear Generating Station; assisting individuals and community organizations to become prepared for a disaster; and promote and use AlertOC, the City's community mass notification system. The City of San Clemente Municipal Code Section 8.12 outlines emergency functions in the City with other public agencies and the organizational structure for emergency services.

The City of San Clemente Multi-Hazard Emergency Plan provides the framework for responding to major emergencies or disasters. The goals of this plan are to outline a strategy to prepare for, respond to, and recover from an emergency or disaster that affects the City. In order to facilitate meeting these goals, the plan identifies potential hazards that form the basis for the emergency plan, identifies authorities and assigns responsibilities to the appropriate agencies, identifies other jurisdictions and organizations with which planning and emergency response activities are coordinated, establishes an organizational structure to manage the emergency response, outlines preplanned response actions to be taken by emergency personnel to mitigate the effects of a disaster, outlines a process of disseminating emergency information and instructions to the public, describes the resources available to support emergency response activities, establishes responsibilities for maintaining the overall City emergency preparedness program, and provides the basis for initial training and subsequent retraining of emergency workers.

Additionally, Orange County Fire Authority Emergency Command Center provides emergency response services to the City of San Clemente, including hazardous materials emergency response.

The City's participation in the Standardized Emergency Management System (SEMS) as required under Government Code Section 8607(a) allows San Clemente to receive state support and funding in the event on an emergency. SEMS incorporates the use of the Incident Command System (ICS), California Disaster and Civil Defense Master Mutual Aid Agreement (MMAA), the Operational (OA) Area concept, and multiagency or inter-agency coordination. State agencies are required to use SEMS and local government entities must use SEMS in order to be eligible for any reimbursement of response-related costs under the state's disaster assistance programs.

These resources would be utilized by San Clemente in an emergency event, and the impact would be less than significant.

Impact 5.7-4: San Clemente is within moderate, high, and very high fire hazard zones and could expose structures and/or residences to fire danger. [Threshold H-8]

Impact Analysis: The City of San Clemente is identified as a "community at risk" by CAL FIRE. A large percentage of the City's area is designated part of Moderate, High, and Very High fire hazard severity zones, as mapped by CAL FIRE. Although most land use changes proposed by the San Clemente General Plan are planned for infill sites, there is a possibility that land use changes and redevelopment may expose people or structures to heightened risks related to wildfires, potentially resulting in significant impacts. Chapter 8.22 of Title 8 of the San Clemente Municipal code was adopted designating very high fire hazard severity zones within the City of San Clemente and was passed as ordinance no. 1547 in 2012, repealing exclusions from state recommendations. In 1976 a spark from a welder's torch at Camp Pendleton started a wildfire that charred 2,400 acres, destroying 16 homes and damaging 144 homes in San Clemente. Following the fire the city developed ordinances requiring fire sprinklers in hew homes.

The City of San Clemente is part of OCFA Pre-Fire Management program, which uses risk analysis and mitigation evaluation to identify fire risks in order to develop and/or modify effective risk intervention programs. A section of the Pre-Fire Management program is wildland fire defense planning and prevention to manage large, open space areas to better understand fire risks and potential losses due to wildland fire and to protect the land. The Pre-Fire Management program mitigates risks through a formalized fuel modification inspection and enforcement program. The program monitors wildland and vegetation conditions to identify potential hazards, ensuring communities in the wild and urban interface areas are better protected from the risk of wildland fire.

To help protect the City and its residents from fire hazards, San Clemente has building and fire codes that must be followed. The fire chief of OCFA may also use their authority to instate certain building, planning, or landscaping requirements. On a site-specific basis, the fire chief may require the removal of brush in an area 10 feet from a structure and from a road or open space with the exception of single specimen trees, ornamental shrubbery or cultivated ground cover.

The fire code official may require the submittal for approval of geological studies, evaluations, reports, remedial recommendations, and/or similar documentation from a state-licensed and department-approved individual or firm, on any parcel of land to be developed which has, is adjacent to, or within one 1,000 feet of a parcel of land that has an active, inactive, or abandoned oil or gas well operation; petroleum or chemical refining facility; petroleum or chemical storage; or may contain or give off toxic, combustible or flammable liquids, gases, or vapors. Fire code officials

determine and publicly announce when hazardous fire areas are closed to entry and when such areas reopen. Outdoor fires are not allowed in hazardous fire areas except by permit from fire code officials.

All new buildings constructed in areas containing combustible vegetation are required to submit and have approved by the fire code official a preliminary fuel modification plan when submitting any tentative map. Grading permits will be issued following the submittal and approval of the final fuel modification plan that meets the criteria of the OCFA Fuel Modification Plan guidelines.

5.7.4 Relevant Policy Plan Policies and Programs

The following are San Clemente Plan policies and programs related to hazardous materials, hazardous waste, emergency response, and fire hazards.

Hazardous Materials and Waste Policies

S-6.01 **Public Maps**. We publicize areas of known hazardous materials contamination to reduce risk to public health, safety, and welfare.

S-6.02 **Remediation Plans**. We require owners of contaminated sites to develop a remediation plan with the assistance of the County of Orange and State and Federal government agencies.

S-6.03 **Coordinated Response.** We coordinate effective responses to hazardous materials incidents with other appropriate jurisdictions and agencies.

S-6.04 **Local and Regional Participation.** We participate in local and regional efforts to mitigate the potential for land, water, and air contamination from hazardous materials or waste, and work to help ensure clean-up of contaminated areas if a release occurs.

S-6.05 **Disclosure Laws.** Working with other public agencies, we help enforce disclosure laws that require the users, producers, and transporters of hazardous materials and waste to clearly identify these items.

S-6.06 **Public Education.** Working with other public agencies, we help disseminate information to the public about the proper disposal of household hazardous materials and waste, and encourage the use of non-toxic alternatives.

Emergency Services, Preparedness, Response, and Recovery Policies

S-7.01 **Staffing, Facilities and Supplies.** We maintain adequate staffing, facilities and supplies for police, fire, marine safety and emergency medical, and emergency planning services to provide appropriate and timely response to emergency needs.

S-7.02 **Hazard Prevention Funding.** We give high priority to strategies and funding for hazard-prevention services, training, educational materials, and facilities.

S-7.03 **Outreach and Education.** We provide community-based outreach and educational efforts to enable residents to prepare for and respond appropriately in emergency situations, and to contribute to the overall safety of the community.

S-7.04 **Interdepartmental and Interagency Collaboration**. We collaborate among City departments and with organizations outside of the City for a comprehensive approach to emergency services and disaster preparedness, response and recovery, including continuity of operations (e.g. information technology and financial services.

S-7.05 **Partnerships**. We partner with other local, State and Federal emergency services agencies to enhance safety resources in the City of San Clemente.

S-7.06 **Performance Measurement**. We periodically analyze public safety data to evaluate the effectiveness of our strategies and allocate resources accordingly.

S-7.07 **Crime Prevention Through Environmental Design**. We require new development to incorporate Crime Prevention Through Environmental Design (CPTED) features in the orientation and design of sites, buildings, streetscapes, and open spaces.

S-7.08 **Management Programs and Warning Systems**. We maintain emergency management programs and warning systems that meet State and Federal requirements.

S-7.09 **Training.** We regularly conduct training exercises to prepare for and evaluate emergency and disaster response and recovery procedures.

S-7.10 **Outreach.** We reach out to the community to educate, train and establish volunteer programs, to enhance the safety and disaster resilience of our community through volunteer programs, such as the Community Emergency Response Team (CERT) Program, Retired Senior Volunteer Program (RSVP), Explorer Scouts, and Neighborhood Watch and Radio Amateur Citizen Emergency Services (RACES).

Fire Policies and Program

S-3.01 **Fire and Building Codes**. We coordinate with Orange County Fire Authority to proactively mitigate or minimize the adverse effects of structural fires, wildfires and related hazards like erosion, hazardous materials release and structural collapse by implementing appropriate fire and building codes.

S-3.02 **Public Education**. We coordinate with Orange County Fire Authority to provide public education tools to increase awareness of fire prevention measures.

S-3.03 **Orange County Fire Authority.** We contract with Orange County Fire Authority to maintain fire stations, equipment, and staffing to effectively respond to emergencies.

S-3.04 **Peak Water Supply**. We maintain an adequate peak water supply for fire suppression, per the San Clemente Urban Water Management Plan and funding available for implementation.

S-3.05 **Evaluation.** We coordinate with the Orange County Fire Authority to evaluate the effectiveness of fire safety strategies and implementation measures.

S-3.06 **Balance Between Goals**. We balance the need for fire safety and defensible landscape perimeters with biological and open space preservation goals, where applicable, consistent with the Coastal Conservation Plan.

5.7.5 Existing Regulations and Standard Conditions

State and Federal Regulations

- Resource Conservation and Recovery Act of 1976
- Comprehensive Environmental Response, Compensation, and Liability Act of 1980
- Superfund Amendments and Reauthorization Act of 1986

- Emergency Planning & Community Right to Know Act of 1986
- Toxic Substances Control Act of 1976
- Safe Drinking Water and Toxic Enforcement Act of 1986 requires the Governor of California to list any toxic substances known to cause cancer or reproductive problems. This list must be updated at least annually and utilize two mechanisms for chemical listing. The chemical would be listed if it is identified by "…the United States Environmental Protection Agency (EPA), the International Agency for Research on Cancer (IARC), the National Toxicology Program (NTP), the United States Food and Drug Administration (FDA), and the National Institute for Occupational Safety and Health (NIOSH)" or "…if a state or federal agency has formally required that the chemical be labeled or identified as causing cancer or reproductive toxicity. The criteria for listing chemicals through this mechanism are set forth in 22 [California Code of Regulations] Section 12902."
- Section 9030 of the California Labor Code states that "[t]he standards board shall adopt one or more standards requiring each employer which uses any carcinogen, including asbestos and vinyl chloride, to submit a written report regarding the use or any incident which results in the release of a potentially hazardous amount of a carcinogen into any area where employees may be exposed."
- California Government Code Sections 4216–4216.9 state that any operator of a subsurface installation (i.e. a pipeline or electrical line) shall be notified at least two working days prior to ground disturbance and then they must provide "…the number of subsurface installations that may be affected by the excavation to the extent and degree of accuracy that the information is available either in the records of the operator or as determined through the use of standard locating techniques other than excavating, otherwise advise the person who contacted the center of the location of the operator's subsurface installations that may be affected by the excavation, or advise the person that the operator does not operate any subsurface installations that would be affected by the proposed excavation."
- Rule 29 Code of Federal Regulations (CFR) Part 1926 establishes standards for occupational health and environmental controls for lead exposure. The standard also includes requirements addressing exposure assessment, methods of compliance, respiratory protection, protective clothing and equipment, hygiene facilities and practices, medical surveillance, medical removal protection, employee information and training, signs, recordkeeping, and observation or monitoring.
- California Government Code Sections 1532.1 and 1529 provide for exposure limits, exposure monitoring, respiratory protection and good working practice by workers exposed to lead and asbestos-containing materials, respectively.
- SCAQMD Rule 1403 specifies work practices with the goal of minimizing asbestos emissions during building demolition and renovation activities, including the removal and associated disturbance of ACMs. The requirements for demolition and renovation activities include asbestos surveying; notification; ACM removal procedures and time schedules; ACM handling and cleanup procedures; and storage, disposal, and landfill disposal requirements for asbestos-containing waste materials.

City of San Clemente Municipal Code

City of San Clemente Municipal Code contains applicable regulations pertaining to hazards and hazardous materials and waste, fire safety and code, and emergency response in the City:

Title 8, Health and Safety Code, Chapter 8.36 - Hazardous Materials outlines the City of San Clemente requirements for filing of hazardous material disclosure forms, exemptions from disclosure, and identification of hazardous areas.

Title 8, Health and Safety Code, Chapter 8.16 - Fire Code prescribes regulations governing fire safety in the City of San Clemente. The International Fire Code was adopted by the City of San Clemente for the purpose of prescribing regulations governing conditions hazardous to the life and property from fire or explosion. The California Fire Code and the International Fire Code is enforced by the Orange County Fire Authority, operated under the Fire Chief of the Orange County Fire Authority.

Title 8, Health and Safety Code, Chapter 8.22 - Very High Fire Hazard Severity Zones designates areas identified on the City's Very High Fire Hazard Severity Zones (VHFHSZ) map in accordance with Section 51179(a) of the California Government Code.

Title 8, Health and Safety Code, Chapter 8.12 - Emergency Services, outlines the preparation and carrying out of plans for the protection of persons and property within the City of San Clemente in the event of an emergency and provides for the coordination of the emergency functions in the City with all other public agencies and affected private persons, corporations and organizations.

5.7.6 Level of Significance Before Mitigation

Upon implementation of regulatory requirements and the San Clemente Centennial General Plan policies and programs, the following impacts would be less than significant: 5.7-1, 5.7-2, 5.7-3, and 5.7-4.

5.7.7 Mitigation Measures

No significant adverse impacts were identified and no mitigation measures would be required.

5.7.8 Level of Significance After Mitigation

No significant impacts were identified. No significant unavoidable adverse impacts related to hazards and hazardous materials remain.

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5.8 HYDROLOGY AND WATER QUALITY

This section of the Draft Environmental Impact Report (DEIR) evaluates the potential impacts to hydrology and water quality conditions in the City of San Clemente and its Sphere of Influence (SOI) from implementation of the proposed Centennial General Plan. 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 is water on the surface of the land and includes lakes, rivers, streams, and creeks. Groundwater is water below the surface of the earth.

- *Infrastructure Technical Report for Hydrology, Sewer, Water, and Water Quality*, Fuscoe Engineering, Inc., May 31, 2013.

A complete copy of this study is included in Appendix E of this Draft EIR

5.8.1 Environmental Setting

Existing Conditions

Regional Drainage

The City of San Clemente is generally classified as having rugged terrain with coastal bluffs that reside approximately 100 feet over sea level in the northern portion of the City and about 60 feet towards the southern portion of the City. The City is incised with numerous canyons and drainage ways that have eroded over time.

There are three main watercourses that that drain the City and the surrounding tributary area: Prima Deshecha Cañada, Segunda Deshecha Cañada, and San Mateo Creek. Prima Deshecha Cañada drains the northern one-third of the study area and has a tributary of about 8.5 square miles. The primary watercourse's headwater is approximately 5.5 miles inland and starts at an elevation of approximately 1,120 feet. Segunda Deshecha Cañada drains the central one-third of the City's watershed area with an approximate drainage area of 8.5 square miles. The headwater of Segunda Deshecha Cañada is approximately 5.7 miles inland and starts at an elevation of approximately 960 feet. San Mateo drains a much smaller area of the City's watershed and includes the easternmost portion of the City. There are also numerous smaller watersheds that drain directly to the Pacific Ocean, including Marquita Canyon, Trafelgar Canyon, Lobos Masinos Canyon, and Alessandro Canyon.

The City's most current Drainage Master Plan was prepared by Lowry & Associates in June 1982. In the 1982 Drainage Master Plan, the undeveloped areas of the City were programmed for a full buildout, (i.e., ultimate condition) and storm drain systems were sized for maximum development based on the most current General Plan at that time. The 1982 Plan projected an ultimate population of 66,058 and development of five major master planned developments within the City, including Rancho San Clemente, Talega, Marblehead Inland, Marblehead Coastal, Forster Ranch, and several additional isolated tracts and infill projects. Since 1982, these areas have been fully entitled and almost completely developed, with the exception of Marblehead Coastal. The 2010 Census revealed a population of 63,522, indicating an excellent projection of the 1982 Plan.

As part of the 1982 Drainage Master Plan, flood control facilities, pipe sizes, alignments, and fee structures were developed to accommodate full buildout of the City's General Plan. The Drainage Master Plan recognized four major drainage courses, designated by the county as M00, M01, M02 and M03. M00 drains the area north of Camino De Estrella and the northern coastal areas of San Clement. M01, Prima Deshecha, drains the central portion of the City including Forster Ranch and the western portion of Marblehead Inland and outlets into the Ocean near Camino Capistrano and Pacific Coast Highway (PCH). M02, Segunda Deshecha, drains the eastern portion of the City including Talega and the eastern portion of Marblehead Inland and outlets into the Pacific Ocean near Pico and PCH. M03, San

Mateo Creek, drains the southern end of San Clemente and outfalls into San Mateo Creek. The locations of these courses are shown in Figure 5.8-1.

To determine existing peak flows, the modeling procedures specified in the Orange County Hydrology Manual (1986) were used as a guideline. The Hydrology Manual provides a variety of parameters, including land uses, runoff coefficients, soil types, and rainfall intensities, to estimate runoff conditions at master planning levels.

Table 5.8-1 provides a summary of the existing hydrology conditions for each Focus Area, including predominant existing land use, watershed, major drainage facilities, and peak flows (10-year) based on existing land uses. Detailed calculations are included in Appendix E.

Table 5.8-1 Existing Conditions Hydrology for Focus Areas Subject to Land Use Changes

Focus Area ID	Focus Area Name	Total Focus Area Acreage	Predominant Land Use	Watershed / Major Facilities	Existing Peak Flows (Q_{10})
1	Camino de Estrella / Camino de los Mares	85.8 ac	Commercial	PDC / (2) 54" & 42" RCP	141 cfs
2	Rancho San Clemente Business Park	293.4 ac	Industrial	SDC / 14' x 14' RCB	539 cfs
3	Los Molinos	51.9 ac	Commercial / Industrial	SDC / (2) 36" RCP	25.5 cfs
4	North Beach / North El Camino Real	35.9 ac	Commercial	SDC / (2) 36" RCP	39 cfs
5	Del Mar / T-Zone	43.1 ac	Commercial / Office	SDC / 54" & 21" RCP	No change
6	Pier Bowl	12.2 ac	Residential	SDC / 48" RCP, (2) 36" CMP	No change
7	South El Camino Real Area (West of I-5)	13.6 ac	Commercial	SDC / (2) 30" RCP	34 cfs
8	South El Camino Real Area (East of I-5)	34.5 ac	Residential / Commercial	SDC / (2) 42" & 72" RCP	No change

PDS Primary Deshecha Cañada
cfs cubic feet per second
RCB Reinforced Concrete Box
SDC Segunda Deshecha Cañada
CMP Corrugated Metal Pipe
RCP Reinforced Concrete Pipe

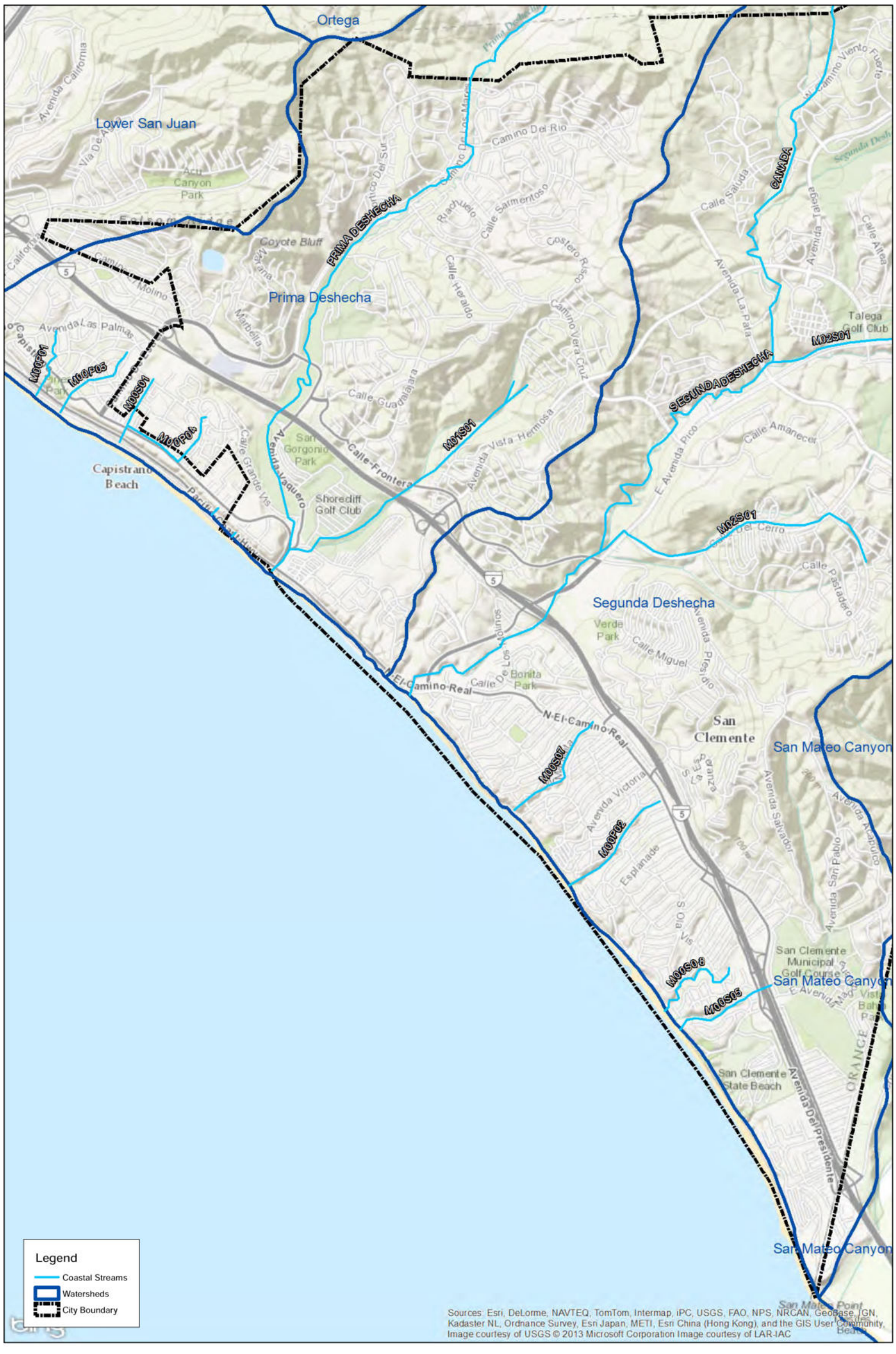
Surface Water Conditions

According to the Basin Plan, the Centennial General Plan project area is primarily within the San Clemente HA 901.30, with a small portion within the San Mateo Canyon HA (see Figure 5.8-2, *San Clemente Coastal Streams and San Mateo Creek Watersheds*). More specifically, surface waters within the San Clemente HA include Prima Deshecha Cañada and Segunda Deshecha Cañada, along with unnamed intermittent coastal streams. These surface waters ultimately discharge into the Pacific Ocean at Poche Beach and North Beach, respectively.

The beneficial uses of inland surface waters within the San Clemente HA, as outlined in the Basin Plan, are:

- AGR – Agricultural Supply
- REC1 – Contact Water Recreation
- REC2 – Non-Contact Water Recreation
- WARM – Warm Freshwater Habitat
- WILD – Wildlife Habitat

San Clemente Coastal Streams and Major Drainage Courses



Source: Fuscoe 2013

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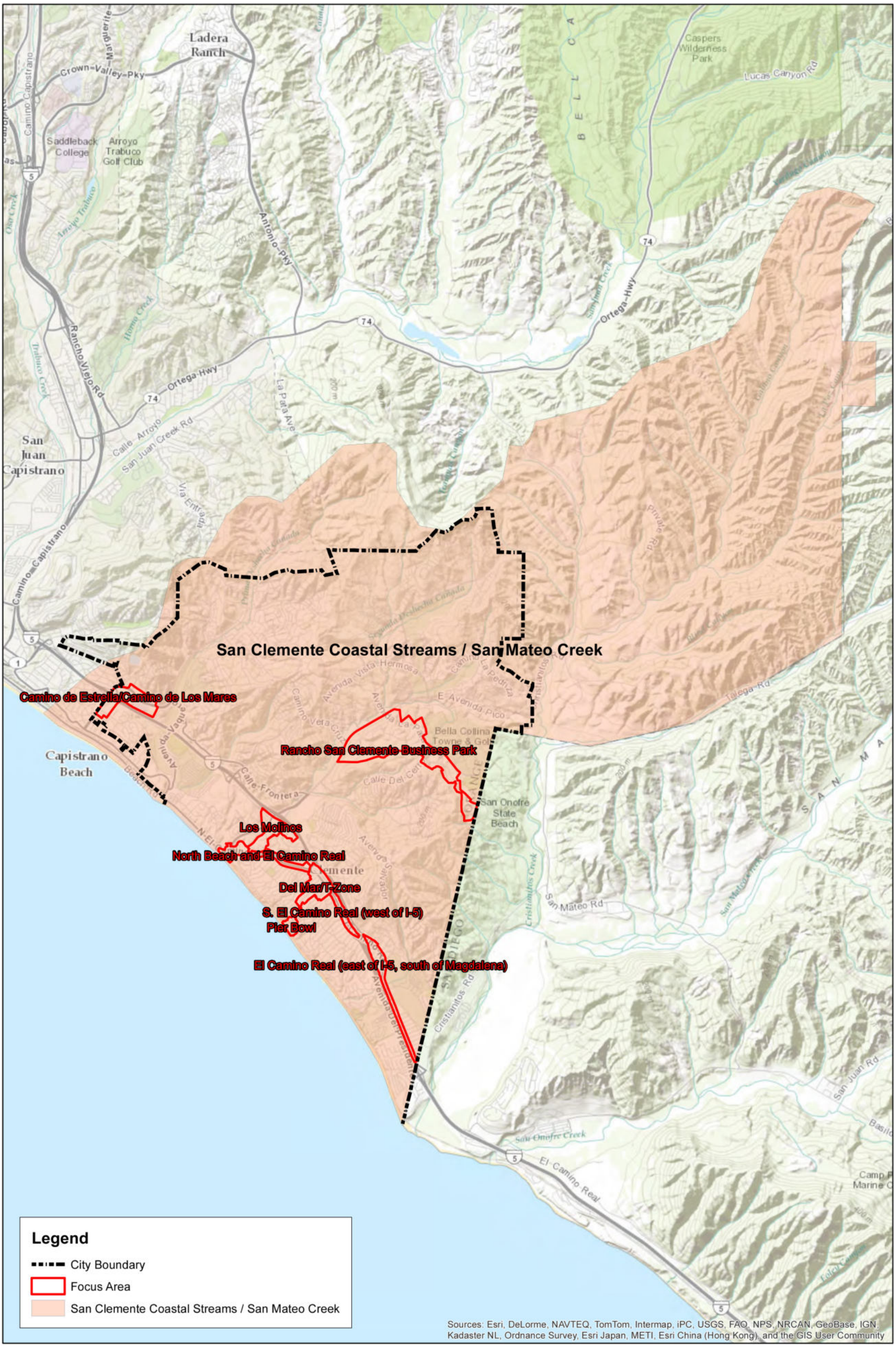
San Clemente Coastal Streams and San Mateo Creek Watersheds



Source: Fuscoe 2013

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General water quality objectives have been prescribed in the Basin Plan for all surface waters within the San Diego Region. Brief summaries of these objectives are provided in Table 5.8-2.

Table 5.8-2 Water Quality Objectives for San Diego Region Surface Waters, Enclosed Bays and Estuaries, Coastal Lagoons and Groundwaters

Constituent	Water Quality Objective
Ammonia, unionized	Discharge of wastes shall not cause concentrations of unionized ammonia to exceed 0.025 mg/L.
Bacteria, Coliform	In waters designated for REC1, the fecal coliform concentration based on a minimum of not less than 5 samples for any 30-day period shall not exceed a log mean of 20/100 ml, nor shall more than 10 percent of all samples collected during any 30-day period exceed 400/100 ml.
Bacteria, E. Coli	In waters designated for REC1, the steady state e. coli concentration shall not exceed 126/100 ml.
Bacteria, Enterococci	In waters designated for REC1, the steady state enterococci concentration shall not exceed 33/100 ml.
Biostimulatory Substances	Waters shall not contain biostimulatory substances in concentrations that promote aquatic growths to the extent that such growths cause nuisance or adversely affect the water for beneficial uses.
Color	Waters shall be free of coloration that causes nuisance or adversely affects the water for beneficial uses.
Dissolved Oxygen	Dissolved oxygen levels shall not be less than 5.0 mg/L in inland surface waters with designated WARM beneficial use. The annual mean dissolved oxygen concentration shall not be less than 7.0 mg/L more than 10% of the time.
Floating Materials	Waters shall not contain floating material, including solids, liquids, foams, and scum, in concentrations that cause nuisance or adversely affect the water for beneficial uses.
Oil and Grease	Waters shall not contain oils, greases, waxes or other materials in concentrations that result in a visible film or coating on the surface of the water or on objects in the water, that cause nuisance, or that otherwise adversely affect the water for beneficial uses
Pesticides	No individual pesticide or combination of pesticides shall be present in the water column, sediments, or biota at concentration(s) that adversely affect beneficial uses. Pesticides shall not be present at levels which will bioaccumulate in aquatic organisms to levels which are harmful to human health, wildlife or aquatic organisms.
pH	Changes in normal ambient pH levels shall not exceed 0.5 units in freshwaters with designated COLD or WARM beneficial uses.
Radioactivity	Radionuclides shall not be present in concentrations that are deleterious to human, plant, animal, or aquatic life nor that result in the accumulation of radionuclides in the food web to the extent that presents a hazard to human, plant, animal, or aquatic life.
Sediment	Waters shall not contain suspended or settleable solids in concentrations of solids that cause nuisance or adversely affect beneficial uses.
Taste and Odor	Waters shall not contain taste or odor-producing substances in concentrations which cause a nuisance or that adversely affect beneficial uses.
Temperature	At no time or place shall the temperature at any COLD water be increased by more than 5°F above the natural receiving water temperature.
Toxicity	Inland surface waters shall not contain toxic pollutants in excess of the numerical objectives applicable to California specified in 40 CFR 131.36 (§ 131.36 revised at 57 FR 60848 December 22, 1992).

Source: California Regional Water Quality Control Board, San Diego. (1994, September 8). Water Quality Control Plan for the San Diego Basin (9). With Amendments effective prior to April 4, 2011.

In addition to the general water quality objectives, specific objectives have been set for inland surface waters in the San Clemente HA, summarized in Table 5.8-3.

Table 5.8-3 Surface Water Quality Objectives for San Clemente Hydrologic Area

TDS	Cl	SO_4	% NA	Fe	Mn	MBAS	B	Turbidity NTU	Color Units	F
500	250	250	60	0.3	0.05	0.5	0.75	20	20	1.0

Source: California Regional Water Quality Control Board (RWQCB), San Diego Region. (1994, September 8). Water Quality Control Plan for the San Diego Basin (9).
Notes:
Units in mg/L unless otherwise noted. MBAS Methylene Blue Activated Substances

Surface Water Quality Conditions

As part of the Orange County Stormwater Program and OC DAMP, dry-weather surface water monitoring was conducted throughout the San Clemente Coastal Streams watershed from 2003 to 2010, termed the "Non-Stormwater Action Level Monitoring Program." As part of this program, there were four monitoring locations within the City of San Clemente. Location SCBS@M02 is a targeted site that has been monitored since 2003, and is located near East Avenida Pico and Calle de los Molinos. Under the county's monitoring program (OC DAMP Section 11), targeted sites are sampled five times per season. Locations SCM00P03, SCM03P01, and SCM02XXX were randomly selected sites that were monitored at least once each dry season, May 1 to October 1, between 2003 and 2010. A summary of the collected data for SCBS@M02 I and expanded data tables and sampling location maps for all random and targeted sites are provided in Appendix E.

In general, exceedances of basin plan water quality objectives and tolerance levels were observed consistently for reactive phosphorous, hardness, and electrical conductivity, and exceedances were observed on occasion for turbidity, ammonia, bacteria indicators, surfactants, and copper. However, it should be noted that exceedances for reactive phosphorous were also observed at the majority of the monitoring locations throughout Orange County streams and channels, indicating that the problems may be watershed-wide and not specific to San Clemente Coastal Streams.

Other extensive monitoring efforts occurring within the San Clemente Coastal Streams Watershed are summarized in the 2012 San Clemente Coastal Streams Watershed Workplan (January 1, 2012). Efforts include urban stream bioassessment monitoring, long-term mass loading monitoring, coastal storm drains outfall monitoring, coastal receiving water monitoring, and stormwater action level monitoring.

As previously mentioned, the San Clemente HA is included as a watershed subject to the Bacteria-Impaired Waters TMDL Project I for Beaches and Creeks, approved by the San Diego RWQCB February 10, 2010, as Resolution No. R9-2010-0001. Reducing bacteria loading in urban runoff has been a focal point in the City, because beaches within the City limits have historically received poor to failing grades during the wet season since 2000, as assessed by Heal the Bay. Each week, over 650 beaches are graded A through F by Heal the Bay, based on bacteria analysis. Recent grades, however, have shown significant improvement for San Clemente beaches. The City of San Clemente and the County of Orange will continue to conduct source investigations and develop strategies for controlling discharges and pollutant sources throughout the watershed consistent with the requirements of Resolution No. R9-2010-0001. These strategies and efforts are briefly summarized below.

Irrigation Runoff & Water Conservation

The City of San Clemente has made significant efforts to reduce bacteria in runoff. It has recognized that irrigation runoff may be a transport mechanism for fecal bacteria during dry weather and has worked with local water purveyors to curb irrigation and excess runoff through pollution prevention awareness as well as implementing water restrictions for irrigation. Restrictions were put in effect within the City in June 2009, where irrigation is prohibited between the hours of 9 AM to 6 PM, along with an aggressively priced, conservation-based, tiered water rate structure that penalizes inefficiency and runoff generation. Concurrently, the Santa Margarita Water District adopted similar restrictions in May 2009.

Regional Structural BMP Retrofits

The City of San Clemente has retrofitted a number of structural BMPs along the coastline to aid in pollutant load reduction for constituents such as bacteria, trash, and sediments. These "end-of-pipe" systems currently in the ground include sewer diversions, hydrodynamic separators, and disinfection treatment facilities, and are briefly summarized below. Locations are shown in Figure 5.8-3, *San Clemente Coastal Streams Regional BMP Sites*.

- **Linda Lane Channel Urban Runoff Diversion.** Constructed in 2001, this sewer diversion redirects 14,000 gallons of dry weather flows from entering Linda Lane Beach to the City's municipal sanitary sewer system for treatment and disposal.

- **Riviera Channel Urban Runoff Diversion.** Also constructed in 2001, this system diverts approximately 29,000 gallons of dry weather runoff per day that would normally reach Riviera Beach.

- **Mariposa Beach Access, Pier Bowl, Calafia Beach, and El Portal Beach Vortex Separators.** All installed in 2006, these hydrodynamic separators capture settleable solids, floatables, and oil and grease from discharging into their respective beaches.

- **Segunda Deshecha Cañada Urban Runoff Treatment Facility.** Constructed in 2008, this pressure sand filtration system collects one million gallons per day of dry weather runoff from the 4,800-acre sub-watershed tributary to Segunda Deshecha Cañada. Targeted pollutants are primarily bacteria, along with total suspended solids and trace metals.

- **Poche Clean Beach Project.** This treatment facility was constructed in 2009 to address bacteria loads to Poche Beach, which frequently exceeded AB411 bacteria standards. It has been identified as one of the ten worst beaches in California by Heal the Bay. The system utilizes screening, sand filtration, and UV light disinfection processes to treat approximately one million gallons per day of dry weather urban runoff. Despite removal efficiencies greater than 90 percent for bacteria indicators, the treated water could not be delivered to the surfzone without it becoming recontaminated in the scour pond between the channel and the ocean. The county has attempted to relocate the treated outflow discharge point and results have yet to be determined. Recent dry weather beach reports by Heal the Bay in 2013 have shown positive grades, but it is not significant enough of a sample size at this time to draw conclusive results.

Existing Storm Drain Master Plan

The 1982 Storm Drain Master Plan was used to identify the regional storm drain systems required to support the ultimate buildout of the City. The 1982 Master Plan identified all future areas of development at that time and sized the regional storm drain systems to accommodate maximum buildout conditions (i.e., maximum impervious surfaces). The major components of the 1982 Master Plan were all implemented over a period of time concurrent with the

development phases. All regional drainage facilities are adequately sized to accommodate peak flows based on existing land use conditions, and no major flooding occurs due to insufficient capacity.

Groundwater

Geographically, the proposed project site is in the San Clemente HA, which consists of the Prima Deshecha HSA and the Segunda Deshecha HSA.

The basin plan identifies the Prima Deshecha HSA in the San Clemente HA as having two beneficial uses.

- MUN - Municipal and Domestic Supply
- AGR - Agricultural Supply

Segunda Deshecha HSA does not have any listed beneficial uses. These beneficial uses do not apply west of the easterly boundary of the I-5 right-of-way, and this area is excepted from the sources of drinking water policy.

Specific water quality objectives have been established for the San Clemente HA to maintain its beneficial uses and are summarized in Table 5.8-4.

Table 5.8-4 Groundwater Quality Objectives for the San Clemente HA 901.30

TDS	Cl	SO_4	% NA	NO_3	Fe	Mn	MBAS	B	Turbidity NTU	Color Units	F
1,200	400	500	60	10	0.3	0.05	0.5	0.75	5	15	1.0

Source: California Regional Water Quality Control Board (RWQCB), San Diego Region. (1994, September 8). Water Quality Control Plan for the San Diego Basin (9). Units in mg/L unless otherwise noted. MBAS Methylene Blue Activated Substances

In addition to the specific water quality objectives, the general water quality objectives listed in Table 5.8-2 also apply to all groundwaters of the San Diego Region.

Flood Hazards

The National Flood Insurance Act (1968) established the National Flood Insurance Program, which is based on the minimal requirements for flood plain management and is designed to minimize flood damage within Special Flood Hazard Areas. FEMA is the agency that administrates the National Flood Insurance Program. Special Flood Hazard Areas (SFHA) are defined as areas that have a 1 percent chance of flooding within a given year, also referred to as the 100-year flood. Flood Insurance Rate Maps were developed to identify areas of flood hazards within a community.

Figure 5.8-4, *San Clemente Flood Zone Map* shows the 100-year and 500-year floodplains for the Prima Deshecha Cañada and the Segunda Deshecha Cañada waterways.

San Clemente Coastal Streams Regional BMP Sites

Source: Fuscoe 2013

0 1 Scale (Miles)

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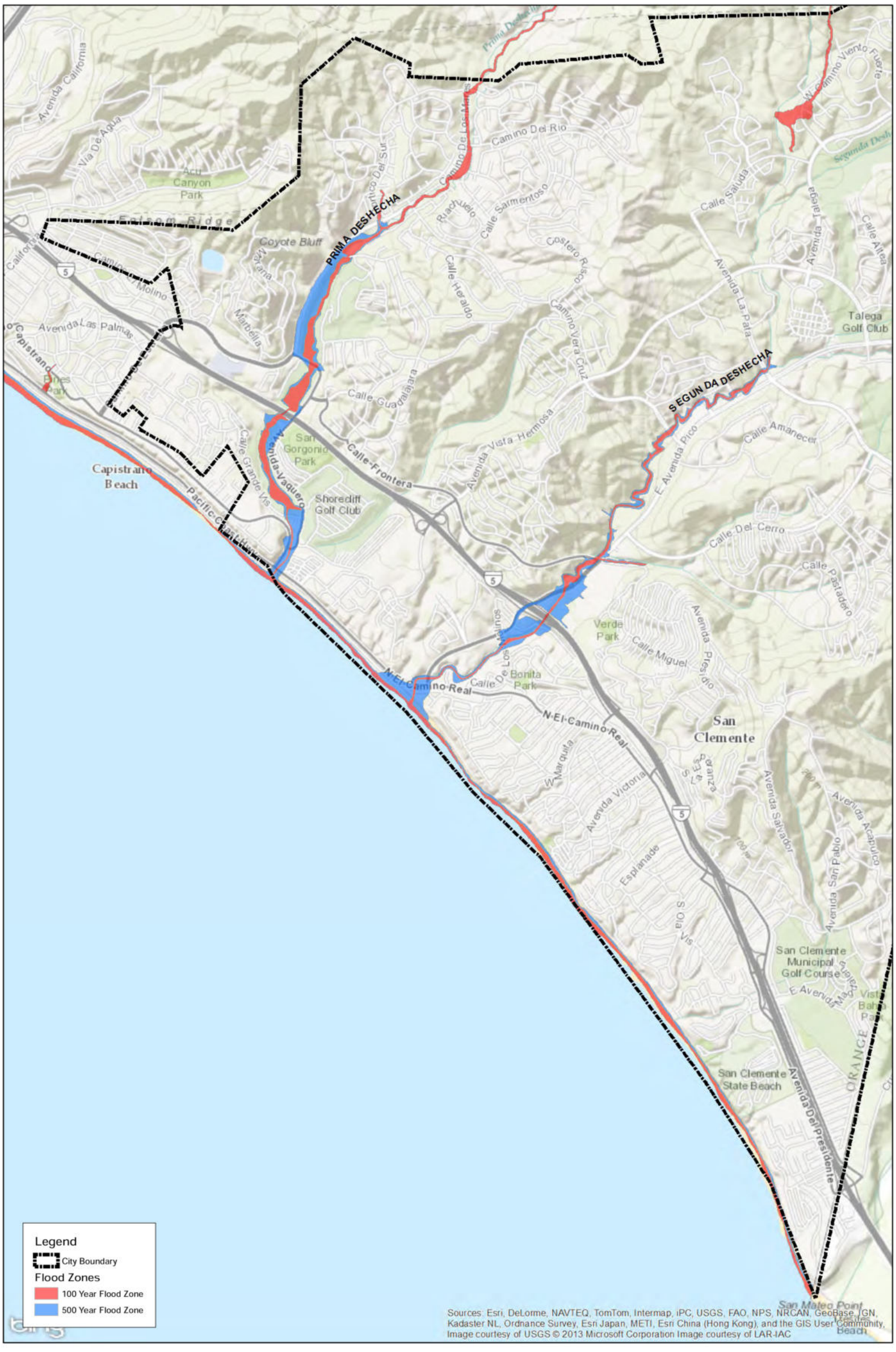
San Clemente Flood Zone Map



Source: Fuscoe 2013

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Regulatory Framework

There are several federal and State programs that regulate water quality. They are listed below and summarized in Appendix I of this DEIR.

- **Safe Drinking Water Act:** The Federal Safe Drinking Water Act (SDWA) provides regulations on drinking water quality in San Clemente. The SDWA gives the U.S. Environmental Protection Agency (EPA) the authority to set drinking water standards, such as the National Primary Drinking Water regulations (NPDWRs or primary standards).

- **Clean Water Act:** The federal Water Pollution Control Act (also known as the Clean Water Act [CWA]) is the principal statute governing water quality. The CWA establishes the basic structure for regulating discharges of pollutants into the Waters of the United States and gives the EPA the authority to implement pollution control programs, such as setting wastewater standards for industry. Under Section 303(d) of the CWA, states are required to identify water bodies that do not meet their water quality standards. Once a water body has been listed as impaired, 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. Those facilities and activities that are discharging into the water body, collectively, must not exceed the TMDL.

  The majority of the City of San Clemente is within the San Clemente Coastal Streams Watershed, with the remaining areas in the San Mateo Creek Watershed. More specifically, the City is in the San Clemente Hydrologic Area (HA 901.30), which includes Prima Deshecha and Segunda Deshecha Hydrologic Subareas (HSA 901.31 and 901.32, respectively). Runoff from the City ultimately discharges into the Pacific Ocean. According to the 2010 303(d) list of Limited Water Quality Segments published by the San Diego Regional Water Quality Control Board (RWQCB), San Clemente HA is listed as impaired for indicator bacteria. Prima Deshecha Creek is impaired for cadmium, nickel, phosphorus, and turbidity. Segunda Deshecha Creek is listed for phosphorus, toxicity, and turbidity. See Figure 5.8-1, *San Clemente Coastal Streams and Major Drainage Courses*, for the Santa Clemente Coastal Streams and San Mateo Creek Watersheds as they relate to the City of San Clemente boundary.

- **National Pollutant Discharge Elimination System:** Under the National Pollutant Discharge Elimination System (NPDES) program promulgated under Section 402 of the CWA, all facilities that discharge pollutants from any point source into Waters of the U.S. are required to obtain an NPDES permit. The NPDES has a variety of measures designed to minimize and reduce pollutant discharges. All counties with storm drain systems that serve a population of 50,000 or more, as well construction sites one acre or more in size, must file for and obtain an NPDES permit.

- **Porter-Cologne Water Quality Act:** The Porter-Cologne Water Quality Act (Water Code sections 13000 et seq.) is the basic water quality control law for California. Under this Act, the State Water Resources Control Board (SWRCB) has ultimate control over state water rights and water quality policy.

Applicable Plans and Programs

General Construction Permit and Stormwater Pollution Prevention Plans

Pursuant to the CWA, in 2001, the SWRCB issued a statewide general NPDES Permit for stormwater discharges from construction sites (NPDES No. CAS000002). Under this Statewide General Construction Activity permit, Order No. 2009-0009-DWQ, discharges of stormwater from construction sites with a disturbed area of one or more acres are

required to either obtain individual NPDES permits for stormwater discharges or to be covered by the General Permit. Coverage by the General Permit is accomplished by completing and filing a Notice of Intent with the SWRCB and developing and implementing a Stormwater Pollution Prevention Plan (SWPPP). Each applicant under the General Construction Activity Permit (GCP) must ensure that a SWPPP is prepared prior to grading and is implemented during construction. The SWPPP must list BMPs implemented on the construction site to protect stormwater runoff, and must contain a visual monitoring program; a chemical monitoring program for "non-visible" pollutants to be implemented if there is a failure of BMPs; and a monitoring plan if the site discharges directly to a water body listed on the state's 303(d) list of impaired waters.

General Waste Discharge Requirement Permit for Groundwater Discharges

The San Diego RWQCB requires a permit for discharging wastes to surface waters from activities involving groundwater extraction. Under Order No. R9-2008-0002 (NPDES No. CAG919002), permittees are required to monitor their discharges from groundwater extraction waste from construction, remediation, and permanent groundwater extraction projects to ensure that proposed effluent limitations for constituents are not exceeded.

During the design phase, each project is evaluated with site-specific boring tests to determine exact location and potential for groundwater during construction activities. Sites that require dewatering activities due to groundwater either obtain permission to discharge to the sanitary sewer system through the local sewer agency or file for this general WDR permit to discharge to the MS4.

County of Orange MS4 Permit, Drainage Area Management Plan, and Runoff Management Plans

In December 2009, the San Diego RWQCB reissued the MS4 Stormwater Permit as WDR Order R9-2009-0002 (NPDES Permit No. CAS0108740) to the County of Orange, the incorporated cities of Orange County, and the Orange County Flood Control District within the San Diego Region. Pursuant to this "Fourth-Term" MS4 Permit, the copermittees were required to develop and implement a Jurisdictional Urban Runoff Management Program (JRMP), as well as Watershed Urban Runoff Management Plans (WRMP)s, which describe the copermittees' urban runoff management programs in their entirety.

Under the previous third-term MS4 permits for both the Santa Ana and San Diego regions, the County of Orange and incorporated cities were required to develop a Drainage Area Management Plan (DAMP), which provides area-wide guidance for cities in developing their stormwater programs. The Orange County Drainage Area Management Plan (OC DAMP) approved by the Santa Ana and San Diego RWQCBs in early 2002, includes a model Local Implementation Program (LIP) for municipalities, such as the City of San Clemente, to implement in their jurisdiction. The LIP describes the City's stormwater pollution control efforts implemented to meet the requirements of the MS4 permit. Therefore, the City LIP and the OC DAMP, in effect, act as companion parts of the City's stormwater compliance program.

Additional requirements of the Fourth Term MS4 Permit for South Orange County that were not in the previous permit include land development policies pertaining to hydromodification and low impact development (LID) features for new developments and significant redevelopment projects. The term "hydromodification" refers to the changes in runoff characteristics from a watershed caused by changes in land use condition. More specifically, hydromodification refers to "the change in the natural watershed hydrologic processes and runoff characteristics (i.e., interception, infiltration, overland flow, interflow and groundwater flow) caused by urbanization or other land use changes that result in increased stream flows and sediment transport" (Order No. R9-2009-0002, Attachment C, Definitions). The Fourth Term MS4 Permit requires the development of a Hydromodification Management Plan (HMP) by Copermittees to develop a standard for limiting hydromodification of downstream channels. The use of LID BMPs in project

planning and design is to preserve a site's predevelopment hydrology by minimizing the loss of natural hydrologic processes such as infiltration, evapotranspiration, and runoff detention. LID BMPs try to offset these losses by introducing structural and nonstructural design components that restore these water quality functions into the project's land plan. In particular, LID BMPs must retain, harvest and reuse, or biofilter the runoff produced from the 85th percentile storm event (design capture volume) in order to control pollutants in stormwater discharges from a site to the maximum extent practicable (MEP).

City of San Clemente Water Quality Management Plan

One component of the New Development / Significant Redevelopment Section of the City's LIP is the provision to prepare a project-specific WQMP for specified categories of development aimed at reducing pollutants in post-development runoff. Specifically, a project-specific WQMP includes San Diego RWQCB approved BMPs, where applicable, that address post-construction management of stormwater runoff water quality. This includes operation and maintenance requirements for all structural or treatment control BMPs required for specific categories of developments (termed "priority development projects") to reduce pollutants in post-development runoff to the MEP. A full list of priority projects are detailed in Appendix E and include all significant redevelopment projects, where significant redevelopment is defined as the addition or replacement of 5,000 or more square feet of impervious surface on an already developed site, and new development projects that create 10,000 square feet or more of impervious surface (collectively over the entire project site).

As required by the City of San Clemente's LIP, JRMP, and municipal ordinances on stormwater quality management, project-specific WQMPs must be submitted to the City for approval prior to the City issuing any building or grading permits. Since the overall San Clemente Centennial General Plan update will include land use changes that allow for the development of several of the categories listed above, future development and redevelopment projects will be subject to the requirements of the City of San Clemente LIP and 2011 County of Orange Model WQMP and their subsequent iterations/versions that correspond to future MS4 permits. Projects within the Centennial General Plan Focus Areas, as with all other areas of the City, will be required to submit a project-specific WQMP to ensure all of the requirements of the City's LIP/JRMP and ordinances on stormwater quality are addressed for that project. This includes meeting any new requirements associated with priority projects, as well as the requirements of the Fourth Term MS4 permit, which includes LID features and/or hydromodification controls, once the City's LIP/JRMP is revised and requirements are implemented within the City.

City of San Clemente Local Environmental Programs

Since 2002, the City of San Clemente adopted a utility fee, called the Clean Ocean Fee, to fund their JRMP. The City continued the Clean Ocean Program in 2007 through voter approval. The Clean Ocean Fee generates about $1.8 million annually. Not only does this utility fee fund the JRMP, it also funds projects within the City to install a number of structural treatment and storm drain system improvement projects over the years. Furthermore, part of the Clean Ocean funds is used to support local public schools and nonprofit organizations on environmental sustainability initiatives that benefit the City and its residents, such as water quality and water conservation, by providing environmental sustainability grants twice per year.

In 2004, the City of San Clemente adopted a policy prohibiting the use of expanded polystyrene (styrofoam) food service items at all City facilities, all City-sponsored special events, and by vendors doing business within the City. It further expanded this policy in 2011 by banning the use of single-use styrofoam food service ware at all retail food facilities, City facilities, City-sponsored special events, and by vendors doing business within the City. The efforts are to curb the amount of styrofoam litter found along the City's beaches and, as a result, improving water quality within the City.

National Flood Insurance Program

The National Flood Insurance Act of 1968 and the Flood Disaster Protection Act of 1973 mandate the Federal Emergency Management Agency (FEMA) to evaluate flood hazards. FEMA provides Flood Insurance Rate Maps (FIRMs) for local and regional planners to promote sound land use and floodplain development, identifying potential flood areas based on the current conditions. To delineate a FIRM, FEMA conducts engineering studies referred to as Flood Insurance Studies (FISs). The most recent FIS and FIRM was completed and published for San Clemente on December 3, 2009. Using information gathered in these studies, FEMA engineers and cartographers delineate Special Flood Hazard Areas (SFHAs) on FIRMs.

The Flood Disaster Protection Act (FDPA) requires owners of all structures in identified SFHAs to purchase and maintain flood insurance as a condition of receiving federal or federally related financial assistance, such as mortgage loans from federally insured lending institutions. Community members within designated areas are able to participate in the National Flood Insurance Program (NFIP) afforded by FEMA. The NFIP is required to offer federally subsidized flood insurance to property owners in those communities that adopt and enforce floodplain management ordinances that meet minimum criteria established by FEMA. The National Flood Insurance Reform Act of 1994 further strengthened the NFIP by providing a grant program for state and community flood mitigation projects. The act also established the Community Rating System (CRS), a system for crediting communities that implement measures to protect the natural and beneficial functions of their floodplains, as well as managing erosion hazards.

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:

HYD-1 Violate any water quality standards or waste discharge requirements.

HYD-2 Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted.

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, in a manner which would result in a substantial erosion or siltation on- or off-site.

HYD-4 Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site.

HYD-5 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.

HYD-6 Otherwise substantially degrade water quality.

HYD-7 Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map.

HYD-8 Place within a 100-year flood hazard area structures which would impede or redirect flood flows.

HYD-9 Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam.

HYD-10 Be subject to inundation by seiche, tsunami, or mudflow.

5.8.3 Environmental Impacts

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

Impact 5.8-1: Development pursuant to the proposed General Plan would not result in a substantial increase in the amount of impervious surfaces and would not therefore increase surface water flows into drainage systems within the City's watersheds. [Thresholds HYD-4 and HYD-5]

Impact Analysis: Implementation of the Centennial General Plan would largely preserve the existing rates and amount of surface runoff throughout the City. All proposed land use changes occur within areas that are currently built out, and changes to hydrology runoff conditions would remain unchanged or very similar to existing conditions.

For the Focus Areas subject to land use changes, a simplified rational method was utilized in accordance with the 1986 Orange County Hydrology Manual to compare peak flow rates for the future land use conditions to the existing peak flow rates summarized in Table 5.8-1. Results of the comparisons are summarized in Table 5.8-5. Detailed calculations and supporting exhibits are provided in Appendix E.

Table 5.8-5 Proposed Conditions Hydrology for Focus Areas

Focus Areas	Proposed Land Use	Area Subject to Land Use Change	Proposed Peak Flows (Q_{100})	Net Change
Camino de Estrella/Camino de Los Mares	Commercial (0.50 FAR) / Commercial Office (1.0 FAR)	40.1 acres Commercial / 16.5 acres Commercial Office	141 cfs	No change
Rancho San Clemente Business Park	Light Industrial (0.50 FAR & 0.75 FAR)	217 acres Light Industrial	539 cfs	No change
Los Molinos	Commercial (0.50 FAR) / Light Industrial (0.50 FAR)	5.6 acres Heavy Industrial / 2.6 Acres Mixed Use, 2.4 Acres Open Space	23.9 cfs	<2 cfs
North Beach/North El Camino Real	Commercial (0.50 FAR)	14 acres Commercial / 1.7 Acres Light Industrial	36.3 cfs	<3 cfs
Del Mar/T-Zone	Commercial / Office	No change	No change	No change
Pier Bowl	Residential	No change	No change	No change
South El Camino Real Area (West of Interstate 5)	Commercial (0.35 FAR) / Mixed Use (1.0 FAR)	9.1 acres Commercial / 4.5 acres Mixed Use	34 cfs	No change
South El Camino Real (East of Interstate 5)	Residential / Commercial	No change	No change	No change

Source: Fuscoe Engineering, 2013.
cfs = cubic feet per second
FAR = Floor to Area Ratio

Under the proposed conditions, runoff rates would remain essentially unchanged from existing conditions. This is primarily due to the built out condition for each Focus Area. One major exception is in Focus Area 2. A portion of this

area is undeveloped and is classified Light Industrial. The regional storm drain system was sized to accommodate full buildout conditions of this area, and it was assumed under the prior General Plan that this land would ultimately be developed. The updated Centennial General Plan also assumes full buildout of this Focus Area and, as a result, there are no anticipated changes in runoff based on the project development of this vacant land.

Storm Drain

In general, runoff rates would remain essentially unchanged compared to existing conditions. As discussed previously in Section 2.1.3, the major components of the 1982 Drainage Master Plan were all implemented over a period of time concurrent with the development phases. Based on discussions with City staff, all regional drainage facilities are adequately sized to accommodate peak flows based on existing land use conditions.

In 2014, the City of San Clemente will be updating the 1982 Drainage Master Plan. The updated Master Plan of Drainage will reevaluate all regional storm drain facilities and confirm with more sophisticated modeling tools projected runoff rates, existing capacities, and identification of deficiencies and/or recommended improvement for long-term viability of the City's storm drain system. This report will also incorporate the proposed land uses associated with the Centennial General Plan, identify if any of the improvements are needed within the eight Focus Areas, and identify the cost-sharing mechanisms for such improvements.

Hydromodification Requirements

On October 25, 2012, south Orange County cities and the County of Orange developed the South Orange County Hydromodification Plan (HMP). Hydromodification refers to changes in the magnitude and frequency of stream flows and their associated sediment load due to urbanization or other changes in the watershed land use and hydrology and the resulting impacts on receiving channels, such as erosion, sedimentation, and potentially degradation of in-stream habitat. The HMP was developed to manage increases in runoff discharge rates and durations from priority development projects (PDPs), thereby minimizing impacts to susceptible receiving stream channels.

In addition to susceptible stream channels, the HMP also identified HMP channel exempt areas. These areas include areas that discharge to engineered channel sections that have the capacity to convey the 10-year ultimate condition discharge. This includes:

- PDPs that discharge runoff directly into underground storm drains that discharge directly to bays or the ocean; or
- PDPs that discharge runoff into conveyance channels whose bed and bank are concrete lined all the way from the point of discharge to ocean waters, enclosed bays, estuaries, or water storage reservoirs and lakes.

As part of this screening process, it was identified that the lower reaches of Prima Deshecha Cañada Channel and Segunda Deshecha Cañada Channel were among the receiving channels that were hydromodification exempt. As a result, a map of south Orange County was generated showing drainage areas that are exempt from hydromodification criteria (see Figure 4-6 of the South Orange County HMP, included in Appendix B). A large portion of the City of San Clemente is potentially exempt from hydromodification, mostly along its coastline, the City's northwestern border, and lower central areas— the latter two representing drainage areas tributary to downstream reaches of Prima Deshecha Cañada Channel and Segunda Deshecha Cañada Channel. Much of the northeastern half of the City of San Clemente is considered hydromodification susceptible. With respect to Centennial General Plan Focus Areas, the following are in potentially exempt areas:

- Camino de Estrella/Camino de Los Mares
- Los Molinos

- North Beach and Camino Real
- Pier Bowl

Focus Areas in portions of the City that are not exempt include: Rancho San Clemente Business Park, Del Mar/T-Zone, South El Camino Real west of I-5, and South El Camino Real east of I-5.

Development projects within the City that are in hydromodification susceptible areas are required to use continuous simulation modeling to ensure that postproject runoff flow rates and durations will not exceed predevelopment, naturally occurring, runoff flow rates and durations more than 10 percent of the time, from 10 percent of the 2-year runoff event up to the 10-year runoff event. This is termed the hydrologic performance standard. The South Orange County HMP includes a tool to provide continuous simulation modeling in order to alleviate the need for individual projects to develop individual flow duration curves. The sizing tool allows project proponents to easily determine the necessary BMP storage volume and footprint area for flow duration control as a function of the proposed level of imperviousness and the onsite hydrologic soil group (A/B or C/D). The sizing tool takes into account a reasonable range of design and environmental conditions. In addition, because the BMP footprint is expressed as a percentage of the project tributary area, the BMPs can range in size. This flexibility allows project proponents to strategically situate many small-scale distributed facilities or a few larger facilities, depending on the site constraints.

As individual priority projects are proposed within the City of San Clemente, each project must demonstrate compliance with the Hydromodification Control BMP Sizing Tool and use the appropriate spreadsheet sizing tool and associated sizing charts for Unit BMP Capture Volume. Because the sizing tool takes into account predevelopment hydrologic conditions, it is anticipated that the sizing of the BMPs required for hydromodification control will likely be larger than sizing of the BMPs strictly for the 85th percentile design capture volume. It is important that project proponents incorporate the hydromodification control sizing criteria early in the site design process to make sure the appropriate footprints for BMP implementation are incorporated. Due to the intent of the San Clemente Centennial General Plan to increase land use densities in the Focus Areas, hydromodification impacts would likely require mitigation controls for projects within hydromodification susceptible areas.

Use of the Hydromodification Control BMP Sizing Tool would demonstrate compliance with HMP requirements and impacts related to hydromodification, including increased volumes and peak flows, erosion and scour downstream, and channel instability, are considered less than significant.

Summary

No impacts are anticipated to downstream streams or rivers, and no increases in peak flow or volumes are expected. In addition, for those land use changes occurring in Focus Areas subject to hydromodification requirements, additional runoff controls for peak flow and volume (e.g., flow duration control) will be required to comply with the HMP. Implementation of hydromodification controls will act to reduce peak flows and volumes over the long term as individual projects are implemented.

The City's regional storm drain systems were originally sized for ultimate buildout conditions based on the 1982 Master Plan of Drainage. Full buildout of the City has occurred consistent with the projections of the 1982 Master Plan and the concurrent General Plans. The existing storm drain systems are adequately sized to accommodate existing and future flows based on the proposed land use changes. No impacts are anticipated associated with capacity.

Impact 5.8-2: Development pursuant to the proposed General Plan would not result in a substantial increase in the amount of impervious surfaces and would not therefore impact opportunities for groundwater recharge. [Threshold HYD-2]

Impact Analysis: Implementation of the Centennial Master Plan would occur within areas of the City that are currently built out. The changes in impervious condition would be minimal and would not adversely impact groundwater recharge. In addition, the City operates two groundwater wells, which provide approximately 6 percent of the total water supply for the City. Reliance on groundwater from the San Clemente subbasin is expected to remain in the 6 to 7 percent range (1,000 acre-ft/year) for the next 25 years indicating a stable projection. The proposed land use changes would not result in a significant change to the production of groundwater from the City's existing wells.

Impact 5.8-3: Portions of the project site proposed for development are not located within a 100-year flood hazard area. [Thresholds HYD-7 and HYD-8]

Impact Analysis: Under the proposed condition, the existing flooding conditions and extent of the 100-year and 500-year flood plains would remain unchanged. No housing or structures are proposed within the 100-year flood hazard area. Therefore, no impacts are anticipated.

Impact 5.8-4: During construction of projects in accordance with the Centennial General Plan, there is the potential for short-term unquantifiable increases in pollutant concentrations. After such project development, the quality of storm runoff (sediment, nutrients, metals, pesticides, pathogens, and hydrocarbons) may be altered. [Thresholds HYD-1, HYD-3, and HYD-6]

Impact Analysis:

Construction Activities

Clearing, grading, excavation, and construction activities associated with the proposed project may impact water quality due to sheet erosion of exposed soils and subsequent deposition of particulates in local drainages. Grading activities, in particular, lead to exposed areas of loose soil, as well as sediment stockpiles, that are susceptible to uncontrolled sheet flow. Although erosion occurs naturally in the environment, primarily from weathering by water and wind action, improperly managed construction activities can lead to substantially accelerated rates of erosion that are detrimental to the environment.

General Construction Permit

As required by the General Construction permit and associated local NPDES regulations, project applicants for future development pursuant to the proposed General Plan are required to provide evidence that they meet the permit requirements to minimize the potential for soil erosion. In accordance with the updated GCP (Order No. 2009-0009-DWQ), the following Permit Registration Documents (PRDs) are required to be submitted to the SWRCB prior to commencement of construction activities:

- Notice of Intent (NOI)
- Risk Assessment (Standard or Site-Specific)
- Particle Size Analysis (if site-specific risk assessment is performed)
- Site Map

- SWPPP
- Active Treatment System (ATS) Design Documentation (if ATS is determined necessary)
- Annual Fee & Certification

The updated GCP, Order No. 2009-0009-DWQ, uses a risk-based approach for controlling erosion and sediment discharges from construction sites, since the rates of erosion and sedimentation can vary from site to site depending on factors such as duration of construction activities, climate, topography, soil condition, and proximity to receiving water bodies. The updated GCP identifies three levels of risk with differing requirements, with Risk Level 1 having the fewest permit requirements and Risk Level 3 having the most-stringent requirements.

Since the proposed project is a General Plan with eight distinct Focus Areas in the City of San Clemente, a detailed, site-specific risk assessment cannot be performed at this time. However, since the City resides in a watershed considered to be a high-risk receiving water body, it is anticipated that all construction projects subject to the GCP will be, at minimum, a Risk Level 2, with the exception of the southern portion of the Rancho San Clemente Business Park Focus Area.

Construction Best Management Practices

A construction SWPPP must be prepared and implemented at all construction projects with one acre or greater of soil disturbance, and revised as necessary as administrative or physical conditions change. The SWPPP must be made available for review upon request, describe construction BMPs that address pollutant source reduction, and provide measures/controls necessary to mitigate potential pollutant sources. These include, but are not limited to: erosion controls, sediment controls, tracking controls, non-stormwater management, materials and waste management, and good housekeeping practices. These BMPs are described in more detail in the infrastructure study in Appendix E.

Prior to commencement of construction activities within the City of San Clemente, project-specific SWPPP(s) will be prepared in accordance with the site-specific sediment risk analyses based on the grading plans, with erosion and sediment controls proposed for each phase of construction for the individual projects. The phases of construction will define the maximum amount of soil disturbed, the appropriate size sediment basins, and other control measures to accommodate all active soil disturbance areas and the appropriate monitoring and sampling plans for each individual project.

Table 5.8-6 is a general guideline for the minimum BMPs required (where applicable) at all active areas of construction within a project site. An effective combination of erosion and sediment controls should be selected based on the specific site conditions, in particular during major soil-disturbing activities. Good housekeeping practices, such as waste and materials management, non-stormwater management, and tracking controls should be implemented at all times.

Table 5-8.6 Minimum Guidelines for Construction Stormwater Management BMPs

CASQA BMP ID	BMP Name	Minimum Requirement?
Erosion Control		
EC-1	Scheduling	X
EC-2	Preservation of Existing Vegetation	X
EC-3	Hydraulic Mulch	X (1)
EC-4	Hydroseeding	X (1)
EC-5	Soil Binders	X (1)

Table 5-8.6 Minimum Guidelines for Construction Stormwater Management BMPs

CASQA BMP ID	BMP Name	Minimum Requirement?
EC-6	Straw Mulch	X (1)
EC-7	Geotextiles and Erosion Control Mats	X (1)
EC-8	Wood Mulching	
EC-9	Earth Dikes and Drainage Swales	
EC-10	Outlet Protection & Velocity Dissipation Devices	
EC-11	Slope Drains	
EC-12	Streambank Stabilization	
EC-14	Compost Blankets	X (1)
EC-15	Soil Preparation-Roughening	
EC-16	Non-Vegetated Stabilization	X (1)
Sediment Control		
SE-1	Silt Fence	X (2)
SE-2	Sediment/Desilting Basin	X
SE-3	Sediment Trap	X
SE-4	Check Dam	
SE-5	Fiber Rolls	X (2)
SE-6	Gravel Bag Berm	X (2)
SE-7	Street Sweeping and Vacuuming	X (2)
SE-8	Sandbag Barrier	X
SE-9	Straw Bale Barrier	
SE-10	Storm Drain Inlet Protection	X
SE-11	Active Treatment Systems (ATS)	
SE-12	Temporary Silt Dike	X (2)
SE-13	Compost Sock and Berm	X (2)
SE-14	Biofilter Bags	
Wind Erosion Control		
WE-1	Wind Erosion Control	X
Tracking Control		
TR-1	Stabilized Construction Entrance/Exit	X
TR-2	Stabilized Construction Roadway	
TR-3	Entrance/Outlet Tire Wash	
Non-Stormwater Management		
NS-1	Water Conservation Practices	
NS-2	Dewatering Operations	X (3)
NS-3	Paving and Grinding Operations	X
NS-4	Temporary Stream Crossing	
NS-5	Clear Water Diversion	

Table 5-8.6 Minimum Guidelines for Construction Stormwater Management BMPs

CASQA BMP ID	BMP Name	Minimum Requirement?
NS-6	Illicit Connection/Illegal Discharge Detection & Reporting	X
NS-7	Potable Water/Irrigation	
NS-8	Vehicle and Equipment Cleaning	X
NS-9	Vehicle and Equipment Fueling	X
NS-10	Vehicle and Equipment Maintenance	X
NS-11	Pile Driving Operations	
NS-12	Concrete Curing	X
NS-13	Concrete Finishing	X
NS-14	Material and Equipment Use Over Water	
NS-15	Demolition Adjacent to Water	
NS-16	Temporary Batch Plants	
Waste Management And Materials Pollution Control		
WM-1	Material Delivery and Storage	X
WM-2	Material Use	X
WM-3	Stockpile Management	X
WM-4	Spill Prevention and Control	X
WM-5	Solid Waste Management	X
WM-6	Hazardous Waste Management	X
WM-7	Contaminated Soil Management	X
WM-8	Concrete Waste Management	X
WM-9	Sanitary/Septic Waste Management	X
WM-10	Liquid Waste Management	X

Sources: Caltrans Stormwater Quality Handbooks, Construction Site Best Management Practices Manual (March 1, 2003); California Stormwater Quality Association (CASQA); California Stormwater BMP Handbook for Construction; November, 2009.

1. Contractor shall select one of the five measures listed or a combination thereof to achieve and maintain the contract's rainy season disturbed soil area (DSA) requirements.
2. Contractor shall select one of the three measures listed or a combination thereof to achieve and maintain the contract's rainy season disturbed soil area (DSA) requirements.
3. Required if groundwater is encountered during construction activities.

New construction and development of land uses designated in the proposed General Plan would require projects to plan BMPs for four general phases of construction: (1) grading and land development (e.g., mass grade and rough grade), (2) utility and road installation, (3) vertical construction, and (4) final stabilization and landscaping. Therefore, BMP implementation for new construction can be evaluated in this general context. Site-specific details on individual BMPs would be dependent on the scope and breadth of each future project, which are not known at this time.

Long-Term Buildout Activities

Buildout of the City per the proposed Centennial General Plan may result in long-term impacts to the quality of stormwater and urban runoff, subsequently impacting downstream water quality. Land use changes can potentially create new sources of runoff contamination. As a consequence, future projects may have the potential to increase the

postconstruction loadings of certain constituent pollutants associated with the proposed land uses and their associated features, such as landscaping.

To help prevent long-term impacts associated with land use changes and in accordance with the requirements of the City of San Clemente LIP and consistency with OC DAMP and Fourth Term MS4 permit, new development and significant redevelopment projects must incorporate LID/site design and source control BMPs to address postconstruction stormwater runoff management. In addition, PDPs are required to implement site design/LID and source control BMPs applicable to their specific priority project categories, as well as implement treatment control BMPs where necessary. Selection of LID and additional treatment control BMPs is based on the pollutants of concern for the specific project site and the BMP's ability to effectively treat those pollutants, in consideration of site conditions and constraints. Further, both priority and nonpriority projects must develop a project-specific WQMP that describes the menu of BMPs chosen for the project, as well as include operation and maintenance requirements for all structural and any treatment control BMPs.

Since the proposed San Clemente Centennial General Plan does not include a specific development plan, project-specific WQMPs will not be developed for the project at this time. Future project-specific WQMPs, preliminary and/or final, will be prepared consistent with the prevailing terms and conditions of the City's LIP, OC DAMP, and Model WQMP at the time of project application. Moreover, LID 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 the San Clemente Coastal Streams Watershed Workplan.

Predicted Pollutants and Sources

The pollutants of concern for water quality are those that are anticipated (expected) or potentially could be generated by the project, based on past and proposed land uses, along with those that have been identified by regulatory agencies as potentially impairing beneficial uses in receiving water bodies. Table 5.8-7, derived from the Model WQMP and TGD, summarizes typical pollutants of concern for major land uses and project categories, including those anticipated for the San Clemente Centennial General Plan.

Table 5.8-7 Anticipated and Potential Pollutants Generated by Land Use Type

Priority Project Categories and/or Project Features	Suspended Solid/ Sediments	Nutrients	Heavy Metals	Pathogens (Bacteria/ Virus)	Pesticides	Oil & Grease	Toxic Organic Compounds	Trash & Debris
Detached Residential Development	E	E	N	E	E	E	N	E
Attached Residential Development	E	E	N	E	E	E(2)	N	E
Commercial/Industrial Development	E(1)	E(1)	E(5)	E(3)	E(1)	E	E	E
Automotive Repair Shops	N	N	E	N	N	E	E	E
Restaurants	E(1)(2)	E(1)	E(2)	E	E(1)	E	N	E
Hillside Development > 5,000 ft^2	E	E	N	E	E	E	N	E
Parking Lots	E	E(1)	E	E(4)	E(1)	E	E	E
Streets, Highways, & Freeways	E	E(1)	E	E(4)	E(1)	E	E	E
Retail Gasoline Outlets	N	N	E	N	N	E	E	E

Source: County of Orange. (2011, May 19). Technical Guidance Document for the Preparation of Conceptual/ Preliminary and/or Project Water Quality Management Plans (WQMPs). Table 2.1.
E expected to be of concern N not expected to be of concern.
1. Expected pollutant if landscaping exists on-site, otherwise not expected.
2. Expected pollutant if the project includes uncovered parking areas, otherwise not expected.
3. Expected pollutant if land use involves food or animal waste products, otherwise not expected.
4. Bacterial indicators are routinely detected in pavement runoff.
5 Expected if outdoor storage or metal roofs, otherwise not expected.

Water Quality Approach

The overall approach to water quality treatment for the individual projects pursuant to the proposed General Plan and within the Focus Areas would include incorporation of site design/LID strategies and source control measures throughout the site in a systematic manner that maximizes the use of LID features to provide treatment of stormwater and reduce runoff. In accordance with the Fourth Term MS4 Permit for South Orange County, the use of LID features would be consistent with the prescribed hierarchy of treatment provided in the permit, including techniques to infiltrate, filter, store, evaporate, or retain runoff close to its source. For areas of the site where LID features are not feasible or do not meet the feasibility criteria, treatment control BMPs with biotreatment enhancement design features would be utilized to provide treatment. Where applicable, LID features would be analyzed to demonstrate their ability to treat portions of the required design capture volume and reduce the size of downstream onsite treatment control BMPs.

Consistent with regulatory requirements and design guidelines for water quality protection, the following principles are being followed for the project and will be supported by construction level documents in the final WQMPs per each phase of development and prior to grading permit(s) issuance by the City of San Clemente:

- Where feasible, LID features will be sized for water quality treatment credit according to local Regional Board sizing criteria as defined in the Fourth Term MS4 Permit for either flow-based or volume-based BMPs. There will be a significant effort to integrate LID techniques within the internal development areas (site design objectives), thereby providing treatment of low-flow runoff directly at the source and runoff reduction of small (i.e., more frequent) storm event runoff (first flush). In most instances, LID features will be sized by volume-based analyses to demonstrate compliance with the required design capture volume for the project.

- Detailed drainage calculations, grading, and confirmation of sizing to occur during the detailed design phase and subsequent project-specific WQMP documentation.

- Where feasible, LID features will be designed to infiltrate and/or reuse treated runoff onsite in accordance with feasibility criteria as defined in the new countywide model WQMP (approved by RWQCB in May 2011).

- For those areas of the project where infiltration is not recommended or acceptable and harvest/reuse landscaping demands are insufficient, biotreatment LID features will be designed to treat runoff and discharge controlled effluent flows to downstream receiving waters.

Site Planning, Design, and Hydrologic Source Controls

Careful consideration of site design is a critical first step in stormwater pollution prevention from new developments and redevelopments. In general, site design objectives include a combination of factors that may include: minimization of impervious surfaces, including roads and parking lots; preservation of native vegetation and root systems; minimization of erosion and sedimentation from susceptible areas such as slopes; incorporation of water quality wetlands, biofiltration swales, etc., where such measures are likely to be effective and technically and economically feasible; and minimization of impacts from stormwater and urban runoff on the biological integrity of natural drainage systems and water bodies. In accordance with the current MS4 Permit, OC DAMP, and City of San Clemente LIP, new development and redevelopment projects are required to implement site design BMPs to minimize directly connected impervious areas and promote infiltration of runoff. The OC DAMP and 2011 Model WQMP identify example site design BMPs to be implemented where applicable and feasible. Site design measures are listed below that may be applicable to the projects within the Centennial General Plan.

- Maximize the permeable area. This can be achieved in various ways, including but not limited to reducing building/site coverage by increasing building density (number of stories above or below ground) and increasing the amount of landscaping above the minimum City requirements for development. Decreasing the project's footprint can reduce the project's impacts to water quality and hydrologic conditions.

- Construct walkways, trails, patios, overflow parking lots, alleys, driveways, low-traffic streets, and other low-traffic areas with open-jointed paving materials or permeable surfaces, such as pervious concrete, porous asphalt, unit pavers, and granular materials.

- Construct streets, sidewalks, and parking lot aisles to the minimum widths necessary, provided that public safety and a walkable environment for pedestrians are not compromised.

- Incorporate landscaped buffer areas between public sidewalks and streets (e.g. detached sidewalks) and preserving landscaped parkways.

- Maximize canopy interception and water conservation by preserving existing trees and shrubs and planting additional drought-tolerant trees and large shrubs.

- Where soils conditions are suitable, use perforated pipe or gravel filtration pits for low flow infiltration.
- Where landscaping is proposed, drain rooftops into adjacent landscaping prior to discharging to the storm drain. Drain impervious sidewalks, walkways, trails, and patios into adjacent landscaping.
- Increase the use of vegetated drainage swales in lieu of underground piping or imperviously lined swales.
- Design driveways with shared access, flared (single lane at street) or wheel strips (paving only under tires), or, drain into landscaping prior to discharging to the municipal storm drain system.
- Other design concepts that are comparable and equally effective.

Many of the site design BMPs may also be considered LID features. The goal of using LID features is to mimic the site's existing hydrology by using design measures that capture, filter, store, evaporate, and detain runoff, rather than runoff flowing directly to piped or impervious systems. This includes directing runoff to vegetated areas, protecting native vegetation, and reducing the amount of impervious surface. These integrated site design controls (also referred to as "hydrologic source controls," or "HSCs" in the model WQMP) are effective at reducing the amount of runoff onsite and may be designed to capture a portion of the design capture volume for the project. Examples of these features include use of disconnected downspouts, rain barrels, and localized dispersion. The selection of appropriate site design BMPs, HSCs, and LID features will be determined at the time of development project applications to the City.

Low Impact Development BMPs

Under the Fourth Term MS4 Permit and 2011 Model WQMP, project-specific onsite feasibility analyses shall be conducted to determine the amount of runoff that 1) can feasibly be retained (via infiltration, harvest and reuse, or evapotranspired), and 2), if not completely retained then bio-treated on-site. Table 5.8-8 provides examples of the various LID features that may be used for onsite retention of runoff when properly sized and designed in accordance with the Model WQMP and Fourth Term MS4 Permit requirements.

Table 5.8-8 Low Impact Development BMP Options

Infiltration	Harvest and Reuse	Evapotranspiration	Biotreatment
• Bioretention without underdrains • Infiltration trenches • Infiltration basins • Drywells • Underground infiltration • Permeable pavement	**Storage Options:** • Above-ground cisterns • Underground detention **Potential Reuse Options:** • Irrigation • Toilet flushing • Vehicle/equipment washing • Evaporative cooling • Industrial processes • Other non-potable uses	• Green roofs • Brown roofs • Blue roofs	• Bioretention with underdrains • Constructed wetlands • Wet detention basins • Dry extended detention basins • Vegetated swales • Vegetated filter strips • Proprietary biotreatment

Source: County of Orange Planning Division, 2011, May 19, Model Water Quality Management Plan (WQMP), Technical Guidance Document (TGD).

A detailed description of infiltration, harvest and reuse, evapotranspiration, and biotreatment BMPs and their applicability to the City is provided in the infrastructure technical report in Appendix XX. With respect to the use of

infiltration BMPs, it should be noted that the Camino de Estrella/Camino de Los Mares and Rancho San Clemente Business Park focus areas are in areas of predominantly HSG D soils, where infiltration would be considered infeasible. The remaining focus areas are in a geographic location that includes a mixture of HSG B, C, and D soils, where infiltration may be potentially feasible.

Harvest and reuse BMPs include several types of systems that collect and temporarily store stormwater runoff for future reuse onsite as irrigation water or other nonpotable domestic use. The Model WQMP TGD provides criteria for evaluating feasibility of harvest and reuse systems for two primary types of demand: outdoor irrigation and toilet/urinal flushing. The feasibility analysis requires development-specific information that is not available at the General Plan level. Therefore, harvest and reuse demand will be determined on a project-by-project basis within project-specific WQMPs.

Evapotranspiration BMPs primarily include green roofs (vegetated roofs) or blue roofs (storage of stormwater on rooftops). The Model WQMP recognizes that these types of BMPs are considered beyond the MEP standard and therefore are considered optional for use on project sites where they don't result in violations of existing codes or ordinances.

The Fourth Term MS4 permit and the 2011 Model WQMP identify that if the full first-flush/design capture volume is not able to be captured by either infiltration BMPs or harvest and reuse BMPs based on site conditions, then biotreatment BMPs shall be considered for use to treat the remaining runoff volume. These BMPs differ from infiltration and harvest and reuse BMPs in that runoff is treated and released from the project site, rather than retained onsite. The treated runoff is then discharged from the property. Examples of biotreatment BMPs include bioretention cells and bioswales with underdrains, constructed wetlands, and proprietary modular bioretention systems. Biotreatment is considered feasible for future projects within the San Clemente General Plan Focus Areas.

Alternative Approaches and Treatment Control BMPs

The Fourth Term MS4 Permit and the Model WQMP also include alternative approaches for water quality treatment for projects where, based on the feasibility analyses, implementation of LID onsite is determined infeasible. For alternative approaches to be used in lieu of LID, a waiver request must be submitted to the City of San Clemente and the San Diego RWQCB for approval. Alternative compliance programs include use of treatment control BMPs, offsite mitigation projects, regional BMPs, and payment into an in-lieu funding program.

Regional BMPs and Offsite Mitigation. As of June 2013, urban mitigation funds or other "in-lieu" programs have not yet been developed and approved by the RWQCB. Therefore, use of these programs is not anticipated.

Treatment Control BMPs. If, based on the screening and feasibility studies conducted, LID BMPs were found to be infeasible for implementation on a project site and a waiver request has been approved, treatment control BMPs may be utilized to treat runoff from the project site. Treatment BMPs may be utilized to treat either partial treatment of runoff that is not treated by LID BMPs or the entire design capture volume for the site, and may be utilized as stand-alone BMPs or in combination with other BMPs to ensure adequate treatment is provided for the project's pollutants of concern. Examples of treatment control BMPs include sand/media filters (includes proprietary), baffle-box systems, and hydrodynamic separators.

Based on the proposed land use changes under the Centennial General Plan, it is anticipated that a combination of infiltration, harvest and reuse, and biotreatment BMPs would be sufficient to capture and treat the entire first flush/design capture volume for the individual project sites in accordance with the Model WQMP. Therefore, additional treatment control BMPs are not anticipated at this time. Should additional treatment controls be necessary

based on the results of the site-specific BMP feasibility studies conducted during the design phase of the project, waiver request(s) will be submitted and the results of the studies with proposed treatment control BMPs will be documented in the project-specific WQMPs.

Water Quality Credits. The Model WQMP allows local jurisdictions to develop a water quality credit program that allows certain types of development projects to claim water quality credits, if applicable, after demonstrating LID feasibility or infeasibility through the waiver process. Projects that may potentially be eligible for credits include but are not limited to redevelopment projects that reduce overall imperviousness of a site, brownfield redevelopments, certain higher density projects and mixed-use developments, transit-oriented development districts, and other infill projects. Application of water quality credits reduces the overall treatment volume requirement (design capture volume) that may have otherwise been unmet with the application of LID BMPs. Credits can be applied to reduce up to 50 percent of the original design capture volume required to be treated onsite. In south Orange County, a waiver must be approved before water quality credits can be claimed.

Based on the land uses for the Centennial General Plan, the use of water quality credits is not anticipated, though some higher density projects may qualify. The prescribed LID BMPs for site-specific projects would be sized to treat the entire first flush/design capture volume for their respective properties.

Source Control BMPs. Source control BMPs effectively minimize the potential for typical urban pollutants to come into contact with runoff, thereby limiting water quality impacts downstream. This includes nonstructural measures, such as activity restrictions, maintenance, and training practices, and structural measures, such as material storage area and loading dock design features. A list of potential source control measures are provided below as identified in the countywide Model WQMP. Descriptions of each of the measures are provided in the infrastructure study in Appendix E.

- (N1) Education for Property Owners, Tenants, and Occupants.
- (N2) Activity Restrictions.
- (N3) Common Area Landscape Management.
- (N4) BMP Maintenance.
- (N5) Title 22 CCR Compliance.
- (N7) Spill Contingency Plan.
- (N8) Underground Storage Tank Compliance.
- (N9) Haz-Mat Disclosure Compliance.
- (N10) Uniform Fire Code Implementation.
- (N11) Common Area Litter Control.
- (N12) Employee Training.
- (N13) Housekeeping of Loading Docks.
- (N14) Common Area Catch Basin Inspection.
- (N15) Street Sweeping Private Streets and Parking Lots.
- (N17) Retail Gasoline Outlets.
- Storm Drain Stenciling and Signage.
- Proper Outdoor Hazardous Material Storage Design.
- Trash Enclosures.
- Efficient Irrigation Systems and Landscape Design.

- Protect Slopes and Channels.
- Loading Dock Areas.
- Maintenance Bays.
- Equipment Wash Areas.
- Vehicle Wash Areas.
- Outdoor Processing Areas.
- Fueling Areas.
- Hillside Landscaping.
- Wash Water Controls for Food Preparations Areas.
- Community Car Wash Racks.

Summary

Based on the incorporation of site design, LID features, and BMPs as required under the City LIP and OC DAMP, individual development projects within the City would be required to treat runoff prior to exiting the sites. As a result, water quality exceedances are not anticipated, and pollutants are not expected in project runoff that would adversely affect beneficial uses in San Clemente Coastal Streams Watershed. Individual assessments are provided below:

Sediment: Sediments are typically characterized into two main categories: coarse sediment that includes large sand grains, pebbles, etc., and fine particulate sediments that include total suspended solids (TSS). Of concern to water quality are the fine particulate sediments that are more typically associated with sheet erosion. The majority of the land use changes under the Centennial General Plan would allow for greater impervious surface changes than existing conditions, but the proposed project would not result in increasing sheet erosion potential through increasing exposed areas. However, during the construction of individual projects, sediment has the potential to move offsite due to the exposed condition of the site. In order to reduce the amount of sediment discharged offsite individual projects that disturb one acre or greater of soil will implement an effective combination of erosion and sediment control BMPs in conformance with the General Construction Permit (GCP). During the postdevelopment condition, any sediment and TSS generated from site-specific developments will be collected in the proposed LID features and BMPs, which are considered effective for targeting pollutants typically associated with these impervious surfaces. Field data indicates sediment removals in the range of 90 percent for bioretention-based BMPs and 100 percent for infiltration and harvest and reuse BMPs since all low-flow runoff is retained. As a result, sediment impacts to water quality are considered less than significant.

Trash and Debris: Urban development can generate significant amounts of trash and debris if not properly managed. The land use changes associated with the General Plan Focus Areas are expected to increase the amount of potential trash and debris generated on the individual project sites from existing conditions. However, individual projects would implement additional measures, such as source control measures and LID BMPs, to minimize the adverse impacts of trash and debris. Source control measures such as periodic sweeping, litter patrol, and storm drain stenciling would be effective in reducing the amount of trash and debris leaving the site. Site design and LID BMPs also possess moderate to high removal effectiveness for trash and debris. Field data indicates high trash and debris removal using bioretention-based BMPs identify more than 95 percent capture/removal of trash from stormwater runoff. Infiltration BMPs typically trap the majority of gross pollutants through pretreatment or a sediment forebay. Based on the implementation these features at the individual project sites, impacts from trash and debris for the Centennial General Plan are less than significant.

Oil and Grease: Oil and grease limits are defined as a qualitative standard (e.g., no film on surface waters) due to the difficulties in setting single limit or composite sampling water quality standards.

The individual projects as part of the proposed General Plan can implement several source control measures to reduce the amount of oil and grease in stormwater from the project sites. Maintenance activities, vehicle and equipment fueling and waste handling that have the potential to introduce oil- and grease-related compounds would be strictly prohibited in outdoor areas where they could potentially come into contact with rain. Based on the incorporation of source control and LID BMPs, levels of oil and grease or other hydrocarbons such as PAHs that could adversely affect beneficial uses of the project's receiving waters or exceed water quality standards are not anticipated. In addition, individual projects would route all low-flow storm events through infiltration or biotreatment BMPs, which are highly effective at removing oils and grease from stormwater. Field data indicates oil and grease removals in the range of 80 percent for bioretention based BMPs and assumed to be 100 percent for infiltration facilities since all low flow runoff is retained onsite. Impacts on water quality as a result of the proposed Centennial General Plan are less than significant.

Bacteria/Pathogens: Based on the existing conditions and land use/pollutant categories, projects may be a source of pathogens, especially during stormwater runoff conditions. There are numerous potential natural and anthropogenic sources of bacteria indicators, including birds, other wildlife, soils and plant material, domesticated animals and pets, human sources from outdated septic systems, and improper human waste disposal. Since natural sources of pathogens are difficult to control (such as wild animal waste), the focus of the source control measures for the project sites is on human-related (anthropogenic) and residential sources. In order to reduce the proposed pathogen contributions from the Focus Areas, the following source control measures are recommended for implementation at the individual project sites:

- Landscaping with efficient irrigation design at the project sites to control runoff and allow for maximum infiltration opportunities.
- Proper monitoring and maintenance of landscaped areas to remove accumulated dead plant material and debris.
- Landscape maintenance activities that include the removal of animal feces.
- Activity restrictions on outdoor mat washing and equipment cleaning related to restaurant and dining activities, which potentially contribute bacteria entrained in stormwater, as well as waste accumulation and disposal methods
- Site design features and LID BMPs (e.g., pervious pavements, bioretention) further treat bacteria in stormwater runoff via infiltration and filtration.

The available data on the effectiveness of the treatment control BMPs for bacteria indicators is limited. The 2003 California BMP Handbook rates bioretention areas and infiltration BMPs as having high removal efficiencies for bacteria and organics. Bioretention-based BMPs and infiltration typically reduce bacteria by 90 percent. Based on these considerations for the individual project sites, the pathogen runoff potential for the proposed Centennial General Plan is less than significant.

Pesticides: Pesticides can be of concern based on potential uses as well as previous uses. Using only native and other drought-tolerant species for landscaping purposes minimizes the use of pesticides and uses less irrigation that could potentially cause runoff. Low-demand irrigation systems should also be used onsite to ensure minimal runoff from irrigation that has the potential to transport pesticides. In addition, source control measures, such as provisions against applying pesticides prior to expected rain events and the use of properly certified pesticide workers, are recommended.

As a result of these and similar source control measures, it is anticipated that water quality standards for pesticides would not be exceeded, and potential pesticide impacts are less than significant.

Nutrients: Nutrients, particularly nitrogen and phosphorous found within common fertilizers, can be a concern based on the potential for overapplication and overuse. Similar to the source control measures for pesticides, using only native drought-tolerant species for landscaping purposes typically requires less fertilizers and irrigation and thereby reduces runoff potential. Low-demand irrigation systems with slow release fertilizers are recommended to be used onsite to ensure minimal runoff from irrigation that has the potential to transport nutrients in runoff. Slow-release fertilizers are inorganic fertilizers that release nutrients at a slower rate and are less susceptible to leaching and loss of fertilizer in runoff from rain events. In addition, source control measures, such as provisions against applying fertilizers proximate to expected rain events, are also recommended. Further, filtration-based LID BMPs (e.g., rain gardens, bioretention with underdrains, etc.) can provide some removal rates although nutrient removal is challenging with commonly accepted LID BMPs based on the design necessity for internal water storage zones and anoxic conditions.

Through the proper implementation of source control design measures, native drought-tolerant landscaping, public education materials to commercial property management, and infiltration/biotreatment BMPs, excessive nutrient loads from the project site are not anticipated or expected. Field data indicates nutrient pollutant removals in the range of 70 to 80 percent for phosphorous and 40 percent for nitrogen for bioretention-based BMPs. Similarly, infiltration BMP removal effectiveness for total phosphorus (TP) and total Kjeldahl nitrogen (TKN) has been shown to be 51 percent and 65 percent, respectively, if there is any discharge of stormwater from the basin. Nutrients would not be contained in project runoff at levels that could adversely affect water quality or beneficial uses in downstream receiving waters, and potential nutrient impacts are less than significant.

Metals: Copper, lead, and zinc are the most common metals found in urban runoff. Other trace metals such as chromium, mercury, and nickel are not usually detected in urban runoff or are measured at very low levels. The incorporation of the site design measures and LID BMPs throughout the individual project sites would provide a means for the settling of metals attached to particulates as well as vegetative uptake of metals. Field data indicates pollutant removals in the range of 93 to 98 percent for bioretention-based BMPs and 85 to 90 percent for infiltration BMPs. Additional source control measures, such as street and parking lot sweeping, would also reduce the potential for metals to reach the storm drain system. As a result, it is anticipated that water quality standards would not be exceeded, and potential impacts from metals are less than significant.

Oxygen-Demanding Substances: Oxygen-demanding substances include all organic materials, which consume oxygen as they decompose. Animal droppings, sewage overflows, fallen leaves, and grass clippings are a few examples of oxygen-demanding substances. The combination of site design features and source control measures LID BMPs at the individual project sites reduce the potential for these types of substances to be created on the individual project sites, and structural measures including the LID BMPs provide a means to remove the potential for these substances to enter the downstream water bodies. Field data indicates organics removals in the range of 90 percent for bioretention-based BMPs, and complete removal can be assumed for infiltration BMPs as discharges are eliminated. In certain cases, additional pretreatment devices (screens, filters, etc.) may be necessary upstream of the proposed biotreatment BMPs to reduce the potential for clogging. Impacts of oxygen-demanding substances are considered less than significant.

Dry Weather Flow: Although the previous discussions have focused on wet weather flows, dry weather flows are also important. Dry weather flows due to anthropogenic sources have the potential to impact local receiving water bodies. Dry weather flows are typically low in coarse sediment due to the low flow rates, but pollutants associated with suspended solids, such as phosphorous, trace metals, pesticides, are typically found in low concentrations in dry weather flows. The land use changes associated with the General Plan Focus Areas are not expected to generate

significant amounts of dry weather flows due to the drought-tolerant landscaping, the use of efficient irrigation systems, the lack of high intensive water use activities onsite, and the use of integrated stormwater landscaping features to collect, hold, and treat these flows and eliminate dry flow discharges from the individual project sites (site design features and LID BMPs). Therefore, there are no significant impacts anticipated with respect to water quality as a result of dry weather flows.

Vector Control: The use of integrated stormwater landscaping (e.g., LID features) for stormwater treatment may increase the potential for vector issues due to the potential for standing water in these features. The potential for mosquito breeding is considered a risk when ponding water exists longer than 72 hours. Thus, any site design features and LID BMPs would be designed to infiltrate and/or discharge from the facility within 24 to 48 hours, in accordance with City and OC DAMP requirements. In the event additional vector control is needed, a number of abatement measures would be used, including habitat reduction (reconfiguring of plant palettes), temporary flooding and drying (draining) of the ponds, trapping and killing pests, and biochemical pesticides (i.e., the bacteria *Bacillus sphaericus* [Bs] and *Bacillus thuringiensis israeliensus* [Bti]).

Groundwater Impacts: Literature regarding infiltration BMPs indicates that most pollutants in infiltrated water are effectively treated in the uppermost soil layers of infiltration BMPs. A component of the Nationwide Urban Runoff Program Project conducted in Fresno, California, indicated that chemicals which tend to absorb to particulates (e.g., trace metals) are effectively removed in the upper few centimeters of the soil column. A more recent study also concluded that even chemicals such as organochlorine pesticides and polycyclic aromatic hydrocarbons in an industrial catchment in Fresno were found to be adsorbed in the upper four centimeters of sediment.

Infiltration BMPs, such as pervious pavement and infiltration trenches, require a depth of 10 feet or greater to groundwater to minimize the impacts from stormwater pollutants. For sites with shallow groundwater, infiltration BMPs are not recommended unless designed with impermeable liners and subdrains. For sites with greater than 10 feet depth to groundwater, infiltration BMPs may be utilized onsite for water quality treatment. Based on these design requirements, no pollutants from project runoff are expected to reach groundwater, and groundwater quality impacts are expected to be less than significant.

Impact 5.8-5: The project site is not located within the inundation area of any major dam or levee. [Threshold HYD-9]

Impact Analysis: The City of San Clemente is not within the inundation area of any major dam or levee. Therefore, impacts associated with flooding as a result of the failure of a levee or dam or less than significant.

Impact 5.8-6: The site would not be subject to inundation by seiche, tsunami, or mudflow. [Threshold HYD-10]

Impact Analysis: Future sea level rise scenarios are increasingly being incorporated into engineering design and environmental impact analyses for projects on or near the coast. Based on the Pacific Institute report, "The Impacts of Sea-Level Rise on the California Coast" (May 2009), the analysis and associated data is graphically shown in Figure 5.8-5, *Projected Sea Level Rise*. From the study, all elevations of approximately 9.5 feet or less above mean sea level along the coastline within San Clemente would be subject to inundation based on sea level rise estimates. Based on review of San Clemente's coastline and Centennial General Plan, the majority of development and infrastructure are above the projected sea level rise elevation. Of particular note for the Centennial General Plan are the North Beach/El Camino Real and Pier Bowl Focus Areas. Sea level rise at the North Beach/El Camino Real Focus Area is anticipated to

encroach just below the existing railroad, which is approximately three feet below the nearest developable area, currently occupied by an existing parking lot. With respect to the Pier Bowl Focus Area, the sea level rise is approximately a five feet difference between the nearest developable area. Therefore, sea level rise impacts are considered less than significant.

Figure 5.8-6, *Tsunami Emergency Response Planning Zone* is provided by the State of California Department of Conservation. These tsunami inundation maps were produced in 2009 to show the projected areas that would potentially be subject to inundation by a tsunami. Due to its proximity to the coast, the North Beach/El Camino Real and Pier Bowl Focus Areas may be subject to inundation by tsunami. However, the projected tsunami inundation area and inundation line are well below the majority of the developable land use areas and primarily affect open space land uses and existing beachfront properties or trailer parks. As a result, tsunami impacts are considered less than significant.

There are no major dams or reservoirs in the City that would cause a seiche. The existing storm drain system includes upstream debris basins to control debris and sediment from storm events. In addition, the built-out conditions of the City also reduce the chance and likelihood of major mudflow conditions. Therefore, impacts from seiches and mudflows are considered less than significant.

5.8.4 Relevant General Plan Policies

Coastal Element

Coastal Hazards

C-4.01 **Avoidance.** We first seek hazard avoidance as the primary method of minimizing exposure to coastal hazards.

C-4.02 **Hazards Review.** We review applications for new development, land divisions and plan amendments to determine the presence of hazards and, if they are present, ensure the hazards are avoided and/or mitigated, as discussed in the Safety Element [link to SE Homepage].

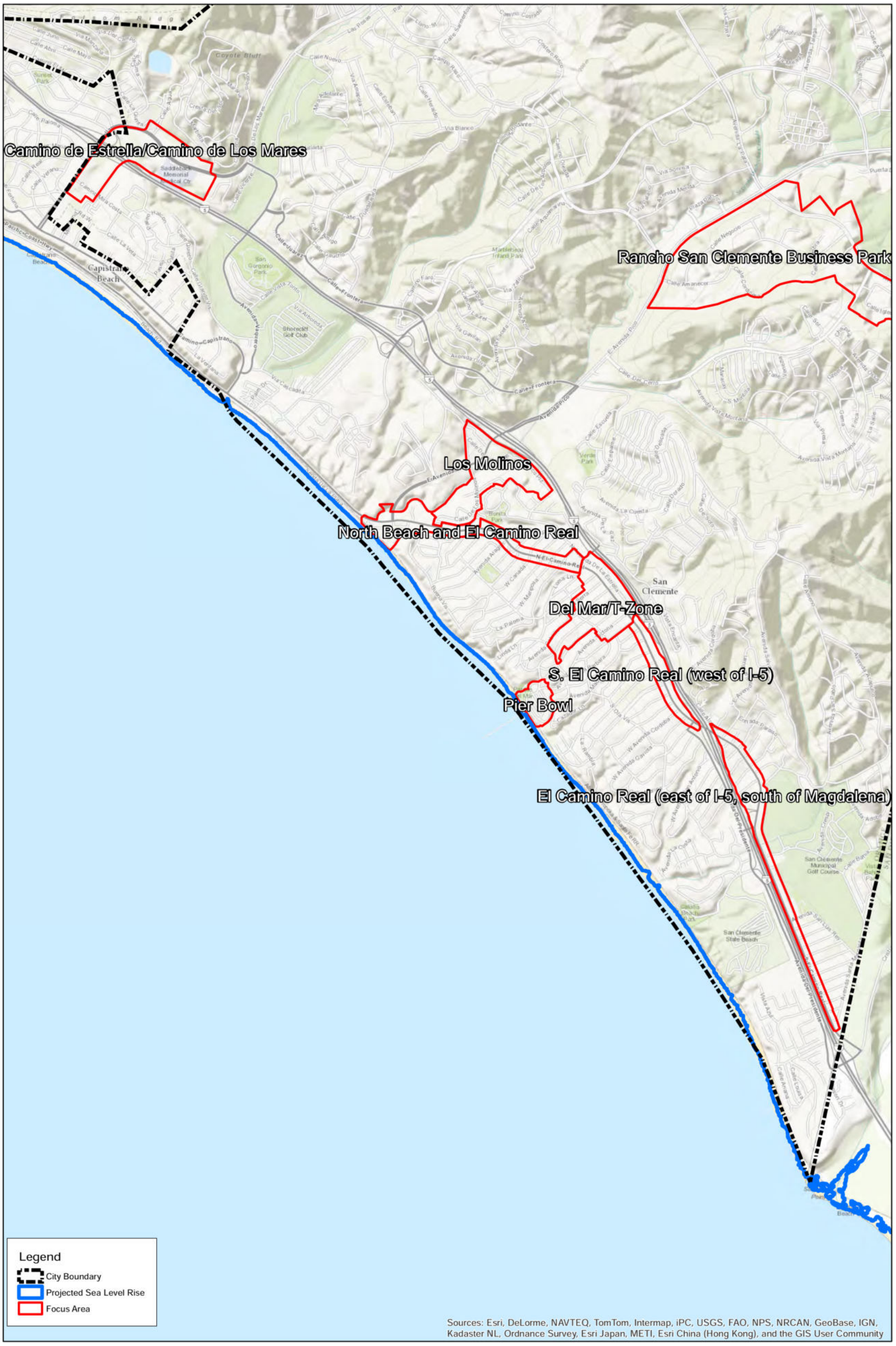
C-4.03 **Sand Protection, Enhancement and Restoration.** Wide beaches provide critical protection against storm surges and tsunami run-up, and we participate in state and regional initiatives that address the protection, enhancement, and restoration of sand and other sedimentary deposits on our coastal beaches.

C-4.04 **Sea Level Rise Monitoring.** We monitor the issue of potential future sea level rise, both in the short term via permitting actions and in the long-term to address future development impacts along the shoreline.

C-4.05 **Sea Level Rise Protection.** We require shoreline development and bluff retention devices to be sited and designed to take into account predicted future changes in sea level. New structures shall be set back a sufficient distance landward or be designed to eliminate or minimize, to the maximum extent feasible, hazards associated with anticipated sea level rise, as established by Federal or State authorities, over the expected economic life of the structure.

C-4.06 **Ongoing Study.** We support efforts by other agencies to study the potential impacts of continued and accelerated sea level rise and flooding of water ways on the existing or proposed structures within all development zones, including impacts to development zones, traffic flow, public access, natural areas and water quality.

Projected Sea Level Rise



Source: Fuscoe 2013

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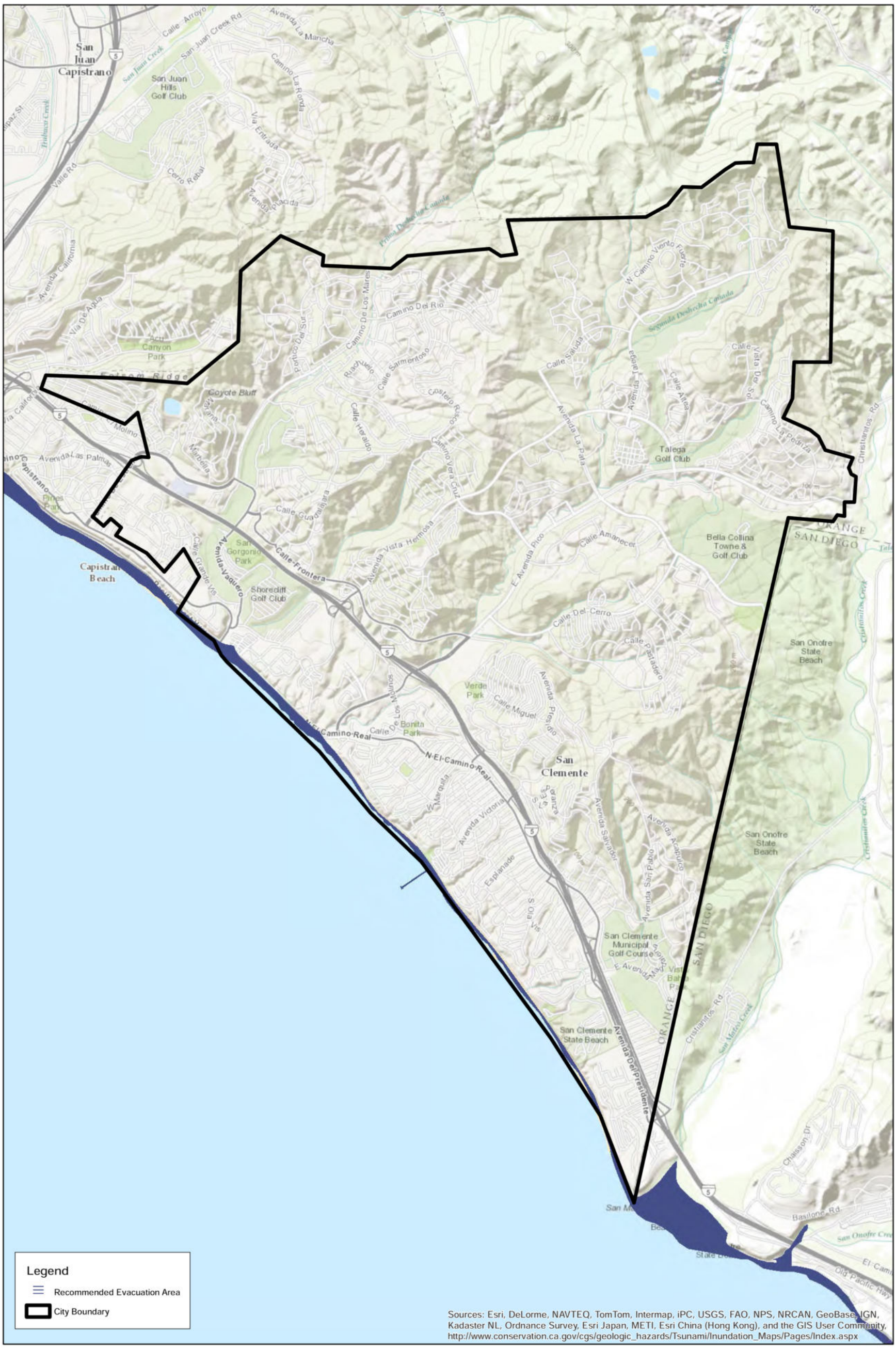
Tsunami Emergency Response Planning Zone



Source: Fuscoe 2013

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Coastal Element Implementation Measures

14. Implement the City's Policy and Procedure (effective date September 5, 2001) regarding Management of Beach Facilities in terms of their maintenance, replacement, protection, or relocation.

15. Update hazard maps (e.g., sea level rise, flood zones, etc.) as new information becomes available and make these publicly available.

16. Prepare and implement a shoreline management strategy which includes, but is not limited to, the following:

    a. An examination of local and regional long-term erosion rates and trends to identify and plan for shoreline changes.

    b. An examination of mean sea level elevation trends and future sea level rise projections to help determine future erosion rates and plan for potential shoreline changes.

Safety Element

Flooding and Marine Hazards

S-2.01 **Flood Control Channels.** Whenever feasible, we support the restoration of concrete lined channels back to natural earthen channels.

S-2.02 **Drainage Obstruction.** We require that property owners along canyons and watercourses keep natural drainage courses on their sites free of obstructions such as structures and dams, which may adversely affect flooding on the site or downstream properties.

S-2.03 **100-Year Flood Zone.** We prohibit development within the 100-year flood zone unless adequate mitigation is provided against flood hazards.

S-2.04 **Regulations.** We implement Federal, State, and County flood control regulations as appropriate.

S-2.05 **Interagency Coordination.** We coordinate appropriate procedures for police, fire and other agency to respond during flooding, consistent with Federal, State, and County regulations, as well as the City of San Clemente Emergency Plan.

S-2.06 **Information.** Where accurate and reliable information regarding flooding, tsunami, and sea level rise hazards is available, the City seeks to make such information publicly available to help reduce flooding and marine hazards.

Safety Element Implementation Measures

4. Review and update drainage and water retention studies and improvement plans to incorporate appropriate best practices and Federal, State, and County flood control regulations.

5. Evaluate and report on the feasibility of restoring concrete-lined drainage channels back to natural earthen channels.

6. Obtain and maintain information on flooding, tsunami, and sea level rise hazards and make the information publicly available.

Public Services, Facilities and Utilities Element

Water and Wastewater

PSFU-5.11 **Low Impact Design Strategies.** We require the use of low-impact site development designs and strategies to slow urban runoff, improve filtration, and reduce the volume of discharges through best management practices.

PSFU-5.11 **Xeriscape Planting to Conserve Water.** To conserve water, we require new development to plant drought-tolerant landscaping, consisting of at least 60 percent (by landscaped area) California Native plants, in new development and encourage its use in existing development.

Stormwater and Runoff

PSFU-7.01 **Stormwater and Urban Runoff Management.** We maintain a comprehensive stormwater/urban runoff management plan, and provide adequate funding to implement the plan, to minimize impacts on our watershed, canyons, coastal bluffs, beaches and marine resources.

PSFU-7.02 **Monitoring.** We regularly inventory and inspect stormwater and drainage facilities and programs to ensure their protection of water quality and effectiveness.

PSFU-7.03 **Enforcement.** We maintain adequate legal authority to implement and enforce local plans and ordinances and regional, state and federal requirements for stormwater runoff management and mitigation to protect our water quality.

PSFU-7.04 **Development Review.** We require that new development and significant redevelopment projects (as defined in the City's Stormwater Local Implementation Plan) implement appropriate site design, source control/non-structural and structural best management practices to reduce or eliminate stormwater and urban runoff and pollution, to the maximum extent practicable.

PSFU-7.05 **Impervious Surfaces.** We minimize the amount of impervious surfaces and directly connected impervious surfaces in areas of new development and redevelopment and, where feasible, slow runoff and maximize on-site infiltration, except where infiltration would exacerbate geologic hazards.

PSFU-7.06 **Urban Run-off Quantity.** We encourage the use of low impact development strategies to intercept run-off, slow the discharge rate, increase infiltration and ultimately reduce discharge volumes to meet design capacities of City storm drain systems.

PSFU-7.07 **Erosion and Sediment Loss.** We avoid development of areas that are particularly susceptible to erosion and sediment loss or establish development guidance that identifies these areas and required measures to protect them from erosion and sediment loss.

PSFU-7.08 **Creation and Restoration of Areas with Water Quality Benefits.** We preserve, and where possible, create or restore areas that provide important water quality benefits, such as riparian corridors, wetlands, and buffer zones and encourage land acquisition of such areas.

PSFU-7.09 **Vehicles and Traffic.** We coordinate local traffic management efforts with the Orange County Transportation Authority's Congestion Management Plan [http://www.octa.net/pdf/2011-CMP.pdf] in an effort to reduce pollutants associated with vehicles and increasing traffic resulting from development.

PSFU-7.10 **Coordination.** We coordinate with Stormwater Local Implementation Plan (LIP) permittees on program development through the Drainage Area Master Plan (DAMP), common program

implementation (such as monitoring, public education and watershed programs), fiscal resources for shared budgets and overall program direction.

PSFU-7.11 **New Programs.** We coordinate among City departments in the development of new programs and best management practices effectiveness studies.

PSFU-7.12 **Public Education.** We provide training and educational information regarding stormwater and urban runoff management to the public and City staff.

Public Services, Facilities and Utilities Element Implementation Measures

34. Continue the Clean Ocean Program to protect water quality through such activities as urban runoff treatment, site inspections, pollution reporting hotline and water quality monitoring.

35. Include specific measure to address need for sidewalk cleaning while protecting water quality and preventing runoff.

5.8.5 Existing Regulations and Standard Conditions

Federal

- United States Code Title 42, Sections 300f et seq.: Safe Drinking Water Act
- United States Code, Title 33, Sections 1251 et seq.: Clean Water Act
- Code of Federal Regulations Title 40 Parts 122 et seq.: National Pollutant Discharge Elimination System.

State

- California Water Code Sections 13000 et seq.: Porter-Cologne Water Quality Act
- California Code of Regulations Title 24 Part 5: California Plumbing Code

Local

- Statewide General Construction Activity NPDES Permit CAS000002, State Water Resources Control Board
- NPDES Permit CAS618036; MS4 Permit governing discharges to stormwater. Issued by Santa Ana Regional Water Quality Control Board.
- City of San Clemente Municipal Code Sections 13.40.050 (New development and significant redevelopment), 13.40.55 (Water Quality Management Plan requirements), and 13.40.057 (Best management practice and monitoring program requirements).

5.8.6 Level of Significance Before Mitigation

Upon implementation of regulatory requirements and standard conditions of approval, the following impacts would be less than significant: 5.8-1, 5.8-2, 5.8-3, 5.8-4, 5.8-5, and 5.8-6.

5.8.7 Mitigation Measures

No mitigation is required.

5.8.8 Level of Significance After Mitigation

Impacts would be less than significant, and no significant and unavoidable impacts to hydrology and water quality would occur.

5.9 LAND USE AND PLANNING

This section of the Draft Environmental Impact Report (DEIR) evaluates the potential impacts to land use in the City of San Clemente and its sphere of influence (SOI) from implementation of the proposed Centennial General Plan. This section is based on the proposed land uses described in detail in Section 3, *Project Description*, and shown in Figure 3-4, *Proposed Land Use Plan*. The proposed goals and policies have been evaluated to determine their consistency with other relevant sections of the Centennial General Plan. In addition, compatibility of proposed land use changes with existing land uses in the surrounding area is discussed in this section. The proposed project is also evaluated for consistency with the Southern California Association of Governments' Regional Transportation Plan/Sustainable Communities Strategy and Compass Growth Vision.

Land use impacts can be either direct or indirect. Direct impacts result in land use incompatibilities, division of neighborhoods or communities, or interference with other land use plans, including habitat or wildlife conservation plans. This section focuses on direct land use impacts. Indirect impacts are secondary effects resulting from land use policy implementation, such as an increase in demand for public utilities or services, or increased traffic on roadways. Indirect impacts are addressed in other topical sections of this DEIR.

5.9.1 Environmental Setting

The city of San Clemente is in the southeastern corner of Orange County. As shown in Figure 3-1, *Regional Vicinity Map*, San Clemente is surrounded by the Pacific Ocean to the southwest; the cities of Dana Point and San Juan Capistrano to the northwest; unincorporated areas of Orange County to the north; and San Onofre State Beach and Camp Pendleton in unincorporated San Diego County to the southeast. An aerial photograph of the City and surrounding area is shown in Figure 3-2, *Citywide Aerial*.

Existing Land Uses

San Clemente has developed from a small residential village next to the ocean and surrounded by undeveloped rolling hills to a full-service suburban community that is largely built out. The majority of the City west of Interstate 5 (I-5) is urbanized with a mix of single-family, multifamily, commercial, and institutional land uses. This area includes the City's historical core, laid out by Ole Hanson as a "Spanish Village by the Sea" in the 1920s. Areas east of I-5 are dominated by single-family residential uses and dedicated open spaces but also include business parks and other land uses. Large, previously undeveloped areas in the City east of I-5 (Marblehead Inland, Forster Ranch, Rancho San Clemente, and Talega) have been developed in recent decades. Most of the vacant land consists of small infill sites scattered throughout the City.

The City's incorporated boundaries encompass approximately 18.4 square miles or 11,754 acres. Undeveloped open space and single-family residential uses make up a majority of that acreage, as shown in Figure 3-3, *Existing Land Use*. In comparison, commercial, office, industrial, and institutional uses constitute a small percentage of the City's land area. Interstate 5 traverses the City from northwest to southeast, connecting it with other Orange County communities and Los Angeles County to the northwest and San Diego County to the southeast. A rail line used by Metrolink and Amtrak also traverses the City, adjacent and parallel to the Pacific Ocean.

Water bodies in the City consist of 14 reservoirs, man-made lakes developed parks and golf courses, detention/percolation basins, watercourses, and drainage/flood control channels.

LAND USE AND PLANNING

Existing Surrounding Land Uses

San Clemente is at the southernmost end of Orange County. Adjacent developed urban areas are limited to the northwest, which consists of residential neighborhoods in the cities of Dana Point and San Juan Capistrano. To the north, the City is surrounded by undeveloped hillside areas in San Juan Capistrano and unincorporated Orange County. To the east and southeast is San Diego County, and the City is adjacent to open space at San Onofre State Beach. Directly beyond that narrow open space corridor, which follows San Mateo Creek, is the largely undeveloped Camp Pendleton Marine Corps Base (see Figure 3-2, *Citywide Aerial*).

Current General Plan and Land Use Designations

The current General Plan for the City of San Clemente was adopted in 1993. Table 3-1, *1993 General Plan Land Use Summary*, provides land use statistics (e.g., land use designations, acreages by land use designation) for the current General Plan. Currently, five land use designations regulate residential development at densities between a minimum of 1 dwelling unit per 20 gross acres (or 1 unit per legal parcel of record) to a maximum of 24 units per gross acre. Seven commercial land use designations regulate retail, service, and office uses, ranging from neighborhood- to regional-serving commercial development. Twelve mixed-use designations permit a mix of residential, commercial, institutional, and other uses. These mixed-use designations were strategically applied to specific areas of the City to establish, pedestrian-oriented activity centers that provide housing opportunities near jobs and services. In addition to these uses, the General Plan includes two land use designations that regulate industrial uses, two designations that regulate parking and public uses, one regulating private institutions, and five that regulate open space. Two special overlay districts are also designated. The Pedestrian Overlay District provides standards aimed at creating structures with pedestrian-friendly ground floors in areas of the City with high pedestrian activity. The Architectural Design Overlay District regulates design conformance with the Spanish Colonial Revival architectural style, as defined by the Urban Design Element of the current General Plan.

Supplementary to general land use designations, 15 special districts are identified in the 1993 General Plan. Goals, objectives, and policies in the current General Plan provide greater specificity for these areas and expand upon the basic policies and standards established for individual land uses.

Existing Zoning

Title 17 (Zoning) of the City of San Clemente Municipal Code provides the basis for current zoning in the City. The City's official zoning map has eight general zoning designations: residential, commercial, mixed commercial and residential, industrial, institutional, public and parking, open space, and specific plans and study areas.

Applicable Plans and Regulations

State and regional laws, regulations, plans, or guidelines that are potentially applicable to the San Clemente Centennial General Plan are summarized below.

State

State Planning Law and Complete Streets Act

State planning law (California Government Code Section 65300) requires every city in California to adopt a comprehensive, long-term general plan for the physical development of the city and of any land outside its boundaries (sphere of influence) that in the planning agency's judgment bears relation to its planning. A general plan should consist of an integrated and internally consistent set of goals and policies that are grouped by topic into a set of elements and are guided by a citywide vision. State law requires that a general plan address seven elements or topics (land use, circulation, housing, conservation, open space, noise, and safety), but allows some discretion on the arrangement and

content. Additionally, each of the specific and applicable requirements in the state planning law (as provided California Government Code Section 65300) should be examined to determine if there are environmental issues within the community that the general plan should address, including but not limited to hazards and flooding.

Additionally, on September 30, 2008, Assembly Bill 1358 (AB 1358), the California Complete Streets Act, was signed into law and became 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.

The proposed project's consistency with state planning law and the California Complete Streets Act is provided in the analysis for Impact 5.10-1.

Regional

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 (MPO) for this region, which encompasses over 38,000 square miles. SCAG is a regional planning agency and a forum for addressing regional issues concerning transportation, the economy, community development, and the environment. SCAG is also the regional clearinghouse for projects requiring environmental documentation under federal and state law. In this role, SCAG reviews proposed development and infrastructure projects to analyze their impacts on regional planning programs. As the southern California region's MPO, SCAG cooperates with the Southern California Air Quality Management District (SCAQMD), the California Department of Transportation (Caltrans), and other agencies in preparing regional planning documents. SCAG has developed regional plans to achieve specific regional objectives. The plans most applicable to the proposed project are discussed below.

The San Clemente Centennial General Plan is considered a project of regionwide significance pursuant to the criteria outlined in SCAG's Intergovernmental Review Procedures Handbook (November 1995) and Section 15206 of the California Environmental Quality Act (CEQA) Guidelines. Therefore, this section addresses the proposed project's consistency with the applicable SCAG regional planning guidelines and policies.

Regional Transportation Plan/Sustainable Communities Strategy

On April 4, 2012, SCAG adopted the 2012–2035 Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS): Towards a Sustainable Future. SCAG has placed a greater emphasis than ever on sustainability and integrated planning in the 2012–2035 RTP/SCS. The 2012–2035 RTP/SCS vision encompasses three principles that collectively work as the key to the region's future: mobility, economy, and sustainability. The 2012–2035 RTP/SCS includes a strong commitment to reduce emissions from transportation sources to comply with Senate Bill 375, improve public health, and meet the National Ambient Air Quality Standards as set forth by the federal Clean Air Act. The 2012–2035 RTP/SCS provides a blueprint for improving quality of life for residents by providing more choices for where they will live, work, and play and how they will move around (SCAG 2011). The proposed project's consistency with the applicable RTP/SCS goals is analyzed in detail in Table 5.9-1.

Compass Growth Vision

In 2004, SCAG adopted the Compass Growth Vision (CGV), which is a response, supported by a regional consensus, to the land use and transportation challenges facing southern California. SCAG developed the CGV in an effort to maintain the region's prosperity, continue to expand its economy, house its residents affordably, and protect its

environmental setting as a whole. The CGV is a framework that helps local jurisdictions address growth management cooperatively and also helps coordinate regional land use and transportation planning.

In conjunction with the CGV, SCAG also adopted the Compass Blueprint 2% Strategy, which is the part of the 2004 regional growth forecast policy that attempts to reduce emissions and increase mobility through strategic land use changes. The 2% Strategy is a guideline for how and where the CGV for southern California's future can be implemented toward improving measures of mobility, livability, prosperity, and sustainability for local neighborhoods and their residents. Through extensive public participation and land use and transportation modeling and analysis, the program has resulted in a plan that identifies strategic growth opportunity areas (2% Strategy Opportunity Areas). These opportunity areas are roughly 2 percent of the land area in the southern California region. These are the areas where the 2% Strategy will help cities and counties reap the maximum benefits from regional planning implemented in cooperation and partnership with the local community. Goals for the 2% Strategy Opportunity Areas include locating new housing near existing jobs and new jobs near existing housing, encouraging infill development, promoting development with a mix of uses, creating walkable communities, providing a mix of housing types, and focusing development in urban areas.

One area of City is designated a Compass 2% Strategy Opportunity Area (SCAG 2012): a semicircular area with an approximately one-half mile radius centered on the San Clemente Amtrak/Metrolink station. The San Clemente Centennial General Plan's consistency with advisory Compass Growth Vision policies is analyzed in detail in section 5.9-3, *Environmental Impacts*, Table 5.9-2.

Orange County Southern Subregion NCCP/MSAA/HCP

There is one adopted conservation plan in San Clemente: the Orange County Southern Subregion Natural Community Conservation Plan/Master Streambed Alteration Agreement/Habitat Conservation Plan (Orange County Southern Subregion NCCP/MSAA/HCP). The Orange County Southern Subregion NCCP/MSAA/HCP study area covers the southernmost 132,000 acres of Orange County, including all of the City of San Clemente. NCCP/MSAA/HCP habitat reserves and impact analysis areas overlap with the City near its northern boundary, north and east of the Talega community. The NCCP/MSAA/HCP covers 32 animal species and 10 vegetation communities. Seven federally listed species are covered by the plan, including the thread-leaved brodiaea, Riverside fairy shrimp, southwestern willow, coastal California gnatcatcher, arroyo toad, and least Bell's vireo.

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:

LU-1 Physically divide an established community.

LU-2 Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect.

LU-3 Conflict with any applicable habitat conservation plan or natural community conservation plan.

The Initial Study, included as Appendix A, substantiates that impacts associated with the following thresholds would be less than significant: LU-1. This impact will not be addressed in the following analysis.

5.9.3 Environmental Impacts

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

Impact 5.9-1: Implementation of the general plan would not conflict with applicable plans adopted for the purpose of avoiding or mitigating an environmental effect. [Threshold LU-2]

Impact Analysis: The proposed project is a new Centennial General Plan. The General Plan is intended to shape development within the City through 2035 and beyond. Buildout in accordance with the General Plan would allow for 29,567 residential dwelling units, 4,428,332 square feet of retail use, 8,834,477 square feet of office use, 2,981,980 square feet of industrial use, and 1,894,695 square feet of institutional use. Table 3-3, *San Clemente Centennial General Plan Buildout Projections (2035)*, summarizes the proposed land use designations and the acreage for each designation. Buildout of the General Plan could result in up to 3,585 additional residential dwelling units and 10,094,484 square feet of nonresidential uses beyond existing conditions.

Following is an analysis of the proposed project's consistency with the applicable state, regional, and local laws, regulations, plans, and guidelines.

State Planning Law and California Complete Streets Act Consistency

The General Plan has been prepared in accordance with state planning law, as provided in California Government Code Section 65300. The proposed General Plan is meant to be a framework for guiding planning and development in San Clemente through 2035 and beyond and can be thought of as the blueprint for the City's growth and development. The Centennial General Plan is comprehensive both in its geography and subject matter. It addresses the entire territory within the City's boundary and the full spectrum of issues associated with management of the City.

The proposed General Plan is consistent with California Government Code Section 65302 as it addresses the seven required elements. More specifically, it involves a revision to the land use map and all elements except housing and adds new elements. The current Housing Element was updated and adopted in 2011. The Housing Element is subject to specific laws and timeframes dictated by the state; therefore, it is not included as a part of this comprehensive update. The General Plan consists of the following elements: Beaches, Parks and Recreation Element; Coastal Element; Economic Development Element; Growth Management Element; Historic Preservation Element; Land Use Element; Mobility and Complete Streets Element; Natural Resources Element; Public Services; Facilities and Utilities Element; Safety Element; Urban Design Element; and Governance Element.

The Centennial General Plan also includes forecasts of long-term conditions and outlines development goals and policies, exhibits and diagrams, and text setting forth objectives, principles, standards, and plan proposals throughout the various elements of the General Plan. The proposed land use plan (see Figure 3-4, *Proposed Land Use Plan*) and the goals and policies in the General Plan strive to preserve and ensure land use compatibility throughout the City. The proposed General Plan and Bicycle and Pedestrian Master Plan also contain policies and implementation measures that help the City implement AB 1358 (see Mobility and Complete Streets Element Policies M-1.01, M-1.03, M-1.12, M-1.21, M-1.22, M-2.04, M-2.05, M-2.06, M-2.08, M-2.10, M-2.13, M-2.14, M-2.19, M-2.20, M-2.21, M-2.30, M-2.33, M-3.01, and M-3.02 listed at the end of this section). Refer to Section 5.14, *Transportation and Traffic*, for a detailed discussion of the proposed project's consistency with AB 1358.

LAND USE AND PLANNING

Each of the specific and applicable requirements in the state planning law (California Government Code Section 65300) have been examined and considered to determine if there are environmental issues within the community that the General Plan should address, such as hazards and flooding. The various environmental issues associated with the proposed project (air quality, hazards, flooding, traffic, etc.) are addressed in their respective elements of the General Plan and in their respective topical sections in Chapter 5, *Environmental Analysis*, of this DEIR.

SCAG 2012–2035 RTP/SCS Consistency

Table 5.9-1 provides an assessment of the proposed project's relationship to pertinent 2012–2035 SCAG RTP/SCS goals. The analysis in Table 5.9-1 concludes that the proposed project would be consistent with the applicable RTP/SCS goals. Therefore, implementation of the proposed project would not result in significant land use impacts related to relevant RTP/SCS goals. Policies are provided at the end of this section.

Table 5.9-1 Consistency with SCAG's 2012–2035 Regional Transportation Plan/Sustainable Communities Strategy Goals

Goal Number	SCAG Policy	Project Compliance with Policy	Related General Plan Policies
RTP/SCS G1	Align the plan investments and policies with improving regional economic development and competitiveness.	***Not Applicable:*** This is not a project-specific goal and is therefore not applicable.	Not applicable
RTP/SCS G2	Maximize mobility and accessibility for all people and goods in the region.	***Consistent:*** The transportation networks in San Clemente would be designed, developed, and maintained to meet the needs of local and regional transportation and to ensure efficient mobility and accessibility. A number of regional and local plans and programs would be used to guide development and maintenance of transportation networks in the City, including but not limited to: Orange County Congestion Management Program City of San Clemente and County of Orange Traffic Impact Analysis Guidelines Caltrans Traffic Impact Studies Guidelines Caltrans Highway Capacity Manual SCAG's 2012–2035 RTP/SCS Additionally, the City of San Clemente is required by the California Government Code to coordinate its Mobility and Complete Streets Element with regional transportation plans, including SCAG's 2012–2035 RTP/SCS. The Mobility and Complete Streets Element is a comprehensive transportation management strategy that addresses infrastructure capacity. The Land Use, Urban Design, Mobility and Complete Streets, Beaches, Parks and Recreation, Public Services, Facilities, and	LU-2.05, LU-7.05, LU-9.05, UD-1.04, UD-2.04, M-1.0, M-1.03, M-1.08, M-1.12, M-1.13, M-1.21 to M-1.24, M-2.02, M-2.04 to M-2.08, M-2.10, M-2.13, M-2.14, M-2.18 to M-2.21, M-2.23, M-2.30, M-2.33, M-3.01, M-3.02, BPR-3.04, BPR-6.04, BPR-6.05, PSFU-8.10, NR-5.05, NR-5.06, and NR-6.10

Table 5.9-1 Consistency with SCAG's 2012–2035 Regional Transportation Plan/Sustainable Communities Strategy Goals

Goal Number	SCAG Policy	Project Compliance with Policy	Related General Plan Policies
		Utilities, and Natural Resource elements of the General Plan contain policies that provide specific guidance on how to improve mobility in the City Refer to Section 5.14, *Transportation and Traffic*, which addresses local and regional transportation, traffic, circulation, and mobility in more detail.	
RTP/SCS G3	Ensure travel safety and reliability for all people and goods in the region.	**Consistent:** All modes of public and commercial transit throughout the City would be required to follow safety standards set by corresponding state, regional, and local regulatory documents. For example, pedestrian walkways and bicycle routes must follow safety precautions and standards established by local (e.g., City of San Clemente, County of Orange) and regional (e.g., SCAG, Caltrans) agencies. Roadways for motorists must follow safety standards established for the local and regional plans mentioned in the analysis for RTP/SCS G2. The Urban Design, Mobility and Complete Streets, and Beaches, Parks and Recreation elements of the General Plan provide guidance and policies that promote the safe movement of people and goods, with importance placed on pedestrian safety as well as vehicular safety.	Policies listed under RTP/SCS G2 apply to this goal.
RTP/SCS G4	Preserve and ensure a sustainable regional transportation system.	***Consistent*:** All new roadway developments and improvements to the existing transportation networks must be assessed with some level of traffic analysis (e.g., traffic assessments, traffic impact studies) to determine how the developments would impact existing traffic capacities and to determine the needs for improving future traffic capacities. Additionally, the regional plans mentioned in the analysis for RTP/SCS G2 would be applicable to the design and development of the regional roadway network. The Urban Design and Mobility and Complete Streets elements of the General Plan encourage regional coordination of transportation issues and provide guidance and policies that help preserve and ensure a sustainable regional transportation system (relevant policies provided in the column to the right).	UD-3.07, M-1.09, M-1.15, M-1.21, M-2.06, and M-2.08

Table 5.9-1 Consistency with SCAG's 2012–2035 Regional Transportation Plan/Sustainable Communities Strategy Goals

Goal Number	SCAG Policy	Project Compliance with Policy	Related General Plan Policies
RTP/SCS G5	Maximize the productivity of our transportation system.	***Consistent:*** The local and regional transportation system would be improved and maintained to maximize efficiency and productivity. The City's Engineering Division oversees the improvement and maintenance of all aspects of the City's public right-of-way on an as-needed basis. The City also strives to maximize productivity of the region's public transportation system (i.e., bus, rail, and bicycle) for residents, visitors, and workers coming into and out of San Clemente. As shown in Figure 5.9-1, *Bikeways Map*, many areas of the City are and would be served by bicycle routes and trails (figure shows existing and recommended trails). The City is also served by a number of public transit routes and facilities provided by OCTA and Metrolink. The Land Use, Urban Design, Mobility and Complete Streets, Beaches, Parks and Recreation, Public Services, Facilities, and Utilities, and Natural Resource Elements of the General Plan contain guidance and policies to improve the City's transportation system.	Policies listed under RTP/SCS G2 apply to this goal.
RTP/SCS G6	Protect the environment and health of our residents by improving air quality and encouraging active transportation (non-motorized transportation, such as bicycling and walking).	***Consistent:*** The reduction of energy use, improvement of air quality, and promotion of more environmentally sustainable development would be encouraged through the development of alternative transportation methods, green design techniques for buildings, and other energy-reducing techniques. For example, individual development projects within the City are required to comply with the provisions of the 2008 Building and Energy Efficiency Standards and the 2010 Green Building Standards Code (CALGreen). Compliance with these provisions and others (e.g., City of San Clemente Sustainability Action Plan) would be ensured through the City's development review and building plan check process. The City also strives to maximize the protection of the environment and improvement of air quality by encouraging and improving the use of the region's public transportation system (i.e., bus, rail, and bicycle) for residents, visitors, and workers coming into and out of San Clemente. As	LU-2.05, LU-3.03, LU-7.05, LU-9.05, UD-1.05, UD-1.07, UD-2.04, M-1.01, M-1.08, M-1.12, M-1.13, M-1.21 to M-1.24, M-2.02, M-2.04 to M-2.08, M-2.10, M-2.13, M-2.14, M-2.18 to M-2.21, M-2.23, M-2.30, M-2.33, M-3.01, M-3.02, BPR-3.04, BPR-6.04, BPR-6.05, NR-5.05, NR-5.06, NR-6.10, and PSFU-8.10)

Table 5.9-1 Consistency with SCAG's 2012–2035 Regional Transportation Plan/Sustainable Communities Strategy Goals

Goal Number	SCAG Policy	Project Compliance with Policy	Related General Plan Policies
		shown in Figure 5.9-1, *Bikeways Map*, many areas of the City are and would be served by bicycle routes and trails (figure shows existing and recommended trails). The City is also served by a number of public transit routes and facilities provided by OCTA and Metrolink. Further, the close proximity of existing and future housing units in the City and in surrounding communities and region to employment, commercial, and mixed uses envisioned by the General Plan would reduce vehicle miles traveled and thereby reduce air quality and traffic impacts and greenhouse gas emissions. The Land Use, Urban Design, Mobility and Complete Streets, Beaches, Parks and Recreation, Public Services, Facilities, and Utilities, and Natural Resource Elements of the General Plan contain guidance and policies to improve and protect the region's air quality and environment and promote energy efficiency.	
RTP/SCS G7	Actively encourage and create incentives for energy efficiency, where possible.	***Not Applicable:*** This is not a project-specific policy and is therefore not applicable.	Not applicable
RTP/SCS G8	Encourage land use and growth patterns that facilitate transit and non-motorized transportation.	***Consistent:*** See response to RTP/SCS Goal G6.	Policies listed under RTP/SCS G6 apply to this goal.
RTP/SCS G9	Maximize the security of our transportation system through improved system monitoring, rapid recovery planning, and coordination with other security agencies.	***Consistent:*** The City would conduct monitoring of existing and newly constructed roadways and transit routes to determine the adequacy and safety of these systems. Other local and regional agencies (i.e., Caltrans, SCAG, OCTA, and Metrolink) would work with the City to manage these systems. Security situations involving roadways and evacuations would be addressed in the City's emergency management plans developed in accordance with the state and federal mandated emergency management regulations. The Urban Design and Mobility and Complete Streets elements of the General Plan contain guidance and policies for a safe and efficient transportation system.	UD-3.07, M-1.09, M-1.15, M-1.21, M-2.06, and M-2.08

Source: 2012-2305 SCAG Regional Transportation Plan/Sustainable Communities Strategy.

SCAG Compass Blueprint Consistency Analysis

Table 5.9-2 provides an assessment of the proposed project's relationship to advisory SCAG Compass Blueprint principles. The analysis in Table 5.9-2 concludes that the proposed project would be consistent with the advisory SCAG Compass Blueprint principles. Therefore, implementation of the proposed project would not result in significant land use impacts related to the advisory SCAG principals.

Table 5.9-2 Compass Blueprint 2% Strategy Area Principles Consistency Analysis

	Compass Blueprint Principles	Project Compliance	Sample Related General Plan Update Policy
Improve Mobility for All Residents			
GV P1.1	Encourage transportation investments and land use decisions that are mutually supportive.	***Consistent:*** See response to RTP/SCS G2 through G5 in Table 5.9-1, above. Land uses and transportation networks would complement each other and would follow overarching goals of local and regional transportation plans. For example, the proposed land use changes in the General Plan would be near OCTA and Metrolink lines and stations; thereby, providing residents and employees of the City with a convenient and alternative way to commute to jobs and locations throughout the City and surrounding areas. Residents and employees would also have access to a number of bicycle routes and trails throughout the City. As shown in Figure 5.9-1, *Bikeways Map*, many areas of the City are and would be served by bicycle routes and trails (figure shows existing and recommended trails). Furthermore, as development continues to mature throughout the City, sufficient demand may be generated to support additional bus lines or a change in existing routes. The City would work with OCTA to coordinate any changes that would be necessary to the public transit system. The City will also continue to work with local and regional transit agencies (e.g., Metrolink, OCTA) to develop and enhance the transit corridors in and around the City in order to maintain an acceptable level of service, support the growth and diversity of land uses, and reduce the need for additional vehicle trips.	LU-2.05, LU-7.05, LU-9.05, UD-1.04, UD-2.04, M-1.0, M-1.03, M-1.08, M-1.12, M-1.13, M-1.21 to M-1.24, M-2.02, M-2.04 to M-2.08, M-2.10, M-2.13, M-2.14, M-2.18 to M-2.21, M-2.23, M-2.30, M-2.33, M-3.01, M-3.02, BPR-3.04, BPR-6.04, BPR-6.05, PSFU-8.10, NR-5.05, NR-5.06, and NR-6.10
GV P1.2	Locate new housing near existing jobs and new jobs near existing housing.	*Consistent:* The majority of the developable areas of the City are built out. The majority of the City west of I-5 is urbanized with a mix of single-family, multifamily, commercial, and institutional land uses. Areas east of I-5 are dominated by single-family residential uses and dedicated open spaces, but also include business parks and other land uses. The proposed General Plan generally follows the land uses and development intensities already allowed in the adopted General Plan, with the exception of limited changes in land use and	LU-1.06, LU-2.05, LU-3.01, LU-3.03, LU-7.05, M-1.12, M-1.23, M-2.04, 2.07, M-2.08, M-2.10, M-2.13, M-2.19, M-2.30, M-BPR-6.05, and NR-5.05

Table 5.9-2 Compass Blueprint 2% Strategy Area Principles Consistency Analysis

	Compass Blueprint Principles	Project Compliance	Sample Related General Plan Update Policy
		development intensity in some of the designated focus areas (see Figure 3-5, *Focus Areas*). A few of the focus areas would permit mixed use, which would help locate housing near jobs. For example, the North Beach/North El Camino Real, Del Mar/T Zone, Pier Bowl, and South El Camino Real Area (west of I-5) Focus Areas would all permit mixed use to allow horizontal or vertical mix of commercial, office, and residential uses. The General Plan also strives to enhance and improve businesses' retention and attraction. For example, as outlined in Policy PSFU-8.10, the City encourages the development of employment centers and other land uses to improve jobs to housing balance and minimize vehicle trips in San Clemente. Additionally, as shown in Table 3-3, *San Clemente Centennial General Plan Buildout Projections (2035)*, the General Plan would permit the development of up to 4,428,332 square feet of retail uses, 8,834,477 square feet of office uses, 2,981,980 of industrial uses, and 1,894,695 of institutional uses. These uses would improve the City's ability to continue to provide a variety of employment opportunities for existing residents.	
GV P1.3	Encourage transit-oriented development.	*Consistent:* Although the General Plan does not specifically call for the development of transit-oriented development, it does permit mixed use in some of the focus areas (see Figure 3-5, *Focus Areas*), which would help locate housing near jobs. For example, the North Beach/North El Camino Real, Del Mar/T Zone, Pier Bowl, and South El Camino Real Area (west of I-5) Focus Areas would all permit mixed use to allow horizontal or vertical mix of commercial, office, and residential uses. The City also strives to maximize productivity of the region's public transportation system (i.e., bus, rail, and bicycle) for residents, visitors, and workers coming into and out of San Clemente. As shown in Figure 5.9-1, *Bikeways Map*, many areas of the City are and would be served by bicycle routes and trails (figure shows existing and recommended trails). The City is also served by a number of public transit routes and facilities provided by OCTA and Metrolink. Furthermore, the General Plan does encourage development and redevelopment that integrates land use and transportation to create compatibility between transportation corridors and networks and land uses that would be supported by them.	LU-2.05, LU-3.01, LU-3.03, LU-7.05, LU-9.05, LU-1.07, M-1.08, M-1.12, M-1.22, M-1.25, M-2.13, N-2.30, M-2.01, M-2.04, M-2.19, M-2.05, M-2.06, M-2.07, M-2.08, M-2.10, BRP-6.05, and NR-5.05

Table 5.9-2 Compass Blueprint 2% Strategy Area Principles Consistency Analysis

	Compass Blueprint Principles	Project Compliance	Sample Related General Plan Update Policy
GV P1.4	Promote a variety of travel choices.	*Consistent:* Although the majority of the City and its circulation system are built out, the General Plan strives to maximize productivity of the region's public transportation system (i.e., bus, rail, and bicycle) for residents, visitors and workers coming into and out of San Clemente. As shown in Figure 5.9-1, *Bikeways Map*, many areas of the City are and would be served by bicycle routes and trails (figure shows existing and recommended trails). The City is also served by a number of public transit routes and facilities provided by OCTA and Metrolink. Public transit networks would be maintained and expanded (as needed) to meet the needs of all people and employees residing in the City. Existing transit corridors would be maintained and enhanced to promote the use of a variety of travel options, including, but not limited to, the use of bicycle and pedestrian paths, buses, and rail. Additionally, the General Plan permits mixed use in a few of the focus areas (see Figure 3-5, *Focus Areas*), which would help promote alternative modes of travel. For example, the North Beach/North El Camino Real, Del Mar/T Zone, Pier Bowl, and South El Camino Real Area (west of I-5) Focus Areas would all permit mixed use to allow horizontal or vertical mix of commercial, office, and residential uses.	Policies listed under GV P1.2, 1.3 and 1.4 apply to this principle.
Foster Livability in All Communities			
GV P2.1	Promote infill development and redevelopment to revitalize existing communities.	*Consistent:* The General Plan focuses on infill development and redevelopment occurring mostly in the focus areas of the City (see Figure 3-5, *Focus Areas*). As noted above, the General Plan permits mixed use in a few of the focus areas, which would help promote infill development and redevelopment of these areas. The General Plan also strives to enhance and improve the City's business retention and attraction. Additionally, the General Plan also calls for the provision of economic assistance, as funds are available, for the improvement of physically deteriorated and blighted structures in the City (Policy UD-4.05).	LU-1.06, LU-3.01, LU-9.04, LU-12.02, UD-4.04, UD-4.05, M-2.07, BPR-7.04, and NR-6.03)
GV P2.2	Promote developments, which provide a mix of uses	*Consistent:* As previously stated, the General Plan introduces mixed use within the North Beach/North El Camino Real, Del Mar/T Zone, Pier Bowl, and South El Camino Real Area (west of I-5) Focus Areas allowing for horizontal or vertical mix of commercial, office, and residential uses. The efforts of the General Plan include improving the City's ability to continue to provide a variety of commercial, industrial, office, and business-oriented employment opportunities for existing residents within the City.	LU-3.01, LU-3.03, LU-9.04, LU-12.02, M-1.13, and M-2.07

Table 5.9-2 Compass Blueprint 2% Strategy Area Principles Consistency Analysis

	Compass Blueprint Principles	Project Compliance	Sample Related General Plan Update Policy
		Additionally, as shown in Table 3-3, San Clemente Centennial General Plan Buildout Projections (2035), the General Plan would permit the development of up to 4,428,332 square feet of retail uses, 8,834,477 square feet of office uses, 2,981,980 of industrial uses, and 1,894,695 of institutional uses, thereby promoting the development of a mix of uses throughout the City.	
LUGV P2.3	Promote "people scaled," walkable communities.	*Consistent:* As previously stated, the General Plan introduces mixed use within the North Beach/North El Camino Real, Del Mar/T Zone, Pier Bowl, and South El Camino Real Area (west of I-5) Focus Areas allowing for horizontal or vertical mix of commercial, office, and residential uses. Permitting residential uses to be mixed with other supporting uses (e.g., commercial, office) in these areas would help promote walkable communities, as it would provide residents with an optional form of transportation. Additionally, residents and employees would also have access to a comprehensive network of sidewalks and a number of bicycle routes and trails throughout the City. As shown in Figure 5.9-1, *Bikeways Map*, many areas of the City are and would be served by bicycle routes and trails (figure shows existing and recommended trails).	LU-2.05, LU-3.01, LU-3.03, LU-7.05, LU-2.02, UD-1.04, UD-1.07, UD-2.04, M-1.12, MU-1.13, M-2.02, M-2.04, M-2.07, M-2.13, M-2.18, M-2.30, M-2.21, BPR-1.09, BPR-3.04, and BPR-6.04 (policies provided at the end of this section)
GV P2.4	Support the preservation of stable, single-family neighborhoods.	*Consistent:* The General Plan would support the preservation of stable, single-family neighborhoods. The majority of the City west of I-5 is urbanized with a mix of single-family, multifamily, commercial, and institutional land uses. Areas east of I-5 are dominated by single-family residential uses and dedicated open spaces but also include business parks and other land uses. The proposed General Plan generally follows the land uses and development intensities already allowed in the adopted General Plan, with the exception of limited changes in land use and development intensity in some of the designated focus areas. The existing residential areas and their underlying land use designation would remain the same for the most part; therefore, ensuring the preservation of existing single-family neighborhoods. The City is also committed to retaining, preserving, replacing, and improving its existing housing stock. The City's programs encourage and support property owners' efforts to maintain or improve their homes. For example, the City encourages community and neighborhood-based efforts for the maintenance and renovation of structures, sites and neighborhoods (Policy UD-4.04). The City also provides economic	LU-1.01, LU-1.06, LU-9.08, LU-10.16, UD-3.01, UD-3.08, UD-4.04, and UD-4.05

Table 5.9-2 Compass Blueprint 2% Strategy Area Principles Consistency Analysis

	Compass Blueprint Principles	Project Compliance	Sample Related General Plan Update Policy
		assistance, as funds are available, for the improvement of physically deteriorated and blighted structures in the City (Policy UD-4.05).	
Enable Prosperity for All People			
GV P3.1	Provide, in each community, a variety of housing types to meet the housing needs of all income levels.	*Consistent:* See response to Principle GV P2.4. Additionally, as stated in Policy LU-1.01, the City accommodates the development of a variety of housing types, styles, tenure and densities that are accessible to and meet preferences for different neighborhood types (e.g., mixed use pedestrian environments and traditional suburban neighborhoods), physical abilities and income levels. The General Plan also permits residential uses within the mixed use designation, offering a new unique and additional type of housing in the City. Furthermore, the Pico Plaza is identified in the Housing Element as having potential for mixed, residential, and commercial uses with an affordable housing component. (Policy LU-9.04). Refer to Section 5.11, *Population and Housing*, for an assessment of the City's housing needs and how they are being met.	LU-1.01, LU-3.01, LU-9.04, LU-12.02, and M-2.07
GV P3.2	Support educational opportunities that promote balanced growth.	*Consistent:* The City is within the service area of Capistrano Unified School District (CUSD) and is served by a number of elementary, junior high, and high school campuses. Existing and future residents of the City would continue be served by these schools and any future schools that may be developed by CUSD, as deemed necessary. With implementation of the General Plan, opportunities for education would continue to be provided for existing and future residents of the City through the various schools campuses that serve the City. Additionally, CUSD would expand their facilities based on the school-aged population projections and needs assessments for the area. Furthermore, the City's General Plan would continue to permit the development of public and private schools in certain land use designations. The City also hosts a variety of community programs ranging from festivals and art fairs that serve not only its own residents, but the residents of surrounding communities. Additionally, the City offers a host of education training opportunities through its many programs. The Mobility and Complete Streets, Beaches, Parks and Recreation, and Public Services, Facilities, and Utilities elements of the General Plan provide policies that help ensure that educational	BPR-3.08, PSFU-1.01 to 1.06, and PSFU-3.01 to 3.05

Table 5.9-2 Compass Blueprint 2% Strategy Area Principles Consistency Analysis

	Compass Blueprint Principles	Project Compliance	Sample Related General Plan Update Policy
		opportunities continue to be provided to the City's residents.	
GV P3.3	Ensure environmental justice regardless of race, ethnicity or income class.	*Consistent:* Various elements of the General Plan provide policies to improve prosperity of the existing residential communities by facilitating and encouraging balanced growth and minimizing adverse environmental impacts through the use of buffers and land use regulations to prevent the placement of hazardous operations near any area where people live or work. The General Plan also accommodates the development of a variety of housing types, styles, tenure, and densities that are accessible to and meet preferences for different neighborhood types (e.g., mixed use pedestrian environments and traditional suburban neighborhoods), physical abilities, and income levels. The Land Use, Urban Design, Beaches, Parks and Recreation, Natural Resources, and Governance elements of the General Plan provide policies that help ensure environmental justice and provide policy direction and guidance regarding noise reduction, safety, and protection from hazards uses, and other types of mitigation to reduce the environmental impacts on these communities.	LU-1.01, LU-2.03, LU-9.04, LU-9.08, LU-10.16, UD-3.01, UD-3.08, UD-4.04, UD-4.05, BPR-6.08, NR-6.08, G-3.08, and G-3.09)
GV P3.4	Support local and state fiscal policies that encourage balanced growth.	*Consistent:* See response to Principle GV P1.2. Additionally, the City would follow local and state policies that guide the responsible growth of the region. The City's operating budget organizes the projects and activities funded by the City over a specific time period. Fiscal policies of the City guide the development of this budget and help maintain responsible growth based upon fiscal limitations.	Policies listed under GV P1.2 apply to this principle.
GV P3.5	Encourage civic engagement	*Consistent:* As part of the General Plan process, residents and business owners are actively encouraged to participate through notices, meetings, and workshops. The City's General Plan is also easily accessible to the public and includes policies that promote civic engagement. Additionally, the CEQA process and the City's development review process, by their very nature, foster civic involvement and public participation. Furthermore, the City encourages civic engagement though its various civic/community activities and programs, such as sponsoring art festivals and temporary art displays in public buildings and by engaging local artists and art groups to help beautify community parks, streets and buildings. The City also partners with private and nonprofit sectors to promote participation in cultural activities including	G-3.09, G-3.08, BPR-1.09, BPR-3.08, BPR-6.08, BPR-7.04, PSFU-3.01 to PSFU-3.05

Table 5.9-2 Compass Blueprint 2% Strategy Area Principles Consistency Analysis

	Compass Blueprint Principles	Project Compliance	Sample Related General Plan Update Policy
		fairs, festivals and other events geared to neighborhoods, the City as a whole and the region. The Governance, Beaches, Parks and Recreation, and Public Services, Facilities, and Utilities Elements of the General Plan contain policies that help encourage civic engagement.	
Promote Sustainability for Future Generations			
GV P4.1	Preserve rural, agricultural, recreational, and environmentally sensitive areas.	*Consistent:* As shown in Figure 3-4, *Proposed Land Use Plan*, and Table 3-3, *San Clemente Centennial General Plan Buildout Projections (2035)*, a good portion of the City (5,187 acres) would be designated as open space, which includes recreational (e.g., public parks, private golf courses) and environmentally sensitive areas (e.g., hillsides, canyons, shorelines). Additionally, the General Plan would continue to preserve environmentally sensitive areas. The Natural Resources Element of the General Plan provides goals and policies to ensure the reservation and management of recreational and environmental sensitive areas, thereby assuring their long-term viability (relevant policies provided in the column to the right). For example, as outlined in the Natural Resources Element, the primary goal of the City is to restore and protect natural resources so that they continue to enhance the community identity and provide environmental, aesthetic, economic, and health benefits. There are no agricultural lands within the City.	LU-12.02, UD-3.01, NR-1.02 to 1.05, NR-2.01, NR-2.02, NR-2.03, NR-2.05, NR-2.08, NR-2.09, NR-2.09, NR-2.11, BRR-1.08, BPR-2.03, BPR-3.01, PBR-3.02, BPR-3.03, PBR-3.08, BPR-3.09, and PBR-4.01
GV P4.2	Focus development in urban centers and existing cities.	***Consistent:*** See response to Principle GV P2.1. The land use changes proposed in the General Plan are located predominantly in eight focus areas. This potential future development would be accommodated in urbanized areas of the City.	LU-1.06, LU-3.04, LU-9.04, and LU-12.03
GV P4.3	Develop strategies to accommodate growth that uses resources efficiently, eliminate pollution and significantly reduce waste.	*Consistent:* The CEQA process ensures that plans at all levels of government consider all environmental impacts. Sections 5.2, *Air Quality*, 5.6, *Greenhouse Gas Emissions*, and 5.15, *Utilities and Service Systems*, appropriately address and mitigate (where necessary) the potential environmental impacts related to resource efficiency, pollution, and solid waste. Additionally, as outlined in these DEIR sections, implementation of the General Plan would adhere to local, state, and federal environmental and climate change policies to comply with strategies to eliminate pollution and reduce waste. The Natural Resources and Public Services, Facilities and Utilities Elements of the General Plan provide information as well as goals and policies to	The policies listed under RTP/SCS G6 and Compass Growth principle GV P1.4 apply to this principle.

Table 5.9-2 Compass Blueprint 2% Strategy Area Principles Consistency Analysis

	Compass Blueprint Principles	Project Compliance	Sample Related General Plan Update Policy
		ensure the preservation and management of natural resources (e.g., air, water), thereby assuring their long-term viability. For example, as outlined in the Public Services, Facilities and Utilities Element, the City's goal is to continue to have an environmentally efficient and cost-effective solid waste management system that meets or exceeds state and federal waste diversion and recycling standards. The City aims to continue to improve its waste diversion by meeting or exceeding the requirements of Assembly Bill (AB) 939, the Integrated Waste Management Act. In San Clemente, recycling and the use of recycled products are encouraged at the home, for commercial and business sectors, and in industrial areas. Methods for reducing waste in San Clemente include recycling of construction, consumer, green, and liquid waste.	
GV P4.4	Utilize "green" development techniques.	*Consistent:* Individual development projects within the City would be required to comply with the provisions of the 2008 Building and Energy Efficiency Standards and the new 2010 Green Building Standards Code (CALGreen). CALGreen requires major reductions in greenhouse gas emissions, energy consumption, and water use from all projects constructed in the state. Compliance with these provisions and others (e.g., City of San Clemente Sustainability Action Plan) would be ensured through the City's development review and building plan check process. Other forms of development that encourage a more green infrastructure would be the increased development of public transit and bikeways and pedestrian walkways, all outlined as policies in the General Plan. As shown in Figure 5.9-1, *Bikeways Map*, many areas of the City are and would be served by bicycle routes and trails (figure shows existing and recommended trails). The Land Use, Urban Design, Mobility and Complete Streets, Beaches, Parks and Recreation, Public Services, Facilities, and Utilities, and Natural Resource elements of the General Plan contain policies that provide specific guidance on how to promote and implement green development techniques in the City.	The policies listed under RTP/SCS G6 and Compass Growth principle GV P1.4 apply to this principle.

Source: SCAG Compass Blueprint

Impact 5.9-2: Implementation of the general plan would not conflict with the adopted Orange County Southern Subregion Natural Community Conservation Plan/Master Streambed Alteration Agreement/Habitat Conservation Plan. [Threshold LU-3]

Impact Analysis: The City and SOI are within the Plan Area of the Orange County Southern Subregion HCP (HCP). The SOI, and about 190 acres of the City near its northeast boundary, are within a Reserve established under the HCP. The proposed General Plan would not change land use designations in the Reserve, and implementation of the General Plan would have no impact on biological resources in the Reserve. Projects proposed on sites where HCP covered species were identified would be required apply to the HCP for take permits under the federal Endangered Species Act (FESA) for covered species. As the CDFW has not approved the HCP, project applicants would need to apply to CDFW for take permits for state-listed species. Future development projects within sensitive biological resources areas would also be required to conduct project level biological assessments. Since the project does not propose development or land use changes within the HCP Reserve area, it would not conflict with the Orange County Southern Subregion HCP. Impacts are less than significant.

5.9.4 Relevant General Plan Policies

The following are relevant policies of the Centennial General Plan that are designed to reduce potential land use and planning impacts of future development in San Clemente. Policy number references are provided in parentheses.

Land Use Element

LU-1.01 **General.** We accommodate the development of a variety of housing types, styles, tenure and densities that are accessible to and meet preferences for different neighborhood types (e.g., mixed use pedestrian environments and traditional suburban neighborhoods), physical abilities and income levels, pursuant to the Land Use Plan and Housing Element.

LU-1.06 **Residential Infill.** We require that new residential development in existing residential neighborhoods or along commercial corridors be compatible with existing structures.

LU-2.03 **Neighborhood Compatibility.** We require that commercial projects abutting residential neighborhoods be designed and operated to protect residents from the effects of noise, light, odors, vibration, traffic, parking and other operational impacts.

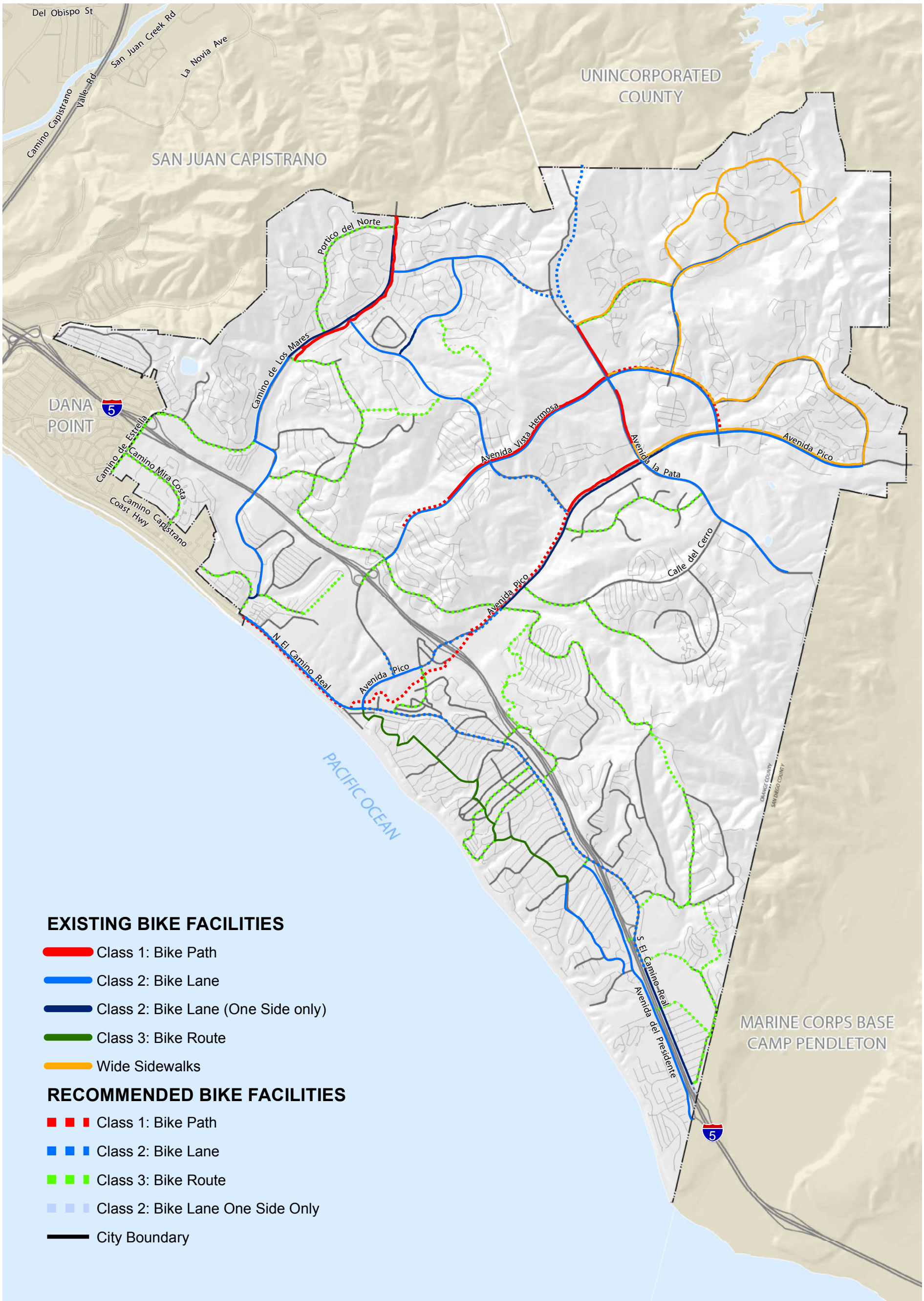
LU-2.05 **Pedestrian, Bicycle and Transit Access.** We require commercial projects to be designed to promote convenient access to and from nearby neighborhoods, transit facilities, bikeways, and other amenities.

LU-3.01 **Horizontal and Vertical Mix.** We permit a range of horizontally and vertically mixed uses appropriate to key areas of the City.

LU-3.03 **Ground Floor Retail.** In pedestrian-oriented environments, we require retail uses to be located on the ground floor to provide convenience and good visibility for shoppers. Whenever possible, we require off-street parking to be screened and located on the side or at the rear of buildings.

LU-7.06 **Bike and Pedestrian Environment.** We provide a high quality bicycle and pedestrian environment with "living street" designs, consistent landscaping, lighting, sidewalks, bikeways and trails, consistent with the Bicycle and Pedestrian Master Plan, Tree Ordinance and Design Guidelines.

Bikeways Map



Source: OC Planning

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LU-9.03 **Institutional, Residential and Office Uses.** We encourage the transition of the Pico Plaza commercial center through means of a Professional/Office Overlay that requires a master plan for employment and or educational/institutional uses. The Pico Plaza is also identified in the Housing Element as having potential for mixed, residential and commercial uses with an affordable housing component. Existing uses, including residential uses that are consistent with the underlying Community Commercial land use designation, will continue to be allowed.

LU-9.04 **Transit Opportunities.** As part of planning efforts to redevelop the existing Pico Plaza commercial center, we encourage the reservation of an adequate portion of the site to accommodate a transportation center in the event that coastal railroad tracks are relocated inland.

LU-9.07 **Nearby Residential Neighborhoods.** We work with property owners, businesses and nearby residents to avoid, and where possible, resolve conflicts between industrial operations and residents' quality of life.

LU-10.16 **Residential Buffers.** While entertainment and cultural uses are focuses of the Area's revitalization, we require new development to be compatible with nearby residential uses through horizontal distance requirements and building and site design standards established by the Zoning Ordinance and Specific Plan.

LU-12.02 **Infill Development.** We accommodate development that is compatible with coastal-oriented and community-serving commercial uses (including overnight accommodations), mixed residential and commercial uses, residential uses, and public recreational uses whose function or scale are compatible with the Area's recreational character.

Urban Design Element

UD-1.04 **Bicycle, Pedestrian and Transit Access.** We maintain bicycle and pedestrian routes and encourage the provision of public transit routes that link public places to improve accessibility and reduce reliance on the automobile.

UD-1.07 **Sidewalks.** We design our sidewalks to accommodate pedestrians in a manner that meets City standards and we seek to ensure they are ADA compliant, well lit, safe, comfortable and consistent in style and construction materials. Sidewalk designs and paving materials shall be architecturally compatible with the district or neighborhood in which they are located.

UD-2.04 **Circulation.** We encourage roadway improvements in gateway areas to enhance motor vehicle, bicycle, pedestrian, and transit circulation.

UD-3.01 **Land Use Decisions.** We use urban design standards and tools to minimize adverse impacts on adjacent properties when considering land use and zoning requests.

UD-3.07 **Interjurisdictional Coordination.** We maintain work with other public agencies to help minimize and mitigate impacts and improve the operations and aesthetics of their facilities.

UD-3.08 **Transitional Areas.** We require development in transitional areas, where one type of land use (e.g., industrial) transitions to another (e.g., residential) to protect residents' quality of life through such measures as landscaping, high-quality walls or fencing, or setbacks.

UD-4.04 **Community/Neighborhood Based Efforts.** We encourage community and neighborhood-based efforts for the maintenance and renovation of structures, sites and neighborhoods.

UD-4.05 **Economic Assistance.** We provide economic assistance, as funds are available, for the improvement of physically deteriorated and blighted structures in the City.

UD-5.18 **Drought Tolerant/Native Species Landscaping.** Ornamental plantings in new, non-residential development should consist primarily of drought tolerant and California native species. Only in small areas and special public locations, such as high-use areas of parks, should lawns or other high water use vegetation be used.

Mobility Element

M-1.01 **Roadway System.** We require the City's roadways to

a. Accommodate public transit, motor vehicles, bicyclists, skateboarders and pedestrians within the public right-of-way wherever feasible.

M-1.03 **Level of Service.** When the City determines there is a suitable tool available, we will measure and evaluate roadway performance from a multi-modal, Complete Streets perspective.

M-1.08 **Transportation Mode Choice.** We actively work to reduce automobile use and improve the efficiency of the roadways based on locally collected data and on goals set through a collaborative process involving City staff, residents and other stakeholders.

M-1.09 **Regional Coordination.** We participate in the planning of regional transportation improvements, such as interchange improvements along I-5, the extension of the SR-241, and other major freeway and arterial improvements.

M-1.12 **Design Integration.** City supports development that is designed and/or retrofitted to incorporate, and be efficiently served by, public transit, pedestrian and bicycle facilities.

M-1.13 **Neighborhood-Serving Uses.** Consistent with the Land Use Element, we encourage roadway designs that are compatible with neighborhood-serving commercial uses, schools, churches, parks and recreational areas near residential neighborhoods, for convenience.

M-1.15 **Transportation Technological Advancement.** We solicit ideas from private industry and public agencies for the development and implementation of innovative transportation technologies.

M-1.20 **Regional Transportation Demand Management (TDM).** We support regional efforts by the South Coast Air Quality Management District (AQMD), OCTA, and other agencies to maintain and expand regional programs designed to reduce commuting by single driver automobiles.

M-1.21 **TDM Financial Incentives.** We encourage businesses to offer financial incentives to their employees, including subsidized transit, carpool/vanpool programs, bike-to-work programs, parking cash-out programs, or a combination of incentives.

M-1.22 **Telecommuting.** We support the use of private "tele-work" centers, satellite offices, or other forms of virtual work environments.

M-1.23 **TDM in Development Review.** We encourage on-site features in all new non-residential developments that support Transportation Demand Management (TDM). Potential features may include preferred rideshare parking, car sharing vehicles, on-site food service and exercise facilities.

M-2.01 **Electric Vehicles.** We support the use of neighborhood- and long-range electric vehicles and identify routes and designate special parking for such Neighborhood Electric Vehicles (NEVs) at beaches and commercial locations.

M-2.02 **Pedestrian Facilities.** Public streets shall provide pedestrian facilities in accordance with the adopted City standards.

M-2.04 **Accessible Transit.** We provide bicycle, pedestrian and wheelchair access to all transit facilities and maintain bicycle, pedestrian and wheelchair facilities so that they are safe, attractive and well lit.

M-2.05 **Rail Facilities and Programs.** We support the retention of passenger rail facilities at North Beach and in the Pier Bowl to help meet inter-city and regional transportation needs.

M-2.06 **Regional Rail Service.** We support the expansion of Metrolink and Amtrak service by the Southern California Regional Rail Authority, OCTA, and other agencies to enhance San Clemente's regional transit accessibility for residents, employees and visitors.

M-2.07 **Coordinated Land Use Planning for Transit.** We encourage higher density, mixed-use development in areas with existing and planned transit service.

M-2.08 **Transit Service.** We support the maintenance of existing bus service and encourage transit service enhancements by OCTA to ensure all residents have access to adequate and safe transit.

M-2.10 **Transit Priority in Development Review Process.** Development should encourage transit ridership by including bus turnouts, passenger shelters, transportation kiosks, pedestrian connections to transit, and other measures.

M-2.13 **Bicycle and Pedestrian Network.** We plan, develop and maintain a comprehensive bicycle and pedestrian network as specified in the San Clemente Bicycle and Pedestrian Master Plan

M-2.14 **Bicycle Friendly Streets.** We consider every public street in San Clemente as a street that cyclists could use.

M-2.18 **Design Standards.** We support the design principles in the City's Design Manual of Living Streets in determining the appropriate standard to apply to a given situation, the City will seek to maximize cyclists' and pedestrians' comfort and convenience, in balance with other roadway users.

M-2.19 **Bicycle Facilities.** In preparing City Land Use plans and applicable Capital Improvement Programs, we address bicycle needs, including:

a. Attractive destination facilities, such as secure bicycle lockers, showers, and changing rooms that are conveniently located for bicyclists, i.e. a bike station);

b. Facilities for bicycle parking within newly-built and renovated multi-family residential developments, residential condominiums and apartment conversions to condominiums, multi-use and non-residential sites;

c. Safe, secure, attractive and convenient bicycle parking; and

d. Wayfinding systems and traffic control signage or markings for all bicycle facilities.

M-2.20 **Regional Bicycle and Pedestrian Coordination.** We coordinate regional trail and bicycle planning, acquisition and development efforts with adjacent jurisdictions.

M-2.21 **External Linkages.** We link on-road and off-road bicycle and pedestrian facilities within San Clemente to existing and planned facilities in in adjacent and regional jurisdictions.

M-2.23 **Skateboarding.** We encourage and support skateboard use as an efficient and legitimate transportation mode to connect gaps between destination and transit stops and rail stations.

M-2.30 **Walking and Biking Trips.** We encourage city staff, employees, residents and visitors to walk and bicycle as often as possible.

M-2.32 **Non-Automotive Transportation Co-Benefits.** We utilize non-automotive transportation solutions as tools for achieving economic development and environmental sustainability goals.

M-2.33 **Grant Funding.** We pursue Federal, State, County, regional and other funding opportunities to increase bicycle and pedestrian mode share percentages, improve transportation system performance, and to improve air quality through a balanced, multi-modal transportation system.

M-3.01 **Connected Roadway Network.** We require development projects to connect to and where necessary, improve local streets to allow travel by all modes and ensure connectivity with the larger City-wide roadway network.

M-3.02 **Complete Streets Roadway Standards.** We require that pedestrian, vehicular, and bicycle circulation on public and private property is coordinated and designed to maximize safety, comfort and aesthetics and is consistent with Federal, State, Orange County, and local laws, codes, and standards.

Beaches, Parks and Recreation Element

BPR-1.08 **Natural Environment.** We protect our natural environment, including marine resources and open spaces, consistent with the City's HEAL resolution. Where possible, we utilize them as recreational learning opportunities and contemplative spaces, in conjunction with our environmental goals.

BPR-1.09 **Street Closures/Public Spaces.** We support temporary, and where safe and appropriate, long-term street closures to create or expand public spaces and to accommodate street fairs, farmers' markets, art shows and other special community events.

BPR-2.03 **Beach and Park Maintenance.** We maintain beach and park facilities in good condition and strive to meet Council-adopted community standards.

BPR-3.01 **Resource Conservation.** We maintain our beach resources to conserve natural, recreational, and economic resources.

BPR-3.02 **Beach Planning.** We monitor beach use and quality to help ensure adequate staffing, facility and environmental maintenance, and sand replenishment planning.

BPR-3.03 **Balance.** We enhance beach areas that are appropriate for recreational development, without destroying natural resources or beauty.

BPR-3.04 **Pedestrian and Bicycle Connectivity.** We encourage connectivity by developing and maintaining pedestrian and bicycle trails, where appropriate, along our coastline, including designated railroad crossings for pedestrians.

BPR-3.08 **Public Outreach and Participation.** We encourage public participation in protecting our beaches through educational outreach programs.

BPR-3.09 **Sand Nourishment.** When environmental effects on natural resources and surf are minimized, we support sand nourishments programs and other measures to enhance the use, appearance and safety of our beaches.

BPR-4.01 **Open Space Preservation.** We encourage and support the preservation of open space within and adjacent to the City.

BPR-6.04 **Interconnected Neighborhoods.** Neighborhoods should be interconnected with safe, well-designed and maintained walking and biking trails, sidewalks, consistent with the City's Bicycle and Pedestrian Master Plan.

BPR-6.05 **Bike Parking.** We encourage the provision of safe, secure, convenient and aesthetically pleasing bike parking to promote alternative forms of transportation wherever public parking is required.

BPR-6.08 **Social Interaction/Community Participation.** We encourage enhanced social interaction, community participation in special events, youth sports and outdoor activities by developing and maintaining public facilities and spaces that promote health and wellness.

BPR-7.04 **Community Support.** We encourage neighborhood groups, organizations, and businesses to become active supporters of our beaches and parks facilities and programs through contributions of goods, services, labor and money.

Natural Resources Element

NR-1.02 **Natural Areas.** In natural areas that are undeveloped or essentially so, we require applicants for proposed projects to

a. avoid significant impacts, including retention of sufficient natural space where appropriate;

b. retain watercourses, riparian habitat, and wetlands in their natural condition;

c. maintain habitat linkages (wildlife corridors) between adjacent open spaces, water sources and other habitat areas and incorporated these into transportation projects and other development projects to maintain habitat connectivity;

d. incorporate visually open fences, or vegetative cover to preserve views, ensure continued access and to buffer habitat areas, open space linkages or wildlife corridors from development, as appropriate;

e. locate and design roads such that conflicts with biological resources, habitat areas, linkages or corridors are minimized; and

f. utilize open space or conservation easements when necessary in order to protect sensitive species or their habitats.

NR-1.03 **Sensitive Habitats.** We prohibit development and grading which alters the biological integrity of sensitive habitats, including Riparian Corridors unless no feasible project alternative exists which reduces environmental impacts to less than significant levels, or it is replaced with habitat of equivalent value, as acceptable to the City Council.

a. Where no environmentally feasible alternative exists, development within Riparian Corridors shall avoid removal of native vegetation; prevent erosion, sedimentation and runoff; provide for sufficient passage of native and anadromous fish; prevent wastewater discharges and entrapment; prevent groundwater depletion or substantial interference with surface and subsurface flows; and protect and re-establish natural vegetation buffers.

NR-1.04 **Threatened and Endangered Species.** We preserve the habitat of threatened and endangered species in place as the preferred habitat conservation strategy.

NR-1.05 **Coastal Canyons.** We encourage activities which improve the natural biological value, integrity and corridor function of the coastal canyons through vegetation restoration, control of non-native species, and landscape buffering of urban uses and development.

NR-1.06 **Habitat Conservation Plan.** We support and will follow the U.S. Fish and Wildlife Services Orange County Southern Subregion Habitat Conservation Plan (HCP) and Habitat Management Program.

NR-2.01 **Hillside Development and Ridgeline Protection.** We require that development in hillside areas comply with the Hillside Development Ordinance to maintain the natural topography of hillsides and ridgelines; protect natural vegetation and habitat; protect public view corridors and preserve special geological features, canyons, natural drainage swales, steep slopes and important historic and cultural features.

NR-2.02 **Coastal Canyon Areas Protection.** We preserve designated, undeveloped "natural" coastal canyon areas that were originally intended to be open space buffers, pursuant to the Coastal Element.

NR-2.03 **Coastal Canyon Areas Restoration.** We promote the restoration of coastal canyons as a visual resource in a manner that is consistent with the goals of the California Coastal Commission and the City's Coastal Element.

NR-5.03 **Greenhouse Gases (GHG) Emissions Reductions.** We will reduce GHG emissions in accordance with regional, State and Federal regulations, consistent with the adopted Climate Action Plan.

NR-5.05 **Transportation.** We provide non-motorized, multi-modal mobility options (e.g. pedestrian and bicycle facilities) and work with other agencies and organizations to provide transit opportunities to reduce air pollutant emissions.

NR-5.06 **Alternative Fueling Stations.** We encourage the siting and installation of alternative fueling (non-fossil fuel) stations.

NR-5.07 **Particulate Matter.** We support efforts to reduce particulate matter to meet State and Federal Clean Air Standards.

NR-5.08 **Street Trees.** We maintain a healthy stock of public area and street trees and encourage the planting of trees with significant canopies that provide numerous benefits, including reduced urban heat gain, natural shading and wind screening, air filtration, and oxygen production.

NR-6.01 **Conservation Strategy.** We require conservation as the first strategy to be employed to meet energy-saving standards.

NR-6.02 **Site Planning and New Building Design.** We require energy-efficient subdivision, site planning and building design. Measures to be considered include building orientation and shading, landscaping, maximum use of natural daylight, reflectance of building, natural ventilation, active and passive solar heating and hot water system, etc. In establishing these energy related design requirements, we balance energy-efficient design with good planning principles.

NR-6.03 **Retrofit of Commercial and Residential Buildings.** We encourage and provide incentives for voluntary retrofitting of commercial and residential buildings to reduce energy use.

NR-6.04 **Public Buildings.** We require all new and substantially renovated City buildings in excess of 10,000 square feet to achieve a LEED Silver Certification standard, as determined by the U.S. Green Building Council, or the equivalent.

NR-6.05 **City Operations.** We routinely seek ways to improve the energy efficiency of City operations to save energy, reduce consumption of non-renewable materials, reduce municipal costs and set a positive example for the community.

NR-6.06 **City Vehicles and Equipment.** We purchase and use vehicles and equipment that are fuel efficient and meet or surpass state emissions requirements and/or use no- or low-emission sources of energy, if economically feasible.

NR-6.07 **Renewable Energy Resources.** We work with other agencies and utility providers to develop safe, economical and renewable energy resources, and we help reduce non-renewable energy use through public education and participation in energy conservation programs.

NR-6.08 **Public Awareness.** We work with local utilities to develop and provide energy conservation information to the public.

NR-6.09 **Reduce Water Consumption.** We will continue to help reduce per capita potable water consumption and related energy use through implementation of water conservation programs and through public education and outreach.

NR-6.10 **Alternative Fueling Stations.** We encourage the private sector to provide vehicle fueling stations that cater to electric and other non-petroleum fueled vehicles and require such facilities for City operations and facilities, where appropriate.

Coastal Element

C-2.05 **Natural Resources.** We protect our natural resources by prohibiting the encroachment of development, incompatible land uses and sensitive habitat disturbance into designated coastal canyon and coastal bluff areas, consistent with the Local Coastal Program.

C-2.08 **Wetlands.** We recognize and protect wetlands for their scenic, recreational, water quality, and habitat values.

C-2.09 **Coordination with State and Federal Agencies.** We work with the state and federal resource protection agencies, businesses, private organizations and individuals to protect our natural and marine resources.

C-2.10 **ESHAs.** We protect Environmentally Sensitive Habitat Areas (ESHAs) by restricting development in ESHAs to those that are resource-dependent, such as restoration, limited public

access improvements, signage, placement of boardwalks, fencing, minor educational, interpretative and research activities consistent with the California Coastal Act.

Public Service, Facilities, and Utilities Element

PSFU-1.01 **Educational Partners.** We partner with public and private schools, other public agencies, nonprofit organizations, and businesses throughout the region to expand and promote the range and quality of educational offerings available to the community.

PSFU-1.02 **Joint Use of Facilities.** We partner with public and private educational institutions to jointly use facilities for both community and educational purposes, such as afterschool recreation, community gatherings and cultural events.

PSFU-1.03 **Access to Schools.** We work with local and regional partners to maintain safety in and around schools and to improve access to schools and community services.

PSFU-1.04 **School Facilities.** We plan and coordinate with CUSD and private educational institutions for designing and locating school facilities to meet the City's goals, such as for health, walkability and safety, and to maintain neighborhood compatibility.

PSFU-1.05 **CUSD Master Plan.** We work with the CUSD to ensure their master plan fosters a strong sense of community in San Clemente neighborhoods (e.g., decisions regarding school facilities enhance neighborhood quality of life) and adheres to the educational facility standards provided in Orange County's Growth Management Plan.

PSFU-1.06 **City Advocacy Role.** We work with CUSD to advocate high academic and facility standards, and we will help identify areas of common interest, such as educational or training opportunities programs, facilities and areas meriting attention or improvement.

PSFU-3.01 **Encourage Arts, Heritage and Culture.** We encourage, support and promote a range of arts, crafts, heritage and cultural experiences, art exhibitions and performances in public places and civic buildings, historic resources and parks.

PSFU-3.02 **San Clemente's Arts Community.** We promote awareness of arts produced in San Clemente and foster the local arts community by supporting art festivals, temporary art displays in public buildings and by engaging local artists and art groups to help beautify community parks, streets and buildings.

PSFU-3.03 **Local Arts, Heritage and Culture Partners.** We partner with educational institutions, local groups and cultural institutions to promote local arts, crafts and culture.

PSFU-3.04 **Public Art.** We shall support and promote public art in buildings, parks, open spaces and other public and private spaces.

PSFU-3.05 **Private-Public Sector Events.** We partner with private and nonprofit sectors to promote participation in cultural activities including fairs, festivals and other events geared to neighborhoods, the City as a whole and the region.

PSFU-5.08 **Recycled Water.** We encourage, and in some cases require, the use of recycled water when available through a Mandatory Use Ordinance. The City encourages the use of domestic greywater for non-potable, non-contact uses, including landscape irrigation if there is no negative impact on urban runoff water quality, and encourages the extension of recycled water facilities to serve all areas.

PSFU-5.11 **Xeriscape Planting to Conserve Water.** To conserve water, we require new development to plan drought-tolerant landscaping, consisting of at least 60 percent (by landscaped area) California Native plants, and encourage such plantings in existing development.

PSFU-8.05 **Recycled Products and Source Reduction (City Facilities/Events).** In municipal operations, we purchase recycled-content products for City-owned facilities and City-sponsored events, when such products are cost effective. We strive to minimize paper use.

PSFU-8.06 **Recycling (City Facilities/Events).** We recycle solid waste materials at all City facilities and events.

PSFU-8.07 **Building Materials.** We use recycled materials for building and facility construction, when financially feasible and safe to do so.

PSFU-9.07 **Renewable Energy Resources.** We work with other agencies and utility providers to develop safe, economical, and renewable energy resources in San Clemente.

PSFU-9.08 **Solar Energy/Heating.** We incentivize the use of solar energy or solar water heating on private development by waiving related fees, when financially feasible for the City to do so.

PSFU-9.10 **Land Use Planning.** We encourage the development of employment centers and other land uses to improve our jobs to housing balance and minimize vehicle trips in San Clemente.

Governance Element

G-3.08 **Community Involvement.** We provide opportunities for meaningful community involvement in City decisions about matters of public importance.

G-3.09 **Outreach.** We surpass minimum or legal notification requirements to facilitate broad public participation in public decision-making.

5.9.5 Existing Regulations

- City of San Clemente Municipal Code
- State planning law (California Government Code Section 65300)

5.9.6 Level of Significance Before Mitigation

Upon implementation of regulatory requirements and standard conditions of approval, the following impacts would be less than significant: 5.9-1 and 5.9-2.

5.9.7 Mitigation Measures

No mitigation is required.

5.9.8 Level of Significance After Mitigation

Impacts would be less than significant, and no significant and unavoidable impact would occur.

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5.10 NOISE

This section of the Draft Environmental Impact Report (DEIR) discusses the fundamentals of sound; examines federal, state, and local noise guidelines, policies, and standards; reviews noise levels at existing receptor locations; evaluates potential noise impacts associated with the City of San Clemente Centennial General Plan; and provides mitigation to reduce noise impacts at noise-sensitive locations. This section of the DEIR evaluates the potential for implementation of the City of San Clemente Centennial General Plan to result in noise impacts in the City. Noise calculations on which this analysis is based are included in Appendix F, *Noise Measurements and Calculations Outputs.*

5.10.1 Environmental Setting

Noise Descriptors

Noise is most often defined as unwanted sound. Although sound can be easily measured, the perception of noise and the physical response to sound complicate the analysis of its impact on people. People judge the relative magnitude of sound sensation in subjective terms such as "noisiness" or "loudness."

The following are brief definitions of terminology used in this section:

- **Sound.** A disturbance created by a vibrating object, which, when transmitted by pressure waves through a medium such as air, is capable of being detected by a receiving mechanism, such as the human ear or a microphone.
- **Noise.** Sound that is loud, unpleasant, unexpected, or otherwise undesirable.
- **Decibel (dB).** A unitless measure of sound on a logarithmic scale.
- **A-Weighted Decibel (dBA).** An overall frequency-weighted sound level in decibels that approximates the frequency response of the human ear.
- **Equivalent Continuous Noise Level (L_{eq}).** The mean of the noise level, energy averaged over the measurement period.
- **Statistical Sound Level (L_n).** The sound level that is exceeded "n" percent of time during a given sample period. For example, the L_{50} level is the statistical indicator of the time-varying noise signal that is exceeded 50 percent of the time (during each sampling period); that is, half of the sampling time, the changing noise levels are above this value and half of the time they are below it. This is called the "median sound level." The L_{10} level, likewise, is the value that is exceeded 10 percent of the time (i.e., near the maximum) and this is often known as the "intrusive sound level." The L_{90} is the sound level exceeded 90 percent of the time and is often considered the "effective background level" or "residual noise level."
- **Day-Night Sound Level (L_{dn} or DNL).** The energy-average of the A-weighted sound levels occurring during a 24-hour period, with 10 dB added to the sound levels occurring during the period from 10:00 PM to 7:00 AM.
- **Community Noise Equivalent Level (CNEL).** The energy-average of the A-weighted sound levels occurring during a 24-hour period, with 5 dB added to the levels occurring during the period from 7:00 PM to 10:00 PM and 10 dB added to the sound levels occurring during the period from 10:00 PM to 7:00 AM.

NOISE

Characteristics of Sound

When an object vibrates, it radiates part of its energy as acoustical pressure in the form of a sound wave. Sound can be described in terms of amplitude (loudness), frequency (pitch), or duration (time). The human hearing system is not equally sensitive to sound at all frequencies. Therefore, to approximate the human, frequency-dependent response, the A-weighted filter system is used to adjust measured sound levels. The normal range of human hearing extends from approximately 0 dBA (the threshold of detection) to 140 dBA (the threshold of pain).

Unlike linear units such as inches or pounds, decibels are measured on a logarithmic scale to better account for the large variations in pressure amplitude (the above range of human hearing, 0 to 140 dBA, represents a ratio in pressures of one hundred trillion to one). All noise levels in this study are relative to the industry-standard pressure reference value of 20 micropascals. Because of the physical characteristics of noise transmission and perception, the relative loudness of sound does not closely match the actual amounts of sound energy. Table 5.10-1 presents the subjective effect of changes in sound pressure levels.

Table 5.10-1 Change in Apparent Loudness

± 3 dB	Threshold of human perceptibility
± 5 dB	Clearly noticeable change in noise level
± 10 dB	Half or twice as loud
± 20 dB	Much quieter or louder

Source: Bies and Hansen 2009.

Sound is generated from a source and the decibel level decreases as the distance from that source increases. Sound dissipates exponentially with distance from the noise source. This phenomenon is known as spreading loss or distance attenuation.

When sound is measured for distinct time intervals, the statistical distribution of the overall sound level during that period can be obtained. For example, L_{50} is the noise level that is exceeded 50 percent of the time. Similarly, the L_{02}, L_{08}, and L_{25} values are exceeded 2, 8, and 25 percent of the time or 1, 5, and 15 minutes per hour. The energy-equivalent sound level (L_{eq}) is the most common parameter associated with community noise measurements. The L_{eq} metric is a single-number noise descriptor of the energy-average sound level over a given period of time. Other values typically noted during a noise survey are the L_{min} and L_{max}. These values are the minimum and maximum root-mean-square (RMS) noise levels obtained over the stated measurement period.

Because community receptors are more sensitive to unwanted noise intrusion during the evening and nighttime hours, state law requires that, for planning purposes and to account for this increased receptiveness of noise, an artificial decibel increment is to be added to quiet-time noise levels to calculate the 24-hour CNEL noise metric.

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 the entire system, with prolonged noise exposure in excess of 75 dBA increasing body tensions, thereby affecting blood pressure and functions of the heart and the nervous system. Extended periods of noise exposure above 90 dBA results in permanent cell damage, which is the main driver for employee hearing protection regulations in the workplace. For community environments, the ambient or background noise problem is widespread and generally more concentrated in urban areas than in outlying, less-developed areas. Elevated ambient noise levels can result in noise interference (e.g., speech interruption/masking, sleep disturbance, disturbance of concentration) and

cause annoyance. Since most people do not routinely work with decibels or A-weighted sound levels, it is often difficult to appreciate what a given sound pressure level (SPL) number means. To help relate noise level values to common experience, Table 5.10-2 shows typical noise levels from noise sources.

Table 5.10-2 Typical Noise Levels

Common Outdoor Activities	Noise Level (dBA)	Common Indoor Activities
	110	Rock Band
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 2009.

Vibration Fundamentals

Vibration is an oscillatory motion through a solid medium in which the motion's amplitude can be described in terms of displacement, velocity, or acceleration. Vibration is normally associated with activities such as railroads or vibration-intensive stationary sources, but can also be associated with construction equipment such as jackhammers, pile drivers, and hydraulic hammers. Vibration displacement is the distance that a point on a surface moves away from its original static position. The instantaneous speed that a point on a surface moves is the velocity, and the rate of change of the speed is the acceleration. Each of these descriptors can be used to correlate vibration to human response, building damage, and acceptable equipment vibration levels. During project construction, the operation of construction equipment can cause groundborne vibration. During the operational phase of a project, receptors may be subject to levels of vibration that can cause annoyance due to noise generated from vibration of a structure or items within a structure. These types of vibration are best measured and described in terms of velocity and acceleration.

The three main types of waves associated with groundborne vibrations are surface or Rayleigh waves, compression or P-waves, and shear or S-waves.

- Surface or Rayleigh waves travel along the ground surface. They carry most of their energy along an expanding *cylindrical* wave front, similar to the ripples produced by throwing a rock into a lake. The particle motion is more or less perpendicular to the direction of propagation.

- Compression or P-waves are body waves that carry their energy along an expanding *spherical* wave front. The particle motion in these waves is longitudinal, in a push-pull motion. P-waves are analogous to airborne sound waves.

- Shear or S-waves are also body waves, carrying their energy along an expanding *spherical* wave front. Unlike P-waves, however, the particle motion is transverse, or perpendicular to the direction of propagation.

Vibration amplitudes are usually described in terms of either the peak particle velocity (PPV) or the RMS velocity. PPV is the maximum instantaneous peak of the vibration signal and RMS is the square root of the average of the squared amplitude of the signal. PPV is more appropriate for evaluating potential building damage, whereas RMS is typically more suitable for evaluating human response.

The units for PPV and RMS velocity are normally inches per second (in/sec). Often, vibration is presented and discussed in dB units in order to compress the range of numbers required to describe the vibration. In this study, all PPV and RMS velocity levels are in in/sec and all vibration levels are in dB relative to one microinch per second (abbreviated as VdB). Typically, groundborne vibration generated by human activities attenuates rapidly with distance from the source of the vibration. Even the more persistent Rayleigh waves decrease relatively quickly as they move away from the source of the vibration. Man-made vibration problems are, therefore, usually confined to relatively short distances (500 to 600 feet or less) from the source (FTA 2006).

Construction operations generally include a wide range of activities that can generate groundborne vibration. In general, blasting and demolition of structures generate the highest vibrations. Vibratory compactors or rollers, pile drivers, and pavement breakers can generate perceptible amounts of vibration at up to 200 feet. Heavy trucks can also generate groundborne vibrations, which can vary, depending on vehicle type, weight, and pavement conditions. Potholes, pavement joints, discontinuities, differential settlement of pavement, etc., all increase the vibration levels from vehicles passing over a road surface. Construction vibration is normally of greater concern than vibration from normal traffic flows on streets and freeways with smooth pavement conditions. Trains generate substantial quantities of vibration due to their engines, steel wheels, heavy loads, and wheel-rail interactions.

Noise- and Vibration-Sensitive Receptors

Certain land uses are particularly sensitive to noise and vibration. These uses include residential, schools, libraries, churches, nursing homes, hospitals, and open space/recreation areas where quiet environments are necessary for enjoyment, public health, and safety. Commercial and industrial uses are generally not considered noise- and vibration-sensitive uses, unless noise and vibration would interfere with their normal operations and business activities.

Sensitive land uses in the City of San Clemente includes residences, schools, libraries, churches, and recreational areas.

5.10.1.2 Regulatory Setting

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.

State

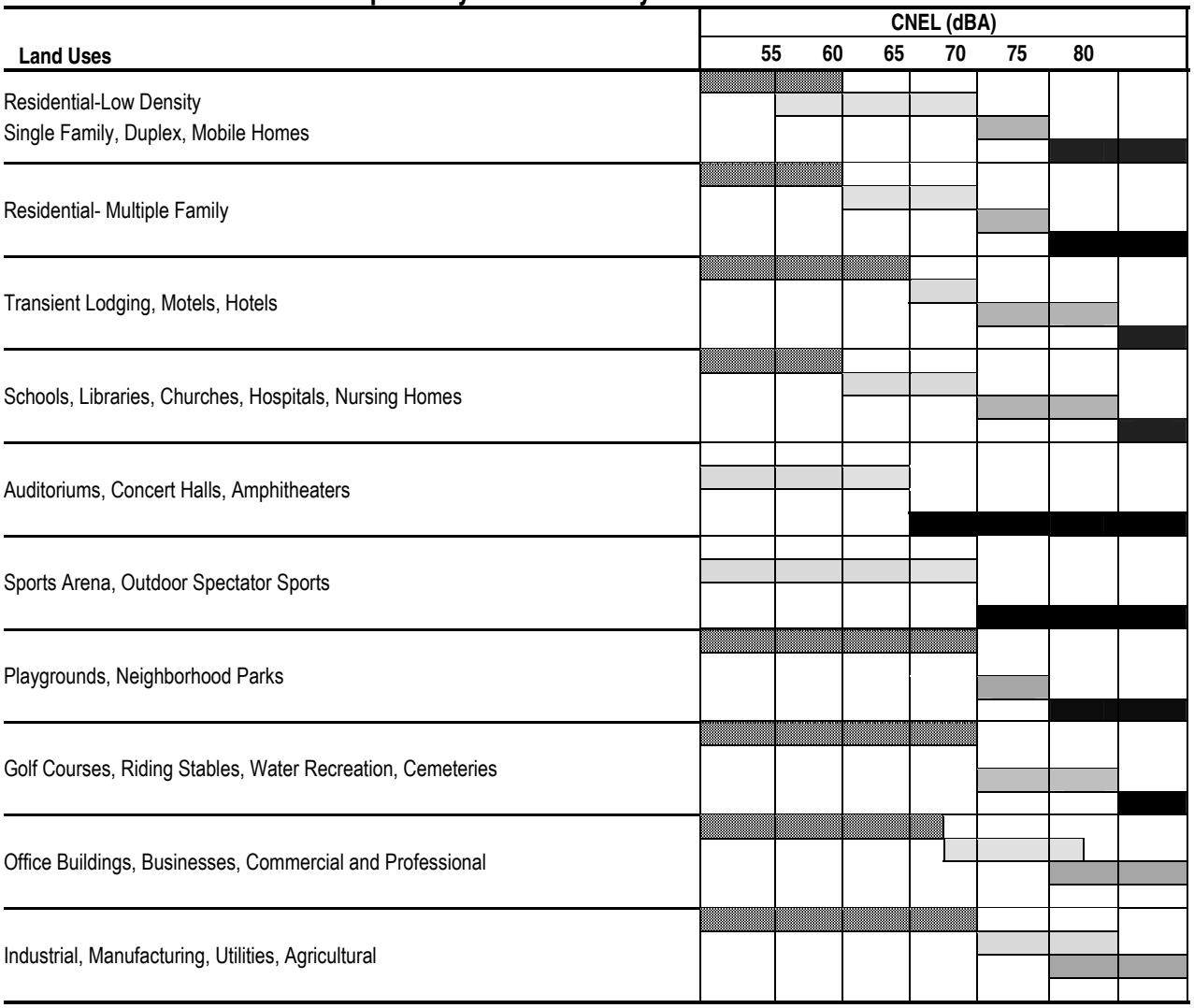
State of California Building Code

The State of California's noise insulation standards are codified in the California Code of Regulations, Title 24, Building Standards Administrative Code, Part 2, California Building Code. These noise standards are applied to new construction in California for the purpose of interior noise compatibility from exterior noise sources. The regulations specify that acoustical studies must be prepared when noise-sensitive structures, such as residential buildings, schools, or hospitals, are located near major transportation noise sources, and where such noise sources create an exterior noise level of 65 dBA CNEL or higher. Acoustical studies that accompany building plans must demonstrate that the structure has been designed to limit interior noise in habitable rooms to acceptable noise levels. For new residential buildings, schools, and hospitals, the acceptable interior noise limit for new construction is 45 dBA CNEL.

Noise/Land Use Compatibility Matrix

Table 5.10-3, *Land Use Compatibility for Community Noise Environments*, presents the land use compatibility chart for community noise adopted by the State of California as part of its General Plan Guidelines. This table provides urban planners with a tool to gauge the compatibility of new land uses relative to existing and future exterior noise exposure levels. This table identifies normally acceptable, conditionally acceptable, and clearly unacceptable exterior noise exposure levels for various land uses. 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 is made and needed noise insulation features are incorporated into the design to reduce noise to normally acceptable levels. By comparison, a normally acceptable designation indicates that standard construction can occur with no special noise reduction requirements.

Table 5.10-3 Land Use Compatibility for Community Noise Environments



Normally Acceptable:
Specified land use is satisfactory based upon the assumption that any buildings involved are of normal conventional construction, without any special noise insulation requirements.

Conditionally Acceptable:
New construction or development should be undertaken only after a detailed analysis of the noise reduction requirements is made and the needed noise insulation features included in the design. Conventional construction, but with closed windows and fresh air supply systems or air conditioning will normally suffice.

Normally Unacceptable:
New construction or development should generally be discouraged. If new construction does proceed, a detailed analysis of the noise reduction requirements must be made and needed noise insulation features included in the design.

Clearly Unacceptable:
New construction or development generally should not be undertaken.

Source: Office of Noise Control, Guidelines for the Preparation and Content of Noise Elements of the General Plan, February 1976. Included in the Governor's Office of Planning and Research, California, *General Plan Guidelines*, Appendix C, October 2003.

City of San Clemente

Noise Element Policies

The 1993 General Plan Noise Element includes goals, objectives, policies, and implementation programs to evaluate existing and future noise condition and minimize the impacts of noise on the City. The policies stated in this section contain a direct relationship to the desired goals of the community and are the legislative tools with which San Clemente can realize its vision for the future. The policies of the Noise Element address:

- Adopting and enforcing legally adequate noise regulations and guidelines.
- Preventing and mitigating excessive noise exposure impacts on the community.
- Minimizing traffic-generated noise impacts on "noise-sensitive" uses.
- Reducing the encroachment of non-residential use noise impacts onto "noise sensitive uses."
- Minimizing noise impacts in mixed-use structures.
- Minimizing construction noise on adjacent uses.
- Ensuring that adverse noise impacts among differing uses or tenants are prevented.
- Minimizing spillover noise impacts from entertainment and restaurant/bar establishments onto "noise sensitive uses."
- Minimizing noise impacts of rail transit on sensitive land uses is minimized.
- Ensuring that a proper acoustical analysis of any potential significant noise generator is conducted.

Objective 14.2.1 requires that new industrial, commercial, and related land uses, or the expansion of existing land uses demonstrate that such new or expanded uses would not be directly responsible for causing ambient noise levels to exceed an Ldn of 65 dBA exterior upon areas containing housing, schools, health care facilities, or other "noise sensitive" land uses.

Objective 14.2.3 requires development in all areas where the ambient noise level exceeds an Ldn of 60 dBA to conduct an acoustical analysis and incorporate special design and construction measures in their construction, as necessary, to reduce interior noise levels to within the 45 dBA Ldn level.

Municipal Code

Section 8.48, Noise Control, of the City's Municipal Code includes the City's noise standards to regulate noise sources within the City by establishing noise standards, as shown in Table 5.10-4, *City of San Clemente Exterior Noise Standards,* at various categories of land uses in the City. The City applies the Noise Control Ordinance standards to nontransportation noise sources. These standards do not gauge the compatibility of developments in the noise environment, but provide restrictions on the amount of noise generated at a property, as measured at the property line of the noise receptor. According to the City's Municipal Code Section 8.48.050, no person shall operate or cause to operate any source of sound or noise at any location within the City, or allow the creation of any noise on property to exceed the levels shown in Table 5.10-4 at the receiving land use.

Table 5.10-4 City of San Clemente Exterior Noise Standards

General Plan Land Use Designation	Decibel Level (dBA Leq)	
	7 AM to 10 PM	10 PM to 7 AM
Residential	55	50
Residential portions of mixed-use, or residences located on property zoned for commercial, industrial or manufacturing land use	60	50
Commercial	65	60
Industrial or manufacturing	70	70

Source: City of San Clemente Municipal Code.

The noise levels at the affected property shall not exceed:

1. The noise standard for a cumulative period of more than 30 minutes in any hour; or
2. The noise standard plus 5 dBA for a cumulative period of more than 15 minutes in any hour; or
3. The noise standard plus 10 dBA for a cumulative period of more than 5 minutes in any hour; or
4. The noise standard plus 15 dBA for a cumulative period of more than one in any hour; or
5. The noise standard plus 20 dBA for any period of time.

In the event the ambient noise level exceeds any of the five noise limit categories above, the allowable noise level under said category shall be increased to reflect the ambient noise level.

Construction Noise Hours

Noise sources associated with construction activity are exempt from the noise standards presented in Table 5.10-4, provided they take place only between the hours of 7 AM and 6 PM on Monday through Friday, between the hours of 8 AM and 6 PM on Saturday, and at no time on a Sunday or a City-recognized holiday, and provided all grading activities also comply with Section 15.36.190 of the City's Municipal Code regarding time of grading operations. San Clemente Municipal Code Section 15.36.190 allows for grading, right-of-way encroachment, and landscaping/irrigation construction under permit only, during specific hours. These permitted activities can occur between 7:30 AM to 5:30 PM, Monday through Friday. Approval to conduct these activities beyond this time-period, or on Saturday, Sunday, or during the recognized holidays listed above must first be preapproved by the City Engineer through a written request submitted by the contractor.

Vibration Criteria

The City of San Clemente has not adopted criteria to address vibration; therefore, the Federal Transit Administration (FTA) is used for this analysis. The FTA provides criteria for acceptable levels of groundborne vibration for various types of land uses that are sensitive to vibration. These criteria can be separated into annoyance effects and architectural damage effects due to vibration (as discussed below).

Vibration Annoyance

Table 5.10-5, *Groudborne Vibration Impact Criteria: Human Annoyance*, shows the FTA and Caltrans vibration criteria to evaluate vibration-related annoyance due to resonances of the structural components of a building. These criteria are based on the work of many researchers that suggested that humans are sensitive to vibration velocities in the range of 8 to 80 Hz.

Table 5.10-5 Groundborne Vibration Criteria: Human Annoyance

Land Use Category	Vibration Velocity, in/sec (RMS amplitude)[1]	Description
Workshop	0.032	Distinctly felt vibration. Appropriate to workshops and nonsensitive areas
Office	0.016	Felt vibration. Appropriate to offices and nonsensitive areas.
Residential – Daytime	0.008	Barely felt vibration. Adequate for computer equipment.
Residential – Nighttime	0.004	Vibration not felt, but groundborne noise may be audible inside quiet rooms.

Source: FTA 2006 and Caltrans 2004.
[1] As measured in 1/3-octave bands of frequency over the frequency ranges of 8 to 80 Hz.

Vibration-Related Structural Damage

Structures amplify groundborne vibration and wood-frame buildings, such as typical residential structures, are more affected by ground vibration than heavier buildings. The level at which groundborne vibration is strong enough to cause architectural damage has not been determined conclusively. The most conservative estimates are reflected in the FTA standards, shown in Table 5.10-6, *Groundborne Vibration Impact Criteria – Architectural Damage*.

Table 5.10-6 Groundborne Vibration Impact Criteria: Architectural Damage

Building Category	PPV (in/sec)
I. Reinforced concrete, steel, or timber (no plaster)	0.5
II. Engineered concrete and masonry (no plaster)	0.3
III. Nonengineered timber and masonry buildings	0.2
IV. Buildings extremely susceptible to vibration damage	0.12

Source: FTA 2006.

5.10.1.3 Existing Setting

Existing Noise Environment

The City of San Clemente is impacted by a multitude of noise sources. Mobile sources, especially automobiles, trucks, and trains, are the most common and significant sources of noise in most communities and the predominant source of noise in the City. Major sources of transportation noise include the I-5 that bisects the City and the rail line used by Metrolink and Amtrak that traverses the City, parallel and adjacent to the Pacific Ocean. In addition, commercial, industrial, and institutional land uses (i.e., schools, fire stations, utilities) throughout the City generate stationary-source noise. There are no public or public use airports in San Clemente. Marine Base Camp Pendleton is located south of City limits, noise from aircraft overflights and use of ordnance generates noise that is occasionally heard in the City.

Local Noise Monitoring Data

The Planning Center|DC&E conducted noise measurements at several locations on Wednesday and Thursday, May 8 and 9, 2013. Measurements at locations ST-1 to ST-6 were taken for a period of 15 minutes and at locations LT-1 and LT-2 were taken for a period of 24 hours. The locations were selected based on the location of sensitive land uses in areas currently experiencing high levels of ambient noise and in areas that would experience the greatest change in noise levels due to planned development. The noise measurement locations are shown in Figure 5.10-1, *Noise Measurement Locations*. The results are presented in Table 5.10-7, *Short-Term Noise Level Measurements,* and in Table 5.10-8*, Long-Term Noise Level Measurements.* The monitoring locations are described below:

Table 5.10-7 Short-Term Noise Level Measurements

Noise Monitoring Location[1]	Time	L_{eq}	L_{max}	L_{min}
ST-1	4:55-5:10 PM	65.0	81.6	53.0
ST-2	1:50-2:05 PM	64.9	79.3	54.4
ST-3	1:18-1:33 PM	61.1	82.8	45.5
ST-4	2:10-2:25 PM	66.4	77.2	60.0
ST-5	4:13-4:28 PM	48.3	65.8	35.9
ST-6	3:43-3:58 PM	59.9	74.4	47.8

Note: Calculations and detailed outputs are included in Appendix F.
[1] See Figure 5.10-1.

Table 5.10-8 Long-Term Noise Level Measurements

Noise Monitoring Location[1]	CNEL	L_{max}	L_{min}
LT-1	67.9	97.0	31.3
LT-2	67.3	78.3	46.3

Note: Calculations and detailed outputs are included in Appendix F.
[1] See Figure 5.10-1, Noise Measurement Locations.

Site ST-1. The sound level meter (SLM) was placed in a residential area approximately 400 feet from the train station passenger platform, and approximately 100 feet from the railroad crossing warning bells. The primary noise was two Metrolink train passbys and crossing warning bells.

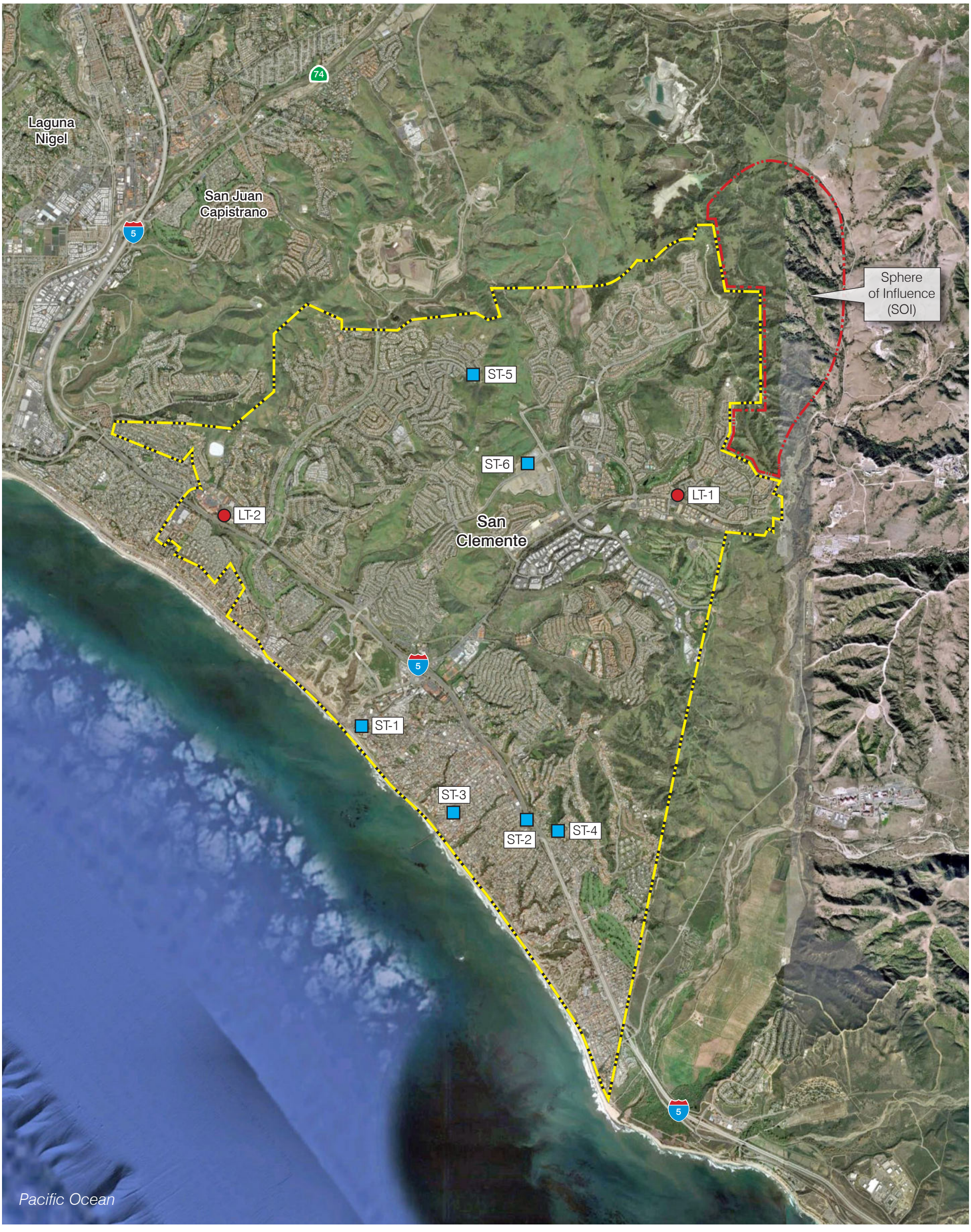
Site ST-2. The SLM was placed 30 feet north of El Camino Real and south of the I-5, approximately 200 feet south of the I-5. The primary noise source was traffic on the I-5 and El Camino Real.

Site ST-3. The noise measurement was taken approximately 80 feet from the centerline of Avenida Del Mar adjacent to the 501 Avenida Del Mar residential property. The primary noise source was traffic on Avenida Del Mar and background landscaping activities.

Site ST-4. The SLM was placed on a residential area in corner of Avenida San Juan and Calle Alcazar, approximately 400 feet from the I-5 and approximately 140 feet from El Camino Real. The primary noise source was traffic on the I-5 and background traffic on El Camino Real.

Site LT-1. The SLM was placed in a residential area in the northeast corner of Avenida Pico and Calle Alicante, approximately 100 feet of the centerline of Avenida Pico. The primary noise source was traffic on Avenida Pico.

Noise Monitoring Locations



Basemap Source: Google Earth 2011

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Site ST-5. Measurements were taken in a residential area in the corner of Camino Del Rio and Calle Precipicio. The SLM was located approximately 35 feet from the centerline of Camino del Rio. The primary noise source was background traffic on Camino Del Rio.

Site ST-6. Measurements were taken at the Vista Hermosa Sports Park. The SLM was located at the edge of the soccer field facing Avenida Vista Hermosa, approximately 100 feet from the road's centerline. The primary source of noise was traffic on Avenida Vista Hermosa.

Site LT-2. Measurements were taken at the San Clemente Villas retirement /senior assisted living community. The SLM was near the outdoor use areas at the rear/southern portion of the site, approximately 200 feet from the I-5. The primary source of noise was traffic on the I-5.

As shown on Table 5.10-7, the average noise levels during the daytime at the locations where the short-term measurements were taken ranged from 48.3 to 66.4 dBA L_{eq}. During the noise monitoring and field reconnaissance City noise levels are dominated by street and highway traffic noise. Rail noise is the predominant noise source in limited areas adjacent to the rail tracks and is sporadic, limited to one or two minutes during each train passby event. The highest noise levels were observed in areas near the I-5 and major City streets, including Pico Avenue, Avenida Vista Hermosa, and El Camino Real.

Locations adjacent to the I-5 and to Avenida Pico were monitored for a period of 24 hours. As shown on Table 5.10-8, the noise levels ranged from 67.3 to 67.9 dBA CNEL. At both locations the major noise source was vehicular traffic. The noise pattern observed is typical of street traffic, with the highest levels close to the traffic AM and PM peak hours. The detailed noise measurement outputs in a tabular and graphical format are included in Appendix F.

On-Road Vehicles

The I-5 is a north–south Interstate Highway with four lanes of travel in each direction that runs through San Clemente. Other major thoroughfares in the City are Avenida Vista Hermosa, Camino de Estrella, Camino de Los Mares, Avenida Pico, Avenida La Pata, Camino Vera Cruz, and El Camino Real. Figure 5.10-2, *Existing Exterior Noise Levels in San Clemente*, shows the existing 65 dBA CNEL noise contours for surface transportation.

Rail Noise

The Pacific Surfliner route is a major rail line serving the City of San Clemente, used by both Amtrak and Metrolink. The track portion within the City is owned by OCTA, and the maximum speed within the City is 40 miles per hour. The Amtrak station is located at San Clemente Pier (shared with Metrolink), while the Metrolink station is located at the North Beach area. Currently, there are eight daily Amtrak trains (four in each direction) and 28 Metrolink trains on the weekdays, with limited service on weekends.

Aircraft Noise

The closest airport to the project site is John Wayne Airport, approximately 25 miles northwest of the project site. The Marine Corps Air Station at Camp Pendleton is 14 miles from the City's boundary.

The SCE SONGS Mesa Heliport is 0.5 miles from the City's boundary. Aircraft overflights may be sporadically heard, but no portions of the City are within an airport influence area or within the MCAS projected aircraft noise zones (Pendleton 2007).

Stationary Sources of Noise

Whereas mobile-source noise affects many receptors along an entire length of roadway, stationary noise sources affect only their immediate areas. Many processes and activities in cities produce stationary noise, most notably, the operation

of commercial, warehousing, industrial uses, schools, and at-grade railroad crossing bells. Noise exposure within industrial facilities is controlled by federal and state employee health and safety regulations. Noise levels outside of industrial and other facilities are subject to local standards.

Most of the City's industrial land uses and business parks are located along Avenida Pico, and most commercial areas are located along Avenida Pico and El Camino Real. Schools are considered noise-sensitive because of the necessity for quiet in the classroom to provide an adequate environment for learning. However, outdoor activities that occur on school campuses throughout the City can generate noticeable levels of noise. While it is preferable to have schools in residential areas to support the neighborhood, noise generated on both the weekdays (by physical education classes and sports programs) and weekends (by use of the fields by youth organizations) can elevate noise levels.

Marine Corps Base Camp Pendleton (MCBCP)

Camp Pendleton is located south and east of the City limits. This Marine Corps installation is a 24/7, live-fire military installation that supports the full spectrum of Marine Corps ground, amphibious, and aviation training activities. Noise from Camp Pendleton is due to aircraft overflights and the use of military equipment at the Air Station. The Range Compatible Use Zone (RCUZ) Study defines noise zones for planning purposes to prevent conflicts with noise-sensitive land uses (Pendleton 2007). Noise Zone 1 is the lowest noise zone representing a level of noise that does not pose any hazard. Noise Zone 2 represents the area where noise may at times interfere with speech, sleep, or the ability to hear television and radio shows. Generally, residential development is not recommended within Noise Zone 2. According to the RCUZ study, the City is outside the Noise Zone 2 contours. The projected noise due to aircraft and heavy weapons use within do not reach City of San Clemente limits remain below Noise Zone 2 contours, which are levels that interfere with speech, sleep, or the ability to hear television and radio shows.

Vibration

The primary existing sources of vibration in City are rail and truck traffic. Perceptible vibration levels may be caused by train passbys in areas along the railroad line and heavy trucks hitting discontinuities in the pavement from gaps and potholes. Under normal conditions with well-maintained asphalt, vibration levels are usually not perceptible beyond the road right-of-way. There are no known major sources of vibration such as heavy industrial equipment that would cause substantial levels of vibration to nearby sensitive uses.

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 result in:

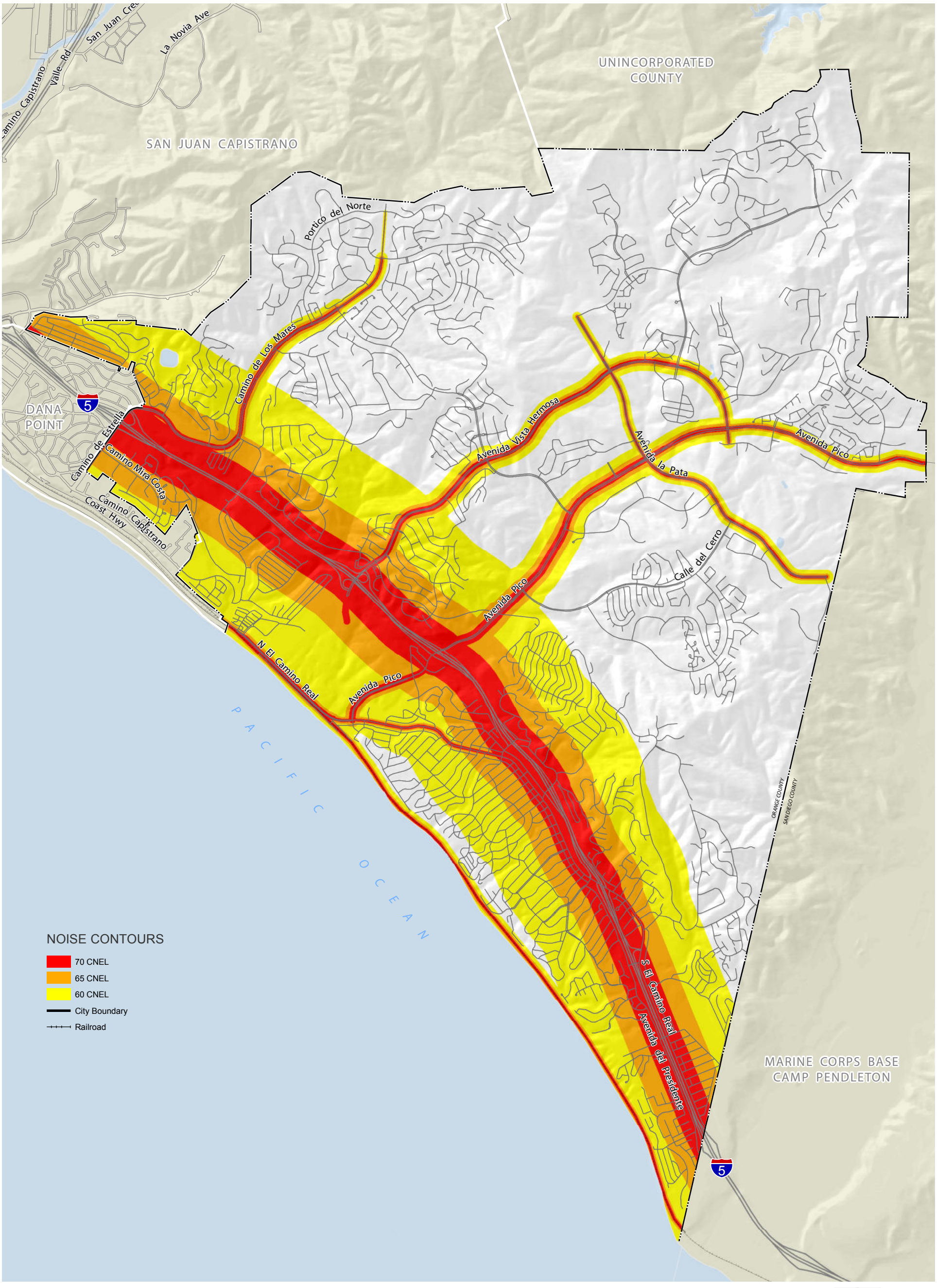
N-1 Exposure of persons to or generation of noise levels in excess of standards established in the local General Plan or noise ordinance, or applicable standards of other agencies.

N-2 Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels.

N-3 A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project.

N-4 A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project.

Existing Exterior Noise Levels in San Clemente



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N-5 For a project located within an airport land use plan or where such a plan has not been adopted, within two miles of a public airport or public-use airport, exposure of people residing or working in the project area to excessive noise levels.

N-6 For a project within the vicinity of a private airstrip, exposure of people residing or working the project area to excessive noise levels.

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

- Threshold N-5
- Threshold N-6

These impacts will not be addressed in the following analysis.

5.10.3 Environmental Impacts

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

Impact 5.10-1 **Buildout of the Proposed Land Use Plan would result in an increase in traffic on local roadways in the City of San Clemente, which would substantially increase the existing noise environment. [Thresholds N-1 and N-3]**

Impact Analysis: Future development in accordance with the General Plan would cause increases in traffic along local roadways. Traffic on the I-5 is also projected to increase due to regional growth, in addition the I-5 will be expanded to include five lanes in both directions to accommodate HOV lanes, with construction starting in 2014. For the purpose of assessing the compatibility of new development with the anticipated ambient noise, the City utilizes the state's Community Noise and Land Use Compatibility standards, summarized in Table 5.10-3. A significant impact could occur if the proposed Land Use Plan designates noise-sensitive land uses in areas where the ambient noise level clearly exceeds levels that are compatible for the designated land use, or if the future ambient noise would be incompatible with existing noise-sensitive land uses. As previously discussed, noise-sensitive land uses include residential, schools, libraries, churches, nursing homes, hospitals, and open space/recreation areas. Commercial and industrial areas are not considered noise sensitive and have much higher tolerances for exterior noise levels.

The traffic noise levels were estimated using the Federal Highway Administration (FHWA) Highway Traffic Noise Prediction Model (RD-77-108). The FHWA model predicts noise levels through a series of adjustments to a reference sound level. These adjustments account for distances from the roadway, traffic flows, vehicle speeds, car/truck mix, length of exposed roadway, and road width. The distances to the 70, 65, and 60 CNEL contours for selected roadway segments in the vicinity of proposed project site are included in Appendix F.

Noise level increases on roadways over existing conditions were calculated for two long-range (2035) scenarios obtained from the traffic report (Fehr and Peers 2013). The modeled scenarios evaluated below were chosen for their greatest potential to cause traffic noise impacts based on a review of the intersection analysis summary and on the daily traffic volumes provided in the traffic study. Long range traffic noise was modeled for the following scenarios:

- **Preferred General Plan, No Foothill Transportation Corridor (FTC) conditions:** Consists of Year 2035 forecast traffic volumes per the preferred General Plan without the implementation of the FTC. The preferred General Plan refers to the proposed policies and goals to be adopted as the new plan for future growth in the City.

- **Preferred General Plan with FTC, Tesoro Roadway Extension, and Road Diet Alternative 2:** Consists of Year 2035 General Plan with FTC with the Tesoro Roadway extension and the implementation of a 2-lane road diet on Coast Highway (North El Camino Real and south El Camino Real) between Avenida Pico and Christianitos Road.

Preferred General Plan, No FTC Scenario

Table 5.10-9 presents the noise level increases on roadways over 2012 conditions at 100 feet from the centerline of each roadway segment for the Preferred General Plan, No FTC conditions. Table 5.10-9 shows that traffic noise increases along roadways would be up to 9.0 dBA CNEL. The increases would occur due to implementation of the proposed Land Use Plan, the implementation of the circulation plan (see Figure 5.14-4), and regional growth. The segments that would experience substantial noise increases greater than 5 dBA over 2012 noise levels resulting in noise levels greater than 65 dBA CNEL and including sensitive receptors, are:

- Avenida Pico from Avenida La Pata to Camino La Pedriza
- Avenida La Pata from Calle Saluda to Avenida Vista Hermosa

Table 5.10-9 Traffic Noise Increases, Preferred General Plan No FTC (dBA CNEL)

Roadway	Segment	2012	2035	Increase	Potentially Significant?
Avenida Vista Hermosa	I-5 NB on/off ramp to Calle Frontera	70.6	72.2	1.6	No
Avenida Vista Hermosa	Calle Frontera to Via Turqueza	69.9	71.3	1.4	No
Avenida Vista Hermosa	Via Turqueza to Camino Vera Cruz	68.7	71.1	2.4	No
Avenida Vista Hermosa	Camino Vera Cruz to Avenida La Pata	67.5	69.5	2.0	No
Avenida Vista Hermosa	Avenida La Pata to Avenida Talega	66.2	67.4	1.2	No
Avenida Vista Hermosa	Avenida Talega to Camino La Pedriza	65.0	65.9	0.9	No
Avenida Vista Hermosa	Camino La Pedriza to Avenida Pico	71.1	72.1	1.0	No
Camino de Los Mares	Camino El Molino to Calle Agua	69.9	71.1	1.2	No
Camino de Los Mares	Calle Agua to Avenida Vaquero	68.2	69.2	1.0	No
Camino de Los Mares	Avenida Vaquero to Calle Nuevo	68.0	69.0	1.0	No
Camino de Los Mares	Calle Nuevo to Portico del Sur	67.5	68.6	1.1	No
Camino de Los Mares	Portico del Sur to Camino Vera Cruz	64.4	65.8	1.4	No
Camino de Los Mares	Camino Vera Cruz to Camino del Rio	55.9	58.8	2.9	No
Camino de Los Mares	Camino del Rio to Portico del Norte	58.0	57.7	-0.3	No
Camino de Estrella	Camino Capistrano to Camino Mira Costa	63.2	63.7	0.5	No
Camino de Estrella	Camino Mira Costa to I-5 SB on/off ramp	67.3	68.0	0.7	No
Camino de Estrella	I-5 NB on/off ramp to Camino El Molino	70.3	71.5	1.2	No
Avenida Pico	El Camino Real to I-5 NB on/off ramp	73.9	75.6	1.7	No
Avenida Pico	I-5 NB on/off ramp to Avenida Presido	73.3	75.6	2.3	No

Table 5.10-9 Traffic Noise Increases, Preferred General Plan No FTC (dBA CNEL)

Roadway	Segment	2012	2035	Increase	Potentially Significant?
Avenida Pico	Avenida Presido to Calle del Cerro	72.3	74.9	2.6	No
Avenida Pico	Calle del Cerro to Calle Amanecer	71.4	74.3	2.9	No
Avenida Pico	Calle Amanecer to Camino Vera Cruz	70.6	73.5	2.9	No
Avenida Pico	Camino Vera Cruz to Avenida La Pata	68.7	72.8	4.1	No
Avenida Pico	Avenida La Pata to Avenida Vista Hermosa	66.5	72.4	**5.9**	**Yes**
Avenida Pico	Avenida Vista Hermosa to Camino La Pedriza	62.9	71.9	**9.0**	**Yes**
Avenida La Pata	Calle Saluda to Avenida Vista Hermosa	63.9	70.3	**6.4**	**Yes**
Avenida La Pata	Avenida Vista Hermosa to Avenida Pico	65.6	69.0	3.4	No
Avenida La Pata	Avenida Pico to Calle Amanecer	65.3	69.0	3.7	No
Avenida La Pata	Calle Amanacer to Calle del Cerro	66.3	68.7	2.4	No
Coast Hwy	Camino Capistrano to Camino San Clemente	67.9	71.0	3.1	No
El Camino Real	Camino San Clemente to Avenida Estacion	65.9	68.4	2.5	No
El Camino Real	Avenida Estacion to Avenida Pico	65.2	68.6	3.4	No
El Camino Real	Avenida Pico to Los Molinos	65.5	68.1	2.6	No
El Camino Real	Los Molinos to Calle Las Bolas	65.5	68.1	2.6	No
El Camino Real	Calle Las Bolas to Avenida De La Grulla	66.0	67.2	1.2	No
El Camino Real	Avenida De La Grulla to Avenida Aragon	66.0	67.2	1.2	No
El Camino Real	Avenida Aragon to El Portal	66.0	66.6	0.6	No
El Camino Real	El Portal to Canada	66.0	66.6	0.6	No
El Camino Real	Canada to Escalones	66.0	66.6	0.6	No
El Camino Real	Escalones to Mariposa	66.0	66.6	0.6	No
I-5	Southern City limits to El Camino Real	80.9	82.5	1.6	No
I-5	El Camino Real to Avenida Presidio	81.7	82.6	0.9	No
I-5	Avenida Presidio to Avenida Pico	82.4	83.0	0.6	No
I-5	Avenida Pico to northern City limits	83.2	83.3	0.1	No

Note: Traffic Noise Model Calculations included in Appendix F.

A review of aerial photography shows that no land uses have been developed along the affected segment along Avenida La Pata. However, single-family and multifamily residential land uses are located along the segment of Avenida Pico from Avenida La Pata to Camino La Pedriza. Traffic noise increases would occur over a period of many years and would not be readily discernible because traffic and noise would increase steadily over time over a long period. However, the future ambient noise would be substantially higher when compared to 2012 conditions at noise-sensitive receptors along the roadway segments identified above, and therefore noise impacts are significant.

Preferred General Plan with FTC, Tesoro Roadway Extension, and Road Diet 2 scenario

Table 5.10-10 presents the noise level increases on roadways over existing conditions at 100 feet from the centerline of each roadway segment for the Preferred General Plan with FTC, Tesoro Roadway Extension, and Road Diet 2. Table 5.10-10 shows that traffic noise increases along roadways would be up to 9.2 dBA CNEL. Noise decreases on a

segment of Camino de Los Mares would occur as a result of lower traffic volumes on that road compared to existing volumes. Noise decreases on El Camino Real would occur as a result of lower traffic volumes and speeds related to the road diet on that road. Most segments would experience traffic noise increases. The increases would occur due to implementation of the proposed Land Use Plan, implementation of the Circulation Plan, and regional growth. As discussed previously, a noise increase greater than 5 dBA is readily perceptible to the average human ear and is the level which is considered a substantially higher noise increase. If the future noise compared to 2012 conditions results in a 5-dB increase and the future noise level is in excess of 65 dBA CNEL, there would be a significant noise impact. In this case, the criteria level is 65 CNEL for noise-sensitive uses such as residential, hospital, hotel, motel, school, and park land uses.

Table 5.10-10 Traffic Noise Increases, Preferred General Plan with FTC, Tesoro Roadway Extension, and Road Diet Alternative 2 (dBA CNEL)

Roadway	Segment	2012	2035	Increase	Potentially Significant?
Avenida Vista Hermosa	I-5 NB on/off ramp to Calle Frontera	70.6	72.2	1.6	No
Avenida Vista Hermosa	Calle Frontera to Via Turqueza	70.0	71.7	1.7	No
Avenida Vista Hermosa	Via Turqueza to Camino Vera Cruz	69.9	71.3	1.4	No
Avenida Vista Hermosa	Camino Vera Cruz to Avenida La Pata	68.7	71.1	2.4	No
Avenida Vista Hermosa	Avenida La Pata to Avenida Talega	67.5	69.5	2.0	No
Avenida Vista Hermosa	Avenida Talega to Camino La Pedriza	66.2	67.4	1.2	No
Avenida Vista Hermosa	Camino La Pedriza to Avenida Pico	65.0	65.9	0.9	No
Camino de Los Mares	Camino El Molino to Calle Agua	71.1	72.2	1.1	No
Camino de Los Mares	Calle Agua to Avenida Vaquero	69.9	71.0	1.1	No
Camino de Los Mares	Avenida Vaquero to Calle Nuevo	68.2	69.2	1.0	No
Camino de Los Mares	Calle Nuevo to Portico del Sur	68.0	69.0	1.0	No
Camino de Los Mares	Portico del Sur to Camino Vera Cruz	67.5	68.6	1.1	No
Camino de Los Mares	Camino Vera Cruz to Camino del Rio	64.4	65.8	1.4	No
Camino de Los Mares	Camino del Rio to Portico del Norte	55.9	58.8	2.9	No
Camino de Estrella	Camino Capistrano to Camino Mira Costa	58.0	57.7	-0.3	No
Camino de Estrella	Camino Mira Costa to I-5 SB on/off ramp	63.2	64.0	0.8	No
Camino de Estrella	I-5 NB on/off ramp to Camino El Molino	67.3	68.0	0.7	No
Avenida Pico	El Camino Real to I-5 NB on/off ramp	70.3	71.8	1.5	No
Avenida Pico	I-5 NB on/off ramp to Avenida Presido	73.9	75.5	1.6	No
Avenida Pico	Avenida Presido to Calle del Cerro	73.3	75.6	2.3	No
Avenida Pico	Calle del Cerro to Calle Amanecer	72.3	74.9	2.6	No
Avenida Pico	Calle Amanecer to Camino Vera Cruz	71.4	74.4	3.0	No
Avenida Pico	Camino Vera Cruz to Avenida La Pata	70.6	73.5	2.9	No
Avenida Pico	Avenida La Pata to Avenida Vista Hermosa	68.7	72.8	4.1	No
Avenida Pico	Avenida Vista Hermosa to Camino La Pedriza	66.5	72.4	**5.9**	**Yes**
Avenida La Pata	Calle Saluda to Avenida Vista Hermosa	62.9	72.1	**9.2**	**Yes**
Avenida La Pata	Avenida Vista Hermosa to Avenida Pico	63.9	70.4	**6.5**	**Yes**
Avenida La Pata	Avenida Pico to Calle Amanecer	65.6	69.2	3.6	No

Table 5.10-10 Traffic Noise Increases, Preferred General Plan with FTC, Tesoro Roadway Extension, and Road Diet Alternative 2 (dBA CNEL)

Roadway	Segment	2012	2035	Increase	Potentially Significant?
Avenida La Pata	Calle Amanacer to Calle del Cerro	65.3	69.0	3.7	No
Coast Hwy	Camino Capistrano to Camino San Clemente	66.3	68.1	1.8	No
El Camino Real	Camino San Clemente to Avenida Estacion	67.9	70.5	2.6	No
El Camino Real	Avenida Estacion to Avenida Pico	65.9	67.9	2.0	No
El Camino Real	Avenida Pico to Los Molinos	65.2	67.2	2.0	No
El Camino Real	Los Molinos to Calle Las Bolas	65.5	67.0	1.5	No
El Camino Real	Calle Las Bolas to Avenida De La Grulla	65.5	67.0	1.5	No
El Camino Real	Avenida De La Grulla to Avenida Aragon	66.0	65.5	-0.5	No
El Camino Real	Avenida Aragon to El Portal	66.0	65.5	-0.5	No
El Camino Real	El Portal to Canada	66.0	64.5	-1.5	No
El Camino Real	Canada to Escalones	66.0	64.5	-1.5	No
El Camino Real	Escalones to Mariposa	66.0	64.5	-1.5	No
I-5	Southern City limits to El Camino Real	80.9	82.8	1.9	No
I-5	El Camino Real to Avenida Presidio	81.7	82.9	1.2	No
I-5	Avenida Presidio to Avenida Pico	82.4	83.3	0.9	No
I-5	Avenida Pico to northern City limits	83.2	83.5	0.3	No

Note: Traffic Noise Model Calculations included in Appendix F.

The segments that would experience substantial noise increases greater than 5 dBA over 2012 conditions, resulting in noise levels greater than 65 dBA CNEL, and that include sensitive receptors, are:

- Avenida Pico from Avenida La Pata to Camino La Pedriza
- Avenida La Pata from Calle Saluda to Avenida Vista Hermosa

As discussed above, single-family and multifamily residential land uses are located along the segment of Avenida Pico from Avenida La Pata to Camino La Pedriza. The future ambient noise would be substantially higher (5 dBA) when compared to existing conditions at noise-sensitive receptors along the roadway segments identified above, and therefore noise impacts are significant.

Impact 5.10-2: Sensitive land uses would NOT be exposed to substantial levels of rail noise. [Threshold N-1 and N-4]

The Pacific Surfliner route is a major rail line serving the City of San Clemente, used by both Amtrak and Metrolink. The track portion within the City is owned by OCTA, and the maximum speed within the City is 40 miles per hour. The two passenger rail services operate separate stations in San Clemente at two different locations. The Amtrak station is at San Clemente Pier (which is shared with Metrolink), and Metrolink has a station in the North Beach area. San Clemente Pier has limited service (not every train stops here). A plan for future development in the Los Molinos

area includes the potential for a future rail transit station and the development of auto-related uses in the North Beach/North El Camino Real area.

Amtrak's Pacific Surfliner route is the second busiest Amtrak route in the nation. Trains stop at the San Clemente Pier daily in the spring and summer, from late April to October. During the rest of the year, service is limited to weekends and holidays only. In 2013, there are 12 daily trains in each direction that pass San Clemente on weekdays and weekends. It is anticipated that the number of daily trains in the Pacific Surfliner Route will reach 18 daily trains (Caltrans 2013), a 50 percent increase from current activity.

Metrolink offers a large network of commuter rail services in Southern California. Metrolink's Orange County line connects Oceanside to Los Angeles, with two stops in the City. The Orange County-Inland Empire line connects Oceanside to San Bernardino with one stop in the City. In 2013, eight Metrolink trains pass the City in each direction on weekdays and six on weekends.

The same rail line that supports passenger services also supports freight services. Burlington Northern Santa Fe (BNSF) operates freight trains on the same rail line that connects Orange County to San Diego County. According to the State Rail plan, this line carries fewer than 10 freight trains per day (Caltrans 2013).

Noise from trains is generated by warning horns and crossing bells at at-grade crossings, and train noise. These trains typically consist of one or two diesel locomotives and a few passenger cars and travel at maximum speeds of 40 miles per hour (mph) (Caltrans 2013). Warning bells and train horn noise are typically significant contributors to the noise environment. Trains are required by the Federal Railroad Administration to sound a warning horn at one-quarter mile from all at-grade crossings and at a maximum 110 dBA, as measured at 100 feet, except in those areas that have established a Quiet Zone. A Quiet Zone is a segment of rail line where locomotive horns are not routinely sounded. The City of San Clemente has been working on the implementation of quiet zone throughout the City. Most recently, North Beach has received a quiet zone designation; trains will generally not sound their horns at the North Beach pedestrian crossing at the end of Avenida Estacion, and at the vehicular crossing at Senda De La Playa next to the North Beach Metrolink Station. The remaining pedestrian and vehicular crossings are being improved with supplemental safety measures with the intention to add them to the Quiet Zone in the future. At most crossings, warning bells generate sound levels that should not be more than 105 dBA and not less than 85 dBA. They typically operate between 30 to 60 seconds for each through-train movement. Within City limits, there are several at-grade crossings at minor local streets and pedestrian crossings to provide beach access.

Existing and future rail noise was modeled with the FTA's CREATE noise model. Based on the rail activity described above, the noise contours along the railroad segment that passes through the City were calculated for existing and future conditions, as shown on Table 5.10-11. The noise levels at 100 feet from the rail line are currently 65 dBA CNEL. For future conditions, with the anticipated increase in rail activity, the 75 dBA CNEL noise level contour would be contained within 28 feet of the railroad tracks, and the noise levels would increase by less than 2 dBA when compared to existing conditions. The generally accepted level at which changes in community noise levels become "barely perceptible" typically occurs at values greater than 3 dBA. Although existing uses adjacent to the rail line will experience an increase in rail noise, these increases will occur over several years and will be barely perceptible. Consistent with Policy S-4.01, Noise Control, and Policy S-4.04, Balance between Noise Control and View Protection, new buildings and exterior areas would be designed for the future ambient noise. Policy S-4.05, Rail-Related Noise, would minimize noise impacts of rail service on sensitive land uses. In addition, based on a review of aerial photography and the noise contours shown on Table 5.10-11, the areas adjacent to the rail line would be below 75 dBA CNEL, which are the noise levels that are considered "clearly incompatible" for the development of sensitive land uses.

Therefore, implementation of the General Plan would not expose existing or future receptors to substantial noise levels from rail activity. Impacts are less than significant.

Table 5.10-11 Railroad Noise Contours (feet)

Scenario	CNEL at 100 feet	75 CNEL	70 CNEL	65 CNEL	60 CNEL
Existing	65	22	47	101	217
Future	67	29	62	133	287

Impact 5.10-3 Noise-sensitive uses could be exposed to elevated noise levels from transportation sources. [Thresholds N-1 and N-3]

Impact Analysis: An impact could be significant if the proposed Land Use Plan designates noise-sensitive land uses in areas that would exceed the noise compatibility criteria of the City. The City applies the state's Community Noise and Land Use Compatibility standards, summarized in previous Table 5.10-3, for the purpose of assessing the compatibility of new development with ambient noise. Existing and future noise-sensitive land uses such as residential, hotels, parks within the City would be exposed to transportation sources, including vehicular traffic, rail, and aircraft overflights. The following discusses potential noise impacts from traffic, rail, and aircraft activity

Traffic Noise

As previously discussed in Impact 5.10-1, traffic noise contours were calculated for 2035 conditions for the Preferred General Plan, No FTC, and for the Preferred General Plan with FTC, Tesoro Road Extension and Road Diet Alternative 2. Tables 5.10-9 and 5.10-10 present the noise level increases on roadways over 2012 conditions of each roadway segment for the *No FTC*, and for the *With FTC Tesoro Extension and Road Diet Alternative 2* scenarios. The noise contours are influenced by vehicular traffic (passenger cars and trucks) speeds, and truck routes. Figures 5.10-3 and 5.10-4 show the future noise contours from roadway traffic along major thoroughfares and rail lines within the City of San Clemente. These contours do not account for noise attenuation provided by intervening structures or topographical barriers. As shown, several portions of the City will be in areas exposed to noise levels above 65 dBA CNEL.

As discussed in Impact Statement 5.10-1, existing single-family and multifamily residential land uses located along the segment of Avenida Pico from Avenida La Pata to Camino La Pedriza would be impacted by noise due to an increase in traffic along these roadways. Each new individual development project would be subject to review under CEQA. For the purpose of assessing the compatibility of new development with the anticipated ambient noise, the City utilizes the State's Community Noise and Land Use Compatibility standards, summarized in Table 5.10-3. New sensitive land uses would have to demonstrate compatibility with the ambient noise levels. A significant impact could occur if the proposed Land Use Plan designates noise-sensitive land uses in areas where the ambient noise level clearly exceeds compatible levels for that use.

Rail Noise

As previously discussed in Impact 5.10-2, rail noise contours were calculated for post-2035 conditions. Figure 5.10-4 shows the future noise contours from roadway traffic along major thoroughfares and rail within the City of San Clemente at post-2035 buildout conditions. These contours do not account for noise attenuation provided by intervening structures or topographical barriers. Several portions of the City—including the focus areas identified in Figure 3-5 that would permit new mixed-use developments—will be in areas exposed to noise levels above 65 dBA

CNEL. The City's Housing Element implements an affordable housing overlay for the Los Molinos area. In addition, the General Plan introduces new residential uses in the North Beach/North El Camino Real Focus Area by allowing for new mixed uses. These developments many result in placing residential or medical offices uses near the railroad line, which could result in noise levels above 65 dBA CNEL from train operations. The extent of the exposure to noise depends on site-specific conditions and location of buildings. Further, environmental review will be required as development is proposed.

Aircraft Overflights

As discussed above, no portions of the City are within the 65 dBA CNEL noise contours of any airport. Implementation of the General Plan would not expose noise-sensitive land uses to incompatible levels of aircraft noise.

Land Use Compatibility

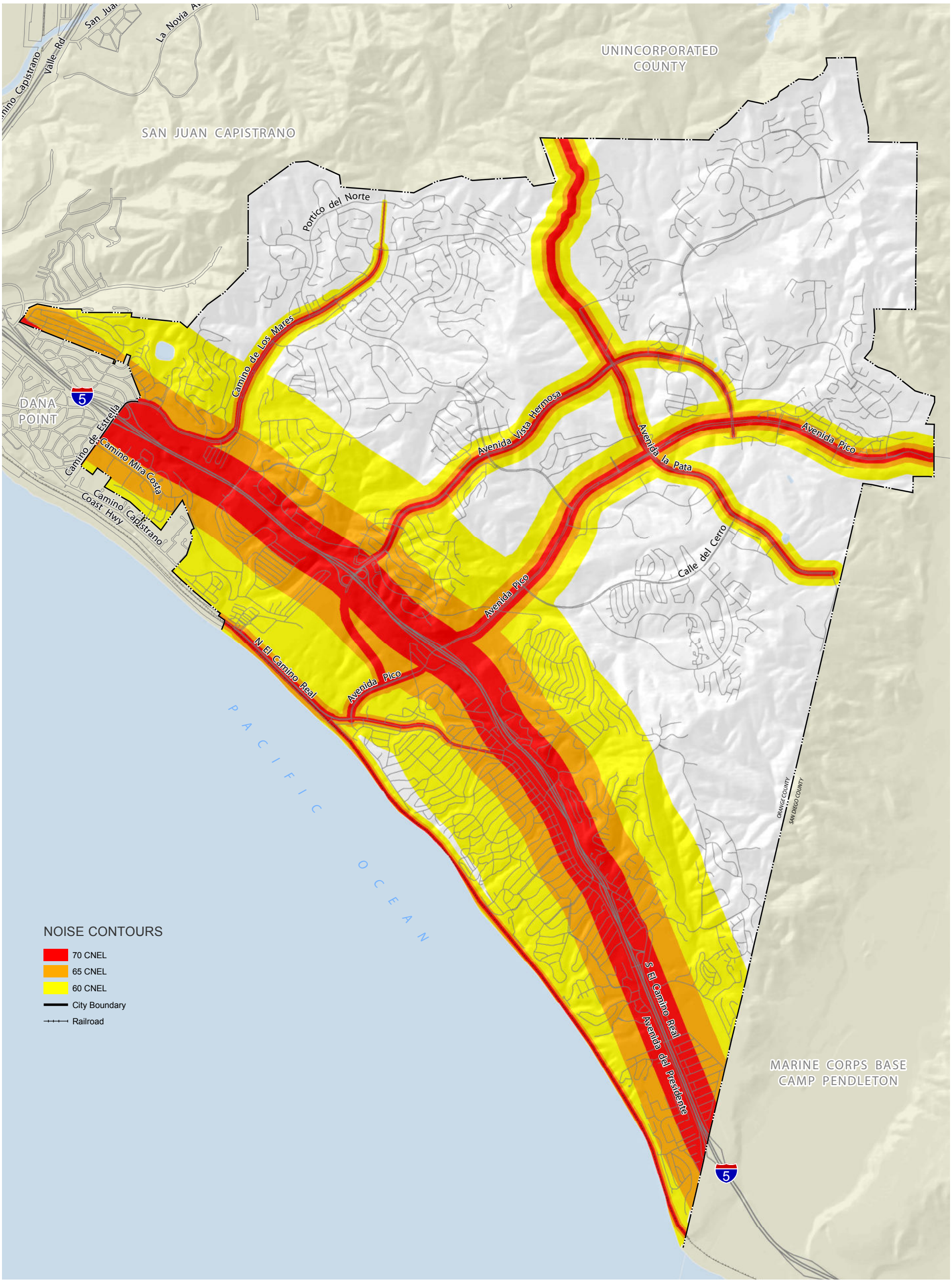
The noise contours for future conditions are presented in Figures 5.10-3 and 5.10-4, which show the future noise levels from transportation sources within the City. Any siting of new noise-sensitive land uses within a noise environment that exceeds the normally acceptable land use compatibility criterion represents a potentially significant impact and would require a separate noise study through the development review process to determine the level of impacts and required mitigation. Without mitigation, this would be a significant impact.

Impact 5.10-4 Noise-sensitive uses could be exposed to elevated noise levels from stationary sources. [Thresholds N-1 and N-3]

Impact Analysis: Noise is regulated by numerous codes and ordinances across federal, state, and local agencies. In addition, the City regulates stationary-source noise through the Municipal Code. Buildout of the proposed Land Use Plan would result in an increase in residential, commercial, industrial, and institutional development within the City. The primary noise sources from these land uses are landscaping, maintenance activities, and air conditioning systems. In addition, future commercial uses may include loading docks. Noise generated by residential or commercial uses is generally short and intermittent, and these uses are not a substantial source of noise. The City of San Clemente requires that noise from new stationary sources in the City comply with the City's Noise Ordinance, which limits the acceptable noise at the property line of the impacted property to reduce nuisances to sensitive land uses. The City Police or Code Enforcement Officer enforces the noise limitation of the Municipal Code. Noise that exceeds the limitations of the Municipal Code is considered a noise nuisance by the City, and violations are punishable by a fine for each day a violation occurs and may be subject to abatement by restraining order or injunction. Consequently, stationary-source noise from these types of proposed land uses would not substantially increase the noise environment.

The siting of new industrial and large commercial developments may increase noise levels at nearby residential or other sensitive uses. This can be due to the continual presence of heavy trucks used for the pick-up and delivery of goods and supplies, or from the use of noisy equipment used in the manufacturing or machining process. Although vehicle noise on public roadways is exempt from local regulation, for the purposes of the planning process, it may be regulated as a stationary-source noise while operating on private property. Process equipment and the use of pneumatic tools could also generate elevated noise levels, but this equipment is typically housed within the facilities. Each individual new commercial or industrial project would be subject to review under CEQA. To regulate stationary-source noise created by industrial machinery and tools from affecting sensitive land uses, the City of San Clemente requires industrial operations to limit noise to no greater than the maximum allowable noise levels as described in the Noise Ordinance. Therefore, compliance with the Noise Ordinance and implementation of Policy S-4.01, Policy LU-1.06, and Policy LU-2.03 would result in noise levels that are acceptable to the City and would result in less than significant noise impacts from stationary sources.

Future Noise Levels in San Clemente (No FTC Scenario)



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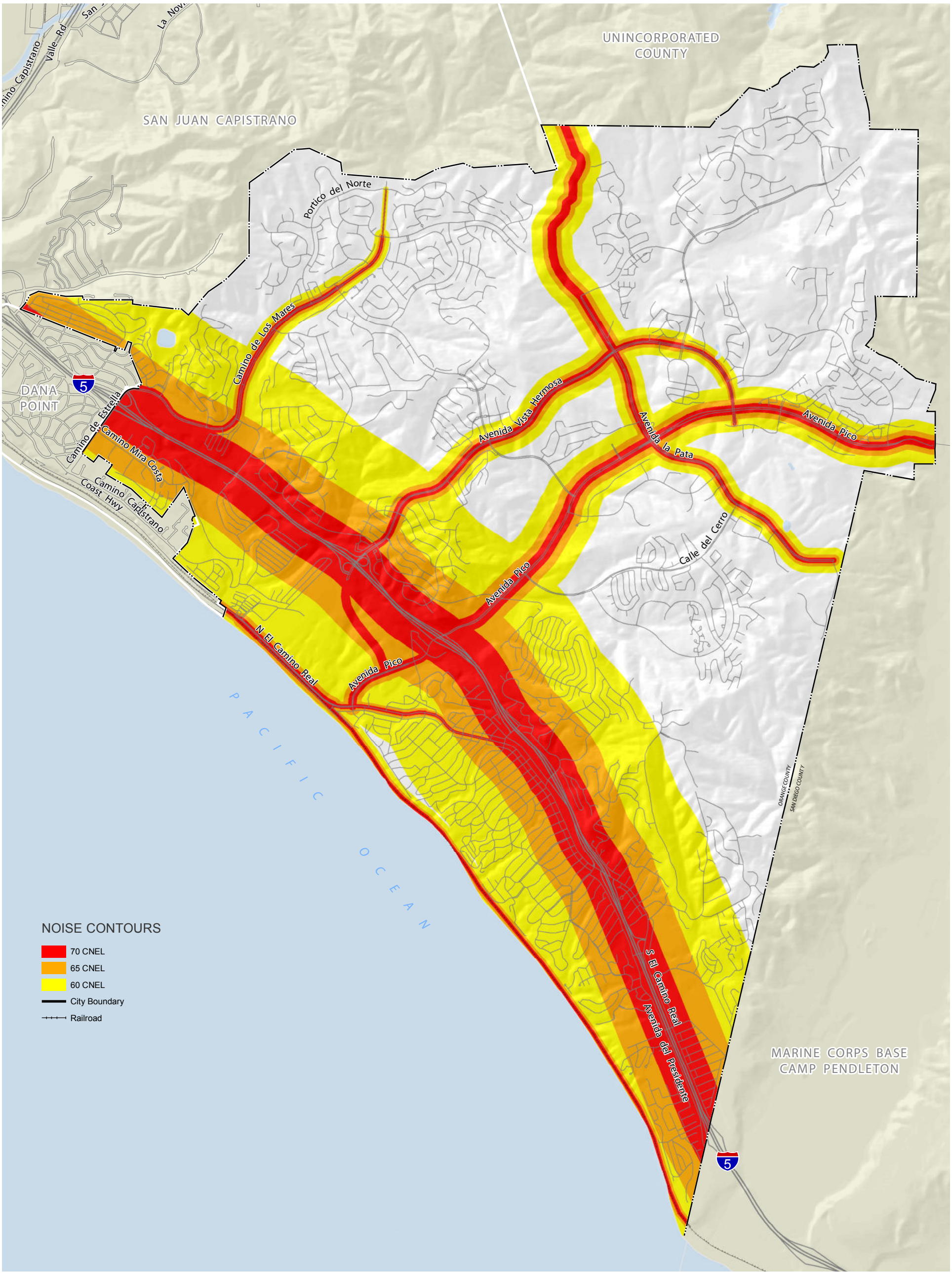
Future Noise Levels in San Clemente (With FTC Tesoro Road Extension and Road Diet Alternative 2)



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Impact 5.10-5: Implementation of the General Plan would NOT substantially elevate noise and vibration exposure from activities at the Marine Corps Base Camp Pendleton. [Thresholds N-1 AND N-2]

As discussed in the "*Existing Conditions"* section above, Camp Pendleton is east of City limits. Figure 5.10-5 shows the base's projected noise zones. According to the RCUZ study, the City is outside the Noise Zone 2 contours. The projected noise due to aircraft and heavy weapons use within City of San Clemente limits remain below Noise Zone 2 contours, which are levels that interfere with speech, sleep, or the ability to hear television and radio shows.

Because vibration dissipates quickly with distance, and projected Zone 2 noise contours are well beyond City limits, future land uses to be developed on the eastern portions of the City would not be exposed to incompatible noise and vibration levels. Therefore, implementation of the General Plan would not expose land uses to substantial noise and vibration levels, and these impacts would be less than significant.

Impact 5.10-6: Construction activities associated with buildout of the individual land uses and projects for implementation of the General Plan would substantially elevate noise levels in the vicinity of noise-sensitive land uses. [Threshold N-4]

Impact Analysis: Implementation of the General Plan would result in construction of new residential, commercial, and industrial uses throughout the City. Two types of temporary noise impacts could occur during construction. First, the transport of workers and movement of materials to and from the site could incrementally increase noise levels along local access roads. The second type of temporary noise impact is related to demolition, site preparation, grading, and/or physical construction. Construction is performed in distinct steps, each of which has its own mix of equipment, and, consequently, its own noise characteristics. Table 5.10-12 lists typical construction equipment noise levels recommended for noise-impact assessments, based on a distance of 50 feet between the equipment and noise receptor.

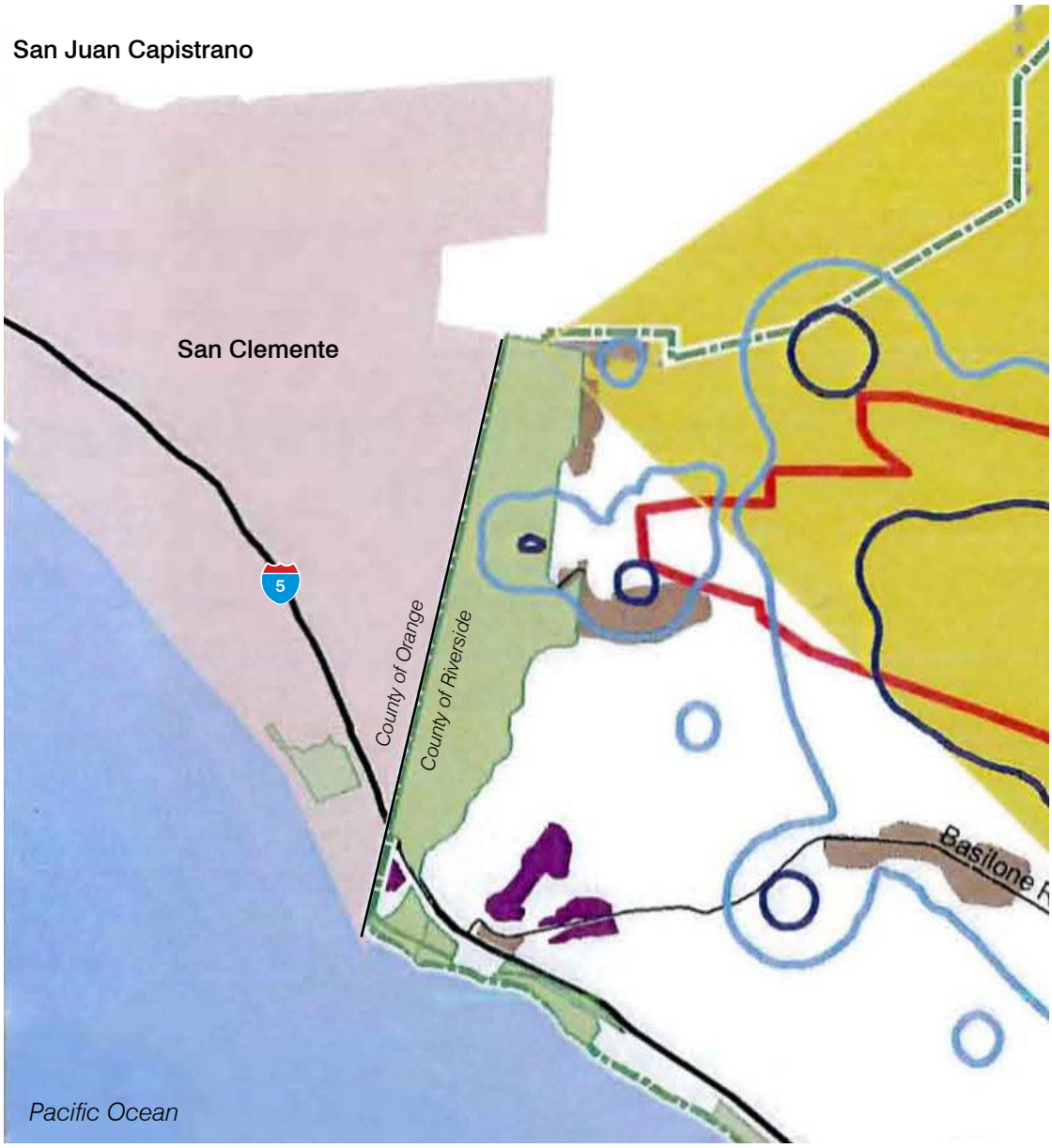
Table 5.10-12 Construction Equipment Noise Emission Levels

Construction Equipment	Typical Maximum Noise Level (dBA L_{max})[1]	Construction Equipment	Typical Noise Level (dBA L_{max})[1]
Air Compressor	81	Pile-Driver (Impact)	101
Backhoe	80	Pile-Driver (Sonic)	96
Ballast Equalizer	82	Pneumatic Tool	85
Ballast Tamper	83	Pump	76
Compactor	82	Rail Saw	90
Concrete Mixer	85	Rock Drill	98
Concrete Pump	71	Roller	74
Concrete Vibrator	76	Saw	76
Crane, Derrick	88	Scarifier	83
Crane, Mobile	83	Scraper	89
Dozer	85	Shovel	82
Generator	81	Spike Driver	77
Grader	85	Tie Cutter	84
Impact Wrench	85	Tie Handler	80
Jack Hammer	88	Tie Inserter	85
Loader	85	Truck	88
Paver	89		

Source: FTA 2006.
[1] Measured 50 feet from the source

As shown, construction equipment generates high levels of noise with maximums ranging from 71 dBA to 101 dBA. Construction of individual developments associated with buildout of the proposed Land Use Plan would temporarily increase the ambient noise environment and would have the potential to affect noise-sensitive land uses in the vicinity of an individual project. San Clemente Municipal Code Section 15.36.190 allows for grading, right-of-way encroachment, and landscaping/irrigation construction under permit only, during specific hours. These permitted activities can occur between 7:30 AM to 5:30 PM, Monday through Friday. Approval to conduct these activities beyond this time period, or on Saturday, Sunday, or during recognized holidays must be pre-approved by the City Engineer through a written request submitted by the contractor. However, construction activities may occur outside of these hours if the City determines that the maintenance, repair, or improvement is necessary to maintain public services or cannot feasibly be conducted during normal business hours, or if construction activities comply with the stationary source noise standards of the Municipal Code.

Camp Pendleton Noise Level Zones



LEGEND
- County Boundary
- City Boundaries
- State Park
- On-Base Housing Areas
- Containment Area
- Military Installation Boundary
- Surface Danger Zones

RCUZ SAFETY ZONES
- RSZ C - Minimum Restricted Airspace for Aircraft Manuvering

RCUZ NOISE ZONES
- Noise Zone 2
- Noise Zone 3

0 1
Scale (Miles)

Source: Range Compatible Use Zone Study, June 2007

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Significant noise impacts may occur from operation of heavy earthmoving equipment and truck haul that would occur with construction of individual development projects. Implementation of the General Plan anticipates an increase in development intensity. Construction noise levels are dependent upon the specific locations, site plans, and construction details of individual projects, which have not yet been developed. Construction would be localized and would occur intermittently for varying periods of time. Because specific project-level information is not available at this time, it is not possible to quantify the construction noise impacts at specific sensitive receptors. Construction of individual developments associated with implementation of the General Plan would temporarily increase the ambient noise environment in the vicinity of each individual project. Because construction activities associated with any individual development may occur near noise-sensitive receptors and depending on the project type noise disturbances may occur for prolonged periods of time, construction noise impacts associated with implementation of the General Plan are considered significant.

Impact 5.10-7: Buildout of the individual land uses and projects for implementation of the General Plan would NOT expose sensitive uses to strong levels of groundborne vibration. [Threshold N-2]

Impact Analysis:

Transportation-Related Vibration Impacts

Caltrans has studied the effects of propagation of vehicle vibration on sensitive land uses and notes that "heavy trucks, and quite frequently buses, generate the highest earthborn vibrations of normal traffic." Caltrans further notes that the highest traffic-generated vibrations are along freeways and state routes. Their study finds that "vibrations measured on freeway shoulders (five meters from the centerline of the nearest lane) have never exceeded 0.08 inches per second, with the worst combinations of heavy trucks. This level coincides with the maximum recommended safe level for ruins and ancient monuments (and historic buildings)." Typically, trucks do not generate high levels of vibration because they travel on rubber wheels and do not have vertical movement, which generates ground vibration. Transportation routes within the City are not expected to generate excessive vibration.

Railroad Vibration Impacts

Vibration levels in the City from trains are dependent on site specific conditions such as geology and the condition of the railroad track and train wheels. There are no plans on realigning rail tracks in the City. Although it is not proposed at this time, if modifications of existing rail tracks are planned, vibration would be addressed in the environmental review for each individual rail improvement project. Currently there are 12 daily trains in each direction that pass through San Clemente on weekdays and weekends. It is anticipated that the number of daily trains in the Pacific Surfliner Route would reach 18 daily trains, a 50 percent increase from current activity. This proposed increase in rail traffic would not increase the maximum vibration levels at nearby uses. The increase in frequency of daily rail trips would not result in the generation of excessive vibration.

Implementation of the General Plan may add new sensitive uses in areas adjacent to the railroad line. Changes to the Land Use Plan would allow for additional medical office uses in the Camino de Estrella/Camino de Los Mares Focus Area. A plan for future development in the Los Molinos area includes the potential for a future rail transit station. The City's Housing Element implements an affordable housing overlay for this area. In addition, the General Plan introduces new residential in the North Beach/North El Camino Real Focus Area by allowing for new mixed uses. These developments many result in placing residential or medical offices uses near the railroad line which could result in excessive groundborne vibration from train operations. The extent of the exposure to vibration depends on site-

specific conditions, location of buildings, and size and design of the proposed buildings. Further review would be required as future development is proposed. Potential exposure to groundborne vibration is significant.

Industrial Vibration Impacts

The use of heavy equipment associated with industrial operations can create elevated vibration levels in its immediate proximity. Soil conditions have a strong influence on the levels of groundborne vibration. All heavy industrial uses within the City are and would continue to be located in the Los Molinos area the eastern edge of the City on Avenida La Pata. Vibration dissipates rapidly with distance and the proposed land use plan would not add new sensitive receptors in proximity to major industrial areas. The nearest sensitive receptors on the areas along Avenida La Pata are and would continue to be located over 100 feet from major industrial areas. No significant vibration impacts would occur in this area. However, new heavy industrial uses in the Los Molinos area would have the potential to cause vibration impacts to nearby residential, hotel, and commercial uses. .

Construction Vibration Impacts

Construction operations can generate varying degrees of ground vibration, depending on the construction procedures and equipment. Operation of construction equipment generates vibrations that spread through the ground and diminish with distance from the source. The effect on buildings in the vicinity of the construction site varies depending on soil type, ground strata, and receptor-building construction. The results from vibration can range from no perceptible effects at the lowest vibration levels, to low rumbling sounds and perceptible vibrations at moderate levels, to slight structural damage at the highest levels. Vibration from construction activities rarely reaches the levels that can damage structures, but can achieve the audible and perceptible ranges in buildings close to the construction site. Table 5.10-13 lists vibration levels for construction equipment.

Table 5.10-13 Vibration Levels for Construction Equipment

Equipment	Approximate Velocity Level at 25 Feet (VdB)	Approximate RMS[1] Velocity at 25 Feet (in/sec)
Pile Driver (impact) Upper Range	112	1.518
Pile Driver (impact) Lower Range	104	0.644
Pile Driver (sonic) Upper Range	105	0.734
Pile Driver (sonic) Lower Range	93	0.170
Large Bulldozer	87	0.089
Caisson Drilling	87	0.089
Jackhammer	79	0.035
Small Bulldozer	58	0.003
Loaded Trucks	86	0.076
FTA Criteria – Human Annoyance (Daytime)	78	—
FTA Criteria – Structural Damage	—	0.200

Source: FTA 2006
1 RMS velocity calculated from vibration level (VdB) using the reference of 1 microinch/second.

As shown in Table 5.10-13, vibration generated by construction equipment has the potential to be substantial, since it has the potential to exceed the FTA Criteria for human annoyance of 78 VdB and structural damage of 0.200 in/sec. However, groundborne vibration is almost never annoying to people who are outdoors, so it is usually evaluated in terms of indoor receivers (FTA 2006). Vibration impacts may occur from construction equipment associated with development in accordance with City of San Clemente General Plan. This would be a significant impact.

5.10.4 Relevant Policy Plan Policies and Programs

Safety Element - Noise

S-4.01 **Noise Control.** We effectively control ambient and stationary noise conditions by maintaining baseline information, monitoring conditions, following State guidelines, and enforcing locally adopted ordinances and building codes.

S-4.02 **Street Design.** We design our streets to minimize noise impacts.

S-4.03 **Interagency Collaboration.** We encourage and collaborate with local, regional, and statewide transportation agencies to minimize transportation-related noise impacts and provide appropriate mitigation measures that also consider impacts to community character and on natural resources (e.g., views).

S-4.04 **Balance Between Noise Control and View Protection.** We will continue to work with local, State, and Federal agencies to reduce highway- and railroad-generated noise levels to within acceptable levels identified in the General Plan, while seeking to re-establish ocean views blocked by noise barriers on Interstate 5.

S-4.05 **Rail-related Noise.** We minimize the noise impact of passenger and freight rail service on sensitive land uses by coordinating with rail authorities to effectively manage train noise and by aggressively pursuing noise mitigation measures that apply to rail uses.

S-4.06 **Truck Routes.** To minimize truck traffic noise impacts to sensitive land uses, we designate areas where truck traffic is prohibited.

S-4.07 **Collaboration with Camp Pendleton.** We collaborate with the United States Marine Corps, Camp Pendleton, to minimize the impacts of noise- or vibration-inducing activities on San Clemente residents and to inform the community in advance when such activities will be conducted.

Mobility Element

M-1.16 **Alternative Paving Treatments.** We support the use of alternate paving materials for public streets, highways, rail beds and other transportation corridors where they can help achieve other General Plan goals, such as noise reduction, beautification, and improved fuel efficiency.

M-5.01 **Designated Truck Routes.** We identify, implement, and maintain a system of truck routes that allows efficient freight movement while minimizing negative impacts on local roads and noise-sensitive land uses by identifying and implementing vehicle weight restrictions on designated streets.

Land Use Element

LU-1.06 **Residential Infill.** We require that new residential development be compatible with adjacent structures and land uses and we require:

a. mitigation of noise, traffic (automobile and truck), and lighting impacts of abutting commercial uses, where applicable;

b. use of complementary building materials, colors, and forms, while allowing flexibility for distinguished design solutions.

LU-2.03 **Neighborhood Compatibility.** We require that commercial projects abutting residential neighborhoods be designed and operated to protect residents from the effects of noise, light, odors, vibration traffic, parking and other operational impacts.

LU-3.05 **Stand Alone Residential Uses.** In Mixed Use areas outside the Pedestrian Overlay, stand-alone residential uses are permitted. In these areas, we require stand-alone dwellings to be compatible with adjacent commercial and mixed uses and with adjacent neighborhoods. Such developments shall:

a. buffer the residential use from abutting commercial uses;

b. adequately mitigate the noise, traffic, parking (automobile and truck), and lighting impacts of abutting commercial use;

c. locate and design dwellings to provide adequate security and privacy for residents; and

d. minimize, to the extent practical, adverse impacts on the integrity and continuity of nearby commercial uses by considering the long term needs of commercial and residential uses, such as commercial loading, solid waste and recycling storage, private open space, landscape buffers, noise and odor.

5.10.5 Existing Regulations and Standard Conditions

State

- California Code of Regulations, Title 21, Part 1, Public Utilities Code (Regulation of Airports)
- California Code of Regulations, Title 24, Part 11, California Green Building Standards Code.

City of San Clemente Municipal Code

Chapter 8.48, Noise Control, regulates and controls unnecessary, excessive, and annoying sounds emanating from incorporated areas of the City. The City has established noise standards as measured at the property line of the receiving property. This chapter also regulates the hours of construction noise.

5.10.6 Level of Significance Before Mitigation

Upon implementation of regulatory requirements and General Plan policies, the following impacts would be less than significant: 5.10-2, 5.10-4, and 5.10-5.

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

- Impact 5.10-1 Buildout of the proposed Land Use Plan would result in an increase in traffic on roadways in the City of San Clemente, which would substantially increase the noise environment.

- Impact 5.10-3 Noise-sensitive uses could be exposed to elevated noise levels from transportation sources.

- Impact 5.10-6 Construction activities associated with buildout of the individual land uses associated with the proposed Land Use Plan could temporarily and substantially elevate noise levels in the vicinity of sensitive land uses.

- Impact 5.10-7 Construction activities associated with buildout of the individual land uses associated with the proposed Land Use Plan could expose sensitive uses to strong levels of groundborne vibration.

5.10.7 Mitigation Measures

Impact 5.10-1

Noise due to increased traffic would affect single-family and multifamily residential land uses along the segment of Avenida Pico from Avenida La Pata to Camino La Pedriza. To reduce potential noise impacts to new sensitive land uses, the proposed Noise Element's Policy S-4.02, Street Design, requires the City to design roads to minimize noise impacts. In addition, Policy M-1,16, Alternative Paving Treatments, supports the use of alternative paving materials to help achieve noise reduction. Potential noise increases along the segments identified above would be up to 9.2 dBA. Implementation of these policies (i.e., rubberized asphalt, traffic calming measures, etc.) are not guaranteed to provide a substantial noise reduction along these segments. Even with these policies, the expected noise increase on that roadway segment would be over 5 dBA, and the General Plan policies would not provide sufficient noise reduction to reduce potential noise impacts at existing noise-sensitive uses. There are no feasible effective mitigation measures available that would prevent noise levels along major transportation corridors from increasing as a result of substantial increases in traffic volumes. Although new uses can be designed for the expected noise exposure (see MM 10-1), there would be no feasible mitigation measures to reduce potential noise impacts to existing noise-sensitive uses. These impacts would be significant and unavoidable.

MM 10-1 Prior to the issuance of building permits for any project that involves a noise-sensitive use within the 65 dBA CNEL contour (i.e., areas in or above 65 dBA CNEL) along major roadways, freeways, and railroads, the project property owner/developers shall retain an acoustical engineer to conduct an acoustic analysis and identify, where appropriate, site design features (e.g., setbacks, berms, or sound walls), and/or required building acoustical improvements (e.g., sound transmission class rated windows, doors, and attic baffling) to ensure compliance with the City's Noise Compatibility Criteria and the California State Building Code and California Noise Insulation Standards (Title 24 and 21 of the California Code of Regulations).

Impact 5.10-3

Any siting of new noise-sensitive land uses within a noise environment that exceeds the normally acceptable land use compatibility criterion represents a potentially significant impact and would require a separate noise study through the development review process to determine the level of impacts and required mitigation. Implementation of the General Plan includes several policies in the Safety Element such as S-4.01 to S4.07, and on the Land Use Element such as LU-1.06, LU-2.03, and LU-3.05 to reduce noise in City. With implementation of MM 10-1, and implementation of the General Plan policies, impacts from transportation noise sources would be less than significant.

Impact 5.10-6

MM 10-2 Construction activities associated with new development that occurs near sensitive receptors shall be evaluated for potential noise impacts. Mitigation measures such as installation of temporary sound barriers for construction activities that occur adjacent to occupied noise-sensitive structures, equipping construction equipment with mufflers, and reducing nonessential idling of construction equipment to no more than five minutes shall be incorporated into the construction operations to reduce construction-related noise to the extent feasible.

Impact 5.10-7

MM 10-3 New development that occurs within 200 feet of a railroad track (according to the FTA's vibration screening distances) shall be evaluated for potential vibration impacts. The project property owner/developers shall retain an acoustical engineer to conduct an acoustic analysis and identify, where appropriate, site design features and/or required building construction improvements to ensure that vibration impacts would remain below acceptable levels of 0.08 RMS in/sec for residential uses.

MM 10-4 Individual projects that use vibration-intensive construction activities, such as pile drivers, jack hammers, and vibratory rollers, near sensitive receptors shall be evaluated for potential vibration impacts. If construction-related vibration is determined to be perceptible at vibration-sensitive uses (i.e., exceed the Federal Transit Administrations vibration annoyance criterion of 78 VdB), additional requirements, such as use of less-vibration-intensive equipment or construction techniques, shall be implemented during construction (e.g., drilled piles to eliminate use of vibration-intensive pile driver).

MM 10-5 Prior to the issuance of building permits, heavy industrial projects in the Los Molinos area are required to provide evidence that vibration due to the operation of machinery would not adversely affect nearby vibration sensitive uses such as commercial, hotel, institutional, and residential uses. Vibration related to the operation of mechanical equipment shall not exceed 78 VdB, which is the level that is considered to be significant at vibration-sensitive uses. This can be accomplished with vibration reducing measures such as but not limited to equipment placement, equipment selection, vibration dampers, operation mode (speed, power, frequency).

5.10.8 Level of Significance After Mitigation

Impact 5.10-1

Mitigation Measure 10-1 (land use compatibility) would reduce potential noise impacts to new uses. No mitigation measures are available that would prevent noise levels along major transportation corridors from increasing as a result of substantial increase in traffic volumes, which would affect existing sensitive uses. Impact 5.10-1 would remain significant.

Impact 5.10-3

Mitigation Measure 10-1 (land use compatibility) would reduce potential noise impacts to new uses. With implementation of Mitigation Measure 5-1, long-term noise impacts to new land uses would be reduced to less than significant levels.

Impact 5.10-6

Mitigation Measure 10-2 (construction-related noise) would reduce impacts associated with construction activities to the extent feasible. However, due to the potential for proximity of construction activities to sensitive uses and potential longevity of construction activities, Impact 5.10-6 (construction noise) would be **significant and unavoidable**.

Impact 5.10-7

Mitigation Measure 10-3 (train-related vibration) would reduce potential train-related vibration impacts to new uses below the thresholds. Mitigation Measure 10-5 (industrial-related vibration) would reduce potential vibration impacts from industrial uses to less-than-significant levels. Mitigation Measure 10-4 (construction-related vibration) would

reduce vibration impacts associated with construction activities to the extent feasible. However, due to the potential for proximity of construction activities to sensitive uses and potential longevity of construction activities, Impact 5.10-7 (vibration) would be significant.

Despite the application of mitigation measures, Impacts 5.10-1, 5.10-6, and 5.10-7 were determined to still result in **significant and unavoidable** noise impacts.

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5.11 POPULATION AND HOUSING

This section of the Draft Environmental Impact Report (DEIR) examines the potential for socioeconomic impacts of the proposed General Plan on the City of San Clemente and its Sphere of Influence (SOI), including changes in population, employment, and demand for housing, particularly housing cost/rent ranges defined as "affordable."

The analysis in this section is based, in part, upon sources of information from the following agencies:

- Southern California Association of Governments (SCAG), 2012 Regional Transportation Plan Growth Forecast
- United States Census Bureau, Department of Finance (2010 U.S. Census)
- California Department of Finance (CDF) E-5 City/County Population and Housing Estimates issued May 2012
- Center for Demographic Research, California State University Fullerton: Orange County Projections 2010 Modified.

5.11.1 Environmental Setting

Regional Plans

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 (MPO) for this region, which encompasses over 38,000 square miles.

SCAG adopted the "2012–2035 Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS): Towards a Sustainable Future." The policies coordinate infrastructure development with projected population, housing, and employment growth. In its efforts to develop a regional transportation network that maximizes access and mobility, minimizes congestion, and protects the quality of life, SCAG focuses particular attention on the relationship between jobs and housing. Policies encourage local jurisdictions to balance job and housing opportunities. SCAG policies also encourage job growth near transit services and transit nodes and near existing freeways and toll roads to reduce vehicle miles traveled and congestion and the air pollution that accompany them.

Regional Transportation Plan/Sustainable Communities Strategy

On April 4, 2012, SCAG adopted the 2012–2035 RTP/SCS. SCAG has placed a greater emphasis than ever on sustainability and integrated planning, and the RTP/SCS vision encompasses three principles that collectively work as the key to the region's future: mobility, economy, and sustainability. The RTP/SCS includes a strong commitment to reduce emissions from transportation sources to comply with Senate Bill 375, improve public health, and meet the National Ambient Air Quality Standards. It provides a blueprint for improving quality of life for residents by providing more choices for where they will live, work, and play and how they will move around (SCAG 2011).

Compass Growth Vision

In 2004, SCAG adopted the Compass Growth Vision (CGV), which is a response, supported by a regional consensus, to the land use and transportation challenges facing southern California. SCAG developed the CGV in an effort to maintain the region's prosperity, continue to expand its economy, house its residents affordably, and protect its environmental setting as a whole. The CGV is a framework that helps local jurisdictions address growth management

cooperatively and also helps coordinate regional land use and transportation planning. In conjunction with the CGV, SCAG also adopted the Compass Blueprint 2% Strategy, which is the part of the 2004 regional growth forecast policy that attempts to reduce emissions and increase mobility through strategic land use changes. The 2% Strategy is a guideline for how and where the CGV for southern California's future can be implemented toward improving measures of mobility, livability, prosperity, and sustainability for local neighborhoods and their residents. The program resulted in a plan that identifies strategic growth opportunity areas (2% Strategy Opportunity Areas). These opportunity areas are roughly 2 percent of the land area in the southern California region.

With the adoption of the 2012 RTP/SCS, the areas previously known as 2% Strategy Opportunity Areas were updated by SCAG and replaced with what are now called High Quality Transit Areas (HQTA), which are a part of and integrated into the SCS part (Chapter 4) of the 2012 RTP/SCS. An HQTA is generally a walkable transit village or corridor that is within one half-mile of a well-serviced transit stop or a transit corridor with 15-minute or less service frequency during peak commute hours. The overall land use pattern of the 2012 RTP/SCS focuses jobs and housing in the region's designated HQTA (SCAG 2012). There are two HQTA areas in the City (see Figure 5.11-1, *High Quality Transit Areas in the City of San Clemente*).

As of April 2012, the adopted regional plan development projects should be referring for consistency analysis is the 2012-2035 RTP/SCS (Brandenburg 2013). The SCS part of the 2012 RTP/SCS is essentially consistent with the older CGV, and therefore a separate consistency analysis with the previous and advisory CGV policies is not required. Additionally, separate goals, policies or guidelines have not been adopted for the areas designated as HQTA. Essentially, the proposed project's consistency with the applicable RTP/SCS goals, covers the proposed projects consistency with being in a designated HQTA.

Methodology

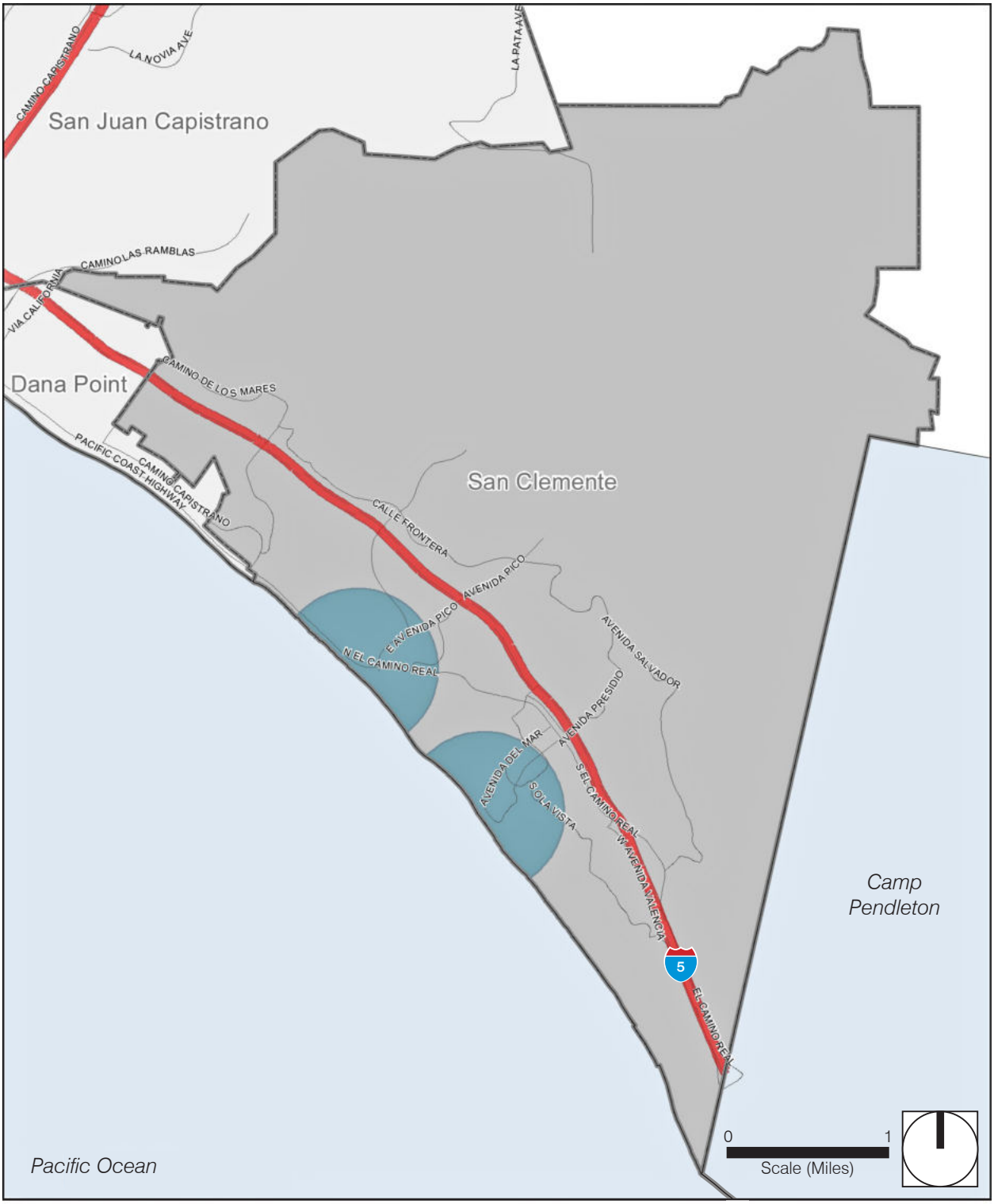
The project area's demographics are examined in the context of existing and projected population for the Orange County region and the City of San Clemente. Information on population, housing, and employment for the project area is available from several sources.

US Census. The official United States Census is described in Article I, Section 2 of the Constitution of the United States. It calls for an actual enumeration of the people every 10 years, to be used for apportionment among the states of seats in the House of Representatives. The United States Census Bureau publishes population and household data gathered in the decennial census. This information provides a record of historical growth rates in Orange County and the City of San Clemente.

California Department of Finance. The CDF prepares and administers California's annual budget. Other duties include estimating population demographics and enrollment projections. CDF's "Table E-5: City/County Population and Housing Estimates," reports on population and housing estimates for the state, counties, and cities, January 2011–2013, benchmarked to base year 2010.

Southern California Association of Governments. Policies and programs adopted by SCAG to achieve regional objectives are expressed in its 2012 RTP/SCS.

High Quality Transit Areas in the City of San Clemente



Source: Southern California Association of Governments

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Population Trends

Based on the current land use conditions, the population of the City of San Clemente is estimated to be 64,208 (CDF 2012). Although this number is slightly higher than other population projections for the City, it reflects the current land use trends in the City. For a comparison, other sources have estimated the current population in San Clemente to be 63,522 (US Census for 2010) and 63,200 (2008 SCAG RTP). For purposes of this environmental analysis, the most current population estimate of -64,208 people, is used to maintain consistency throughout the analysis.

Population forecasts for the City of San Clemente, South Orange County, and the County as a whole are listed in Table 5.11-1. The South Orange County region is included in the population data to provide a regional context between the City of San Clemente and Orange County. The South Orange County region used here is two combined regional statistical areas used in the Orange County projections prepared by the Center for Demographics Research. RSA D-40 – South Coast – extends northwest up the coast of Orange County from San Clemente to the south end of the City of Newport Beach. RSA C-43 – Trabuco – extends north up the eastern part of the county to north of the City of Lake Forest (see Figure 5.11-2, *South Orange County Region*).

Table 5.11-1 Population Forecasts

	2008	Existing	2020 Forecast	2035 Forecast	Increase, 2012–2035	Percent Increase, 2008–2035
City of San Clemente	63,200	**64,208**	68,100	**68,300**	4,092	6.4%
Orange County	2,989,000	**3,055,792**	3,266,000	**3,421,000**	365,208	12.1%
South Orange County	582,125	**Not available**	643,015	**666,482**	84,357	14.5%[1]

Sources: Existing (City and county): CDF 2012;
2008 and 2020 and 2035 forecasts (City and county): SCAG 2012;
South Orange County: CDR 2012. RSAs C-43 and D-40.
[1] Comparison was to 2008 data since 2012 data was not available.

The 2020 and 2035 population forecasts are from the SCAG 2012 Regional Transportation Plan (RTP) Regional Forecast. As shown in the table, the population of the City is forecast to increase to 68,300 by 2035, an increase of 4,092, or 6.4 percent, beyond its 2012 population. The percentage increase forecast for the City is less than the Orange County's projected population growth of 12.1 percent. The City is projected to grow by an average of 178 persons per year, compared with Orange County's projected growth rate of 15,879 persons per year.

Housing Trends

Housing units and households as counted in the 2010 Census, 2012 CDF estimate, and SCAG forecasts for 2020 and 2035 for the City of San Clemente and Orange County are shown in Tables 5.11-2 and 5.11-3. The number of households is forecast to increase from 2012 to 2035 by 5.2 percent in the City of San Clemente and 13.0 percent in Orange County.

Table 5.11-2 Existing Housing Units and Households, City of San Clemente and Orange County

	2010 US Census	2012 CDF
City of San Clemente		
Housing Units	25,966	26,017
Households	23,906	23,953
Vacant Housing Units	2,060	2,064
Vacancy Rate	7.9%	7.93%
Orange County		
Housing Units	1,048,907	1,052,375
Households	992,781	995,946
Vacant Housing Units	56,126	56,429
Vacancy Rate	5.4%	5.36%

Sources: 2010 US Census; CDF 2012.

Table 5.11-3 Households Forecasts

	Existing Conditions	2020 Forecast	2035 Forecast	Increase, 2012–2035	Percent Increase, 2010–2035
Households					
City of San Clemente	23,953	24,800	25,200	1,294	5.2%
Orange County	995,946	1,049,000	1,125,000	129,054	13.0%
Housing Units					
South Orange County	231,249[1]	244,575	**255,894**	24,645[1]	10.7%

Sources: Existing (City and county): CDF 2012;
2020 and 2035 forecasts (City and county): SCAG 2012;
South Orange County: CDR 2012. RSAs C-43 and D-40.
1. 2010 data.

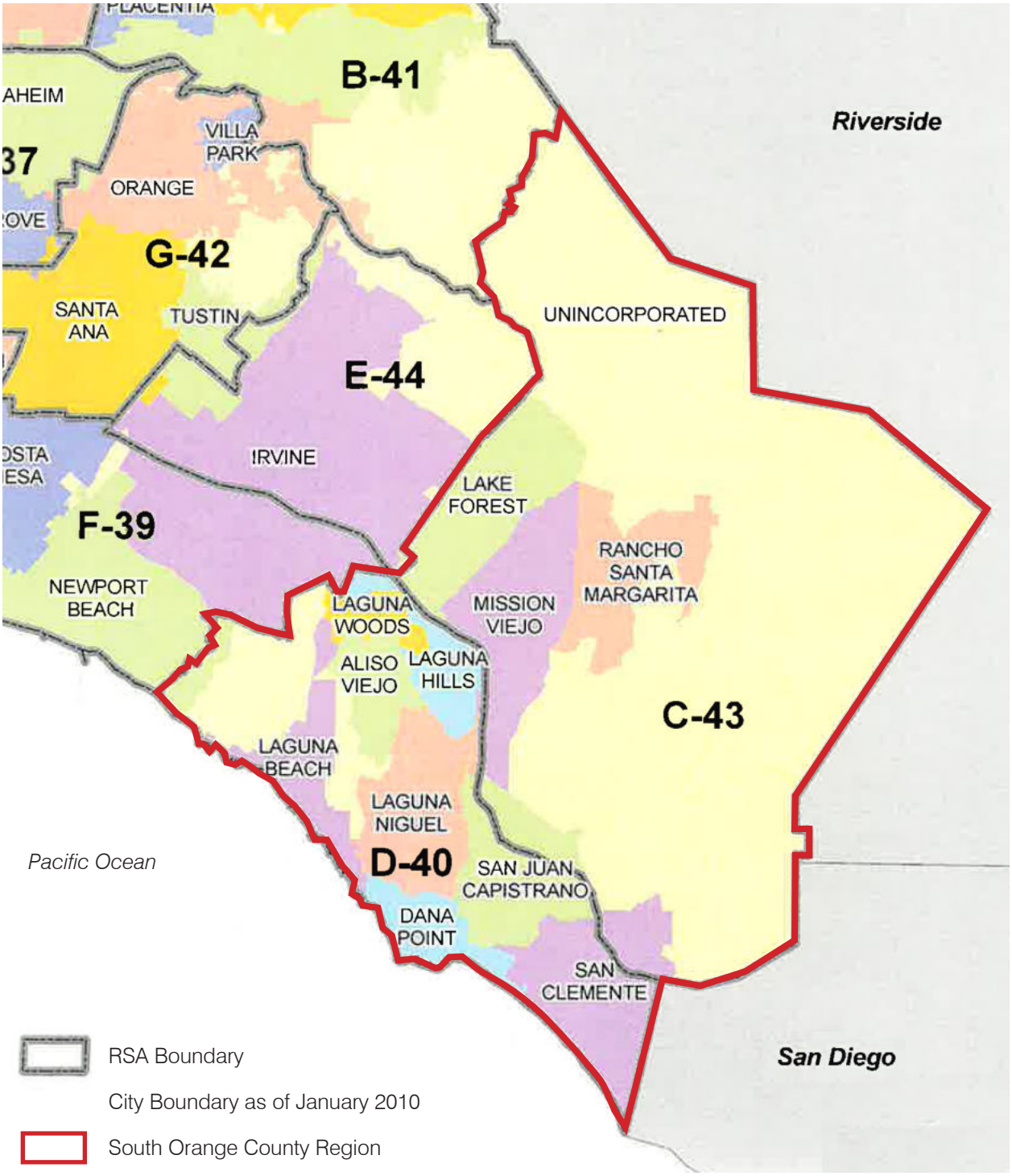
Vacancy Rate

The housing vacancy rate in the City of San Clemente was 7.9 percent in 2010 as reported in the 2010 Census, and was 7.93 percent in January 2012 as estimated by the CDF. Of the 2,060 vacant housing units counted in the Census, 580 units—28.2 percent of the total—were for rent or rented but not occupied, and 275 or 13.3 percent of the total were for sale or sold but not occupied. Of the remaining vacant units, 1,021 were for seasonal or recreational use and the balance, 184 units, were uncategorized.

Housing Tenure

Tenure refers to whether a household owns or rents a home. In the City of San Clemente, 64 percent (15,309) of households own a home and 36 percent (8,597) rent a home (Census 2010). San Clemente's rate of homeownership is higher than the 59.3percent rate for Orange County.

South Orange County Region



Source: Center for Demographic Research January 2012

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Housing Unit Types

Housing units in San Clemente are classified by unit type in Table 5.11-4.

Table 5.11-4 Housing Units in San Clemente by Unit Type

	Number of Units	Percent of Units
Single-Family Detached	14,845	57%
Single-Family Attached	2,602	10%
Multifamily (2 to 4 Units)	4,090	16%
Multifamily (5+ units)	3,879	15%
Mobile Homes	601	2%
Total Units	26,017	100%

Source: CDF 2012.

Household Size

The average household size was reported as 2.65 persons in San Clemente and 2.99 persons in Orange County by the 2010 US Census.

Current and Future Housing Needs

The City of San Clemente Housing Element, which was adopted in 2011, provides a thorough discussion as well as goals and policies to address issues of housing affordability.

Government Code Section 65863 restricts cities' ability to reduce the maximum allowable density in areas already designated or zoned for residential uses to a level below the density used by the State of California Housing and Community Development Department (HCD) when determining whether a city's housing element complies with state law. It is immaterial under the statute whether the reduction is initiated by a city or by a member of the public. A city may not require nor permit the reduction of density of any such residentially designated parcel unless the city finds the proposed reduction in density is consistent with the General Plan and that the remaining sites identified in the Housing Element are adequate to accommodate the city's share of the regional housing needs.

If a city cannot make the second finding, it may still make the reduction in density if it determines there are sufficient "additional, adequate, and available" sites with equal or greater residential capacity in the jurisdiction so that there is no net loss of residential unit capacity. In some instances it may be necessary for the city to "up-zone" some other areas of the city in order to legally accomplish a down zoning (Government Code Section 65863).

Regional Housing Needs Allocation

The Regional Housing Needs Assessment (RHNA) is mandated by state housing law as part of the periodic process of updating housing elements of local general plans. State law requires that housing elements identify RHNA targets set by California's Department of Housing and Community Development to encourage each jurisdiction in the state to provide its fair share of very low, low, moderate, and upper income housing. The RHNA does not promote growth, but provides a long-term outline for housing within the context of local and regional trends and housing production goals.

SCAG determines total housing need for each community in southern California based on three general factors: 1) the number of housing units needed to accommodate future population and employment growth; 2) the number of additional units needed to allow for housing vacancies; and 3) the number of very low, low, moderate, and above moderate income households needed in the community. Additional factors used to determine the RHNA include tenure, the average rate of units needed to replace housing units demolished, and other factors.

The current RHNA was approved in 2007 for the 2006–2014 period; the City's RHNA is shown in Table 5.11-5. The City is required to ensure that sufficient sites that are general planned and zoned for housing are available to accommodate its need, and to implement proactive programs to facilitate and encourage the production of housing commensurate with its housing needs.

Table 5.11-5 San Clemente Regional Housing Needs Allocation, 2006–2014

Income Category	Definition	RHNA	
		Number of Units	Percentage
Very Low	50% or Less of MFI[1]	126	21.6%
Low	51–80% of MFI	103	17.6%
Moderate	81–120% of MFI	116	19.9%
Above Moderate	above 120% of MFI	239	40.9%
	Total	**584**	**100%**

[1] MFI – median family income

Employment Trends

Employment in the City of San Clemente is centered on four business sectors—goods producing, utilities and distribution; retail, services, and entertainment; and, and scientific, technical, and management services and information. These four sectors account for 57% of all jobs in San Clemente. Employment in San Clemente and employment of San Clemente residents are shown in Table 5.11-6. Among employed San Clemente residents, 59% work in these four business sectors.

Table 5.11-6 Existing Employment by Business Sector, 2010

	Jobs of San Clemente Residents		Jobs in San Clemente	
Goods Production and Construction	2,629	11.3%	3,054	16.0%
Utilities & Distribution	1,969	8.5%	3,075	16.1%
Retail, Services, Entertain.	4,747	20.4%	4,220	22.1%
Scientific, Technical, and Management Services and Information	4,371	18.8%	3,336	17.4%
Financial Activities	1,534	6.6%	926	4.8%
Health and Education	4,084	17.5%	2,100	11.0%
All Other Sectors	3,941	16.9%	2,424	12.7%
Total	**23,275**	**100%**	**19,135**	**100%**

Source: LEHD 2010.

Employment Forecasts

Employment forecasts for San Clemente and Orange County are shown in Table 5.11-7.

Table 5.11-7 Employment Forecasts

	Existing	2020 Forecast	2035 Forecast	Increase, 2010–2035	Percent Increase, 2010–2035
City of San Clemente	27,700	26,300	26,600	-1,100	-4.0%
South Orange County	220,366	244,842	263,056	42,690	19.4%
Orange County	1,496,000	1,626,000	1,779,000	283,000	18.9%

Sources: Existing (City and County): EDD 2012 ; Forecasts (City and County): SCAG 2012; South Orange County Data (Existing and Forecast): CDR 2012 (South Orange County existing is 2010 data; Forecast totals include RSAs C-43 and D-40)

Unemployment

The unemployment rate in the City of San Clemente in July 2012 was estimated at 6.4 percent; the rate for Orange County that month was estimated at 7.9 percent (EDD 2012).

Jobs-Housing Balance

The jobs-housing ratio is a general measure of the total number of jobs and number of housing units in a defined geographic area, without regard to economic constraints or individual preferences. The balance of jobs and housing in an area, in terms of the total number of jobs and housing units as well as the type of jobs versus the price of housing, has implications for mobility, air quality, and the distribution of tax revenues. The jobs-housing ratio is one indicator of a project's effect on growth and quality of life in the project area. SCAG applies the jobs-housing ratio at the regional and subregional levels to analyze the fit between jobs, housing, and infrastructure. A major focus of SCAG's regional planning efforts has been to improve this balance. SCAG defines the jobs-housing balance as follows:

> Jobs and housing are in balance when an area has enough employment opportunities for most of the people who live there and enough housing opportunities for most of the people who work there. The region as a whole is, by definition, balanced…. Job-rich subregions have ratios greater than the regional average; housing-rich subregions have ratios lower than the regional average.
>
> Ideally, job/housing balance would… assure not only a numerical match of jobs and housing but also an economic match in type of jobs and housing. (SCAG 198; 1997)

Jobs-housing goals and ratios are advisory only. No ideal jobs-housing ratio is adopted in state, regional, or city policies. However, SCAG considers an area balanced when the jobs-housing ratio is 1.36; communities with more than 1.36 jobs per dwelling unit are considered jobs-rich, and those with fewer than 1.36 are housing-rich (SCAG 2004). Additionally, the CDF estimates that a healthy jobs-housing balance is one new home built for every 1.5 jobs created (Job-Center Housing Coalition, California Alliance for Jobs). A jobs-housing imbalance is an indication of potential air quality and traffic problems associated with commuting.

The existing and forecast jobs-housing balances for San Clemente and for Orange County are shown in Table 5.11-8. As shown, the jobs-housing balance in San Clemente in 2008 was 1.05, or somewhat housing-rich. The jobs-housing balance in the City is forecast to increase to 1.22 by 2035; that is, slightly housing-rich. The jobs-housing balance in Orange County was 1.63 in 2008, that is, somewhat jobs-rich; and by 2035 is expected to increase to 1.68, that is, slightly more jobs-rich.

The jobs-housing balance for South Orange County is not reported here because the numbers of households are not available. The number of housing units is available, but includes vacant units, thus overestimating the number of households—which in turn would lower the jobs-housing balance.

Table 5.11-8 Jobs-Housing Balance

		Employment	Households	Jobs-Housing Balance
San Clemente	2012	27,700	23,953	1.16
	2020	26,300	24,800	1.06
	2035	26,600	25,200	1.05
Orange County	2012	1,496,000	995,946	1.56
	2020	1,626,000	1,049,000	1.55
	2035	1,779,000	1,125,000	1.58

Source: Data summarized from Tables 5.11-3 and 5.11-7.

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:

P-1 Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure).

P-2 Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere.

P-3 Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?

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

- Thresholds P-2 and P-3

These impacts will not be addressed in the following analysis.

5.11.3 Environmental Impacts

It is important to note the differences between buildout and the SCAG projections. The Centennial General Plan Land Use Plan for the ultimate development of the City is assumed to be 2035 for purposes of this analysis, however, specific development projects are not linked to a timeline. In addition, the General Plan provides policy level guidance and does not contain specific project proposals. On the other hand, the SCAG projections are based on annual increments. Since buildout of the General Plan is not linked to a time frame, it is not appropriate to make a direct comparison with the population, housing, and employment projections provided by SCAG. However, for purposes of this CEQA analysis, the 20-year SCAG projections are used for general comparison purposes.

It is also important to note that the buildout to the maximum levels permitted by the General Plan is not anticipated to occur in the future. The City has historically experienced citywide buildout levels that do not achieve the maximum allowable density/intensity on every parcel and are, on average, lower than allowed in the General Plan. The analysis of

the General Plan is based on the maximums allowed in the General Plan to determine the significance of impacts and not historical levels of development intensity.

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: The proposed project would directly result in population growth in the project area. [Threshold P-1]

Impact Analysis: The Centennial General Plan is not a growth-oriented plan; however, it would allow continued growth throughout the City in undeveloped or underutilized parcels, and it proposes changes to land use and land use intensity predominantly within eight focus areas. One of the purposes of the General Plan is to adequately plan and accommodate growth. Implementation of the General Plan accommodates population growth through land use designations, goals, and policies that provide a vision and guide growth in the City. The proposed Land Use Plan designations allow a wide range of residential, commercial, mixed use, industrial, open space and other land uses such as institutional and public. Development of these uses could lead to population growth by providing either housing or employment opportunities in the City.

Implementation of the proposed Land Use Plan would result in a total buildout potential of 33 very low density, 12,241 low density, 4,672 medium low density, 9,645 medium density, and 2,117 high density residential units in the City, in addition to 858 mixed-use units, for a total of 29,567 residential units (see Table 3-3). This represents an increase of 3,585 housing units over the existing 25,982 housing units in the City. Consequently, the Centennial General Plan accommodates a total of 76,547 people. According to CDF, in 2012, the population of the City of San Clemente was approximately 64,208. Buildout in accordance with the General Plan would therefore result in a population increase of 12,339 people over existing conditions, an approximate increase of 19.2 percent, or a 0.7 percent annual population increase. The proposed Land Use Plan also provides for a total of 10,473,822 square feet of Retail/Service (Neighborhood Serving-, Community Serving-, Regional Serving-and Coastal and Recreation Serving Commercial; Mixed Use; Institutional; Public) and 7,665,663 square feet of employment uses (Business Park – Office/Retail and Industrial). The Land Use Plan could generate approximately 39,313 employment opportunities in the City. According to EDD, there were 27,700 jobs in 2012; this would result in an increase of 11,613 new jobs.

City of San Clemente Jobs/Housing Ratio

Table 5.11-9 compares the City's buildout projections for population, households, and employment to SCAG projections. SCAG projects the City to be housing-rich, with a jobs-housing ratio of approximately 1.06 in 2035. The 2035 SCAG projections forecast an increase of approximately 5,100 people over 27 years. This equates to an average increase in population of approximately 0.3 percent per year. In comparison, the proposed Land Use Plan would result in a population increase of approximately 13,347. This equates to an average increase in population of 0.8 percent per year.

Table 5.11-9 Comparison of SCAG 2035 and Centennial Plan Buildout Projections

	SCAG Projections for City of San Clemente		Centennial General Plan Buildout Projections
	2008	2035	2035
Population	63,200	68,300	76,547
Employment	25,600	26,600	39,313
Households	23,800	25,200	29,567
Jobs/Housing Ratio	1.08	1.06	1.33

Source: SCAG 2012.

The number of jobs projected at buildout of the General Plan would also be higher than SCAG's projections for year 2035. The proposed Land Use Plan would create 39,313 jobs compared to SCAG's 26,600 jobs. As a result, the City's jobs-housing ratio with buildout of the proposed Land Use Plan would be higher at buildout (1.33) than projected by SCAG for the year 2035 (1.06). Therefore, buildout of the General Plan would result in both population and employment growth that has not been forecast by SCAG, but would improve the jobs-housing balance by creating more jobs in a housing-rich area.

County of Orange Jobs-Housing Ratio

Table 5.11-10 compares population, household, and employment projections for the City of San Clemente to SCAG's 2012 projections for the City and the Orange County region in 2035. Buildout under the Centennial General Plan would increase SCAG projections for the City by 8,247 people, 12,713 employees, and 4,367 households. As Table 5.11-10 illustrates, when this difference is added to SCAG's 2035 projections for the Orange County region, the jobs-housing ratio for the Orange County region becomes slightly more jobs-rich at 1.59. By providing more employment opportunities in the City, the proposed Land Use Plan reduces vehicle miles traveled within the region because it reduces the number of commuters that travel outside of the City to other areas of Orange County and San Diego County for employment. Therefore, although the General Plan would result in increased population and employment growth beyond SCAG projections, it would help reduce vehicle miles traveled in the region and allow a greater number of residents in the region to live and work in the City and surrounding areas. Therefore, impacts are less than significant.

Table 5.11-10 Comparison of SCAG 2035 and Centennial Plan Buildout Projections for City of San Clemente and County of Orange

	SCAG Projections for City of San Clemente	Centennial General Plan Buildout Projections	Difference between SCAG and General Plan	SCAG Projections for Orange County	Orange County plus Difference
Population	68,300	76,547	8,247	3,421,000	3,429,247
Employment	26,600	39,313	12,713	1,779,000	1,791,713
Households	25,200	29,567	4,367	1,125,000	1,129,367
Jobs/Housing Ratio	1.06	1.33	-	1.58	1.59

Source: SCAG 2008 RTP Growth Forecast 2035.

Consistency with SCAG's Compass Growth Vision

SCAG identified two locations in the central portion of the City along the I-5 corridor as a HQTA (see Figure 5.11-1). As previously stated an HQTA is a walkable transit village or corridor that is within one half-mile of a well-serviced

transit corridor. The purpose of identifying these areas is to balance employment, housing, and services on a regional level to reduce vehicle miles traveled, reduce air pollutant emissions, enhance livability, expand prosperity, and increase sustainability in the SCAG region. Policy ED-2.05 of the General Plan requires that the City give priority to City initiatives, investments, council decisions and the allocation of City resources, and development approvals that improve the jobs-housing ratio by creating job opportunities for residents and housing opportunities for employees.

The Centennial General Plan is consistent with the HQTA map, because it creates mixed uses and encourages business around the I-5 corridor to reduce vehicle miles traveled. It creates a mixed-use overlay for the portion of the North Beach/North El Camino Focus Area to allow for horizontal or vertical mix of commercial and residential uses. It also increases the Neighborhood Commercial FAR from 0.35 to 0.50 to incentivize development of vacant lots and transition of auto-related uses. Further, within the Los Molinos Focus Area it creates a professional business overlay and increases FAR to 0.75. Future development in this area is required to accommodate a future rail transit station and ensure consistency with the affordable housing overlay. The General Plan would increase livability by providing higher density housing opportunities along the I-5 corridor and future potential rail routes. The General Plan is consistent with SCAG's vision for the area and proposed implementation of the HQTA goals in that it accommodates population growth in the SCAG region, encourages growth in existing and emerging centers and along major transportation corridors, encourages mixed-use opportunities, and promotes employment opportunities in the housing-rich city.

Conclusion

Although the increase in population, housing, and employment exceed SCAG's regional forecasts for the City of San Clemente, the General Plan improves the job-housing balance in the City. It has a minor effect on the job-housing balance in Orange County but will reduce vehicle miles traveled in the region by reducing commuter trips outside of the City to other areas in Orange County and San Diego County. In addition, the General Plan is consistent with SCAG's Compass Blueprint program. Consequently, while buildout in accordance with the proposed Land Use Plan would increase both population and employment in the City, impacts would be less than significant because it would improve the job-housing balance and is consistent with regional policies.

5.11.4 Relevant General Plan Policies

Growth Management Element

Community Edges

GM-1.01 **Design Transitions.** Development just inside City Limits or outside City Limits on the City's Urban Fringe shall provide appropriate design transitions to avoid a stark-appearing edge between site development and buildings in the City and adjacent open land. Such measures shall include, but are not limited to: drought-resistant and/or California Native plantings, ample side- and rear-yard building setbacks, and/or landscaped slopes, hills, or other landforms.

GM-1.02 **Open Space Edges.** Broad, undeveloped open spaces should separate the City from nearby urban areas. This Element establishes the edge for urban development within the term of this General Plan.

GM-1.03 **Intergovernmental Collaboration.** We proactively collaborate with the governing bodies of adjacent jurisdictions to ensure that infrastructure and public services are provided in a timely and high-quality manner in areas where growth is planned, that they are consistent with the City's General Plan, and that they help maintain a distinct community edge.

GM-1.04 **Rancho Mission Viejo.** We proactively protect the interests of San Clemente residents and businesses in relation to the implementation or refinement of the Rancho Mission Viejo Ranch

Plan. We communicate with Rancho Mission Viejo and the County of Orange as needed to help protect such interests.

GM-1.05 **Sphere of Influence.** If changes to our Sphere of Influence are contemplated, we may oppose amendments that would result in any net long-term fiscal cost to the City. We recognize that short-term, net fiscal costs may be acceptable if changes to the Sphere of Influence would yield long-term fiscal benefits, maintain or improve environmental quality, and improve San Clemente residents' quality of life.

GM-1.06 **Communication with Camp Pendleton.** We proactively communicate with the United States Marine Corps if any processes, operations, or projects at Camp Pendleton have the potential to impact the City of San Clemente or its residents.

GM-1.07 **San Onofre State Park.** We support continued public access to and use of those areas of Camp Pendleton under lease to the State Parks Department in 2013.

GM-1.08 **San Mateo Creek Watershed.** We support continued environmental protection of the San Mateo Creek Watershed.

Development outside of the City

GM-2.01 **Timely Provision of Infrastructure and Services.** We diligently monitor, influence, and respond as necessary to land planning and development activities outside of the City to ensure that land development provides timely and adequate transportation facilities (streets, highways, transit, etc.), wastewater collection and treatment, water supply, electrical, natural gas, telecommunications, solid waste disposal, storm drainage, other public infrastructure, public safety and public services (governmental administrative and capital, police, fire, recreational, cultural, etc.).

GM-2.02 **Consistency with City Policies and Standards.** We demand that the type, amount, and location of development provide infrastructure consistent with our General Plan goals and policies and City standards, including San Clemente's Hillside Development Ordinance and the Bicycle and Pedestrian Master Plan.

GM-2.03 **Costs of Growth.** The costs of providing public facilities and services needed to serve development outside City Limits and adjacent to the City shall be borne by the development or by the approving agency, in accordance with its policies.

GM-2.04 **Residential Subdivisions.** We demand that the design of new residential subdivisions in our Sphere of Influence do the following:

a. incorporate greenbelts, pedestrian paths, parks, recreation facilities, and other community amenities;

b. orient parcels away from principal arterials and highways or other heavily traveled corridors, incorporating extensive landscape setbacks along these frontages;

c. locate development so as to avoid disturbance of sensitive areas and maintain important environmental resources, including ridgelines, topographic formations, wildlife corridors and habitat in accordance with the Natural Resources Element;

d. integrate small scale, multi-family "clusters" within single family residential neighborhoods;

e. design streets to achieve safe, livable streets, consistent with the City's "Complete Streets" policies and standards; and

f. include alleys to minimize the dominance of garages along the street frontage.

GM-2.05 **Costs to San Clemente Taxpayers and Businesses.** We oppose new development if it would result in any net cost to the City, its residents or businesses.

GM-2.06 **Sphere of Influence.** We urge the Orange County Local Agency Formation Commission (LAFCO) to update the City's Sphere of Influence and Municipal Services Review to determine whether unincorporated areas adjacent to the City should be included in the Sphere of Influence.

Economic Development Program

ED-1.01 **Economic Development Strategy.** The City intends to adopt an Economic Development Strategy. Until such a strategy is adopted by the City Council, policies ED-1.02 and 1.03 shall be applied so as to implement the long-term goals of the General Plan and to emphasize mid- and long-term development of the local economy, rather than focusing on individual projects. The City may also consider additional goals with more near-term focuses.

ED-1.02 **Allocation of Public Resources.** We allocate public resources based on an adopted Economic Development Strategy. Those who wish to change the allocation of these resources must demonstrate how their requests comply with the Economic Development Strategy.

ED-1.03 **Staff Resources.** We budget for adequate staff resources to implement the economic development strategy and will weigh competing funding demands to balance the allocation of municipal resources.

ED-1.04 **Long-Term Benefits.** We consider long-term benefits, not just short-term returns, in our decision-making processes.

ED-1.05 **Evaluation of Progress.** We annually evaluate our progress in achieving the economic development strategy. This evaluation will guide decisions to maintain or modify the allocation of resources for economic development.

Competitive Employment Centers

ED-2.01 **Focus on User and Quality of Life.** We shall give high priority to City initiatives, investments, Council decisions and the allocation of City resources that benefit the ultimate office or industrial user and contribute to the quality of life for all, including employees, rather than focusing solely on reducing initial commercial development costs.

ED-2.02 **Business Competitiveness.** We shall give high priority to City initiatives, investments, and the allocation of municipal resources that address the needs and challenges of conducting business in San Clemente and improve the City's competitiveness as a business location.

ED-2.03 **Existing Businesses.** We give high priority to initiatives, investments, and the allocation of municipal resources that help businesses remain and prosper in San Clemente.

ED-2.04 **Economic Development Organizations.** To achieve economic development goals and objectives, the City shall pursue the appointment of San Clemente residents, businesses, and City employees to boards governing regional and state economic development agencies and City-partnered service providers.

ED-2.05 **Jobs-Housing Balance.** We shall give priority to City initiatives, investments, Council decisions and the allocation of City resources, and development approvals that improve the jobs/housing ratio by creating job opportunities for residents and housing opportunities for employees.

5.11.5 Existing Regulations

No regulations apply to population and housing.

5.11.6 Level of Significance Before Mitigation

Impact 5.11-1 is less than significant.

5.11.7 Mitigation Measures

No mitigation is required.

5.11.8 Level of Significance After Mitigation

Impacts would be less than significant, and no significant and unavoidable impact would occur.

5.12 PUBLIC SERVICES

This section addresses public services including: fire protection and emergency services, police protection, school services, and library services. Park services are addressed in Section 5.13, *Recreation*. Public and private utilities and service systems, including water, wastewater, and solid waste services and systems, are addressed in Section 5.15, *Utilities and Service Systems*.

The initial study, included as Appendix B to this DEIR, substantiates that all impacts associated with public services would be potentially significant, and all impacts are discussed in the following analysis.

5.12.1 Fire Protection and Emergency Services

5.12.1.1 Environmental Setting

The Orange County Fire Authority (OCFA) provides fire protection that service the City's 64,208 residents. There are three fire stations in the city, described in Table 5.12-1 and shown in Figure 5.12-1*, Public Facilities*. The OCFA also provides fire protection and emergency medical services to the nearby cities of Dana Point and San Juan Capistrano, as well as the portions of unincorporated Orange County adjacent to San Clemente. All fire departments in Orange County participate in automatic aid agreement to ensure that closest resources are dispatched to an emergency. Automatic aid includes engines, trucks, paramedics, and battalion chiefs. All agencies also participate in the statewide master mutual aid system for response during major emergencies.

Table 5.12-1 Fire Stations in San Clemente

Fire Station and Address	Equipment	Daily Staff
Station #50 670 Camino De Los Mares	2 fire engines and 1 ambulance	1 captain, 1 engineer, 1 firefighter, and 2 emergency transport technicians
Station #59 48 Avenida La Pata	1 paramedic assessment unit (PAU) fire truck	1 captain, 1 engineer, and 2 firefighters
Station #60 121 Avenida Victoria	1 fire engine	1 captain, 1 engineer, and 2 firefighters

Source: OCFA 2012

OCFA provides fire suppression, emergency medical, rescue and fire prevention, hazardous materials coordination, and wildland management services. OCFA is one of the largest regional fire service organizations in California. OCFA's goals for the provision of fire services are listed below. Response times are from receipt of the call to on scene of the call:

- First-in engines should arrive on-scene to medical aids and/or fires within 7 minutes and 20 seconds 80 percent of the time.
- First-in truck companies should arrive on-scene to fires within 12 minutes 80 percent of the time.
- First-in paramedic companies should arrive on-scene at all medical aids within 10 minutes 80 percent of the time.

The National Fire Protection Association (NFPA) Fire Code section 1710 recommends that a first-responder unit arrive at the fire scene in 6 minutes or less at least 90 percent of the time, measured from the 911 call. NFPA recommends that full response to a structural fire occur within 10 minutes of the 911 call at least 90 percent of the

time. NFPA also recommends a 6-minute response for basic life support and 10-minute response for advanced life support at least 90 percent of the time.

5.12.1.2 Thresholds of Significance

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

5.12.1.3 Environmental Impacts

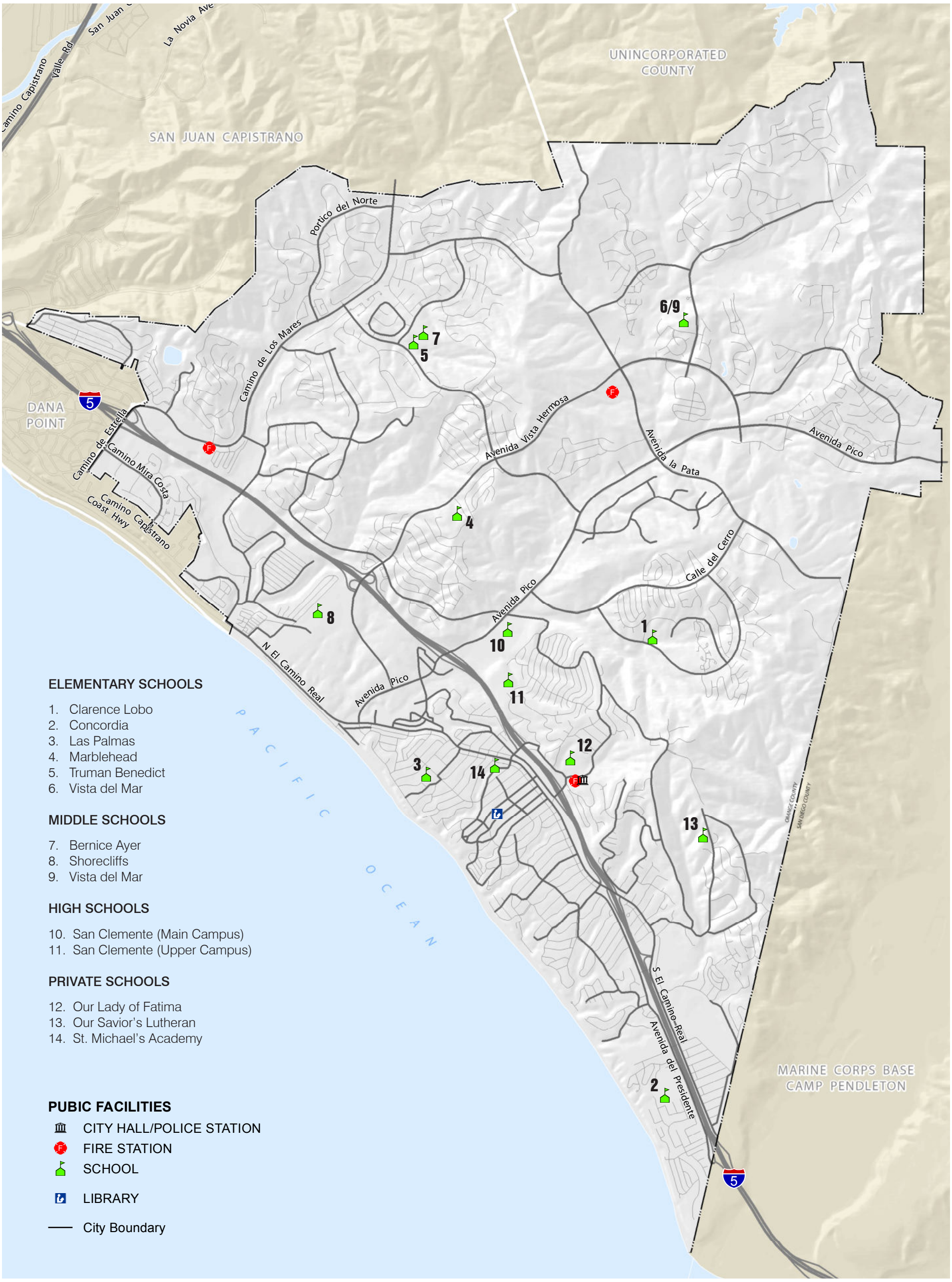
The following impact analysis addresses thresholds of significance for which the Initial Study disclosed potentially significant impacts. The applicable thresholds are identified in brackets after the impact statement.

Impact 5.14-1: The proposed project would introduce new structures and residents into the Orange County Fire Authority service boundaries, thereby increasing the requirement for fire protection facilities and personnel. [Threshold FP-1]

Impact Analysis: Buildout of the Centennial General Plan would result in an increased number of persons and businesses within the City of San Clemente, thereby resulting in an increase in demand for fire services. Firefighter staffing needs are determined by OCFA based on workload, response times, and reliability of actual performance or anticipated performance.

Under the Centennial General Plan, staffing levels for fire protection and emergency services in San Clemente would continue to be established by the OCFA based on its contract with the City. Public safety in San Clemente, including contract police and fire protection and emergency services provided by the OCFA, is funded from the City's General Fund. Although the City collects development impact fees per Chapter 15.52, *Public Facilities Construction Fund*, of its Municipal Code (City Ordinance No. 1174), these fees are used to fund capital facilities and infrastructure projects and are not used to fund daily operation of public services. There is no direct fiscal mechanism that ensures that funding for fire and emergency services will grow exactly proportional to an increased need for services resulting from population growth in the City. However, revenue sources that contribute to funding the General Fund, including property and sales taxes, would be expected to grow in rough proportion to any increase in residential dwelling units and/or businesses in San Clemente.

Furthermore, policies and implementation measures in the Centennial General Plan encourage periodic review of public safety services and require that fire and emergency services reflect the growing needs of residents. In particular, implementation of Policies S-3.01 through S-3.03, Policy S-7.01, and Implementation Measure S-10 of the Safety Element ensure that the City coordinates with OCFA so that adequate equipment, personnel, and services are provided as needed.


UNINCORPORATED COUNTY
SAN JUAN CAPISTRANO
DANA POINT
PACIFIC OCEAN
MARINE CORPS BASE CAMP PENDLETON
ORANGE COUNTY
SAN DIEGO COUNTY
La Novia Ave
San Juan
Valle Rd
Camino Capistrano
Portico del Norte
Camino de Los Mares
Camino de Estrella
Camino Mira Costa
Camino Capistrano
Coast Hwy
Avenida Vista Hermosa
Avenida la Pata
Avenida Pico
Calle del Cerro
N El Camino Real
S El Camino Real
Avenida del Presidente
5
6/9
7
4
8
10
1
11
12
3
14
13
2
ELEMENTARY SCHOOLS
1. Clarence Lobo
2. Concordia
3. Las Palmas
4. Marblehead
5. Truman Benedict
6. Vista del Mar
MIDDLE SCHOOLS
7. Bernice Ayer
8. Shorecliffs
9. Vista del Mar
HIGH SCHOOLS
10. San Clemente (Main Campus)
11. San Clemente (Upper Campus)
PRIVATE SCHOOLS
12. Our Lady of Fatima
13. Our Savior's Lutheran
14. St. Michael's Academy
PUBIC FACILITIES
CITY HALL/POLICE STATION
FIRE STATION
SCHOOL
LIBRARY
City Boundary
0
1
Scale (Miles)

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As the City's population increases, additional fire stations may be required. Various localized environmental impacts related to construction of new fire stations would occur. However, since specific site locations have not been selected, it would be speculative to analyze these impacts as part of this EIR, however, impacts would likely fall within the envelope of construction and operational impacts analyzed elsewhere in the EIR. In addition, if construction impacts necessitate the closure of roadways that serve a particular project, the applicant would be required to coordinate road closures and emergency access with OCFA to ensure an adequate level of fire protection services at the adopted service levels. Future environmental review would occur once specific locations have been determined. Impacts are less than significant.

Conclusion

Upon implementation of the Centennial General Plan, the City and OCFA would maintain appropriate firefighter staffing to ensure compliance with NFPA standards for response time and coverage, as discussed above. In addition, future projects would be reviewed by the City and OCFA on an individual basis and would be required to comply with requirements in effect at the time building permits are issued. Policies and implementation measures in the proposed General Plan are designed to ensure collaboration between City departments, OCFA, and other involved agencies to achieve the City's development goals in phases, working within the budget and infrastructure constraints of the City. Following this process, sufficient revenue would be available for necessary service improvements to provide for adequate fire facilities, equipment, and personnel upon buildout of the Centennial General Plan. Therefore, impacts to fire services resulting from buildout of the Centennial General Plan would be less than significant.

5.12.1.4 Relevant General Plan Policies and Implementation Measures

Governance Element

Municipal Finance Policies

G-2.09 **General Fund Purpose.** We pursue a strategy to allocate general fund resources toward the City's provision of basic municipal services.

Safety Element

Fire Policies

S-3.01 **Fire and Building Codes.** We coordinate with Orange County Fire Authority to proactively mitigate or minimize the adverse effects of structural fires, wildfires and related hazards like erosion, hazardous materials release and structural collapse by implementing appropriate fire and building codes.

S-3.02 **Public Education.** We coordinate with Orange County Fire Authority to provide public education tools to increase awareness of fire prevention measures.

S-3.03 **Orange County Fire Authority.** We contract with Orange County Fire Authority to maintain fire stations, equipment, and staffing to effectively respond to emergencies.

S-3.04 **Peak Water Supply.** We maintain an adequate peak water supply for fire suppression, per the San Clement Urban Water Management Plan and funding available for implementation.

S-3.05 **Evaluation.** We coordinate with the Orange County Fire Authority to evaluate the effectiveness of fire safety strategies and implementation measures.

S-3.06 **Balance Between Goals.** We balance the need for fire safety and defensible landscape perimeters with biological and open space preservation goals, where applicable, consistent with the Coastal Conservation Plan.

Fire Implementation Measures

7) Obtain and maintain information on fire and wildfire hazards and home, business, and open space fire mitigation measures. Make the information publicly available.

8) Partner with Orange County Fire Authority to pursue grant and other funding opportunities for appropriate wildfire mitigation measures, staffing, and facilities, and to support wildfire mitigation efforts in the City and in surrounding open space areas such as the O'Neill Conservancy and San Onofre State Beach.

Emergency Services, Preparedness, Response and Recovery Policies

S-7.01 **Staffing, Facilities and Supplies.** We maintain adequate staffing, facilities and supplies for our police, fire, marine safety and emergency medical, and emergency planning services to provide appropriate and timely response to emergency needs.

S-7.02 **Hazard Prevention Funding.** We give high priority to strategies and funding for hazard-prevention services, training, educational materials, and facilities.

S-7.03 **Outreach and Education.** We provide community-based outreach and educational efforts to enable our residents to prepare for and respond appropriately in emergency situations, and to contribute to the overall safety of the community.

S-7.04 **Interdepartmental and Interagency Collaboration.** We collaborate among City departments and with organizations outside of the City for a comprehensive approach to emergency services and disaster preparedness, response and recovery, including continuity of operations (e.g. information technology and financial services).

S-7.05 **Partnerships.** We partner with other local, State and Federal emergency services agencies to enhance safety resources in the City of San Clemente.

S-7.06 **Performance Measurement.** We periodically analyze public safety data to evaluate the effectiveness of our strategies and allocate resources accordingly.

S-7.07 **Crime Prevention Through Environmental Design.** We require new development to incorporate Crime Prevention Through Environmental Design (CPTED) features in the orientation and design of sites, buildings, streetscapes, and open spaces.

S-7.08 **Management Programs and Warning Systems.** We maintain emergency management programs and warning systems that meet State and Federal requirements.

S-7.09 **Training.** We regularly conduct training exercises to prepare for and evaluate emergency and disaster response and recovery procedures.

S-7.10 **Outreach.** We reach out to the community to educate, train and establish volunteer programs, to enhance the safety and disaster resilience of our community through volunteer programs, such as the Community Emergency Response Team (CERT) Program, Retired Senior Volunteer Program (RSVP), Explorer Scouts, and Neighborhood Watch and Radio Amateur Citizen Emergency Services (RACES).

Emergency Services, Preparedness, Response and Recovery Implementation Measures

23) Update the City's Design Guidelines to address aesthetic treatments for property safety treatments, including slope retention, reinforcement and drainage measures, and to address crime prevention features in the orientation and design of new buildings and public facilities.

24) Provide educational materials and outreach efforts to inform the public about emergency preparation and response, and about the availability of emergency services.

25) Support and maintain active programs to enhance community safety, emergency preparedness and disaster response through volunteer programs such as the Community Emergency Response Team Program (CERT), Retired Senior Volunteer Program (RSVP), Explorer Scouts, Neighborhood Watch and Radio Amateur Citizen Emergency Services (RACES).

5.12.1.5 Existing Regulations

Federal Regulation

- National Fire Protection Association Code 1710, Standard for the Organization and Deployment of Fire Suppression Operations, Emergency Medical Operations, and Special Operations to the Public by Career Fire Departments

City of San Clemente Municipal Code

- Title 15. *Buildings and Construction*, Chapter 52: Public Facilities Construction Fund.

5.12.1.6 Level of Significance Before Mitigation

Upon implementation of regulatory requirements and compliance with policies and implementation measures contained within the proposed General Plan, the following impacts would be less than significant: 5.12-1.

5.12.1.7 Mitigation Measures

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

5.12.1.8 Level of Significance After Mitigation

No significant adverse impacts were identified and no significant unavoidable impacts relating to fire protection and emergency services remain.

5.12.2 Police Protection

5.12.2.1 Environmental Setting

San Clemente's public safety is provided by the Orange County Sheriff's Department, Orange County Fire Authority, and the City of San Clemente Marine Safety Division.

Orange County Sheriff's Department

The Orange County Sheriff's Department (OCSD) provides police protection to the City of San Clemente and its SOI from its San Clemente Station at 100 Avenida Presidio, which employs 44 sworn officers and 13 professional staff members (San Clemente 2013). OCSD staff based at the San Clemente Station provides police services, including neighborhood patrols, investigations, traffic enforcement, community support, drug education, parking control, and

crime prevention. The City's staffing level is based on response times and crime rates determined to be adequate for the City.

OCSD services include staffing for calls for service, preventive patrol, traffic enforcement, general and traffic investigation, specialized enforcement, school resource office, motor deputies, and a regional directed enforcement deputy. Sheriff's regional and departmental services are also supplied to the City, which include homicide, vice, and economic crime investigations. Special weapons and tactics (SWAT), hostage negotiations, reserve supplement, and many other services are also available to the City from OCSD. The department maintains mutual aid agreements with surrounding contracted OCSD cities. On major planned or emergency events, outlying cities supply manpower and resources to assist. Depending on the event, reimbursement may be necessitated to the contributing agency. City, county, and state mutual aid agreements exist for a variety of situations. The OCSD/Police Services Department embraces the concept of community-based policing, which encompasses the active participation of local government, civic and business leaders, residents, schools, churches, public and private agencies, etc.

The current sheriff facilities are adequate to handle the existing personnel and equipment employed and utilized by the department. Response time to calls for service may vary depending upon their location at time of dispatch. Response time requirements are classified by priority. Priority 1 calls are life threatening or in-progress felony incidents, and the industry standard response time is 4 to 5 minutes from the time the call is received to the deputy's on-scene time. Priority 2 calls are in-progress misdemeanors (vandalism, disturbances, burglary alarms), and the industry standard response time is 15 minutes or less. OCSD's response time goal is to respond to Priority 1 calls within 5 minutes (Coppock 2013). Response times for the City and adjacent cities are summarized in Table 5.12-2. As indicated in that table, response times for the City of San Clemente for both Priority 1 (i.e., red light/siren) and Priority 2 (i.e., urgent – no lights/siren) are within industry standard response times. Priority 1 response times are also within the OCSD's performance standard.

Table 5.12-2 OCSD Emergency Response times

City	Priority 1 Response Time (Minutes)	Priority 2 Response Time (Minutes)
Mission Viejo	4.92	9.11
Laguna Niguel	4.16	8.11
San Clemente	4.21	6.47
Dana Point	3.52	6.78
San Juan Capistrano	3.47	6.76

Source: OCSD 2011; Coppock 2013.

Other Public Safety Resources

The City of San Clemente has an active Retired Senior Volunteer Program (RSVP) that provides administrative duties, vacant home checks, and visits to the homebound to ensure their safety and well-being. In 2007 OCSD received the National Sheriff's Association Award for the San Clemente Neighborhood Watch program.

The City's Marine Safety Division provides water rescue services, first aid, minor law enforcement, and public education on ocean safety. Marine Safety personnel, especially lifeguards, are some of the most visible City employees and serve as ambassadors for the City of San Clemente. The Marine Safety Division is staffed every day of the year from 8:00 AM until dusk. Lifeguard towers are staffed as needed during the winter months. In addition to rescue services, the Division's Beach Services Program provides assistance with environmental management such as water

quality monitoring, coastal erosion monitoring, and administration of special events and commercial filming. The Division's Prevention and Education Program includes surfing instruction, public school education, media involvement, and the Junior Lifeguards program.

5.12.2.2 Thresholds of Significance

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

PP-1 Result in a substantial adverse physical impact associated with the provisions of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for police protection services.

5.12.2.3 Environmental Impacts

Impact 5.12-2: Buildout in accordance with the Centennial General Plan would introduce new structures, residents, and workers into the Orange County Sheriff's Department service boundaries, increasing the demand for police protection facilities and personnel. [Threshold PP-1]

Impact Analysis: Buildout of the Centennial General Plan and its associated population growth would result in an increase in demand for police protection services within the San Clemente. Staffing, equipment, and facility needs are critically essential in maintaining effective law enforcement in the community. New facilities, equipment, and personnel would be required to maintain adequate levels of service.

At buildout, the General Plan could result in up to 3,585 new residential units, 10,094,484 additional square feet of nonresidential space, 12,339 new residents, and 11,613 additional employees compared to existing conditions. (See Table 3-3 in Chapter 3, *Project Description,* for complete buildout projections.)The Centennial General Plan is projected to allow approximately 76,547 people, based on the land use types and densities of the proposed land use plan (see Table 3-3). Additional police equipment, facilities, and personnel would be required to provide adequate response times, acceptable public service ratios, and other performance objectives for law enforcement services within the City.

Staffing levels for police services in San Clemente would continue to be established by the OCSD based on its contract with the City. As stated previously, public safety in San Clemente, including contract police protection services provided by the OCSD, is primarily paid for from the City's General Fund. Funding for police services in San Clemente is also provided by the City's Police Grants Fund, which pools together funding from federal and state grants, donations, and narcotic forfeiture (San Clemente 2012). However, this fund is not tied to development or growth and only funds a small portion of public safety services in San Clemente. Furthermore, policies and implementation programs in the proposed General Plan encourage periodic review of public safety services provided in San Clemente and require that police protection services reflect the growing needs of residents, as indicated by Policy S-7.01 of the Safety Element:

S-7.01 **Staffing, Facilities and Supplies.** We maintain adequate staffing, facilities and supplies for our police, fire, marine safety and emergency medical, and emergency planning services to provide appropriate and timely response to emergency needs.

The OCSD is currently able to meet the City's police protection needs and there are no plans to expand police services or facilities (Coppock 2013). However, the population increase that could result from buildout of the Centennial

General Plan would require a proportionate increase in staffing and equipment to meet Department's ability to deliver police services in a timely manner. Any increase in staffing would require additional facilities.

Localized environmental impacts would result from the construction of new facilities. However, since the location and size of future facilities is unknown, it would be speculative to analyze the site-specific environmental impacts of those facilities as part of this first-tier program EIR. The physical impacts associated with construction noise, emissions and traffic associated with the operation of a new facility are considered as part of the overall project addressed in this DEIR. Impacts are considered to be the same as potential development and redevelopment of non-residential uses analyzed and accounted for in other sections of this DEIR (Sections 5.1 through 5.15). Any applicable mitigation measures identified in those section will address potential significant impacts associated with construction and operation of public services facilities. In particular, see Sections 5.3 Air Quality, 5.6 Greenhouse Gas Emissions, 5.10 Noise, and 5.14 Transportation/Traffic. No additional impacts related to construction and operation of a new facility would occur. Impacts are less than significant.

Conclusion

Upon implementation of the Centennial General Plan, compliance with General Plan policy S-7.01 to provide adequate staffing, facilities, and supplies and Policy S-7.05 to create local, State and Federal emergency services agencies to enhance safety resources in the City, would ensure that the City of San Clemente and OCSD maintain levels of police protection consistent with the OCSD's service standards. Provision of police services under the Centennial General Plan would continue to be funded by revenues in the City's General Fund, which would be expected to grow as new units and businesses are added in San Clemente. Facilities, equipment, and personnel needed to serve additional residents in the City would be financed by increases in tax revenue generated by new housing units and businesses. Therefore, impacts on police protection services resulting from buildout of the Centennial General Plan would be less than significant.

5.12.2.4 Relevant General Plan Policies and Implementation Measures

Governance Element

Municipal Finance Policies

G-2.09 **General Fund Purpose.** We pursue a strategy to allocate general fund resources toward the City's provision of basic municipal services.

Safety Element

Emergency Services, Preparedness, Response and Recovery Policies

S-7.01 **Staffing, Facilities and Supplies.** We maintain adequate staffing, facilities and supplies for our police, fire, marine safety and emergency medical, and emergency planning services to provide appropriate and timely response to emergency needs.

S-7.02 **Hazard Prevention Funding.** We give high priority to strategies and funding for hazard-prevention services, training, educational materials, and facilities.

S-7.03 **Outreach and Education.** We provide community-based outreach and educational efforts to enable our residents to prepare for and respond appropriately in emergency situations, and to contribute to the overall safety of the community.

S-7.04 **Interdepartmental and Interagency Collaboration.** We collaborate among City departments and with organizations outside of the City for a comprehensive approach to emergency services

and disaster preparedness, response and recovery, including continuity of operations (e.g. information technology and financial services.

S-7.05 **Partnerships.** We partner with other local, State and Federal emergency services agencies to enhance safety resources in the City of San Clemente.

S-7.06 **Performance Measurement.** We periodically analyze public safety data to evaluate the effectiveness of our strategies and allocate resources accordingly.

S-7.07 **Crime Prevention Through Environmental Design.** We require new development to incorporate Crime Prevention Through Environmental Design (CPTED) features in the orientation and design of sites, buildings, streetscapes, and open spaces.

S-7.08 **Management Programs and Warning Systems.** We maintain emergency management programs and warning systems that meet State and Federal requirements.

S-7.09 **Training.** We regularly conduct training exercises to prepare for and evaluate emergency and disaster response and recovery procedures.

S-7.10 **Outreach.** We reach out to the community to educate, train and establish volunteer programs, to enhance the safety and disaster resilience of our community through volunteer programs, such as the Community Emergency Response Team (CERT) Program, Retired Senior Volunteer Program (RSVP), Explorer Scouts, and Neighborhood Watch and Radio Amateur Citizen Emergency Services (RACES).

Emergency Services, Preparedness, Response and Recovery Implementation Measures

23) Update the City's Design Guidelines to address aesthetic treatments for property safety treatments, including slope retention, reinforcement and drainage measures, and to address crime prevention features in the orientation and design of new buildings and public facilities.

24) Provide educational materials and outreach efforts to inform the public about emergency preparation and response, and about the availability of emergency services.

25) Support and maintain active programs to enhance community safety, emergency preparedness and disaster response through volunteer programs such as the Community Emergency Response Team Program (CERT), Retired Senior Volunteer Program (RSVP), Explorer Scouts, Neighborhood Watch and Radio Amateur Citizen Emergency Services (RACES).

5.12.2.5 Existing Regulations

City of San Clemente Municipal Code

- Title 15. *Buildings and Construction*, Chapter 52: Public Facilities Construction Fund.

5.12.2.6 Level of Significance Before Mitigation

Upon implementation of regulatory requirements and compliance with policies and implementation measures contained within the proposed General Plan, the following impacts would be less than significant: 5.12-2.

5.12.2.7 Mitigation Measures

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

5.12.2.8 Level of Significance After Mitigation

No significant adverse impacts were identified and no significant unavoidable impacts relating to police protection services remain.

5.12.3 School Services

5.12.3.1 Environmental Setting

There are nine public schools and numerous private schools in San Clemente.

Public Education Facilities

Capistrano Unified School District (CUSD) provides public K–12 education in San Clemente and currently serves over 49,000 students. The district operates schools in the cities of Aliso Viejo, Dana Point, Laguna Niguel, Mission Viejo, San Clemente, and San Juan Capistrano, as well as in unincorporated areas of southern Orange County. Table 5.12-3 shows the current capacity and enrollment of CUSD schools at the elementary, middle, and high school levels for the entire district service area.

Table 5.12-3 Capacity and Enrollment of CUSD Schools

School Level	Current Capacity	Current Enrollment (2012–2013)	Remaining Capacity
Elementary Schools	22,624	21,799	465
Middle Schools	6,410	11,717	- 5,307
High Schools	10,808	15,895	- 5,087

Sources: Forney 2013.

CUSD schools serving the City are described in Table 5.12-4 and shown in Figure 5.12-1, *Public Facilities*. These include five elementary schools, two middle schools, one K–8 school (Vista del Mar Elementary/Middle School), and one high school.

Table 5.12-4 Capacity and Enrollment of Schools Serving San Clemente

School	Address	Current Capacity	Current Enrollment (2012-2013)	Remaining Capacity
Elementary Schools (Grades K–5)				
Clarence Lobo	200 Avenida Vista Montana	945	436	509
Concordia	3120 Avenida del Presidente	1,015	660	355
Las Palmas	1101 Calle Puente	1,085	769	316
Marblehead	2410 Via Turqueza	840	539	301
Truman Benedict	1251 Sarmentoso	1,050	720	330
Vista del Mar (K–8)	1130 Avenida Talega	2,345	1,714	631
Middle Schools (Grades 6–8)				
Bernice Ayer	1271 Sarmentoso	1,190	894	296
Shorecliffs	240 Via Socorro	1,680	1,079	601
Vista del Mar (K–8)	1130 Avenida Talega	See above		
High School (Grades 9–12)				
San Clemente	700 Avenida Pico	3,640	2,936	704
Total	**–**	**13,790**	**9,747**	**4,043**

Sources: Forney 2013.

Although Table 5.12-4 indicates that public schools serving San Clemente currently have unused excess classroom capacity, many of these schools have nonclassroom facilities that are inadequate to serve current needs. Based on analysis in CUSD's Facilities Master Plan, San Clemente schools are currently deficient in "core facilities," which include administrative office space, libraries, multipurpose rooms, and athletic facilities (Forney 2013). In particular, library space is inadequate at all of the schools in Table 5.12-3 except for Bernice Ayer Middle School and Vista del Mar Elementary/Middle School.

5.12.3.2 Thresholds of Significance

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

5.12.3.3 Environmental Impacts

Impact 5.12-3: Buildout of the Centennial General Plan would generate approximately 2,394 new students in the Capistrano Unified School District. [Threshold SS-1]

Impact Analysis: Buildout of the Centennial General Plan would allow up to 3,585 additional residential units in San Clemente. CUSD assesses its needs based on student generation factors and charges developers accordingly. Table 5.12-5 shows student generation rates for the Centennial General Plan using the district's 2013 student generation rates for attached and detached units.

Table 5.12-5 Student Generation at Buildout of the Centennial General Plan

Grade Level	Dwelling Unit Type[1]	Estimated General Plan Buildout Units	CUSD Student Generation Rate	General Plan Buildout Estimated Students
K–5	Detached	16,946	0.1749	2,964
	Attached	12,620	0.2144	2,706
	Subtotal	**29,567**	**–**	**5,670**
6–8	Detached	16,946	0.0986	1,671
	Attached	12,620	0.0875	1,104
	Subtotal	**29,567**	**–**	**2,775**
9–12	Detached	16,946	0.1323	2,242
	Attached	12,620	0.1152	1,454
	Subtotal	**29,567**	**–**	**3,696**
	Total	**29,567**	**–**	**12,141**
			Existing Student Population	**9,747**
			Additional Students Generated by Proposed Project	**2,394**

Sources: Forney 2013.

[1] Based on descriptions of residential land use designations in the proposed Land Use Plan of the Centennial General Plan, dwelling units allowed on parcels designated for very low, low, and medium low density residential uses are assumed to be detached units. Dwelling units on parcels designated for medium density, high density, community serving commercial, and mixed uses (1-5) are assumed to be attached units.

Future student generation in San Clemente is based on the buildout potential of the proposed Land Use Plan**:** 16,946 detached units (very low, low, and medium low density), and 12,620 attached residential units (medium and high density, mixed use). Based on the student generation rates above, future student population in San Clemente at buildout would be approximately 12,141 students. The number of additional students generated by new residential land uses allowed under the Centennial General Plan—approximately 2,394 students—is below the current unused classroom capacity of 4,043 students shown in Table 5.12-4. However, the current remaining high school capacity would not accommodate the projected increase in students. Although the deficiency is minor, San Clemente High School's current capacity of 3,640 students would not accommodate the 3,696 high school students (by 56 high school students) projected for the City at buildout of the Centennial General Plan. Projected student population growth could also exacerbate existing deficiencies in core facilities such as administrative offices, libraries, multipurpose rooms, and athletic facilities.

Development in San Clemente in accordance with the Centennial General Plan would require payments to the CUSD for the construction of new schools. Development impact fees charged by the CUSD are:

- Residential: $3.20/square foot
- Commercial: $0.51/square foot
- Storage: $0.046/square foot

Impact fees levied by CUSD are set within the limits of California Senate Bill 50 (5B 50). This funding program was established by the legislature to constitute "full and complete mitigation of the impacts" on the provision of adequate school facilities (Government Code § 65995[h]). SB 50 establishes two potential limits for school districts, depending on the availability of new school construction funding from the state and the particular needs of the individual school districts. CUSD qualifies for Level 1 developer fees, which are considered the base school mitigation fee. To apply Level 1 fees, a district must justify its development fees for each land use and cannot request payment of development fees for school facility construction exceeding the amount of the statutory fees expressed in Education Code Section

17620. If school districts conduct a school facility needs assessment and qualify for participation in the State Funding Program by the State Allocation Board, among meeting other requirements, they can be eligible for Level 2.

SB 50 also relieves jurisdictions from having the authority of denying approval of a legislative or adjudicative action under CEQA in reference to real estate development based upon the inadequacy of school facilities. Although the increased demand for school facilities would result in substantial impact, payment of impact fees in compliance with SB 50 would reduce the impacts to an acceptable level. The Centennial General Plan is meant to guide future development in the City but it is not a development project. Land uses in the City overall may generate 12,141 students, but the number of students that would be generated within the enrollment area of each school cannot be determined specifically at this point. Therefore, it would be speculative to analyze the impacts of future student generation on specific schools.

Furthermore, implementation of policies and implementation measures included in the proposed General Plan would address the future adequacy of school services under the proposed project. Policies PSFU-1.04 and PSFU-1.05 and Implementation Measure PSFU-2, in particular, state the City's commitment to working with CUSD to ensure that school services keep pace with development, population growth, and local needs.

Conclusion

Population growth in San Clemente under the Centennial General Plan would result in additional students in CUSD elementary, middle, and high schools. Although schools in San Clemente currently have unused classroom capacity, the addition of 2,394 students in San Clemente would likely require expanded school services and new or expanded school facilities. Despite this increased need, payment of SB 50 development impact fees would provide funding for the financing of new school facilities. Therefore, impacts on school services resulting from buildout of the Centennial General Plan are assumed to be less than significant.

5.12.3.4 Relevant General Plan Policies and Implementation Measures

Public Services, Facilities and Utilities Element

Education Policies

PSFU-1.01 **Educational Partners.** We partner with public and private schools, other public agencies, nonprofit organizations, and businesses throughout the region to expand and promote the range and quality of educational offerings available to the community.

PSFU-1.02 **Joint Use of Facilities.** We partner with public and private educational institutions to jointly use facilities for both community and educational purposes, such as afterschool recreation, community gatherings and cultural events.

PSFU-1.03 **Access to Schools.** We work with local and regional partners to maintain safety in and around schools and to improve access to schools and community services.

PSFU-1.04 **School Facilities.** We plan and coordinate with CUSD and private educational institutions for designing and locating school facilities to meet the City's goals, such as for health, walkability and safety, and to maintain neighborhood compatibility.

PSFU-1.05 **CUSD Master Plan.** We work with the CUSD to ensure their Master Plan fosters a strong sense of community in San Clemente neighborhoods (e.g., decisions regarding school facilities enhance neighborhood quality of life) and adheres to the educational facility standards provided in Orange County's Growth Management Plan.

PSFU-1.06 **City Advocacy Role.** We work with CUSD to advocate high academic and facility standards, and we will help identify areas of common interest, such as educational or training opportunities programs, facilities and areas meriting attention or improvement.

Education Implementation Measures

1) Publicize and promote the successes of the schools on an ongoing basis. While this is a typical responsibility of the local school district, we recognize that an educated workforce and quality educational opportunities are important considerations for investment by residents, businesses and property owners, and as such, we seek to recognize local educational excellence.

2) Continue communication and cooperation efforts between City officials and CUSD, especially in the areas of population projections, safety and security, development of schools and funding sources, and monitoring of development activities to prevent overcrowding of schools and help meet future educational needs.

3) Solicit CUSD input to help assess the educational impact of new development through the Development Management Team review process.

4) Promote the idea of attracting a higher educational facility or other educational/vocational training institution in the Los Molinos Focus Area.

5.12.3.5 Existing Regulations

State Regulations

- California Senate Bill 50 modifies Government Code Section 65995 to limit the acquisition of development fees by local agencies to three levels set in Sections 65995, 65995.5, and 65995.7 of the Government Code and prohibits a local agencies from denying a legislative or adjudicative action under CEQA involving real estate development on the basis of the inadequacy of school facilities.

- California Education Code Section 17620 gives school districts the authority to levy a fee, charge, dedication, or other requirement against any construction within the boundaries of the district, for the purpose of funding the construction or reconstruction of school facilities, subject to any limitations set forth in Chapter 4.9 (commencing with Section 65995) of Division 1 of Title 7 of the Government Code.

City of San Clemente Municipal Code

- Title 15, *Buildings and Construction*, Chapter 72: Residential Development Mitigation Fees
- Title 16, *Subdivisions*, Chapter 36: Dedications, Section 10: Elementary School Sites

5.12.3.6 Level of Significance Before Mitigation

Upon implementation of regulatory requirements, the following impacts would be less than significant: 5.12-3. Mitigation Measures

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

5.12.3.7 Level of Significance After Mitigation

No significant adverse impacts were identified and no significant unavoidable impacts relating to school services remain.

5.12.4 Library Services

5.12.4.1 Environmental Setting

Library services in San Clemente are provided by the San Clemente Library, located at 242 Avenida del Mar, which is operated by the Orange County Public Libraries (OCPL). The 33-branch OCPL system provides residents of Orange County and the City of San Clemente with access to books, periodicals, and other materials. Members of the system have access to the network's entire holdings including 2.5 million books, 48,500 government publications, 75,000 magazines, 92,700 video/DVD materials, 50,000 cassette/CD books, 13,000 e-books, and 2,246 historical photos. The San Clemente Library location offers 9,856 square feet of space, 90,370 volumes of material, and 20 public access computer terminals (Cowell 2013). The branch also offers special programs to residents, including weekly and monthly reading groups for children and adults, a summer reading program, and special events. San Clemente Friends of the Library, a nonprofit that supports the library through programs and fundraising, operates the Friends Bookstore adjacent to the library. The San Clemente Library's location is shown in Figure 5.12-1, *Public Facilities*.

On October 4, 2011, the Orange County Board of Supervisors approved and authorized OCPL to execute a construction and funding agreement with the City of San Clemente to remodel and expand the San Clemente Library. Construction of the project is anticipated to begin in late 2013 or early 2014 and will increase the library from 9,856 square feet to 14,252 square feet (Cowell 2013). San Clemente Friends of the Library are currently raising funds by selling used books to help pay for the expansion.

The OCPL uses a performance standard of 0.2 square feet per capita for library space and 1.3 volumes per capita for library collections (Cowell 2013). Based on these standards and an existing population of approximately 64,208, the City currently requires approximately 12,842 square feet of library space and 83,471 items for materials. Therefore, the existing San Clemente Library provides adequate library materials for residents but is deficient in library space relative to the local population, as shown in Table 5.12-6. Upon completion of the planned library expansion, the library will offer both adequate materials and adequate library space using OCPL's standard service ratios.

Table 5.12-6 San Clemente Library Facilities and Materials

Facility	Facility Square Footage	Number of Volumes
Existing Library		
Library space and materials	9,856	90,370
Standard Service Ratio	**0.2 square feet per capita**	**1.3 volumes per capita**
Population Served	**49,280 residents**	**69,515 residents**
Existing Library with Remodel/Expansion		
Library space and materials	14,252	90,370
Standard Service Ratio	**0.2 square feet per capita**	**1.3 volumes per capita**
	71,260 residents	**69,515 residents**

Sources: Cowell 2013.

5.12.4.2 Thresholds of Significance

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

5.12.4.3 Environmental Impacts

Impact 5.12-4: Buildout in accordance with the Centennial General Plan would generate additional population in San Clemente, increasing the need for library services in the City. [Threshold LS-1]

Impact Analysis: At buildout, San Clemente is projected to have a population of approximately 76,547 residents. Using OCPL's standard service ratios, the San Clemente Library would need 15,309 square feet of library space and 99,511 volumes of material. Existing library space and materials would not be adequate to serve the City's approximately 12,339 additional residents. After construction of the library remodel and expansion, the San Clemente Library would still be deficient 1,057 square feet of library space and 9,141 volumes of material. However, residents of San Clemente, including future residents generated by land uses allowed under the proposed project, have access to any branch of the OCPL library system, including those within neighboring cities of Dana Point and San Juan Capistrano. For example, the San Juan Capistrano Library at 31495 El Camino Real is approximately 4.5 miles north of San Clemente and consists of approximately 12,000 square feet and holds over 80,000 volumes, CDs, videos, and online computer catalog system. The San Juan Capistrano Library currently has capacity to serve more than 15,000 people based on the 0.24 square foot per capita service standard and is projected to have capacity to serve about 8,800 additional people in 2035.

Current funding of new library facilities in the OCPL system requires the beneficiary municipality—in this case, the City of San Clemente—to fund new or expanded facilities and requires preparation of a library funding/service plan for the new facility to determine if OCPL has the ability to fund staffing, operation, and maintenance needs of the facility (Cowell 2013). Revenue sources that contribute to funding the City's General Fund, including property and sales taxes, would be expected to grow in rough proportion to any increase in residential units and/or businesses in San Clemente. These tax revenues could be used to fund further expansion of the San Clemente Library and/or additional materials and resources. Because a portion of property tax revenues collected by the County of Orange are specifically allocated for capital improvement and operating costs for the OCPL system, future residents of the City under the Centennial General Plan would be required to make a financial contribution to new or expanded library facilities.

Implementation of policies and implementation measures included in the proposed General Plan would address provision of library services under the proposed project. Policy PSFU-2.01 states the City's commitment to "coordinate with the County of Orange to provide adequate library services and facilities that fulfill the needs of San Clemente residents and meet or exceed the County of Orange's minimum library standards." Policy PSFU-2.03 states the City's support for a multipronged approach to funding local library facilities and programs. Implementation Measures PSFU-5 through PSFU-7 would ensure that the City and County work together to identify library service needs and strategies for expanding services to meet those needs.

Localized environmental impacts would result from the construction of new library facilities. However, since the location and size of potential future facilities is unknown, it would be speculative to analyze the potential impacts of those facilities as part of this first-tier Program EIR, other than to note that such impacts would likely fall within the envelope of construction impacts analyzed elsewhere in this EIR. Future projects would be reviewed by the City of San Clemente on an individual basis and would be required to comply with regulations in effect at the time building permits are issued. If an initial study is prepared and the City determines the impacts to be significant, the project would be required to comply with project-specific mitigation measures.

Conclusion

Buildout of the Centennial General Plan would result in an increase in demand for library services in San Clemente. New facilities, books, and personnel would be necessary to reach adequate levels of service. However, additional City and county tax revenues generated from new dwelling units and businesses in San Clemente would contribute toward the financing of additional library space and services in the City. Implementation of policies and implementation measures in the proposed General Plan would assist in providing library services that meet local needs. Residents of the City also have access to the entirety of the OCPL library system and its materials. For all of the above reasons, buildout of the Centennial General Plan is not anticipated to have a significant impact on library services.

5.12.4.4 Relevant General Plan Policies and Implementation Measures

Public Services, Facilities and Utilities Element

Library Policies

PSFU-2.01 **Library Services.** We coordinate with the County of Orange to provide adequate library services and facilities that fulfill the needs of San Clemente residents and meet or exceed the County of Orange's minimum library standards.

PSFU-2.02 **Educational Programming.** We encourage the County of Orange to provide reading and literacy programs and other educational programs at the local library branch or via other means for those who cannot visit library facilities.

PSFU-2.03 **Funding.** We support County of Orange efforts to provide adequate funding for improvements to local library facilities and programs through County, State and Federal funding, private and corporate donations or other resources.

PSFU-2.04 **Technology.** We encourage the adoption of technological advances that can provide improved access to library resources.

PSFU-2.05 **Volunteers.** We work with non-profit organizations, businesses and other public agencies to explore opportunities for grants and other special project funding for our local library.

PSFU-2.06 **Focal Point of the Community.** We coordinate with the County of Orange and Friends of the Library to promote and use the library for community meetings and events.

PSFU-2.07 **Specialized Libraries.** We encourage and support, where possible, specialized libraries that provide public benefits and access.

Library Implementation Measures

5) Work closely with the County of Orange Library System and Friends of the San Clemente Library to understand their local services and facilities needs.

6) Work with the County of Orange to evaluate the need and feasibility of expanding San Clemente's library resources/facilities.

7) Explore opportunities to expand library services through creative public/private/non-profit partnerships.

5.12.4.5 Existing Regulations

No existing regulations apply.

5.12.4.6 Level of Significance Before Mitigation

Upon implementation of regulatory requirements and compliance with policies and implementation measures in the proposed General Plan, the following impacts would be less than significant: 5.12-4.

5.12.4.7 Mitigation Measures

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

5.12.4.8 Level of Significance After Mitigation

No significant adverse impacts were identified and no significant unavoidable impacts relating to library services remain.

5.13 RECREATION

This section of the Draft Environmental Impact Report (DEIR) evaluates the potential for implementation of the Centennial General Plan to impact recreation in the City of San Clemente. The potential for adverse impacts on accessibility of recreational facilities to existing and proposed residential neighborhoods, and impacts resulting from the construction of additional recreational facilities are evaluated based on current facilities and their usage.

5.13.1 Environmental Setting

Regulatory Background

Quimby Act

This act is state legislation that authorizes cities and counties to pass ordinances requiring that developers set aside land, donate conservation easements, or pay fees for park improvements. Revenues generated through the Quimby Act cannot be used for the operation and maintenance of park facilities (California Government Code 66477).

San Clemente Master Plan for City Facilities

San Clemente's 2000 Master Plan for City Facilities (MPCF) identifies facilities necessary to serve the public at buildout. The MPCF includes siting options for different facilities, including civic centers, fire stations, community centers, and parks. Recommended timing, capacity for the City to fund construction, and ability of the City to maintain and operate the facilities are all factors discussed in the MPCF. Chapter 6 of the MPCF pertains to parks and recreation in San Clemente. It summarizes the City's 1999 Parks and Recreation Master Plan and provides details for the 10 most significant new planned parks and recreational facilities identified in that document:

- Marblehead Coastal Community Sports Park
- Avenida La Pata/Vista Hermosa Community/Sports Park
- Forster Ranch Community Park, Phase #2
- Forster Ranch Community Center Gymnasium and Pool Complex, Phase #3
- Municipal Golf Course and Clubhouse Improvements
- Marblehead Coastal Bluff Top Park
- Talega Neighborhood Park #1
- Talega Neighborhood Park #2
- Talega Neighborhood Park #3
- South City Park

Several of these facilities have been constructed and opened since the 2000 adoption of the MPCF, including the Talega neighborhood parks (Liberty Park and Tierra Grande Park) and the Avenida La Pata/Vista Hermosa Community Sports Park and Aquatics Center.

The MPCF outline's the City's park classification system, which includes the following categories:

- **Neighborhood parks** are designed to serve the needs of the local neighborhoods. They are generally less than 10 acres in size. Typical facilities in these parks include children's play areas, picnic areas, restroom buildings, sports courts, exercise areas, and open grass areas. The MPCF states that the intention of the Beaches, Parks, and Recreation Master Plan is for neighborhood parks to be built and maintained as part of new residential development.

- **Community parks** are designed to serve larger portions of the City or the entire City. They are generally over 10 acres in size and include major sports facilities such as baseball, softball, soccer, football, tennis, and basketball facilities. Such facilities generally include field lighting and parking lots to accommodate high use. Neighborhood park amenities (picnic areas and children's play areas) are also included, since community parks are also designed to serve neighborhood park needs. Community parks are considered a basic service that is provided by the City. Similar to neighborhood parks, community parks will be built and maintained as part of new residential development

- **Special use parks** are designed to serve large portions of the City or the entire City, as community parks do. However, these parks are also designed to meet specific needs of the City. The size of a special use park can vary from a couple of acres to over 100 acres. Examples of special use parks include the beach, Community Center/Senior Center/Library, Ole Hanson Beach Club and pools, San Clemente Municipal Golf Course, Vista Bahia Park Trap and Skeet Range, and City Hall. The City of San Clemente Beaches, Parks, and Recreation Master Plan specifies that special use parks be built when proposed improvements are justified. Further, voter approval must be obtained if the City cannot finance the development without additional tax burden.

Funding and Timing

Funding for park facilities discussed in the MPCF is identified as being provided by various funding sources, including Capital Project Funds, which includes Park Acquisition and Development Funds. Many of the proposed facilities listed in the MPCF are identified as being funded by development agreements and Quimby Act fees.

The Beaches, Parks, and Recreation Master Plan development "timelines" policy is revised in the MPCF to require that parks in new neighborhood developments be developed up front, prior to occupancy of one-half of the total homes of the project area served by the proposed park. This requires that the City enter into development agreements in order to require residential home builders to front park development funds.

Parkland Standard

The MPCF identifies the City's parkland standard as 5 acres per 1,000 residents. The document estimates that, in 2000, the City had 6.01 acres per 1,000 residents.

Existing Conditions

San Clemente is considered an important hub for outdoor recreation in Southern California and offers numerous opportunities for hiking, biking, surfing, and other beach-related activities. In addition to its long coastline and popular beaches, recreational opportunities in the City are provided by City parks, state facilities, and private facilities. Existing parks and recreational facilities are shown in Figure 5.13-1, *Existing and Proposed Parks*.

San Clemente City Parks

Recreation services in San Clemente City Parks are offered by the City Recreation Division; parks are maintained by the Beaches and Parks Maintenance Division. City parks are described in Table 5.13-1.

Table 5.13-1 San Clemente City Parks

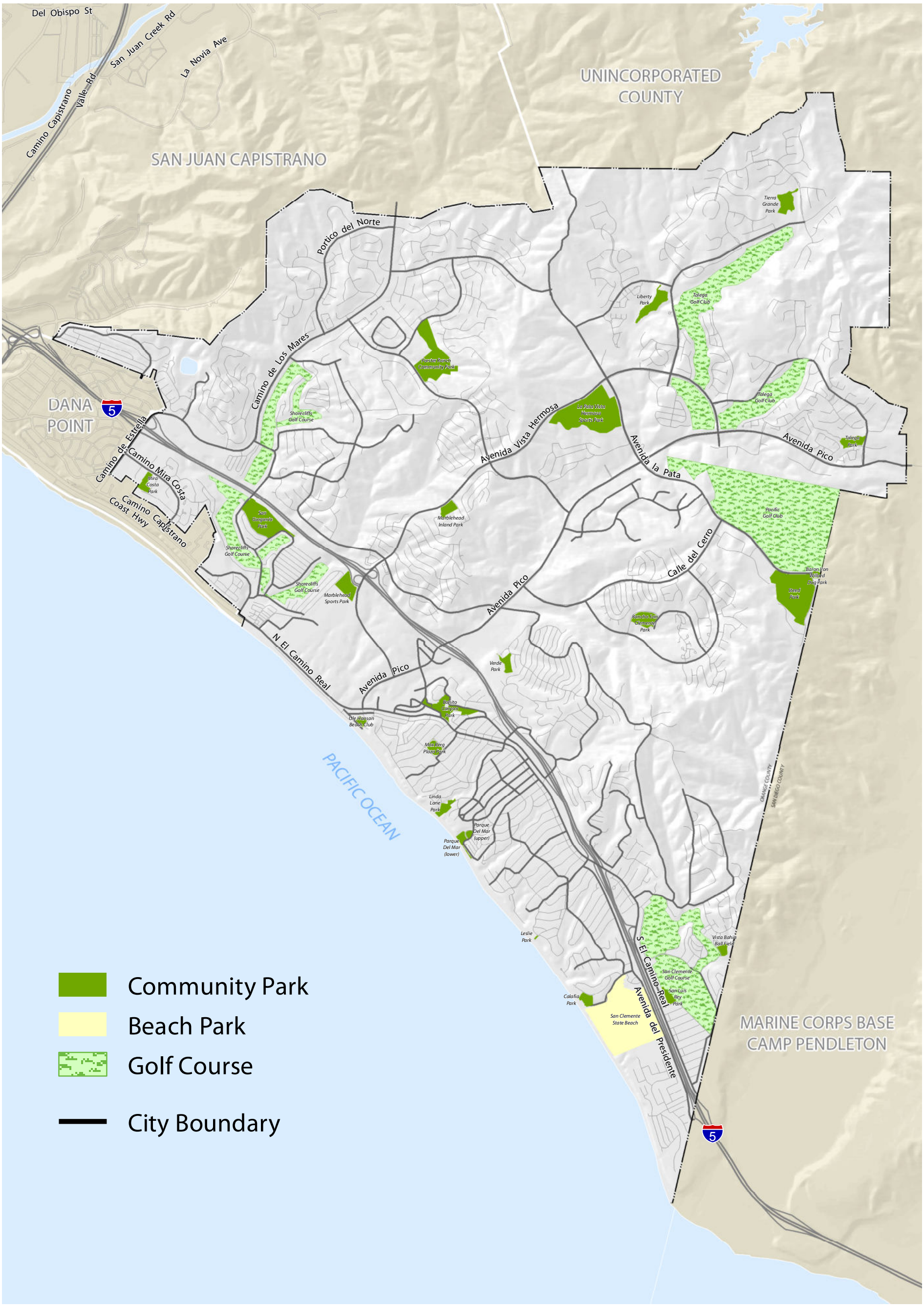
Park	Location	Amenities
Baron Von Millard Memorial Dog Park	301 Ave. La Pata	• Dog park
Bonito Canyon Park	1304 Calle Valle	• Lighted basketball courts • One lighted baseball/softball field • Boys & Girls Club building • Children's play area • Drinking fountains • Exercise course • Grassy area • Picnic area/tables/benches • Restrooms • Lighted tennis courts
Forster Ranch Community Park	3207 Camino Vera Cruz	• Unlighted baseball/softball field • Children's play area • Drinking fountains • Grassy area • Multi-purpose field • Running track • Unlighted soccer fields • Picnic area/tables/benches • Restrooms • Amphitheater/plaza • Tennis courts (lighted) • BBQs
Leslie Park	1800 Los Alamos	• Grassy area • Benches
Liberty Park	390 Calle Saluda	• Unlighted baseball fields • Lighted basketball/tennis courts • Children's play area • Multi-purpose field • Picnic areas/tables/benches • Restrooms • Drinking fountains • BBQs
Linda Lane Park	400 Linda Lane	• Beach access • Children's play area • Drinking fountain • Grassy area • Picnic area/tables/benches • BBQs
Marblehead Inland Park	2400 Via Turqueza	• Amphitheater • Lighted basketball court • BBQ's • Children's play area • Drinking fountain • Exercise course • Grassy area • Picnic area/tables/benches • Restrooms • Tennis courts
Max Berg Plaza Park	1100 Calle Puente	• Amphitheater • BBQs • Children's play area • Grassy area • Picnic area/tables/benches • Restrooms • Rose garden • Drinking fountain
Mira Costa Park	34001 Camino Mira Costa	• Children's play area • Drinking fountain • Dogs allowed on leash • Grassy area • Picnic area/tables/benches
Parque Del Mar (Pier)	622 Ave. Del Mar	• Beach access • Grassy area • Picnic area/tables/benches
Ralphs Skate Court	247 Avenida La Pata	• Unlighted skate court • Drinking fountains • Food concession • Picnic area/tables/benches • Restrooms
Rancho San Clemente Park	150 Calle Aguila	• Unlighted basketball courts • BBQ's • Children's play area • Exercise course • Grassy area • Picnic area/tables/benches • Restrooms • Volleyball courts • Drinking fountain

Table 5.13-1 San Clemente City Parks

Park	Location	Amenities	
Richard T. Steed Memorial Park/ Sports Park	247 Avenida La Pata	• Four lighted baseball/softball fields • Batting cages/pitching throw • Drinking fountains • Food concession	• Picnic area/tables/benches • Restrooms • Unlighted skate court • Trail access
San Gorgonio Park	2916 Via San Gorgonio	• Basketball courts • Lighted baseball/softball fields • BBQs • Children's play area • Drinking fountains	• Grassy area • Multi-purpose field • Picnic area/tables/benches • Restrooms • Unlighted tennis courts
San Luis Rey Park	109 Avenida San Luis Rey	• Children's play area • Drinking fountains • Grassy area • Lawn bowling facility	• Picnic area/tables/benches • Restrooms • Lighted tennis courts
Talega Park	179 Corte Cristianitos	• Unlighted basketball courts • Unlighted baseball/softball field • BBQ's • Children's play area • Drinking fountain	• Grassy area • Multi-purpose field • Picnic area/tables/benches • Restrooms • Trail access
Tierra Grande Park	399 Camino Tierra Grande	• Unlighted softball fields • Children's play area • Multi-purpose field • Picnic area/tables/benches • Restrooms	• Drinking fountains • Horse shoe pits • BBQs • Three lighted basketball courts
Verde Park	301 Calle Escuela	• Children's play areas • Drinking fountain • Grassy area	• Picnic area/tables/benches • Dogs allowed on leash • Unlighted tennis courts
Vista Bahia Park/ Waterman Field	402 Calle Bahia	• Lighted baseball fields • Batting cages/pitching throw • Drinking fountain • Food concession	• Grassy area • Picnic area/tables/benches • Restrooms
Vista Hermosa Sports Park and Aquatics Center	987 Avenida Vista Hermosa	• 50 meter x 25 yard competition pool with 2 one-meter diving boards • 25 yard recreation and teaching pool • Zero-depth entry play area • Water play structure • Pool house with locker rooms and meeting room	• Rentable event space with picnic tables and BBQ • Shaded spectator bleachers • Shade cabanas • Chaise lounges/tables and chairs

Source: City of San Clemente 2012

Existing and Proposed Parks



Data Source: FEMA Digital Flood Insurance Rate Map data(DFIRM) 8.16.11

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San Clemente offers a variety of parks and open space to its residents and visitors. The City's 21 parks cover approximately 176.6 acres and range in size from small, neighborhood playgrounds (e.g., Verde Park) to large, community-serving recreational facilities (e.g., San Gorgonio Park). The City owns several specialized facilities, including the Ole Hanson Beach Club (swimming), an off-leash dog park adjacent to Richard T. Steed Memorial Park, and the San Clemente Municipal Golf Course. The City's most recent park, the Vista Hermosa Sports Park & Aquatic Center, was opened in 2012. The 45-acre park includes two pools, sports fields, a community center and gymnasium, picnic facilities, and a universally accessible playground called Courtney's Sandcastle. Future parks plans include those planned for the Marblehead development, which is proposed to include the 8.6-acre Jim Johnson Memorial Sports Park and three ocean-view public park sites totaling 3.4 acres.

State Recreational Facilities

In addition to City parks, residents of San Clemente also have immediate access to three state parks: San Clemente State Beach, San Onofre State Beach, and Doheny State Beach in Dana Point. San Clemente State Beach in the southern part of the City extends from I-5 to the beach; the north park boundary is near Avenida Calafia. The park contains a 157-space campground, a mile of beach, hiking trails, and picnic areas. San Onofre State Beach extends north–south next to the east City boundary from the beach to near Avenida Pico. The 3,000-acre park contains 5.5 miles of beaches, including the Trestles, a popular surfing area; two campgrounds; and hiking trails. The 62-acre Doheny State Park is approximately a mile west of San Clemente and contains a 122-space campground, 1.5 miles of beach, a 5-acre lawn with picnic facilities, and volleyball courts.

Other Recreational Amenities

The City has 6 major trail networks—Rancho San Clemente Ridgeline Trail, Forster Ranch Ridgeline, Prima Deshecha Regional, Cristianitos Regional, Talega Trail, and San Clemente Coastal Trail—providing 13.8 miles (22 acres) of trails within the City, ranging from easy to difficult levels. Some networks connect with trails managed by other communities (such as San Juan Capistrano at the Forster Ridge trail junction in the north) and public agencies (such as the California Department of Parks and Recreation for eastern trails that connect to San Onofre State Beach Park). The only trail west of the I-5 is the San Clemente Coastal Trail, a popular 2.3-mile-long path that connects North Beach, the Pier, and Calafia Beach. The City maintains its local trails; regional trails are the responsibility of the County of Orange.

The Donna O'Neill Land Conservancy is a nonprofit organization representing the County of Orange, the City of San Clemente, and Rancho Mission Viejo that oversees stewardship of a 1,200-acre wilderness reserve in South Orange County. Approximately 175 acres of the Donna O'Neill Land Conservancy property is within the City.

Additional recreational amenities in San Clemente are provided by privately owned golf courses, including Bella Collina, Shorecliffs, and Talega golf clubs.

5.13.2 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.

5.13.3 Environmental Impacts

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

Impact 5.13-1: The proposed project would generate additional residents that would increase the use of existing park and recreational facilities. [Threshold R-1]

Impact Analysis: The City of Clemente uses a parkland standard of 5 acres per 1,000 residents. As of 2013, the City has 176.6 acres of improved parks. Based on the California Department of Finance (CDF) 2012 population estimate of 64,208, the City currently requires approximately 321 acres of improved parkland. Using the CDF 2012 data overestimates the need for parkland because the City's Park Land Dedication Formula takes into account residential dwelling unit density. Using this conservative estimate, the City currently provides approximately 2.8 acres of improved parks per 1,000 residents, which is well below the City's parkland standard of 5.0 acres per 1,000 residents.

While there is an existing deficiency of improved parkland, the City hosts a multitude of additional recreational opportunities that meet the needs of the City's 2012 population. As stated previously, additional recreation amenities include the 117-acre San Clemente State Beach, six major trail networks providing 13.8 miles (22 acres) of trails, the Donna O'Neill Land Conservancy 1,200-acre wilderness reserve, and the City's beach and coastal waters. Additionally, the in-progress Marblehead Coastal development will provide approximately 12 acres of new parks, including the Jim Johnson Memorial Sports Park.

Buildout of the Centennial General Plan would generate additional residents in the City. Future growth in the City in accordance with buildout of the Centennial General Plan would increase the demand for parks and increase existing park usage. The extent to which the City of San Clemente can plan and implement parks, trails, and other recreational facilities is related to the availability of funding. The Quimby Act is a funding mechanism for parkland acquisition. Under this act and pursuant to the City's Municipal Code, residential subdivisions must dedicate parkland or pay in-lieu fees (or both, in some circumstances) to enable the City to acquire a ratio of 5 acres of parkland per 1,000 residents (Municipal Code Section 16.36.070). Policy BPR-2.01 in the Beaches, Parks, and Recreation Element of the proposed General Plan reiterates this standard. Using the City's Municipal Code Park Land Dedication Formula Table (Section 16.36.70), the proposed General Plan's buildout of 29,567 residential units would require a total of approximately 350 acres of parkland.

Based on the General Plan future buildout projections, the 350 acres of parkland needed to serve the future population. As stated, the City has 176.6 acres of improved parks and recreation amenities, therefore, 173 additional acres would be needed to serve the population at build out. The Quimby Act is a funding mechanism for parkland acquisition. Under this act and pursuant to the City's Municipal Code, subdivisions must dedicate parkland or pay in-lieu fees to enable the City to acquire a ratio of five acres of parkland per 1,000 residents. Overall, there are 971 acres designated for Public Open Space and 4,215 acres designated for private open space that may accommodate parkland in the proposed Land Use Plan. Buildout of Public Open Space areas under the Centennial General Plan could accommodate new or expanded parks and recreational facilities needed to meet the City's parkland standard. Private Open Space areas, which include private golf clubs and publicly accessible trails, would continue to provide supplementary recreational opportunities to City residents under the Centennial General Plan. As stated above, there are also a number of other recreational amenities to serve proposed residents: 22 acres of trails, 1,200-acre wilderness preserve, and 117-acre San Clemente State Beach. The combination of parkland dedication, in lieu fees and passive open space opportunities will

provide adequate recreational amenities for future residents, and build out of the Centennial General Plan would not cause a substantial physical deterioration of existing facilities. Impacts are less than significant.

Policies in the Centennial General Plan address the need for parks and recreation. In addition to the parkland standard stated in Policy BPR-2.01, the Beaches, Parks and Recreation Element contains goals, policies, and programs that support regular review and updating of the City's Beaches, Parks and Recreational Master Plan and Master Plan for City Facilities. This periodic review of the City's master plans is designed to ensure that the provision of parks keeps pace with demographic trends and the recreational needs of San Clemente's residents. Individual policies in that element would track the recreation needs and interests of residents (Policies BPR-1.03 and BPR 2.02), provide recreational opportunities for underserved populations (Policy BPR-1.06), and establish a balanced approach to acquiring parkland (Policy BPR-2.06). Special topics relating to the provision of recreation opportunities, including beach access, trail connectivity, and financing of facilities, are also addressed in the Beaches, Parks and Recreation Element. Additional policies that address coastal access are found in the Coastal Element.

Impact 5.13-2: Project implementation would result in environmental impacts to provide new and/or expanded recreational facilities. [Threshold R-2]

Impact Analysis: The San Clemente Centennial Plan guides growth and development within the City and is not a development project. However, the proposed Land Use Plan designates 971 acres of land for public open space, which includes parks and recreational facilities. Although a majority of this acreage not used for parks and recreation would likely remain unimproved open space upon buildout, some of the acreage could be improved as parks and recreational facilities. Development pursuant to the General Plan would result in the construction of new or expansion of existing recreational facilities in the City. Development and operation of new recreational facilities may have an adverse physical effect on the environment, including impacts relating to air quality, biological resources, lighting, noise, and traffic. Environmental impacts associated with construction of new and/or expansion of recreational facilities in accordance with the proposed Land Use Plan are addressed separately (see appropriate environmental topical areas in Chapter 5, *Environmental Impacts*). However, it is speculative to determine the location of proposed park facilities in the City and impacts arising from development of individual park projects. Goals, policies, and actions in the General Plan, along with existing federal, state, and local regulations, would mitigate potential adverse impacts to the environment that may result from the expansion of parks, recreational facilities, and trails pursuant to buildout of the proposed Land Use Plan. Furthermore, subsequent environmental review would be required for development of park projects under the proposed Land Use Plan. Consequently, the Centennial General Plan would not result in significant impacts relating to new or expanded recreational facilities.

5.13.4 Relevant General Plan Policies

Beaches, Parks and Recreation Element

Recreational Programming

BPR-1.01 **Programming.** We program our parks and other recreation facilities for efficient and creative use, consistent with the type of facility, user groups served and community needs, consistent and with the Beaches, Parks and Recreation Master Plan.

BPR-1.02 **Users.** We provide indoor and outdoor programs and facilities appropriate for a range of income levels, ages and abilities.

RECREATION

BPR-1.03 **Tracking Needs and Interests.** We track City recreation programs in terms of participation, customer satisfaction, and changing needs to identify recreational programming priorities needs, and interests.

BPR-1.04 **Partnerships.** We partner with non-profit organizations, businesses and agencies to provide high quality, comprehensive recreational and educational programming, and affordable special events for residents.

BPR-1.05 **Safety.** We design and maintain park and recreation facilities to provide a safe experience.

BPR-1.06 **Underserved Youths and Adults.** We promote low-cost or free, safe and fun recreational program for underserved youths and adults as part of our local crime prevention efforts.

BPR-1.07 **Historic Sites.** We celebrate historic sites with recreational learning opportunities in parks and recreation facilities.

BPR-1.08 **Natural Environment.** We protect our natural environment, including marine resources and open spaces, consistent with the City's HEAL resolution. Where possible, we utilize them as recreational learning opportunities and contemplative spaces, in conjunction with our environmental goals.

BPR-1.09 **Street Closures/Public Spaces.** We support temporary, and where safe and appropriate, long-term street closures to create or expand public spaces and to accommodate street fairs, farmers' markets, art shows and other special community events.

BPR-1.10 **Schools.** We promote providing recreational opportunities in conjunction with our local schools.

BPR-1.11 **Neighborhood/Commercial Area Enhancement.** We consider using recreational programming as a tool for enhancing the vitality of neighborhoods and commercial areas.

Park Planning, Acquisition, and Development

BPR-2.01 **Parkland and Beaches Standard.** We apply a standard of at least five acres of improved parkland and beaches per 1,000 residents and seek to meet residents' needs in underserved areas.

BPR-2.02 **Evaluation of User Needs.** We evaluate user feedback, track facility use, and utilize projections to understand park and recreation facility needs and plan for future acquisition and development.

BPR-2.03 **Beach and Park Maintenance.** We maintain beach and park facilities in good condition and strive to meet Council-adopted community standards.

BPR-2.04 **Master Plan.** We focus parkland acquisition and development efforts in accordance with the Beaches, Parks and Recreation Master Plan and with the Master Plan for City Facilities.

BPR-2.05 **Master Plan Maintenance.** We maintain and update the Beaches, Parks and Recreation Master Plan at least every 10 years to strategically plan for future park and recreation needs.

BPR-2.06 **Parkland Acquisitions.** We require parkland acquisitions to be beneficial to the community. In acquiring parkland, the City considers short-term land and construction costs and long-term operations and maintenance costs.

BPR-2.07 **Planning for Local Context.** We plan park features and facilities that meet the recreational preferences of residents and the land uses the park is intended to serve. We consider the impacts of such facilities on surrounding uses.

BPR-2.08 **Future Park Sites.** When selecting specific park sites or designing park facilities, we identify park type and future user needs.

BPR-2.09 **Joint Use Agreements.** We maintain and improve joint-use recreational space agreements with public agencies and seek new opportunities for joint recreational uses.

BPR-2.10 **Universal Access.** We seek to provide, where feasible, inclusive recreation facilities that meet or exceed accepted standards for Universal Access.

BPR-2.11 **Structured and Unstructured Recreation Opportunities.** We plan, acquire and develop recreational facilities to provide a balanced range of structured and unstructured recreation opportunities.

Open Space and Trails

BPR-4.01 **Open Space Preservation.** We encourage and support the preservation of open space within and adjacent to the City.

BPR-4.02 **Trails and Staging Areas.** We support the development, maintenance and enhancement of local trails and staging areas using best sustainable practices.

BPR-4.03 **Partnerships and Funding.** We seek strategic partnerships and funding assistance opportunities with public agencies and volunteer organizations to reduce City costs to maintain open space and trail facilities.

BPR-4.04 **Trail Connections.** We collaborate with other public agencies and private parties to establish connections between trails.

BPR-4.05 **Public Information.** We publicize our trails system, including the Beach Trail, to encourage public use and appreciation, including the use of bicycle trails for general transportation and commuter use.

BPR-4.06 **Education.** We design and use some public trails for educational and interpretive purposes.

BPR-4.07 **Master Plan.** We maintain and update the Beaches, Parks and Recreation Master Plan and Bicycle and Pedestrian Master Plan to strategically plan new trails and related facilities.

BPR-4.08 **Standards.** We maintain multi-purpose trails to Council-adopted community standards.

Beaches, Parks and Recreation Economics and Financing

BPR-7.01 **Funding Support.** We aggressively pursue Federal, State, County, private foundation and endowment support to assist in the acquisition, development, programming, operations, and maintenance of beaches, park and recreation facilities.

BPR-7.02 **City Fiscal Resources.** We improve the efficiency of our facilities and programs and seek to ensure we have adequate fiscal resources for operations, maintenance and replacement before investing in new facilities.

BPR-7.03 **Operations and Maintenance Costs.** We develop park facilities that are realistic in terms of operations and maintenance costs needed to maintain their quality and safety.

BPR-7.04 **Community Support.** We encourage neighborhood groups, organizations, and businesses to become active supporters of our beaches and parks facilities and programs through contributions of goods, services, labor and money.

BPR-7.05 **Private Facilities.** We encourage the development of private recreational facilities, where appropriate, that provide services or facilities that are not provided by the City.

BPR-7.06 **Revenue Generation.** We encourage beaches and parks programs that generate revenues that can help achieve the City's Beaches, Parks and Recreation goals.

BPR-7.07 **Park In-Lieu Fees.** We will periodically update the park in-lieu fee required for new development to establish appropriate rates.

Coastal Element

Coastal Access and Recreational and Visitor-Serving Opportunities

C-1.01 **Coastal Access.** We establish, maintain, and, where feasible, expand public coastal access to the shoreline, beaches, tidelands, and recreational facilities in a manner that:

a. Maximizes public access to and along the shoreline;

b. Is safe and feasible;

c. Includes, where appropriate, pedestrian, hiking, bicycle, and equestrian trails;

d. Provides connections to beaches, parks, and recreational facilities and trail networks with adjacent jurisdictions;

e. Includes, where appropriate, well designed and maintained support facilities such as parking, restrooms, fire pits, trash facilities, resting/view places, snack bars, picnic tables, and bike racks;

f. Maximizes coastal views;

g. Facilitates alternative modes of transportation, such as walking and bicycling;

h. Is consistent with policies regarding hazards, bluff, resource, cultural resource and wildlife habitat preservation;

i. Minimizes alterations to natural landforms;

j. Protects environmentally sensitive habitat areas (ESHAs);

k. Meets facility needs to provide public safety services, including lifeguards, fire, and police service;

l. Is managed to be permanently available;

m. Balances the rights of individual property owners with the public's rights of access;

n. Is compatible with adjacent development; and

o. Is developed in cooperation with the State Department of Parks and Recreation, the State Department of Fish and Game, the State Coastal Conservancy, State Lands, the County of Orange, and private organizations.

C-1.10 **Recreational Opportunities.** We protect, and where feasible, expand and enhance recreational opportunities in the Coastal Zone as addressed in the Land Use Element and Beaches, Parks and Recreation Element.

C-1.11 **Lower-Cost Recreational Opportunities.** We establish and maintain public beaches and parks to provide free and lower-cost recreational opportunities.

C-1.12 **Visual Compatibility.** We maintain, improve and develop our recreational resources in ways that are visually compatible with the character of surrounding areas.

C-1.13 **Visitor-serving Facilities.** We protect, promote, and provide sustainably-designed recreational and visitor-serving facilities in San Clemente's Coastal Zone as described in the General Plan Land Use Designations.

C-1.14. **Pacific Coast Bicycle Route.** We support the continued improvement of the Pacific Coast Bicycle Route and where financially feasible, assist in its implementation.

C-1.15 **Recreational Fishing.** The City supports recreational coastal fishing.

Growth Management Element

Community Edges

GM-1.07 **San Onofre State Park.** We support continued public access to and use of those areas of Camp Pendleton under lease to the State Parks Department in 2013.

Development Outside of the City

GM-2.04 **Residential Subdivisions**. We demand that the design of new residential subdivisions in our Sphere of Influence do the following:

a. incorporate greenbelts, pedestrian paths, parks, recreation facilities, and other community amenities.

Land Use Element

Residential Land Uses

LU-1.02 **Access to Amenities.** We require residential developments to be designed to promote safe and convenient access to nearby commercial centers, community facilities, parks, open space, transit facilities, bikeways, trails and other amenities, as applicable.

Public and Institutional Land Uses

LU-6.01 **Existing and New Uses.** We allow the continuation of public recreational, cultural (libraries, museums, etc.), educational, institutional (governmental, police, fire, etc.), and health and social service uses at their locations as of the date of adoption of this General Plan. We also allow the development of new Public and Institutional uses in areas designated as Institutional and in other land use zones where they complement and are compatible with adjacent land uses.

North Beach/North El Camino Real Focus Area

LU-10.04 **Beach Access.** We preserve and enhance safe, convenient pedestrian and bicycle linkages to the shoreline for community and visitor access.

LU-10.14 **Parks and Recreation.** Consistent with the Parks and Recreation Element and North Beach Specific Plan, we provide ample recreational facilities and programs for residents and visitors.

Public Services, Facilities, and Utilities Element

Education

PSFU-1.02 **Joint Use of Facilities.** We partner with public and private educational institutions to jointly use facilities for both community and educational purposes, such as afterschool recreation, community gatherings and cultural events.

5.13.5 Existing Regulations

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

State and Federal Regulations

- Quimby Act (California Government Code 66477)
- Subdivision Map Act (California Government Code 66410)

San Clemente Master Plans

- Beaches, Parks, and Recreation Master Plan (1999)
- Master Plan for Capital Facilities (2000)

San Clemente Municipal Code

- **Title 16 Subdivisions, Chapter 36: Dedications, Article 70: Park and Recreational Facilities** establishes that dedication of parkland and/or payment of in-lieu fees is required as a condition of approval of a final subdivision map. This section of the code establishes a general City-wide standard for provision of parks and recreational facilities (5 acres per 1,000 persons), a formula for calculating how much parkland is required (based on the unit count of the proposed project), a formula for calculating in-lieu fees, and criteria outlining when both parkland dedication and payment of in-lieu fees are required.

5.13.6 Level of Significance Before Mitigation

Upon implementation of regulatory requirements and compliance with policies contained within the Centennial General Plan, the following impacts would be less than significant: 5.13-1 and 5.13-2.

5.13.7 Mitigation Measures

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

5.13.8 Level of Significance After Mitigation

Compliance with regulatory requirements identified above would reduce potential impacts relating to recreation to less than significant. Therefore, no significant unavoidable adverse impacts relating to recreation have been identified.

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5.14 TRANSPORTATION AND TRAFFIC

This section of the Draft Environmental Impact Report (DEIR) evaluates the potential for implementation of the Centennial General Plan to result in transportation and traffic impacts in the City of San Clemente and its sphere of influence (SOI). The analysis in this section is based in part on the following technical report(s):

- *City of San Clemente Mobility and Complete Streets Element Technical Background Report*, Fehr and Peers, January 2013
- *City of San Clemente Bicycle and Pedestrian Master Plan*, KTU+A, and Fehr and Peers, August 2012

Complete copies of these studies are included in the Appendix of this Draft EIR. For the purpose of this analysis, the City of San Clemente Mobility and Complete Streets Element Technical Background Report is called "Mobility Report," and the City of San Clemente Bicycle and Pedestrian Master Plan is the "BPMP."

The City shares jurisdictional boundaries with the City of Dana Point to the north, the City of San Juan Capistrano to the northeast, and County of San Diego to the south. Interstate 5 (I-5) runs through the City, providing a high level of regional accessibility. San Clemente has a multimodal transportation system of highways, streets, pedestrian paths, and bikeways. Bus and rail services are provided by the Orange County Transportation Authority (OCTA), Amtrak, and Metrolink. The development, improvement and maintenance of streets, pedestrian and bike paths, and public transit facilities in San Clemente are key elements for the City's social and economic well-being.

5.14.1 Environmental Setting

This section presents the existing transportation conditions in the City including the roadway network, bicycle and pedestrian network, public transit network, parking conditions, aviation facilities, and current intersection and roadway segment operations. This section also discusses the methodology used to evaluate impacts.

Vehicular Conditions

The Mobility Report analyzed the operation of the roadway system, including roadway segments, intersections, and freeway ramp junctions. Operations for these roadway facilities are expressed in terms of level of service (LOS), which is a general measure of traffic operating conditions where a letter grade, from LOS A (no congestion) to F (high levels of congestion), is assigned. LOS E represents "at capacity" operations. LOS qualitatively measures the operating conditions within a traffic system and how drivers and passengers perceive these conditions.

The flow of vehicles without significant impediments is considered "stable," but when traffic encounters interference that limits the capacity acutely, the flow becomes "unstable." These grades represent the perspective of drivers only and are an indication of the comfort and convenience associated with driving, as well as speed, travel time, traffic interruptions, and freedom to maneuver.

Intersection Level of Service

In conformance with the City's requirements, existing AM and PM peak hour operating conditions for the key signalized study intersections were evaluated using the Intersection Capacity Utilization (ICU) method. The ICU technique is intended for signalized intersection analysis and estimates the volume to capacity (V/C) relationship for an intersection based on the individual V/C ratios for key conflicting traffic movements. The ICU value translates to an LOS estimate. Descriptions of the LOS letter grades for signalized intersections, and the relationship between the various volume-to-capacity (V/C) ratios, are provided in Table 5.14-1. Typically, the operations of unsignalized

intersections are measured in delays of seconds. For the purposes of this report however, unsignalized intersection performance is measured by V/C ratio as well.

Table 5.14-1 Intersection LOS Criteria

Level of Service	Description	V/C Ratio
A	Operations with very low delay occurring with favorable progression and/or short cycle length.	0.000–0.600
B	Operations with low delay occurring with good progression and/or short cycle lengths.	0.601–0.700
C	Operations with average delays resulting from fair progression and/or longer cycle lengths. Individual cycle failures begin to appear.	0.701–0.800
D	Operations with longer delays due to a combination of unfavorable progression, long cycle lengths, or high V/C ratios. Many vehicles stop and individual cycle failures are noticeable.	0.801–0.900
E	Operations with high delay values indicating poor progression, long cycle lengths, and high V/C ratios. Individual cycle failures are frequent occurrences. This is considered to be the limit of acceptable delay.	0.901–1.000
F	Operation with delays unacceptable to most drivers occurring due to over saturation, poor progression, or very long cycle lengths.	Over 1.000

Source: Fehr and Peers 2013.

Roadway Level of Service

A roadway operations analysis was performed at roadway segments to provide a high-level evaluation of how the roadway network will perform. It also provides an idea of the amount of traffic that will utilize each roadway and if the existing or proposed lane configurations can adequately handle the volumes. A roadway segment analysis is included in the Mobility Report, but is not considered necessary to evaluate as part of the Mobility and Complete Streets Element. Intersection analyses are a far better indication of whether a circulation network can handle the traffic of a specified area.

The level of service for roadway segments were calculated for key roadway segments in San Clemente's regional roadway system to evaluate existing traffic conditions. Daily capacity thresholds in accordance with the City of San Clemente General Plan Mobility and Complete Streets Element are shown in Table 5.14-2. This table establishes the maximum daily roadway capacities by street classifications. Each classification may have qualifiers that depict additional capacity needs for the type of land use being served.

Table 5.14-2 Maximum Daily Roadway Capacities

Classification	Typical Lane Configuration	LOS C	LOS D	LOS E	Augmented LOS E	Commercial LOS E	Aug/Comm LOS E
Freeway (per lane)		16,500	18,500	20,500			
Major	6 Lanes Divided	45,000	50,600	56,300	65,700	61,900	72,300
Primary	4 Lanes Divided	30,000	33,800	37,500	46,900	41,300	51,600
Secondary	4 Lanes Undivided	20,000	22,500	25,000	31,300	27,500	34,400
Local	2 Lanes	10,000	11,300	12,500	18,800	13,800	20,700

Source: Fehr and Peers, 2013.

According to the existing General Plan criteria, LOS C is the maximum acceptable level of congestion that should be maintained on a daily basis for primary and secondary arterials, and local streets, and LOS D and LOS E are the maximum acceptable level of congestion for major arterials and commercial designations, respectively.

Existing Roadway Network

Major arterials within the City include:

- Interstate Highway 5 (I-5)
- Avenida Vista Hermosa
- Camino de Estrella
- Camino de Los Mares
- Avenida Pico
- Avenida La Pata
- Camino Vera Cruz
- El Camino Real

A detailed description of each major arterial is included in the Mobility Report in Appendix G. Figure 5.14-1 identifies the City roadway network by functional classification. These roadway classifications are taken from the OCTA Master Plan of Arterial Highways, the City's current General Plan, and other City documents.

Exiting Traffic Conditions

There are 36 major intersections within the City limits that have been analyzed in the Mobility Report. Of these, 32 intersections are signalized, three are side-street-stop-controlled (SSSC), and one is a future location.

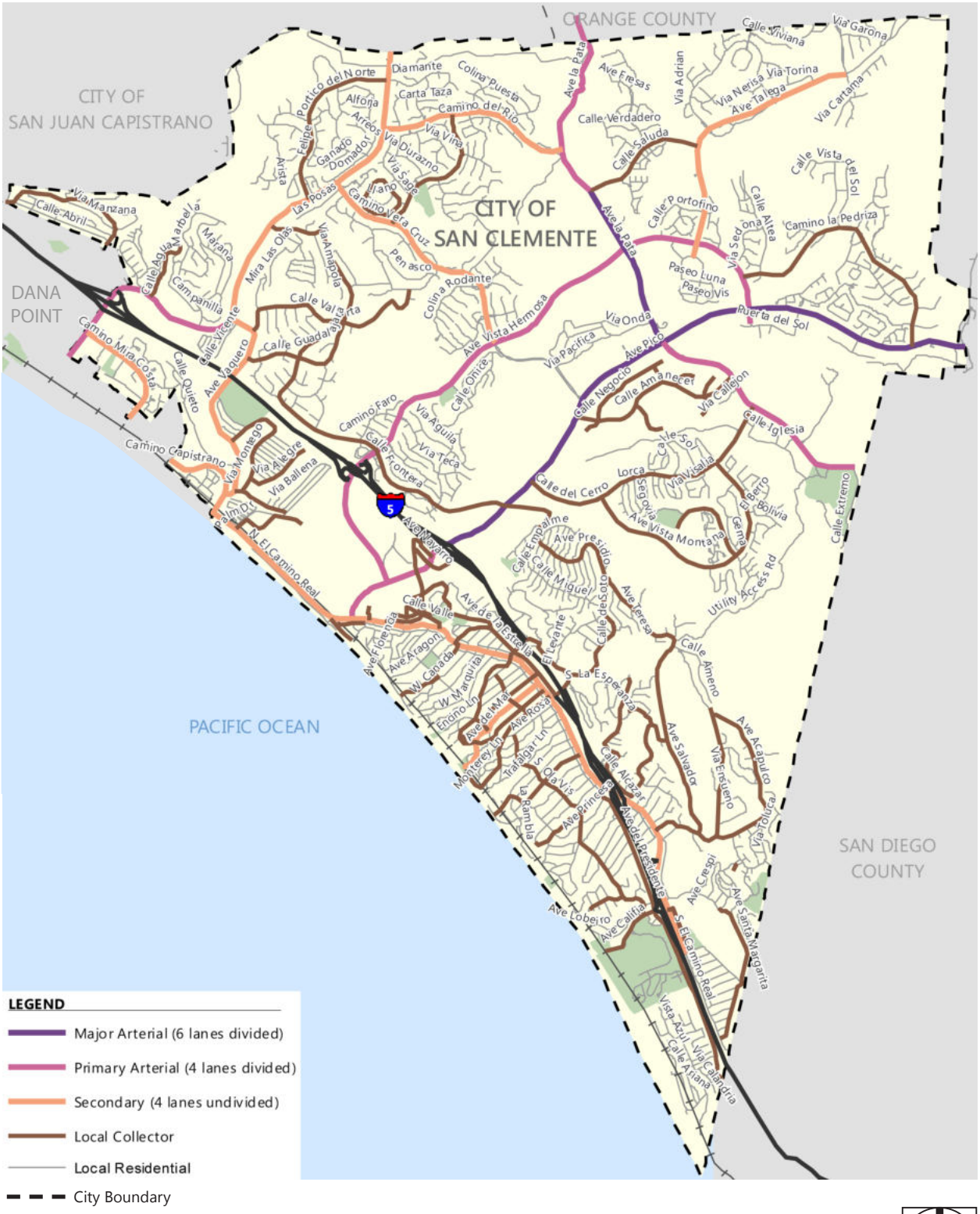
Table 5.14-3 presents the AM and PM peak hour LOS for all study area intersections for existing conditions. According to the existing General Plan, the City strives to maintain a citywide LOS not exceeding LOS D for intersections during the peak hours, with the exception of the intersection of the I-5 southbound ramps at Avenida Pico. As shown below, all of the intersections operate at an acceptable LOS C or better during the peak periods. Existing peak hour traffic volumes and intersection LOS worksheets are provided in Appendix 1-1 of the Mobility Report included in Appendix G.

Table 5.14-3 2010 Base Year Conditions Intersection Level of Service

Intersection	Traffic Control	AM Peak Hour		PM Peak Hour	
		ICU	LOS	ICU	LOS
Cam De Los Mares and Cam Del Rio	SSSC	0.25	A	0.19	A
Cam De Los Mares and Cam Vera Cruz	Signalized	0.29	A	0.33	A
Cam De Los Mares and Ave Vaquero	Signalized	0.39	A	0.39	A
Cam Del Estrella and I-5 Northbound on/off ramp	Signalized	0.39	A	0.46	A
Cam Del Estrella and I-5 Southbound on/off ramp	Signalized	0.52	A	0.77	C
Cam De Estrella and Cam Mira Costa	Signalized	0.30	A	0.31	A
Cam Del Rio and Ave La Pata (Future)[1]	Signalized	N/A	N/A	N/A	N/A
Ave Vista Hermosa and Ave La Pata	Signalized	0.46	A	0.35	A
Ave Vista Hermosa and Cam Vera Cruz	Signalized	0.71	C	0.61	B
Ave Vista Hermosa and Cle Frontera	Signalized	0.48	A	0.50	A
Ave Vista Hermosa and I-5 NB on/off ramp	Signalized	0.41	A	0.40	A
Ave Vista Hermosa and I-5 SB on/off ramp	Signalized	0.31	A	0.38	A
Ave Vista Hermosa and Ave Pico	Signalized	0.23	A	0.21	A
Ave Pico and Ave La Pata	Signalized	0.24	A	0.36	A
Ave Pico and Cle Amanecer	Signalized	0.56	A	0.61	B
Ave Pico and Cle Del Cerro	Signalized	0.64	B	0.53	A
Ave Pico and Cle Frontera/Ave Presidio	Signalized	0.59	A	0.49	A
Ave Pico and I-5 Northbound on/off ramp	Signalized	0.68	B	0.68	B
Ave Pico and I-5 Southbound on/off ramp	Signalized	0.63	B	0.69	B
Ave Pico and Los Molinos	Signalized	0.40	A	0.52	A
El Camino Real and Ave Pico	Signalized	0.37	A	0.43	A
El Camino Real and El Portal	Signalized	0.29	A	0.37	A
Ave Palizada and I-5 Northbound off ramp	Signalized	0.56	A	0.42	A
Ave Palizada and I-5 Southbound on ramp	Signalized	0.43	A	0.44	A
El Camino Real and Palizada	Signalized	0.43	A	0.57	A
El Camino Real and Ave Del Mar	Signalized	0.21	A	0.43	A
Ave Presidio and I-5 Northbound on ramp	SSSC	0.48	A	0.41	A
Ave Presidio and I-5 Southbound on/off ramp	SSSC	0.31	A	0.26	A
El Camino Real and Ave Victoria/Avenida Presidio	Signalized	0.42	A	0.44	A
El Camino Real and/I-5 Southbound on/off ramp	Signalized	0.49	A	0.48	A
El Camino Real and I-5 Northbound off ramp	Signalized	0.36	A	0.35	A
El Camino Real and Ave San Juan	Signalized	0.23	A	0.29	A
El Camino Real and San Gabriel	Signalized	0.25	A	0.27	A
Cam Vera Cruz and Ave Pico	Signalized	0.32	A	0.33	A
Ave Vista Hermosa and Ave Talega	Signalized	0.45	A	0.28	A
El Camino Real and Cam San Clemente	Signalized	0.38	A	0.45	A

Source: City of San Clemente Mobility and Complete Streets Element Technical Background Report, Fehr and Peers 2013.
1. Intersection does not exist yet.

Roadway Classification



Source: Fehr & Peers 2013

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Existing Roadway Daily Traffic Volumes

The roadway segment V/C ratios are approximate figures only and are used at the General Plan level to assist in determining the roadway functional classification (number of through lanes) needed to meet projected traffic demands. Based on the V/C methodologies described in the Mobility Report, the existing daily traffic volumes were used in conjunction with existing lane configurations to determine the current traffic operating conditions at 40 study area roadway segments. Table 5.14-4 provides a summary of the base year conditions LOS. Figure 5.14-2 presents the existing LOS operations on study roadway segments and intersections. Existing roadway segment LOS worksheets are provided in Appendix 1-1 of the Mobility Report.

LOS C is the maximum acceptable level of congestion that should be maintained on a daily basis for primary and secondary arterials and local streets, and LOS D and LOS E are the maximum acceptable level of congestion for major arterials and commercial designations, respectively. As shown in Table 5.14-4, all roadway segments operate at an acceptable daily level of service, with the exception of the segment of El Camino Real between Camino San Clemente and Avenida Estacion.

Table 5.14-4 Base Year Conditions Roadway Segment Level of Service

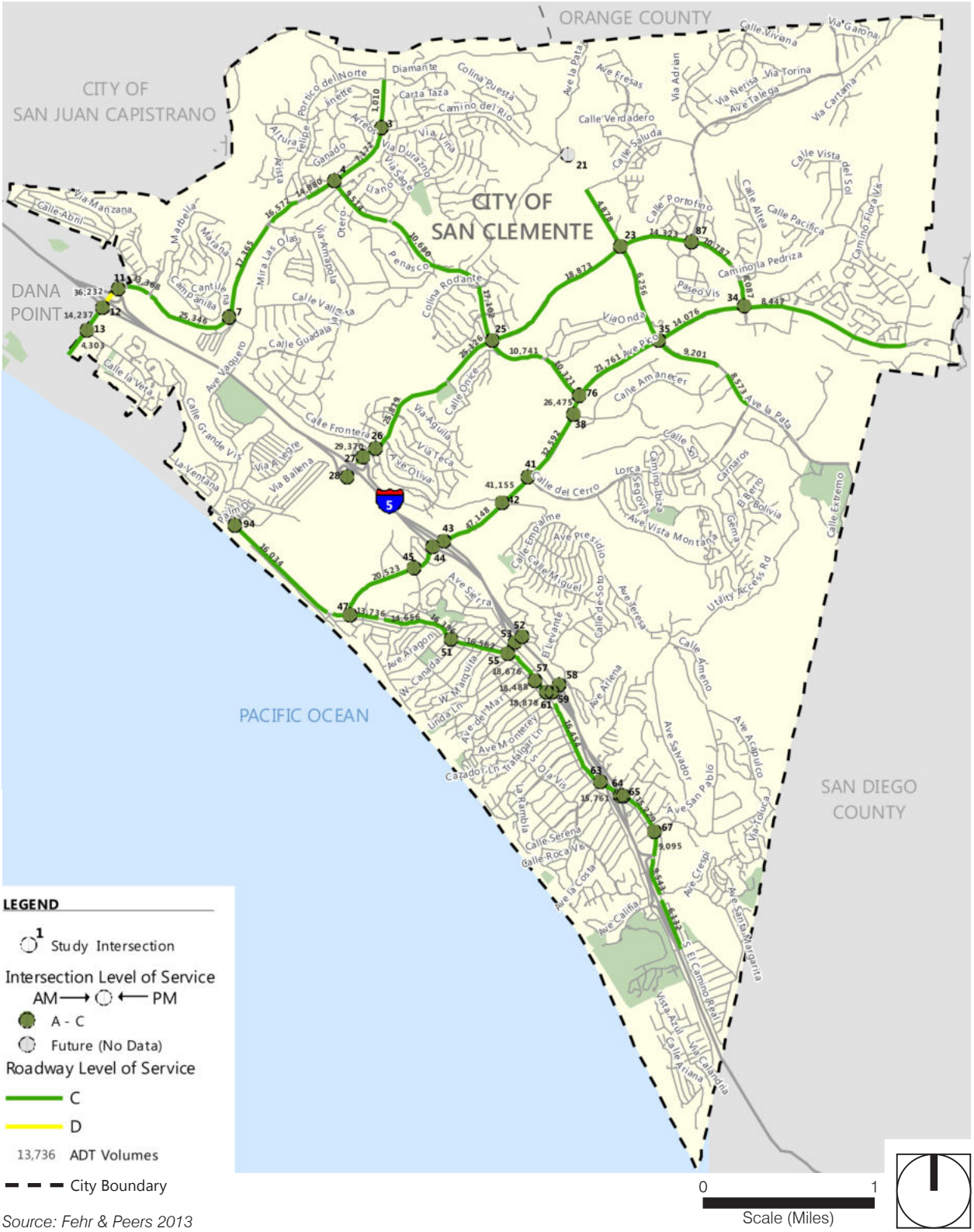
Roadway	Segment		Through Travel Lanes	Classification	Capacity (LOS)	ADT	LOS
	From	To					
Avenida Vista Hermosa	I-5 NB on/off ramp	Calle Frontera	3	Major	45,000	29370	C
	Calle Frontera	Via Turqueza	2	Primary	30,000	25819	C
	Via Turqueza	Camino Vera Cruz	2	Primary	30,000	25126	C
	Camino Vera Cruz	Avenida La Pata	2	Primary	30,000	18873	C
	Avenida La Pata	Avenida Talega	2	Primary	30,000	14323	C
	Avenida Talega	Camino La Pedriza	2	Primary	30,000	10787	C
	Camino La Pedriza	Avenida Pico	2	Primary	30,000	8087	C
Camino de Los Mares	Camino El Molino	Calle Agua	3	Major	45,000	33368	C
	Calle Agua	Avenida Vaquero	3	Major	45,000	25346	C
	Avenida Vaquero	Calle Nuevo	3	Major	45,000	17365	C
	Calle Nuevo	Portico del Sur	2	Primary	30,000	16572	C
	Portico del Sur	Camino Vera Cruz	2	Primary	30,000	14880	C
	Camino Vera Cruz	Camino del Rio	2	Primary	30,000	7172	C
	Camino del Rio	Portico del Norte	2	Primary	30,000	1010	C
Camino De Estrella	Camino Capistrano	Camino Mira Costa	2	Primary	30,000	4303	C
	Camino Mira Costa	I-5 SB on/off ramp	2	Primary	30,000	14237	C
	I-5 NB on/off ramp	Camino El Molino	2	Primary	30,000	36232	C

Table 5.14-4 Base Year Conditions Roadway Segment Level of Service

Roadway	Segment		Through Travel Lanes	Classification	Capacity (LOS)	ADT	LOS
	From	To					
Avenida Pico	El Camino Real	I-5 NB on/off ramp	3	Major	45,000	20523	C
	I-5 NB on/off ramp	Avenida Preside	3	Major	45,000	47148	D
	Avenida Presido	Calle del Cerro	3	Major	45,000	41155	C
	Calle del Cerro	Calle Amanecer	3	Major	45,000	32592	C
	Calle Amanecer	Camino Vera Cruz	3	Major	45,000	26475	C
	Camino Vera Cruz	Avenida La Pata	3	Major	45,000	21761	C
	Avenida La Pata	Avenida Vista Hermosa	3	Major	45,000	14076	C
	Avenida Vista Hermosa	Camino La Pedriza	3	Major	45,000	8447	C
Avenida La Pata	Calle Saluda	Avenida Vista Hermosa	2	Primary	30,000	4878	C
	Avenida Vista Hermosa	Avenida Pico	3	Primary	30,000	6256	C
	Avenida Pico	Calle Amanecer	2	Primary	30,000	9201	C
	Calle Amanecer	Calle del Cerro	2	Primary	30,000	8573	C
Coast Hwy	Camino Capistrano	Camino San Clemente	2	Secondary	20,000	15947	C
El Camino Real	Camino San Clemente	Avenida Estacion	1	Local	10,000	16034	F
	Avenida Estacion	Avenida Pico	2	Secondary	20,000	16034	C
	Avenida Pico	Los Molinos	2	Secondary	20,000	13736	C
	Los Molinos	Calle Las Bolas	2	Secondary	20,000	14656	C
	Calle Las Bolas	Avenida De La Grulla	2	Secondary	20,000	14656	C
	Avenida De La Grulla	Avenida Aragon	2	Secondary	20,000	16386	C
	Avenida Aragon	El Portal	2	Secondary	20,000	16386	C
	El Portal	Canada	2	Secondary	20,000	16562	C
	Canada	Escalones	2	Secondary	20,000	16562	C
	Escalones	Mariposa	2	Secondary	20,000	16562	C

Source: City of San Clemente Mobility and Complete Streets Element Technical Background Report, Fehr and Peers 2013.

Existing Intersection and Roadway Segment Level of Service



Source: Fehr & Peers 2013

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Bicycle and Pedestrian Conditions

The City's bicycle network consists of three types of facilities: bike paths, bike lanes, and bike routes. Bike paths are separated from vehicular traffic. There are currently bike paths provided on Avenida Vista Hermosa, between Via Turqueza and Avenida La Pata, and on Avenida Pico, between Camino Vera Cruz and Avenida La Pata.

Bike lanes are dedicated travel lanes on roadway rights-of-way and designated by striping and markings. The City currently has bike lanes designated on the following corridors:

- Camino de Los Mares, east of Camino de Estrella,
- Avenida La Pata, between Calle Saluda and Calle Extremo
- Avenida Vista Hermosa, between Calle Frontera and Avenida La Pata
- Avenida del Presidente, between El Camino Real and southern City boundary
- Ola Vista, between Avenida Valencia and Avenida Califia
- Avenida Talega, between Avenida Vista Hermosa and Camino Tierra Grande
- Avenida Vaquero
- Camino del Rio
- Calle Sarmentoso
- Camino Vera Cruz

Bike routes share right-of-way with vehicular traffic and are designated by street signs. Currently, the City provides a bike route on Ola Vista, between El Camino Real and Avenida Valencia. An additional benefit to bike facilities is that other legal nonmotorized modes may use them as well. These other modes can include skateboards, skates, wheelchairs, and mobility scooters.

Transit Facilities

Bus service in San Clemente is operated by OCTA and provides access to employment centers to the north and shopping and recreational areas. Currently, OCTA operates on four routes in the San Clemente area: Routes 1, 91, 191, and 193.

There is also one major rail line serving the City of San Clemente, used by both Amtrak and Metrolink. It should be noted that the two passenger rail services operate separate stations in San Clemente at two different locations. The Amtrak station is at San Clemente Pier (shared with Metrolink), and the Metrolink station is at the North Beach area. Figure 5.14-3 shows the existing transit routes in the City. Transit service in San Clemente is described in detail in the Mobility Report.

Aviation Facilities

There are three airports near the City—John Wayne Airport (Orange County), approximately 25 miles north, Los Angeles International Airport (LAX), approximately 60 miles north ; and Lindbergh Field Airport (San Diego County), approximately 60 miles south. John Wayne Airport has more than doubled its passenger capacity and dramatically increased the number of major domestic carriers and commuter airlines departing daily from the airport. LAX is one of the busiest airports in the world, and it has all of the major domestic and international airlines serving points all over the globe. Lindbergh Field Airport in San Diego provides most major domestic and commuter airline services in San Diego County.

TRANSPORTATION AND TRAFFIC

Applicable Plans and Regulations

The regulatory framework is used to inform decision makers about the regulatory agencies/policies that affect transportation in the City. This enables them to make informed decisions about planning improvements to transportation systems in the City. Major policy documents impacting the transportation system in the City of San Clemente include laws at the state level and planning documents at a regional level.

State

AB 1358 California Complete Streets Act

The California Complete Streets Act of 2008 was signed into law on September 30, 2008. Beginning January 1, 2011, 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 multiple users of the transportation system, including children, adults, seniors, and the disabled. For further clarity, AB 1358 tasks the Governor's Office of Planning and Research to release guidelines for compliance with this legislation by January 1, 2014.

SB 375

On December 11, 2008, the California Air Resources Board (CARB) adopted its Proposed Scoping Plan for AB 32. This scoping plan included the approval of SB 375 as the means for achieving regional transportation-related greenhouse gas (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 will address regional GHG emission targets. CARB's Regional Targets Advisory Committee will guide 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, will be updated every eight years in conjunction with the revision schedule of housing and transportation elements.

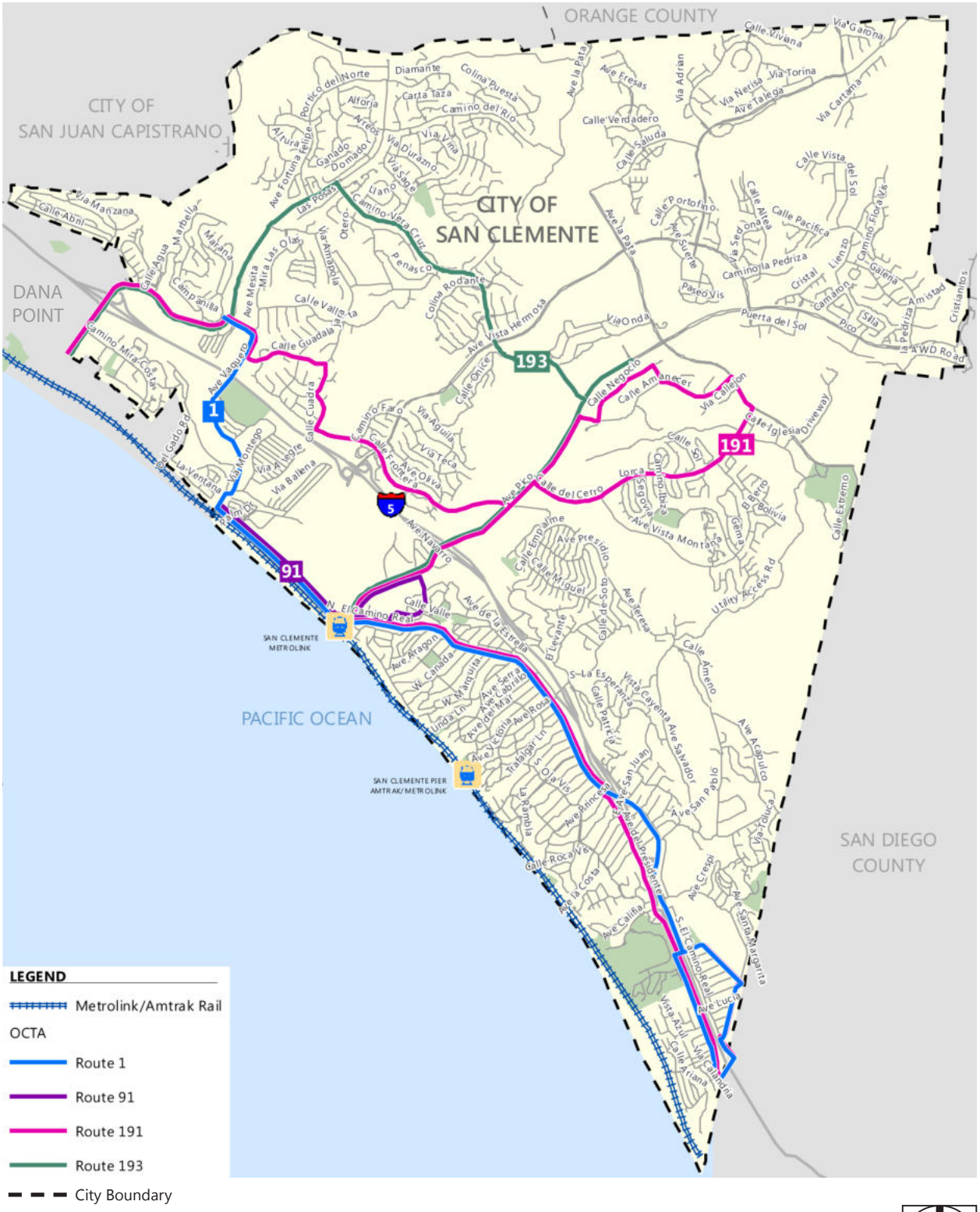
Second, MPOs will be required to create a sustainable communities strategy (SCS) that provides a plan for meeting regional targets. The SCS and the regional transportation plan (RTP) must be consistent with each other, including action items and financing decisions. If the SCS does not meet the regional target, the MPO must produce an Alternative Planning Strategy that details an alternative 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 (RHNA) 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.

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 (TODs) 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.

Finally, MPOs must use transportation and air emission modeling techniques consistent with guidelines prepared by the California Transportation Commission (CTC). Regional transportation planning agencies, cities, and counties are encouraged, but not required, to use travel demand models consistent with the CTC guidelines.

Existing Transit Routes



Source: Fehr & Peers 2013

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Regional

Orange County Congestion Management Program

The Orange County Congestion Management Program (CMP) was originally adopted in 1991 and updated most recently in 2011. The goals of the Orange County's CMP are to support regional mobility and air quality objectives by reducing traffic congestion; provide a mechanism for coordinating land use and development decisions that support the regional economy; and determine gas tax fund eligibility.

To meet these goals, the CMP contains a number of policies designed to monitor and address system performance issues. OCTA was designated by Orange County's local governments as the congestion management agency for the county. As a result, OCTA is responsible for the development, monitoring, and biennial updating of Orange County's CMP.

The CMP establishes LOS E or better as the standard for CMP roadways and intersections. Currently, there are no CMP intersections in San Clemente; therefore CMP requirements do not apply to the City.

Local

General Plan Mobility and Complete Streets Element

The proposed Mobility and Complete Streets Element addresses the movement of people and goods throughout the City of San Clemente's transportation network. The Circulation Element for the existing General Plan was updated and adopted by the City Council in 2001. It evaluates transportation and circulation needs within the City and recommends improvements that will accommodate the future demand for transportation service generated by the Land Use Element of the General Plan. The City's LOS policy, as stated in the Adopted General Plan, is:

> 4.3.1 - Maintain a city-wide level of service (LOS) not exceeding LOS "D" for intersections during the peak hours, with the exception of the intersection of the I-5 southbound ramps at Avenida Pico, unless the City determines an exception is warranted on an interim basis in accordance with the adopted "exception process" specified in the Growth Management Element (I 4.2).
>
> 4.3.2 - Maintain a city-wide level of service (LOS) for links not to exceed LOS "C" for Primary arterials, Secondary arterials and Local streets; not to exceed LOS "D" for Major arterials; and not to exceed LOS "E" for Commercial facilities (I 4.2).

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 could:

T-1 Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit.

T-2 Conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways.

T-3 Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks.

T-4 Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment).

T-5 Result in inadequate emergency access.

T-6 Conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities.

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

- Threshold T-3

New development would occur within developed areas of the City and is not expected to result in a change in air traffic patterns. Therefore, development would not result in an increase in safety risk and impacts are less than significant. Therefore, this impact will not be addressed in the following analysis.

5.14.3 Environmental Impacts

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

Impact 5.14-1: Project-related trip generation would impact levels of service for the existing area roadway system. [Threshold T-1]

Impact Analysis: For the purpose of the following analysis, it is important to note that the proposed General Plan is a regulatory document that lays down the framework for future growth and development and does not directly result in development in and of itself. Before any development can occur, all such development is required to be analyzed for conformance with the General Plan, zoning requirements, and other applicable local and State requirements; comply with the requirements of CEQA and obtain all necessary clearances and permits.

Proposed as part of the General Plan effort are reclassifications and improvements of certain arterials throughout the City to accommodate projected circulation needs. Figure 5.14-4 shows the future roadway network of San Clemente. A detailed description of each roadway classification design and purpose is included in Section IV of the Mobility Report.

All future traffic volume forecasts have been developed from the traffic model using accepted procedures for model forecast refinement. A series of model runs were performed by Stantec to forecast traffic volumes throughout the City under different scenarios. The models were designed for the City of San Clemente to predict traveler behavior under varying scenarios for operational analysis. The traffic forecasts reflect the area-wide growth anticipated between existing conditions and future year conditions.

Future Roadway Map

Source: Fehr & Peers 2013

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Future Traffic Forecasts

The proposed General Plan proposes to allow for greater density development ranging from office to mixed-use development in several focus areas. Allowing for greater density adds additional vehicle traffic to the street network.

State Route 241, also known as the Foothill Transportation Corridor (FTC) is proposed to be extended from its current terminus at Oso Parkway in Mission Viejo to I-5, just south of the San Diego and Orange County border. The extension spans 16 miles and would provide much needed relief to I-5. A partial construction of two lanes in each direction from Oso Parkway to Cow Camp Road, is known as the Tesoro Extension. No traffic model runs including the FTC extension south of Ortega Highway were conducted as part of this effort. An extension of Avenida La Pata in San Clemente is under final design to connect with La Pata Avenue south of Ortega Highway in the City of San Juan Capistrano. The extension will be approximately two miles long and provide additional access to Avenida Vista Hermosa, Avenida Pico, and Ortega Highway. The existing La Pata Avenue section south of Ortega Highway will have two additional lanes of travel, totaling five travel lanes. The new extension connecting to Avenida La Pata will have four travel lanes. The FTC will positively affect congested corridors such as Avenida Pico and I-5 by providing an alternate route of travel to the rest of Orange County and the Inland Empire.

A total of seven General Plan scenarios are evaluated for 2035 conditions. Traffic scenarios evaluated in the Mobility Report range from a combination of situations with/without the completion of the FTC, the partial completion of the FTC called the Tesoro Extension, and proposed road diets:

- **No FTC Conditions.** This scenario assumes buildout of the General Plan without extension of the FTC. As is the case today, regional access would be provided by I-5.

- **With FTC Conditions.** This scenario assumes buildout of the General Plan with the extension of the FTC from its current terminus at Oso Parkway to I-5 just south of City limits.

- **With FTC and Road Diet Alternative 1.** This scenario assumes buildout of the General Plan with the implementation of the FTC extension to the I-5 and implementation of a road diet. Road Diet Alternative 1 consists of a 2-lane road diet on Coast Highway (North El Camino Real) between Camino San Clemente and Avenida Estacion, and a 2-lane road diet on Camino Mira Costa between Camino De Estrella and Camino Capistrano.

- **With FTC and Road Diet Alternative 2.** This scenario assumes buildout of the General Plan with the implementation of the FTC extension to the I-5 and implementation of a road diet. Road Diet Alternative 2 consists of a 2-lane road diet on Coast Highway (North El Camino Real and South El Camino Real) between Avenida Pico and Christianitos Road.

- **With FTC and Road Diet Alternative 3.** This scenario assumes buildout of the General Plan with the implementation of the FTC extension to the I-5 and implementation of a road diet. Road Diet Alternative 3 would implement Road Diet Alternatives 1 and 2.

- **With FTC Tesoro Extension.** This scenario assumes buildout of the General Plan with the implementation of only the FTC Tesoro Extension scenario, which would extend the current SR-241 from its current location at Oso Parkway to Cow Camp Road in the vicinity of Ortega Highway.

- **With FTC Tesoro Extension and Road Diet Alternative 2.** This scenario assumes buildout of the General Plan with the implementation of only the FTC Tesoro Extension scenario (as described above) and the implementation

of Road Diet Alternative 2. Road Diet Alternative 2 consists of a 2-lane road diet on Coast Highway (North El Camino Real and South El Camino Real) between Avenida Pico and Christianitos Road.

As discussed previously, the potential impacts of the General Plan scenarios to the circulation network were assessed for 36 intersections and 40 roadway segments within the City to identify where significant impacts occur. Roadway operations analyses were performed at roadway segments to provide a high-level evaluation of how the roadway network would perform. It also provides an idea of the amount of traffic that would utilize each roadway and if the existing or proposed lane configurations could adequately handle the volumes. As previously stated, LOS C is the maximum acceptable level of congestion that should be maintained on a daily basis for primary and secondary arterials and local streets, and LOS D and LOS E are the maximum acceptable level of congestion for major arterials and commercial designations, respectively. Roadway segment analysis is included in the Mobility Report, but is not considered necessary to evaluate as part of the Mobility and Complete Streets Element. Intersection analyses are a far better indication of whether a circulation network can handle the traffic of a specified area.

The Adopted General Plan specifies that LOS D is the minimum acceptable LOS at an intersection (except for the intersection of I-5 southbound ramps at Avenida Pico, where LOS E is allowed). Therefore, intersections operating at LOS E and F are significantly impacted and must be mitigated to within allowable thresholds. Under the proposed General Plan, it is proposed that an LOS D or better be maintained at all intersections not located at freeway ramps; at freeway ramps LOS E or better must be maintained. Following are the resulting intersection impacts of each analyzed scenario during the AM (7–9 AM) and PM (4–6 PM) peak hours.

The following summarizes the results for the seven scenarios described above, which were obtained from Section V of the Mobility Report.

No FTC Conditions

Below a summary of the traffic impacts under the No FTC scenario, that is, without the FTC extension.

Roadway Segments Daily LOS

Roadway segment daily LOS are presented in Table 5-10 of the Mobility Report (see Appendix__). Using current General Plan policy, all of the study roadway segments operate acceptably under No FTC Conditions, with the exception of:

- Avenida Vista Hermosa, between Calle Frontera and Via Turqueza
- Avenida Vista Hermosa, between Via Turqueza and Camino Vera Cruz
- Avenida Vista Hermosa, between Camino Vera Cruz and Avenida La Pata
- Camino De Estrella, between I-5 NB on/off ramp and Camino El Molino
- Avenida Pico, between I-5 NB on/off ramp and Avenida Presidio
- Avenida Pico, between Avenida Presidio and Calle del Cerro
- Avenida Pico, between Calle del Cerro and Calle Amanecer
- Avenida Pico, between Calle Amanecer and Camino Vera Cruz
- Avenida La Pata, between Calle Saluda and Avenida Vista Hermosa
- Coast Highway, between Camino Capistrano and Camino San Clemente
- El Camino Real, between Camino San Clemente and Avenida Estacion
- El Camino Real, between Avenida Estacion and Avenida Pico
- El Camino Real, between Avenida Pico and Los Molinos

- El Camino Real, between Los Molinos and Calle Las Bolas
- El Camino Real, between Calle Las Bolas and Avenida De La Grulla
- El Camino Real, between Avenida De La Grulla and Avenida Aragon
- El Camino Real, between Avenida Aragon and El Portal

Segment LOS is often misleading because it applies a generalized roadway capacity to roadways that often have different operational characteristics. Congestion mostly occurs at intersections, not along midblock segments. Adding capacity to a roadway can often be done effectively just by providing additional capacity at key intersections instead of widening the roadway consistently throughout. Roadway operations analyses provide a high-level evaluation of how the roadway network will perform. Intersection analyses are a far better indication of whether a circulation network can handle the traffic of a specified area and are used to identify deficiencies and the need for mitigation measures.

Intersections Peak Hour LOS

The LOS results for study intersections are summarized in Table 5.14-5. The LOS calculations are attached in Appendix 5-1 of the Mobility Report.

Table 5.14-5 No FTC Intersection Peak Hour Level of Service

Intersection	Traffic Control[1]	AM Peak Hour		PM Peak Hour	
		ICU	LOS	ICU	LOS
Cam De Los Mares and Cam Del Rio	SSSC	0.40	A	0.42	A
Cam De Los Mares and Cam Vera Cruz	Signalized	0.43	A	0.40	A
Cam De Los Mares and Ave Vaquero	Signalized	0.40	A	0.48	A
Cam Del Estrella and I-5 Northbound on/off ramp	Signalized	0.82	D	0.78	C
Cam Del Estrella and I-5 Southbound on/off ramp	Signalized	0.46	A	0.65	B
Cam De Estrella and Cam Mira Costa	Signalized	0.39	A	0.38	A
Cam Del Rio and Ave La Pata	Signalized	***0.96***	***E***	0.88	D
Ave Vista Hermosa and Ave La Pata	Signalized	0.78	C	***0.97***	***E***
Ave Vista Hermosa and Cam Vera Cruz	Signalized	***0.94***	***E***	***1.06***	***F***
Ave Vista Hermosa and Cle Frontera	Signalized	***0.93***	***E***	0.74	C
Ave Vista Hermosa and I-5 NB on/off ramp2	Signalized	***0.93***	***E***	0.69	B
Ave Vista Hermosa and I-5 SB on/off ramp	Signalized	0.70	C	0.51	A
Ave Vista Hermosa and Ave Pico	Signalized	0.52	A	0.61	B
Ave Pico and Ave La Pata	Signalized	***0.93***	***E***	***0.91***	***E***
Ave Pico and Cle Amanecer	Signalized	***1.82***	***F***	***1.58***	***F***
Ave Pico and Cle Del Cerro	Signalized	0.85	D	0.80	D
Ave Pico and Cle Frontera/Ave Presidio	Signalized	***1.26***	***F***	0.85	D
Ave Pico and I-5 Northbound on/off ramp	Signalized	0.66	B	0.70	C
Ave Pico and I-5 Southbound on/off ramp	Signalized	0.82	D	0.75	C
Ave Pico and Los Molinos	Signalized	0.68	B	***1.02***	***F***
El Camino Real and Ave Pico	Signalized	0.69	B	0.88	D
El Camino Real and El Portal	Signalized	0.51	A	0.53	A
Ave Palizada and I-5 Northbound off ramp	Signalized	0.66	B	0.62	B
Ave Palizada and I-5 Southbound on ramp	Signalized	0.53	A	0.56	A
El Camino Real and Palizada	Signalized	0.55	A	0.67	B
El Camino Real and Ave Del Mar	Signalized	0.24	A	0.48	A
Ave Presidio and I-5 Northbound on ramp	SSSC	0.43	A	0.53	A
Ave Presidio and I-5 Southbound on/off ramp	SSSC	0.29	A	0.38	A
El Camino Real and Ave Victoria/Avenida Presidio	Signalized	0.38	A	0.52	A
El Camino Real and/I-5 Southbound on/off ramp	Signalized	0.45	A	0.66	B
El Camino Real and I-5 Northbound off ramp	Signalized	0.42	A	0.44	A
El Camino Real and Ave San Juan	Signalized	0.29	A	0.36	A
El Camino Real and San Gabriel	Signalized	0.32	A	0.44	A
Cam Vera Cruz and Ave Pico	Signalized	0.82	D	0.70	C
Ave Vista Hermosa and Ave Talega	Signalized	0.77	C	0.55	A
El Camino Real and Cam San Clemente	Signalized	0.88	D	0.51	A

Source: Fehr and Peers 2013.
Notes: Bold-italic text indicates impacted intersection.
SSSC = Side-Street-Stop Controlled
Location is impacted under Current General Plan policy, not Preferred General Plan policy.
1

As shown in Table 5.14-5, using adopted General Plan policy, all of the study intersections operate acceptably under No FTC conditions, with the exception of:

- Camino Del Rio and Avenida La Pata (AM peak hour)
- Avenida Vista Hermosa and Avenida La Pata (PM peak hour)
- Avenida Vista Hermosa and Camino Vera Cruz (AM and PM peak hour)
- Avenida Vista Hermosa and Calle Frontera (AM peak hour)
- Ave Vista Hermosa and I-5 NB on/off ramp (AM peak hour)
- Avenida Pico and Avenida La Pata (AM and PM peak hour)
- Avenida Pico and Calle Amanecer (AM and PM peak hour)
- Avenida Pico and Calle Frontera/Avenida Presidio (AM peak hour)
- Avenida Pico and Los Molinos (PM peak hour)

Under the Centennial General Plan policy, the following intersections would be impacted (all the above, except Ave Vista Hermosa and I-5 NB on/off ramp):

- Camino Del Rio and Avenida La Pata (AM peak hour)
- Avenida Vista Hermosa and Avenida La Pata (PM peak hour)
- Avenida Vista Hermosa and Camino Vera Cruz (AM and PM peak hour)
- Avenida Vista Hermosa and Calle Frontera (AM peak hour)
- Avenida Pico and Avenida La Pata (AM and PM peak hour)
- Avenida Pico and Calle Amanecer (AM and PM peak hour)
- Avenida Pico and Calle Frontera/Avenida Presidio (AM peak hour)
- Avenida Pico and Los Molinos (PM peak hour)

With FTC Conditions

Below is a summary of the traffic impacts under the With FTC scenario, that is, with extension of the FTC to I-5

Roadway Segments Daily Levels of Service

Roadway segment daily LOS are presented in Table 5-12 of the Mobility Report (see Appendix G). Using current General Plan policy, all of the study roadway segments operate acceptably under With FTC Conditions, with the exception of the following locations:

- Avenida Vista Hermosa, between Calle Frontera and Via Turqueza
- Camino De Estrella, between I-5 NB on/off ramp and Camino El Molino
- Avenida Pico, between I-5 NB on/off ramp and Avenida Presidio
- Avenida Pico, between Avenida Presidio and Calle del Cerro
- Coast Highway, between Camino Capistrano and Camino San Clemente
- El Camino Real, between Camino San Clemente and Avenida Estacion
- El Camino Real, between Avenida Estacion and Avenida Pico
- El Camino Real, between Avenida Pico and Los Molinos

- El Camino Real, between Los Molinos and Calle Las Bolas
- El Camino Real, between Calle Las Bolas and Avenida De La Grulla
- El Camino Real, between Avenida De La Grulla and Avenida Aragon
- El Camino Real, between Avenida Aragon and El Portal

Intersections Peak Hour Levels of Service

The LOS results for study intersections are summarized in Table 5.14-6. The LOS calculations are attached in Appendix 5-1 of the Mobility Report.

Table 5.14-6 With FTC Intersection Peak Hour Level of Service

Intersection	Traffic Control	AM Peak Hour		PM Peak Hour	
		ICU	LOS	ICU	LOS
Cam De Los Mares and Cam Del Rio	SSSC	0.42	A	0.39	A
Cam De Los Mares and Cam Vera Cruz	Signalized	0.41	A	0.37	A
Cam De Los Mares and Ave Vaquero	Signalized	0.43	A	0.46	A
Cam Del Estrella and I-5 Northbound on/off ramp	Signalized	0.81	D	0.68	B
Cam Del Estrella and I-5 Southbound on/off ramp	Signalized	0.51	A	0.66	B
Cam De Estrella and Cam Mira Costa	Signalized	0.41	A	0.40	A
Cam Del Rio and Ave La Pata[2]	Signalized	0.78	C	0.71	C
Ave Vista Hermosa and Ave La Pata	Signalized	0.62	B	0.75	C
Ave Vista Hermosa and Cam Vera Cruz	Signalized	0.86	D	0.88	D
Ave Vista Hermosa and Cle Frontera	Signalized	0.85	D	0.55	A
Ave Vista Hermosa and I-5 NB on/off ramp	Signalized	0.76	C	0.51	A
Ave Vista Hermosa and I-5 SB on/off ramp	Signalized	0.72	C	0.52	A
Ave Vista Hermosa and Ave Pico	Signalized	0.58	A	0.70	C
Ave Pico and Ave La Pata	Signalized	0.63	B	0.73	C
Ave Pico and Cle Amanecer	Signalized	***1.82***	***F***	***1.51***	***F***
Ave Pico and Cle Del Cerro	Signalized	0.82	D	0.66	B
Ave Pico and Cle Frontera/Ave Presidio	Signalized	***1.03***	***F***	0.67	B
Ave Pico and I-5 Northbound on/off ramp	Signalized	0.68	B	0.67	B
Ave Pico and I-5 Southbound on/off ramp	Signalized	0.66	B	0.64	B
Ave Pico and Los Molinos	Signalized	0.68	B	***1.04***	***F***
El Camino Real and Ave Pico	Signalized	0.61	B	0.81	D
El Camino Real and El Portal	Signalized	0.47	A	0.49	A
Ave Palizada and I-5 Northbound off ramp	Signalized	0.67	B	0.62	B
Ave Palizada and I-5 Southbound on ramp	Signalized	0.54	A	0.57	A
El Camino Real and Palizada	Signalized	0.54	A	0.67	B
El Camino Real and Ave Del Mar	Signalized	0.25	A	0.45	A
Ave Presidio and I-5 Northbound on ramp	SSSC	0.48	A	0.57	A
Ave Presidio and I-5 Southbound on/off ramp	SSSC	0.37	A	0.42	A
El Camino Real and Ave Victoria/Avenida Presidio	Signalized	0.41	A	0.49	A
El Camino Real and/I-5 Southbound on/off ramp	Signalized	0.44	A	0.59	A
El Camino Real and I-5 Northbound off ramp	Signalized	0.39	A	0.47	A
El Camino Real and Ave San Juan	Signalized	0.30	A	0.35	A
El Camino Real and San Gabriel	Signalized	0.33	A	0.44	A
Cam Vera Cruz and Ave Pico	Signalized	0.69	B	0.52	A
Ave Vista Hermosa and Ave Talega	Signalized	0.77	C	0.55	A
El Camino Real and Cam San Clemente	Signalized	0.78	C	0.48	A

Source: Fehr and Peers 2013.
Notes: ***Bold-italic*** text indicates impacted intersection.
SSSC = Side-Street-Stop Controlled

Table 5.14-6 shows that, under both adopted General Plan policy and the Centennial General Plan policy, all of the study intersections operate acceptably under With FTC.

- Avenida Pico and Calle Amanecer (AM and PM peak hour)
- Avenida Pico and Calle Frontera/Avenida Presidio (AM peak hour)
- Avenida Pico and Los Molinos (PM peak hour)

With FTC and Road Diet Alternative 1 Conditions

Below is a summary of the traffic impacts under the With FTC and Road Diet, Alternative 1 scenario.

Roadway Segments Daily Levels of Service

Roadway segment daily LOS are presented in Table 5-14 of the Mobility Report (see Appendix G). Using current General Plan policy, all of the study roadway segments operate acceptably under With FTC and Road Diet Alternative 1 Conditions, with the exception of the following locations:

- Avenida Vista Hermosa, between Calle Frontera and Via Turqueza
- Camino De Estrella, between I-5 NB on/off ramp and Camino El Molino
- Avenida Pico, between I-5 NB on/off ramp and Avenida Presidio
- Avenida Pico, between Avenida Presidio and Calle del Cerro
- El Camino Real, between Camino San Clemente and Avenida Estacion
- El Camino Real, between Avenida Pico and Los Molinos
- El Camino Real, between Los Molinos and Calle Las Bolas
- El Camino Real, between Calle Las Bolas and Avenida De La Grulla

As discussed above, intersection analyses are a far better indication of whether a circulation network can handle the traffic of a specified area and are used to identify deficiencies and the need for mitigation measures.

Intersections Peak Hour Levels of Service

The LOS results for study intersections are summarized in Table 5.14-7. The LOS calculations are attached in Appendix 5-1 of the Mobility Report.

Table 5.14-7 With FTC and Road Diet Alternative 1 Intersection Peak Hour Level of Service

Intersection	Traffic Control	AM Peak Hour		PM Peak Hour	
		ICU	LOS	ICU	LOS
Cam De Los Mares and Cam Del Rio	SSSC	0.42	A	0.40	A
Cam De Los Mares and Cam Vera Cruz	Signalized	0.41	A	0.36	A
Cam De Los Mares and Ave Vaquero	Signalized	0.43	A	0.44	A
Cam Del Estrella and I-5 Northbound on/off ramp	Signalized	0.81	D	0.72	C
Cam Del Estrella and I-5 Southbound on/off ramp	Signalized	0.51	A	0.68	B
Cam De Estrella and Cam Mira Costa	Signalized	0.43	A	0.41	A
Cam Del Rio and Ave La Pata[2]	Signalized	0.78	C	0.71	C
Ave Vista Hermosa and Ave La Pata	Signalized	0.62	B	0.75	C
Ave Vista Hermosa and Cam Vera Cruz	Signalized	0.87	D	0.87	D
Ave Vista Hermosa and Cle Frontera	Signalized	0.86	D	0.57	A
Ave Vista Hermosa and I-5 NB on/off ramp	Signalized	0.75	C	0.52	A
Ave Vista Hermosa and I-5 SB on/off ramp	Signalized	0.71	C	0.56	A
Ave Vista Hermosa and Ave Pico	Signalized	0.59	A	0.70	C
Ave Pico and Ave La Pata	Signalized	0.63	B	0.72	C
Ave Pico and Cle Amanecer	Signalized	***1.83***	***F***	***1.51***	***F***
Ave Pico and Cle Del Cerro	Signalized	0.82	D	0.65	B
Ave Pico and Cle Frontera/Ave Presidio	Signalized	***1.02***	***F***	0.68	B
Ave Pico and I-5 Northbound on/off ramp	Signalized	0.67	B	0.68	B
Ave Pico and I-5 Southbound on/off ramp	Signalized	0.67	B	0.63	B
Ave Pico and Los Molinos	Signalized	0.68	B	***1.06***	***F***
El Camino Real and Ave Pico	Signalized	0.57	A	0.70	C
El Camino Real and El Portal	Signalized	0.47	A	0.47	A
Ave Palizada and I-5 Northbound off ramp	Signalized	0.67	B	0.67	B
Ave Palizada and I-5 Southbound on ramp	Signalized	0.56	A	0.58	A
El Camino Real and Palizada	Signalized	0.55	A	0.71	C
El Camino Real and Ave Del Mar	Signalized	0.24	A	0.44	A
Ave Presidio and I-5 Northbound on ramp	SSSC	0.48	A	0.60	B
Ave Presidio and I-5 Southbound on/off ramp	SSSC	0.37	A	0.44	A
El Camino Real and Ave Victoria/Avenida Presidio	Signalized	0.41	A	0.48	A
El Camino Real and/I-5 Southbound on/off ramp	Signalized	0.45	A	0.61	B
El Camino Real and I-5 Northbound off ramp	Signalized	0.39	A	0.49	A
El Camino Real and Ave San Juan	Signalized	0.30	A	0.35	A
El Camino Real and San Gabriel	Signalized	0.33	A	0.44	A
Cam Vera Cruz and Ave Pico	Signalized	0.70	C	0.53	A
Ave Vista Hermosa and Ave Talega	Signalized	0.77	C	0.54	A
El Camino Real and Cam San Clemente	Signalized	0.62	B	0.33	A

Source: Fehr and Peers 2013.
Notes: ***Bold-italic*** text indicates impacted intersection.
SSSC = Side-Street-Stop Controlled

Table 5.14-7 shows that, under both adopted General Plan policy and the Centennial General Plan policy, all of the study intersections operate acceptably under With FTC and Road Diet Alternative 1 conditions, with the exception of:

- Avenida Pico and Calle Amanecer (AM and PM peak hour)
- Avenida Pico and Calle Frontera/Avenida Presidio (AM peak hour)
- Avenida Pico and Los Molinos (PM peak hour)

With FTC and Road Diet Alternative 2 Conditions

Below is a summary of the traffic impacts under the With FTC and Road Diet, Alternative 2 scenario.

Roadway Segments Daily Levels of Service

Roadway segment daily LOS are presented in Table 5-16 of the Mobility Report (see Appendix G). Using current General Plan policy, all of the study roadway segments operate acceptably under With FTC and Road Diet Alternative 2 Conditions, with the exception of the following locations:

- Avenida Vista Hermosa, between Calle Frontera and Via Turqueza
- Camino De Estrella, between I-5 NB on/off ramp and Camino El Molino
- Avenida Pico, between I-5 NB on/off ramp and Avenida Presidio
- Avenida Pico, between Avenida Presidio and Calle del Cerro
- Coast Highway, between Camino Capistrano Camino San Clemente
- El Camino Real, between Camino San Clemente and Avenida Estacion
- El Camino Real, between Avenida Estacion and Avenida Pico
- El Camino Real, between Avenida Pico and Los Molinos
- El Camino Real, between Los Molinos and Calle Las Bolas
- El Camino Real, between Calle Las Bolas and Avenida De La Grulla
- El Camino Real, between Avenida De La Grulla and Avenida Aragon
- El Camino Real, between Avenida Aragon and El Portal
- El Camino Real, between El Portal and Canada
- El Camino Real, between Canada and Escalones
- El Camino Real, between Escalones and Mariposa

As discussed above, intersection analyses are a far better indication of whether a circulation network can handle the traffic of a specified area and are used to identify deficiencies and the need for mitigation measures.

Intersections Peak Hour Levels of Service

The LOS results for study intersections are summarized in Table 5.14-8. The LOS calculations are attached in Appendix 5-1 of the Mobility report.

Table 5.14-8 With FTC and Road Diet Alternative 2 Intersection Peak Hour Level of Service

Intersection	Traffic Control	AM Peak Hour		PM Peak Hour	
		ICU	LOS	ICU	LOS
Cam De Los Mares and Cam Del Rio	SSSC	0.42	A	0.40	A
Cam De Los Mares and Cam Vera Cruz	Signalized	0.41	A	0.37	A
Cam De Los Mares and Ave Vaquero	Signalized	0.43	A	0.44	A
Cam Del Estrella and I-5 Northbound on/off ramp	Signalized	0.81	D	0.70	C
Cam Del Estrella and I-5 Southbound on/off ramp	Signalized	0.51	A	0.67	B
Cam De Estrella and Cam Mira Costa	Signalized	0.42	A	0.41	A
Cam Del Rio and Ave La Pata[2]	Signalized	0.78	C	0.71	C
Ave Vista Hermosa and Ave La Pata	Signalized	0.62	B	0.75	C
Ave Vista Hermosa and Cam Vera Cruz	Signalized	0.86	D	0.88	D
Ave Vista Hermosa and Cle Frontera	Signalized	0.85	D	0.55	A
Ave Vista Hermosa and I-5 NB on/off ramp	Signalized	0.75	C	0.52	A
Ave Vista Hermosa and I-5 SB on/off ramp	Signalized	0.71	C	0.51	A
Ave Vista Hermosa and Ave Pico	Signalized	0.59	A	0.69	B
Ave Pico and Ave La Pata	Signalized	0.63	B	0.73	C
Ave Pico and Cle Amanecer	Signalized	***1.82***	***F***	***1.50***	***F***
Ave Pico and Cle Del Cerro	Signalized	0.82	D	0.66	B
Ave Pico and Cle Frontera/Ave Presidio	Signalized	***1.03***	***F***	0.68	B
Ave Pico and I-5 Northbound on/off ramp	Signalized	0.67	B	0.69	B
Ave Pico and I-5 Southbound on/off ramp	Signalized	0.68	B	0.64	B
Ave Pico and Los Molinos	Signalized	0.71	C	***1.17***	***F***
El Camino Real and Ave Pico	Signalized	0.55	A	0.71	C
El Camino Real and El Portal	Signalized	0.54	A	0.62	B
Ave Palizada and I-5 Northbound off ramp	Signalized	0.73	C	0.72	C
Ave Palizada and I-5 Southbound on ramp	Signalized	0.60	B	0.66	B
El Camino Real and Palizada	Signalized	0.58	A	0.74	C
El Camino Real and Ave Del Mar	Signalized	0.34	A	0.59	A
Ave Presidio and I-5 Northbound on ramp	SSSC	0.54	A	0.71	C
Ave Presidio and I-5 Southbound on/off ramp	SSSC	0.43	A	0.49	A
El Camino Real and Ave Victoria/Avenida Presidio	Signalized	0.57	A	0.65	B
El Camino Real and/I-5 Southbound on/off ramp	Signalized	0.50	A	0.73	C
El Camino Real and I-5 Northbound off ramp	Signalized	0.55	A	0.59	A
El Camino Real and Ave San Juan	Signalized	0.39	A	0.46	A
El Camino Real and San Gabriel	Signalized	0.39	A	0.69	B
Cam Vera Cruz and Ave Pico	Signalized	0.69	B	0.52	A
Ave Vista Hermosa and Ave Talega	Signalized	0.77	C	0.55	A
El Camino Real and Cam San Clemente	Signalized	0.75	C	0.45	A

Source: Fehr and Peers 2013.
Notes: ***Bold-italic*** text indicates impacted intersection.
SSSC = Side-Street-Stop Controlled

Table 5.14-8 shows that, under both adopted General Plan policy and the Centennial General Plan policy, all of the study intersections operate acceptably under With FTC and Road Diet Alternative 2 conditions, with the exception of the following locations:

- Avenida Pico and Calle Amanecer (AM and PM peak hour)
- Avenida Pico and Calle Frontera/Avenida Presidio (AM peak hour)
- Avenida Pico and Los Molinos (PM peak hour)

With FTC and Road Diet Alternative 3 Conditions

Below is a summary of the traffic impacts under the With FTC and Road Diet, Alternative 3 scenario.

Roadway Segments Daily Levels of Service

Roadway segment daily LOS are presented in Table 5-18 of the Mobility Report (see Appendix G). Using current General Plan policy, all of the study roadway segments operate acceptably under With FTC and Road Diet Alternative 3 Conditions, with the exception of the following locations:

- Camino De Estrella, between I-5 NB on/off ramp and Camino El Molino
- Avenida Pico, between I-5 NB on/off ramp and Avenida Presidio
- Avenida Pico, between Avenida Presidio and Calle del Cerro
- El Camino Real, between Camino San Clemente and Avenida Estacion
- El Camino Real, between Avenida Pico and Los Molinos
- El Camino Real, between Los Molinos and Calle Las Bolas
- El Camino Real, between Calle Las Bolas and Avenida De La Grulla
- El Camino Real, between Avenida De La Grulla and Avenida Aragon
- El Camino Real, between Avenida Aragon and El Portal
- El Camino Real, between El Portal and Canada
- El Camino Real, between Canada and Escalones
- El Camino Real, between Escalones and Mariposa

As discussed above, intersection analyses are a far better indication of whether a circulation network can handle the traffic of a specified area and are used to identify deficiencies and the need for mitigation measures.

Intersections Peak Hour Levels of Service

The LOS results for study intersections are summarized in Table 5.14-9. The LOS calculations are attached in Appendix 5-1 of the Mobility Report.

Table 5.14-9 With FTC and Road Diet Alternative 3 Intersection Peak Hour Level of Service

Intersection	Traffic Control	AM Peak Hour		PM Peak Hour	
		ICU	LOS	ICU	LOS
Cam De Los Mares and Cam Del Rio	SSSC	0.42	A	0.40	A
Cam De Los Mares and Cam Vera Cruz	Signalized	0.41	A	0.37	A
Cam De Los Mares and Ave Vaquero	Signalized	0.43	A	0.43	A
Cam Del Estrella and I-5 Northbound on/off ramp	Signalized	0.81	D	0.79	C
Cam Del Estrella and I-5 Southbound on/off ramp	Signalized	0.51	A	0.68	B
Cam De Estrella and Cam Mira Costa	Signalized	0.43	A	0.41	A
Cam Del Rio and Ave La Pata[2]	Signalized	0.78	C	0.71	C
Ave Vista Hermosa and Ave La Pata	Signalized	0.62	B	0.75	C
Ave Vista Hermosa and Cam Vera Cruz	Signalized	0.87	D	0.89	D
Ave Vista Hermosa and Cle Frontera	Signalized	0.85	D	0.57	A
Ave Vista Hermosa and I-5 NB on/off ramp	Signalized	0.75	C	0.52	A
Ave Vista Hermosa and I-5 SB on/off ramp	Signalized	0.71	C	0.55	A
Ave Vista Hermosa and Ave Pico	Signalized	0.60	B	0.70	C
Ave Pico and Ave La Pata	Signalized	0.63	B	0.72	C
Ave Pico and Cle Amanecer	Signalized	***1.83***	***F***	***1.51***	***F***
Ave Pico and Cle Del Cerro	Signalized	0.82	D	0.66	B
Ave Pico and Cle Frontera/Ave Presidio	Signalized	***1.02***	***F***	0.68	B
Ave Pico and I-5 Northbound on/off ramp	Signalized	0.66	B	0.70	C
Ave Pico and I-5 Southbound on/off ramp	Signalized	0.69	B	0.63	B
Ave Pico and Los Molinos	Signalized	0.70	C	***1.16***	***F***
El Camino Real and Ave Pico	Signalized	0.51	A	0.62	B
El Camino Real and El Portal	Signalized	0.53	A	0.61	B
Ave Palizada and I-5 Northbound off ramp	Signalized	0.73	C	0.74	C
Ave Palizada and I-5 Southbound on ramp	Signalized	0.61	B	0.67	B
El Camino Real and Palizada	Signalized	0.57	A	0.74	C
El Camino Real and Ave Del Mar	Signalized	0.34	A	0.59	A
Ave Presidio and I-5 Northbound on ramp	SSSC	0.54	A	0.71	C
Ave Presidio and I-5 Southbound on/off ramp	SSSC	0.43	A	0.50	A
El Camino Real and Ave Victoria/Avenida Presidio	Signalized	0.57	A	0.65	B
El Camino Real and/I-5 Southbound on/off ramp	Signalized	0.50	A	0.73	C
El Camino Real and I-5 Northbound off ramp	Signalized	0.55	A	0.59	A
El Camino Real and Ave San Juan	Signalized	0.39	A	0.46	A
El Camino Real and San Gabriel	Signalized	0.39	A	0.69	B
Cam Vera Cruz and Ave Pico	Signalized	0.70	C	0.52	A
Ave Vista Hermosa and Ave Talega	Signalized	0.77	C	0.54	A
El Camino Real and Cam San Clemente	Signalized	0.62	B	0.32	A

Source: Fehr and Peers 2013.
Notes: Bold-italic text indicates impacted intersection.
SSSC = Side-Street-Stop Controlled

Table 5.14-9 shows that, under adopted General Plan policy and the Centennial General Plan policy, all of the study intersections operate acceptably under With FTC and Road Diet Alternative 3 conditions, with the exception of the following locations:

- Avenida Pico and Calle Amanecer (AM and PM peak hour)
- Avenida Pico and Calle Frontera/Avenida Presidio (AM peak hour)
- Avenida Pico and Los Molinos (PM peak hour)

With FTC Tesoro Road Extension Conditions

Below is a summary of the traffic impacts under the With FTC Tesoro Road Extension scenario.

Roadway Segments Daily Levels of Service

Roadway segment daily LOS are presented in Table 5-23 of the Mobility Report (see Appendix G). Using current General Plan policy, all of the study roadway segments operate acceptably under With FTC Tesoro Road Extension Conditions, with the exception of:

- Avenida Vista Hermosa, between Calle Frontera and Via Turqueza
- Avenida Vista Hermosa, between Via Turqueza and Camino Vera Cruz
- Avenida Vista Hermosa, between Camino Vera Cruz and Avenida La Pata
- Camino De Estrella, between I-5 NB on/off ramp and Camino El Molino
- Avenida Pico, between I-5 NB on/off ramp and Avenida Presidio
- Avenida Pico, between Avenida Presidio and Calle del Cerro
- Avenida Pico, between Calle del Cerro and Calle Amanecer
- Avenida Pico, between Calle del Cerro and Camino Vera Cruz
- Avenida La Pata, between Calle Saluda and Avenida Vista Hermosa
- Coast Highway, between Camino Capistrano and Camino San Clemente
- El Camino Real, between Camino San Clemente and Avenida Estacion
- El Camino Real, between Avenida Estacion and Avenida Pico
- El Camino Real, between Avenida Pico and Los Molinos
- El Camino Real, between Los Molinos and Calle Las Bolas
- El Camino Real, between Calle Las Bolas and Avenida De La Grulla
- El Camino Real, between Avenida De La Grulla and Avenida Aragon
- El Camino Real, between Avenida Aragon and El Portal

As discussed above, intersection analyses are a far better indication of whether a circulation network can handle the traffic of a specified area and are used to identify deficiencies and the need for mitigation measures.

Intersections Peak Hour Levels of Service

The LOS results for study intersections are summarized in Table 5.14-10. The LOS calculations are attached in Appendix 5-1 of the Mobility Report.

Table 5.14-10 With FTC Tesoro Road Extension Intersection Peak Hour Level of Service

Intersection	Traffic Control	AM Peak Hour		PM Peak Hour	
		ICU	LOS	ICU	LOS
Cam De Los Mares and Cam Del Rio	SSSC	0.42	A	0.44	A
Cam De Los Mares and Cam Vera Cruz	Signalized	0.44	A	0.41	A
Cam De Los Mares and Ave Vaquero	Signalized	0.41	A	0.48	A
Cam Del Estrella and I-5 Northbound on/off ramp	Signalized	0.82	D	0.76	C
Cam Del Estrella and I-5 Southbound on/off ramp	Signalized	0.46	A	0.66	B
Cam De Estrella and Cam Mira Costa	Signalized	0.40	A	0.39	A
Cam Del Rio and Ave La Pata	Signalized	***1.06***	***F***	***0.91***	***E***
Ave Vista Hermosa and Ave La Pata	Signalized	0.85	D	***0.98***	***E***
Ave Vista Hermosa and Cam Vera Cruz	Signalized	***0.94***	***E***	***1.14***	***F***
Ave Vista Hermosa and Cle Frontera	Signalized	***0.94***	***E***	0.75	C
Ave Vista Hermosa and I-5 NB on/off ramp[2]	Signalized	***0.92***	***E***	0.70	B
Ave Vista Hermosa and I-5 SB on/off ramp	Signalized	0.69	B	0.51	A
Ave Vista Hermosa and Ave Pico	Signalized	0.53	A	0.62	B
Ave Pico and Ave La Pata	Signalized	***0.98***	***E***	***0.93***	***E***
Ave Pico and Cle Amanecer	Signalized	***1.80***	***F***	***1.57***	***F***
Ave Pico and Cle Del Cerro	Signalized	0.87	D	0.80	C
Ave Pico and Cle Frontera/Ave Presidio	Signalized	***1.25***	***F***	0.86	D
Ave Pico and I-5 Northbound on/off ramp	Signalized	0.68	B	0.69	B
Ave Pico and I-5 Southbound on/off ramp	Signalized	0.82	D	0.73	C
Ave Pico and Los Molinos	Signalized	0.68	B	***1.05***	***F***
El Camino Real and Ave Pico	Signalized	0.70	B	0.89	D
El Camino Real and El Portal	Signalized	0.53	A	0.54	A
Ave Palizada and I-5 Northbound off ramp	Signalized	0.68	B	0.62	B
Ave Palizada and I-5 Southbound on ramp	Signalized	0.54	A	0.57	A
El Camino Real and Palizada	Signalized	0.56	A	0.67	B
El Camino Real and Ave Del Mar	Signalized	0.25	A	0.47	A
Ave Presidio and I-5 Northbound on ramp	SSSC	0.44	A	0.53	A
Ave Presidio and I-5 Southbound on/off ramp	SSSC	0.30	A	0.38	A
El Camino Real and Ave Victoria/Avenida Presidio	Signalized	0.39	A	0.52	A
El Camino Real and/I-5 Southbound on/off ramp	Signalized	0.47	A	0.68	B
El Camino Real and I-5 Northbound off ramp	Signalized	0.44	A	0.47	A
El Camino Real and Ave San Juan	Signalized	0.29	A	0.37	A
El Camino Real and San Gabriel	Signalized	0.32	A	0.45	A
Cam Vera Cruz and Ave Pico	Signalized	0.83	D	0.70	A
Ave Vista Hermosa and Ave Talega	Signalized	0.73	C	0.54	A
El Camino Real and Cam San Clemente	Signalized	0.88	D	0.51	A

Source: Fehr and Peers 2013.
Note: ***Bold-italic*** text indicates impacted intersection.
[1] SSSC = Side-Street-Stop Controlled
[2] Location is impacted under Current General Plan policy, not Preferred General Plan policy.

As shown in Table 5.14-10, under adopted General Plan policy, all of the study intersections operate acceptably under With FTC Tesoro Road Extension conditions with the exception of:

- Camino Del Rio and Avenida La Pata (AM and PM peak hour)
- Avenida Vista Hermosa and Avenida La Pata (PM peak hour)
- Avenida Vista Hermosa and Camino Vera Cruz (AM and PM peak hour)
- Avenida Vista Hermosa and Calle Frontera (AM peak hour)
- Avenida Vista Hermosa and I-5 NB on/off ramp (AM peak hour)
- Avenida Pico and Avenida La Pata (PM peak hour)
- Avenida Pico and Calle Amanecer (AM and PM peak hour)
- Avenida Pico and Calle Frontera/Avenida Presidio (AM peak hour)
- Avenida Pico and Los Molinos (PM peak hour)

Under the proposed Centennial General Plan, the following intersections would be impacted (all the above except Ave Vista Hermosa and I-5 NB on/off ramp):

- Camino Del Rio and Avenida La Pata (AM and PM peak hour)
- Avenida Vista Hermosa and Avenida La Pata (PM peak hour)
- Avenida Vista Hermosa and Camino Vera Cruz (AM and PM peak hour)
- Avenida Vista Hermosa and Calle Frontera (AM peak hour)
- Avenida Pico and Avenida La Pata (PM peak hour)
- Avenida Pico and Calle Amanecer (AM and PM peak hour)
- Avenida Pico and Calle Frontera/Avenida Presidio (AM peak hour)
- Avenida Pico and Los Molinos (PM peak hour)

With FTC Tesoro Road Extension and Road Diet Alternative 2 Conditions

Below is a summary of the traffic impacts under the With FTC Tesoro Road Extension and Road Diet Alternative 2 scenario.

Roadway Segments Daily Levels of Service

Roadway segment daily LOS are presented in Table 5-25 of the Mobility Report (see Appendix G). Using current General Plan policy, all of the study roadway segments operate acceptably under With FTC Tesoro Road Extension and Road Diet Alternative 2 Conditions, with the exception of the following locations:

- Avenida Vista Hermosa, between Calle Frontera and Via Turqueza
- Avenida Vista Hermosa, between Via Turqueza and Camino Vera Cruz
- Camino De Estrella, between I-5 NB on/off ramp and Camino El Molino
- Avenida Pico, between I-5 NB on/off ramp and Avenida Presidio
- Avenida Pico, between Avenida Presidio and Calle del Cerro
- Avenida Pico, between Calle del Cerro and Calle Amanecer
- Avenida Pico, between Calle del Cerro and Camino Vera Cruz
- Avenida La Pata, between Calle Saluda and Avenida Vista Hermosa
- El Camino Real, between Camino San Clemente and Avenida Estacion

- El Camino Real, between Avenida Estacion and Avenida Pico
- El Camino Real, between Avenida Pico and Los Molinos
- El Camino Real, between Los Molinos and Calle Las Bolas
- El Camino Real, between Calle Las Bolas and Avenida De La Grulla
- El Camino Real, between Avenida De La Grulla and Avenida Aragon
- El Camino Real, between Avenida Aragon and El Portal
- El Camino Real, between El Portal and Canada
- El Camino Real, between Canada and Escalones
- El Camino Real, between Escalones and Mariposa

As discussed above, intersection analyses are a far better indication of whether a circulation network can handle the traffic of a specified area and are used to identify deficiencies and the need for mitigation measures.

Intersections Peak Hour Levels of Service

The LOS results for study intersections are summarized in Table 5.14-11. The LOS calculations are attached in Appendix 5-1 of the Mobility Report.

Table 5.14-11 With FTC Tesoro Road Extension and Road Diet Alternative 2 Intersection Peak Hour Level of Service

Intersection	Traffic Control	AM Peak Hour		PM Peak Hour	
		ICU	LOS	ICU	LOS
Cam De Los Mares and Cam Del Rio	SSSC	0.42	A	0.43	A
Cam De Los Mares and Cam Vera Cruz	Signalized	0.44	A	0.40	A
Cam De Los Mares and Ave Vaquero	Signalized	0.42	A	0.47	A
Cam Del Estrella and I-5 Northbound on/off ramp	Signalized	0.84	D	0.77	C
Cam Del Estrella and I-5 Southbound on/off ramp	Signalized	0.47	A	0.67	B
Cam De Estrella and Cam Mira Costa	Signalized	0.40	A	0.40	A
Cam Del Rio and Ave La Pata	Signalized	***1.06***	***F***	***0.91***	***E***
Ave Vista Hermosa and Ave La Pata	Signalized	0.85	D	***0.98***	***E***
Ave Vista Hermosa and Cam Vera Cruz	Signalized	***0.94***	***E***	***1.14***	***F***
Ave Vista Hermosa and Cle Frontera	Signalized	***0.95***	***E***	0.77	C
Ave Vista Hermosa and I-5 NB on/off ramp[1]	Signalized	***0.92***	***E***	0.70	B
Ave Vista Hermosa and I-5 SB on/off ramp	Signalized	0.69	B	0.50	A
Ave Vista Hermosa and Ave Pico	Signalized	0.53	A	0.62	B
Ave Pico and Ave La Pata	Signalized	***0.98***	***E***	***0.93***	***E***
Ave Pico and Cle Amanecer	Signalized	***1.81***	***F***	***1.57***	***F***
Ave Pico and Cle Del Cerro	Signalized	0.86	D	0.80	C
Ave Pico and Cle Frontera/Ave Presidio	Signalized	***1.26***	***F***	0.88	D
Ave Pico and I-5 Northbound on/off ramp	Signalized	0.70	B	0.71	C
Ave Pico and I-5 Southbound on/off ramp	Signalized	0.82	D	0.72	C
Ave Pico and Los Molinos	Signalized	0.72	C	***1.18***	***F***
El Camino Real and Ave Pico	Signalized	0.59	A	0.74	C
El Camino Real and El Portal	Signalized	0.59	A	0.66	B
Ave Palizada and I-5 Northbound off ramp	Signalized	0.78	C	0.73	C
Ave Palizada and I-5 Southbound on ramp	Signalized	0.60	A	0.68	B
El Camino Real and Palizada	Signalized	0.57	A	0.74	C
El Camino Real and Ave Del Mar	Signalized	0.37	A	0.60	A
Ave Presidio and I-5 Northbound on ramp	SSSC	0.50	A	0.69	B
Ave Presidio and I-5 Southbound on/off ramp	SSSC	0.34	A	0.45	A
El Camino Real and Ave Victoria/Avenida Presidio	Signalized	0.57	A	0.67	B
El Camino Real and/I-5 Southbound on/off ramp	Signalized	0.53	A	0.77	C
El Camino Real and I-5 Northbound off ramp	Signalized	0.63	B	0.60	A
El Camino Real and Ave San Juan	Signalized	0.43	A	0.45	A
El Camino Real and San Gabriel	Signalized	0.38	A	0.63	B
Cam Vera Cruz and Ave Pico	Signalized	0.83	D	0.70	B
Ave Vista Hermosa and Ave Talega	Signalized	0.73	C	0.54	A
El Camino Real and Cam San Clemente	Signalized	0.85	D	0.48	A

Source: Fehr and Peers 2013.
Note: ***Bold-italic*** text indicates impacted intersection.
SSSC = Side-Street-Stop Controlled
[1]. Location is impacted under Current General Plan policy, not Preferred General Plan policy.

As shown in Table 5.14-11, using adopted General Plan policy, all of the study intersections operate acceptably under With FTC Tesoro Road Extension conditions except:

- Camino Del Rio and Avenida La Pata (AM and PM peak hour)
- Avenida Vista Hermosa and Avenida La Pata (PM peak hour)
- Avenida Vista Hermosa and Camino Vera Cruz (AM and PM peak hour)
- Avenida Vista Hermosa and Calle Frontera (AM peak hour)
- Avenida Vista Hermosa and I-5 NB on/off ramp (AM peak hour)
- Avenida Pico and Avenida La Pata (AM and PM peak hour)
- Avenida Pico and Calle Amanecer (AM and PM peak hour)
- Avenida Pico and Calle Frontera/Avenida Presidio (AM peak hour)
- Avenida Pico and Los Molinos (PM peak hour)

Under the Centennial General Plan policy, the following intersections would be impacted (all the above, except Ave Vista Hermosa and I-5 NB on/off ramp):

- Camino Del Rio and Avenida La Pata (AM and PM peak hour)
- Avenida Vista Hermosa and Avenida La Pata (PM peak hour)
- Avenida Vista Hermosa and Camino Vera Cruz (AM and PM peak hour)
- Avenida Vista Hermosa and Calle Frontera (AM peak hour)
- Avenida Pico and Avenida La Pata (AM and PM peak hour)
- Avenida Pico and Calle Amanecer (AM and PM peak hour)
- Avenida Pico and Calle Frontera/Avenida Presidio (AM peak hour)
- Avenida Pico and Los Molinos (PM peak hour)

Summary

Tables 5.14-12 and 5.14-13 are the resulting roadway segments and intersection impacts of each analyzed scenario, respectively. The full implementation of the FTC corridor from Oso Parkway to the I-5 would provide congestion relief for the study area. Therefore the No FTC, the FTC Tesoro Extension, and the FTC Tesoro Extension with Road Diet Alternative 2 scenarios result in the highest number of intersection and roadway segment impacts in the study area. It should be noted that the implementation of the FTC extension scenarios are not under the City's control, but the road diet scenarios are. Generally, the implementation of the road diet causes either no additional impact or small additional impacts. Of all the road diet scenarios analyzed, the With FTC and Road Diet scenarios have the fewest impacts.

Table 5.14-12 Summary of Roadway Segment Impacts

Roadway Segment	Scenario						
	No FTC	With FTC	With FTC and RD Alt[1]	With FTC and RD Alt [2]	With FTC and RD Alt [3]	With FTC TE	With FTC TE with RD Alt[2]
Avenida Vista Hermosa, between Calle Frontera and Via Turqueza	X	X	X	X		X	X
Avenida Vista Hermosa, between Via Turqueza and Camino Vera Cruz	X					X	X
Avenida Vista Hermosa, between Camino Vera Cruz and Avenida La Pata	X					X	X
Camino De Estrella, between I-5 NB on/off ramp and Camino El Molino	X	X	X	X	X	X	X
Avenida Pico, between I-5 NB on/off ramp and Avenida Presidio	X	X	X	X	X	X	X
Avenida Pico, between Avenida Presidio and Calle del Cerro	X	X	X	X	X	X	X
Avenida Pico, between Calle del Cerro and Calle Amanecer	X					X	X
Avenida Pico, between Calle Amanecer and Camino Vera Cruz	X					X	X
Avenida La Pata, between Calle Saluda and Avenida Vista Hermosa	X					X	X
Coast Highway, between Camino Capistrano and Camino San Clemente	X	X		X		X	

Source: Fehr and Peers, 2013.
Note: Only roadway segments which experience an impact under the analyzed scenarios are listed.
X = significant impact, FTC = Foothill Transit Corridor, RD = road diet, TE = Tesoro extension, ALT=alternative

Table 5.14-13 Summary of Intersection Impacts

Intersection	Scenario						
	No FTC	With FTC	With FTC and RD Alt	With FTC and RD Alt	With FTC and RD Alt	With FTC TE	With FTC TE with RD Alt[2]
Cam Del Rio and Ave La Pata	X					X	X
Ave Vista Hermosa and Ave La Pata	X					X	X
Ave Vista Hermosa and Cam Vera Cruz	X					X	X
Ave Vista Hermosa and Cle Frontera	X					X	X
Ave Vista Hermosa and I-5 NB on/off ramp	X					X	X
Ave Pico and Ave La Pata	X					X	X
Ave Pico and Cle Amanecer	X	X	X	X	X	X	X
Ave Pico and Cle Frontera/Ave Presidio	X	X	X	X	X	X	X
Ave Pico and Los Molinos	x	x	x	x	x	x	x

Source: Fehr and Peers, 2013.
Notes: Only intersections that experience a significant impact are listed.
X = significant impact, FTC = Foothill Transit Corridor, RD = road diet, TE = Tesoro extension, ALT=alternative

As shown above and summarized in Tables 5.14-12 and 5.14-13, without mitigation, implementation of the preferred General Plan land use and Mobility and Complete Streets Element would cause several roadway segments and intersections to operate at unacceptable LOS, resulting in significant traffic impacts.

Impact 5.14-2: Future development that would be accommodated by the Centennial General Plan would not conflict with the applicable congestion management program. [Threshold T-2]

Impact Analysis: As Orange County's Congestion Management Agency, OCTA is responsible for the administration of the CMP. The CMP establishes that the LOS should be LOS E or better for CMP roadways and intersections. Currently, there are no CMP intersections within the City of San Clemente. Because there are no local roadways or intersections in the City, the CMP requirements do not apply to the City. There would be no impact in regard to CMP facilities in the City, and no mitigation would be required.

Impact 5.14-3: Circulation improvements associated with future development that would be accommodated by the Centennial General Plan would be designed to adequately address potentially hazardous conditions (sharp curves, etc.), potential conflicting uses, and emergency access. [Thresholds T-4 AND T-5]

Impact Analysis: Buildout of the proposed General Plan would result in some changes to the City's circulation network, but would not increase hazards or impact emergency access due to design features. Proposed as part of the General Plan effort are reclassifications improvements of certain arterials throughout the City to accommodate projected circulation needs. Figure 5.14-4 shows the future roadway network of San Clemente. An extension of Avenida La Pata in San Clemente is under final design to connect with La Pata Avenue, south of Ortega Highway in the City of San Juan Capistrano. The extension provides additional access to Avenida Vista Hermosa, Avenida Pico, and Ortega Highway. Roadway improvements are also planned for Avenida Pico from the I-5 to Camino Vera Cruz, at

Avenida Vista Hermosa from the I-5 to Avenida La Pata, and on El Camino Real from Camino Capistrano to Avenida Del Mar. Improvements that focus on other modes of transportation are also recommended in the Mobility and Complete Streets Element and the Bicycle and Pedestrian Master Plan (August 2012).

All future roadway system improvements associated with development and redevelopment activates under the Centennial General Plan would be designed in accordance with the established roadway design standards, some of which have also been incorporated into the Mobility and Complete Streets Element of the General Plan. These improvements will be subject to review and future consideration by the City of San Clemente. An evaluation of the roadway alignments, intersection geometrics, and traffic control features will be needed. Roadway improvements would have to be made in accordance with the City's Circulation Plan, roadway functional design guidelines, and meet design guidelines included in the California Manual of Uniform Traffic Control Devices (MUTCD) and the Caltrans Roadway Design Manual. Implementation of the General Plan would not result in hazardous conditions, create conflicting uses, or cause a detriment to emergency vehicles access.

Policies M3.01 to 3.06 are included in the Mobility and Mobility and Complete Streets Element to encourage multimodal transportation and protect travelers' safety. Conflicts between vehicular traffic and other forms of travel such as bicyclists and pedestrians may also cause traffic hazards. Implementation of Policy M-3.01 (Complete Streets Roadway Standards) require that pedestrian, vehicular, and bicycle circulation on public and private property are coordinated and designed to maximize safety, comfort and aesthetics and are consistent with federal, state, Orange County, and local laws, codes, and standards. In addition, Policy M-3.04 encourages the use of traffic calming measures to slow traffic where non-motorized travel is encouraged. Policy M3.03, Safe Routes to School, requires collaboration with the Capistrano Unified School District and private schools to identify and implement safety measures to improve safe travel to and from schools for students, parents, residents, and school employees. Policy M-3.06, Emergency Response, requires balance of emergency response time and evacuation needs with other community concerns, such as Urban Design and traffic calming. Since roadway improvements would have to be made in accordance with the City's Circulation Plan and roadway functional design guidelines, and with implementation of Policies M-3.01 to 3.06, impacts would be less than significant, and no mitigation would be required.

Impact 5.14-4: The proposed project complies with adopted policies, plans, and programs for alternative transportation and does not decrease the safety of alternative transportation. [Threshold T-6]

Impact Analysis: The City of San Clemente Bicycle and Pedestrian Master Plan (BPMP) is a document that establishes implementation of San Clemente's bikeway system and provides broad recommendations to improve the overall walking environment.

The BPMP emphasizes the importance of providing a complete and pleasant walking environment for residents and visitors. The plan enables travel by bicycle and pedestrian modes to major activity areas, including government offices, public facilities, schools, major parks and recreation areas, major retail areas, and large employment centers. A robust sidewalk and bikeway network provides an alternate to the automobile. Thoughtful and strategic investment can help to reduce emission-related pollution and congestion and improve overall community character.

The BPMP identified several challenges to promote bicycle and pedestrian modes. One of the major challenges identified in the BPMP is San Clemente's hilly terrain: San Clemente's overall development patterns were driven by its hilly topography. Major arterials and connecting streets were laid out in relation to this terrain. Cyclists and walkers often have to use streets with grades significant enough to discourage casual use, and less hilly alternate routes are not always available. The I-5 also presents a challenge because it limits connectivity between the south and north areas of

the City. Crossing options are limited and some overcrossings/undercrossings were not designed to adequately accommodate pedestrian and bicycle traffic. Finally, the BPMP identified lack of bicycle parking and lack of employer site amenities as a challenge to bicycle and pedestrian travel.

Key considerations included how many bicycle and pedestrian collisions occurred at a location or how much value and use a facility would contribute to an area. Congestion surrounding schools and at freeway locations was also measured in selecting potential locations. Based on these criteria, the plan proposes to implement pedestrian facilities at nine locations .Facilities include closing gaps between sidewalks, adding sidewalks at freeway locations, widening sidewalks with mixed bicycle usage, and enhancing pedestrian signals and crossings. The BPMP also recommends additional programmatic improvements, particularly programs and policies related to education, encouragement, enforcement, evaluation, and planning. In conjunction with the City's existing cycling and walking infrastructure, these programs and policies are intended to persuade more people to ride or walk.

Bicycle Network

Specific design recommendations and planning concepts have been included in the BPMP to enhance bicycle mobility. Candidate bicycle projects developed through project analysis were identified in the BPMP (refer to Tables 3.1 to 3.3 in Appendix G). These projects were ranked based on a set a number of criteria measuring safety, feasibility, accessibility, connectivity, and walkability to use as guidance in providing mobility throughout the City.

The existing and proposed bicycle networks presented in Figure 5.14-5 work in conjunction with the City's roadway network to provide a framework for key routes and facilities that will enhance connectivity for all users. The proposed system includes approximately 40 miles of new bikeways, in addition to the 26 miles in place in 2012. Table 5.16-14 shows the number of existing and proposed miles for each bikeway classification.

Table 5.14-14 Bikeway Classification Mileage

Facility Types	Existing	Proposed	Total
Class 1	3.8	4.4	8.2
Class 2	20.4	11.7	32.1
Class 3	2.2	23.6	25.8
Total	**26.4**	**39.7**	**66.1**

Source: San Clemente Bicycle and Pedestrian Master Plan, 2012.

Pedestrian Network

Specific design recommendations and planning concepts have been included in the BPMP to enhance pedestrian mobility. Candidate pedestrian projects developed through project analysis were identified (see Appendix G Tables 3.1 to 3.3). These projects were ranked based on a set a number of criteria to provide safe, walkable, and accessible connections.

The existing and proposed pedestrian networks in Figure 5.14-6 work in conjunction with the City's roadway network to provide a framework for key routes and facilities that will enhance connectivity for all users. Nine projects were selected as candidate recommendations; these are shown in Figure 5.14-6 and described in Table 3.6 of the BPMP (see Appendix G).

Transit Network

As previously described, bus service in San Clemente is operated by OCTA, which currently operates on four routes in the San Clemente area: Routes 1, 91, 191, and 193. Passenger rail service by Amtrak and Metrolink provides regional mobility in the City of San Clemente; two stations are located in San Clemente. The network of transit services works in conjunction with the General Plan Roadway Network and the Bikeway and Pedestrian Network to provide a framework for key routes and facilities that will further enhance connectivity for all users.

Summary

Implementation of the proposed General Plan would promote the use of alternative transportation modes. Several policies are included in the proposed General Plan to promote the development of new or expansion of facilities. Policies were also included to require public outreach and education to promote alternative modes and their safe use. Policy M-1.12, Design Integration would ensure that development projects and subdivisions are designed and/or retrofitted to incorporate, and be efficiently served by, public transit, pedestrian and bicycle facilities. Policy M-1.19, Street Redesign, promotes the consideration multimodal alternative improvements to nonautomotive facilities during street redesign projects. Policies M-2.01 to M-2.36 (see policies below) were included specifically to promote the use of alternative modes of transportation and to assist on the implementation of the BPMP. No conflict with policies, plans, and programs for alternative transportation would occur from future development and redevelopment under the proposed General Plan. There would be no impact.

5.14.4 Relevant Policies and Programs

The following are Centennial General Plan policies and programs related to mobility.

Mobility and Complete Streets Element Policies

Roadway System Policies

M-1.01 **Roadway system.** We require the City's roadways to:

a. Accommodate public transit, motor vehicles, bicyclists, skateboarders and pedestrians within the public right-of-way wherever feasible.

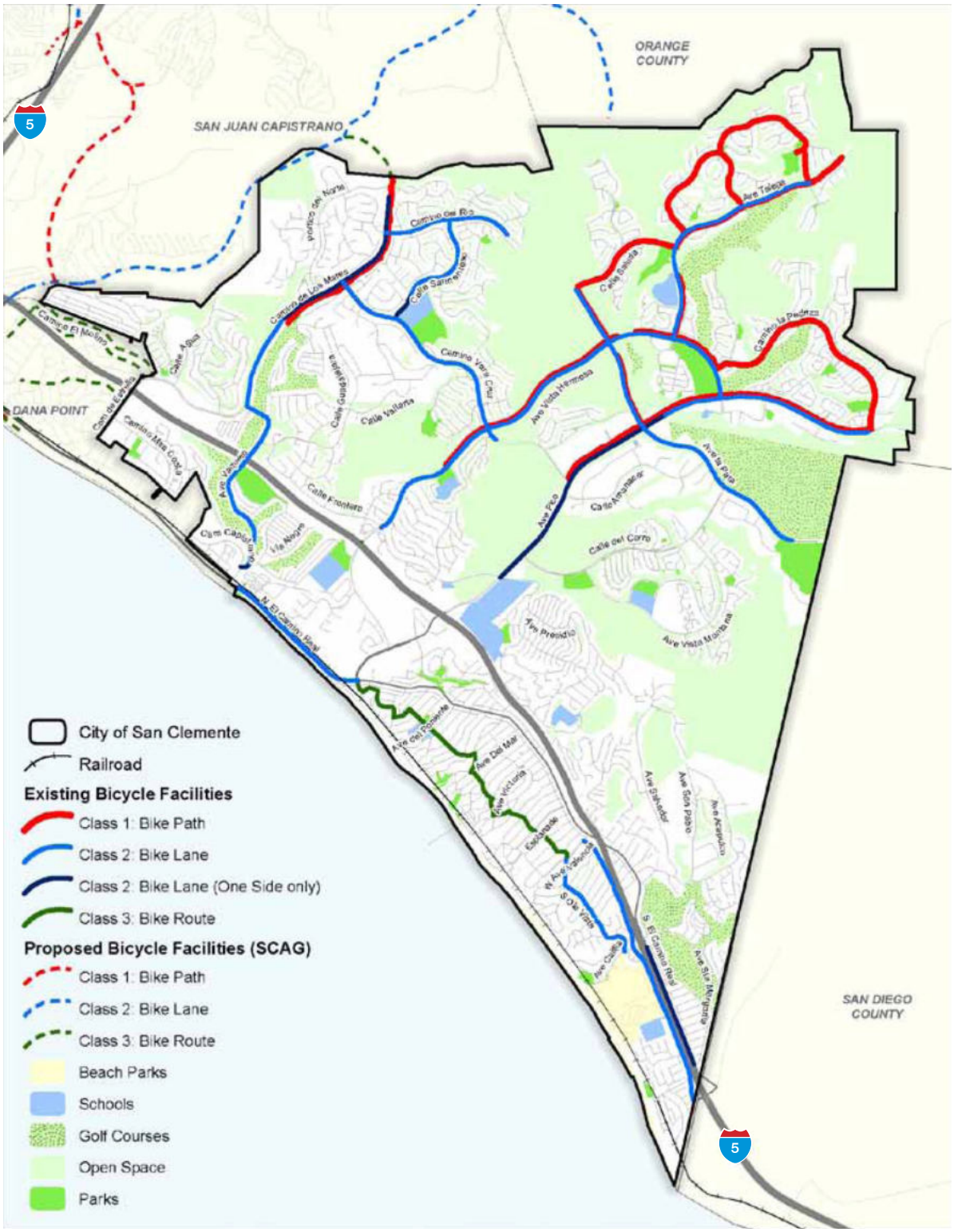
b. Consider Federal, State, Orange County and City standards for roadway design, maintenance and operation.

c. Comply with Orange County Transportation Authority (OCTA) requirements for arterial highways as determined through the Master Plan of Arterial Highways (MPAH) and Measure M. Maintain at least a Level of Service (LOS) D or better at all intersections, except where flexibility is warranted based on a multi-modal LOS evaluation, or where LOS E is deemed appropriate to accommodate complete streets facilities.

d. Provide future capacity as called for by this Element and as shown in the Future Roadway System map.

e. Ensure that new roadways, ramps, traffic control devices, bridges or similar facilities, and significant changes to such facilities, are designed to accommodate multi-modal facilities, and where feasible, retrofit existing facilities to improve the balance for the users of the roadway.

Existing and Proposed Bicycle Facilities



Source: KTU+N; Fehr & Peers 2012

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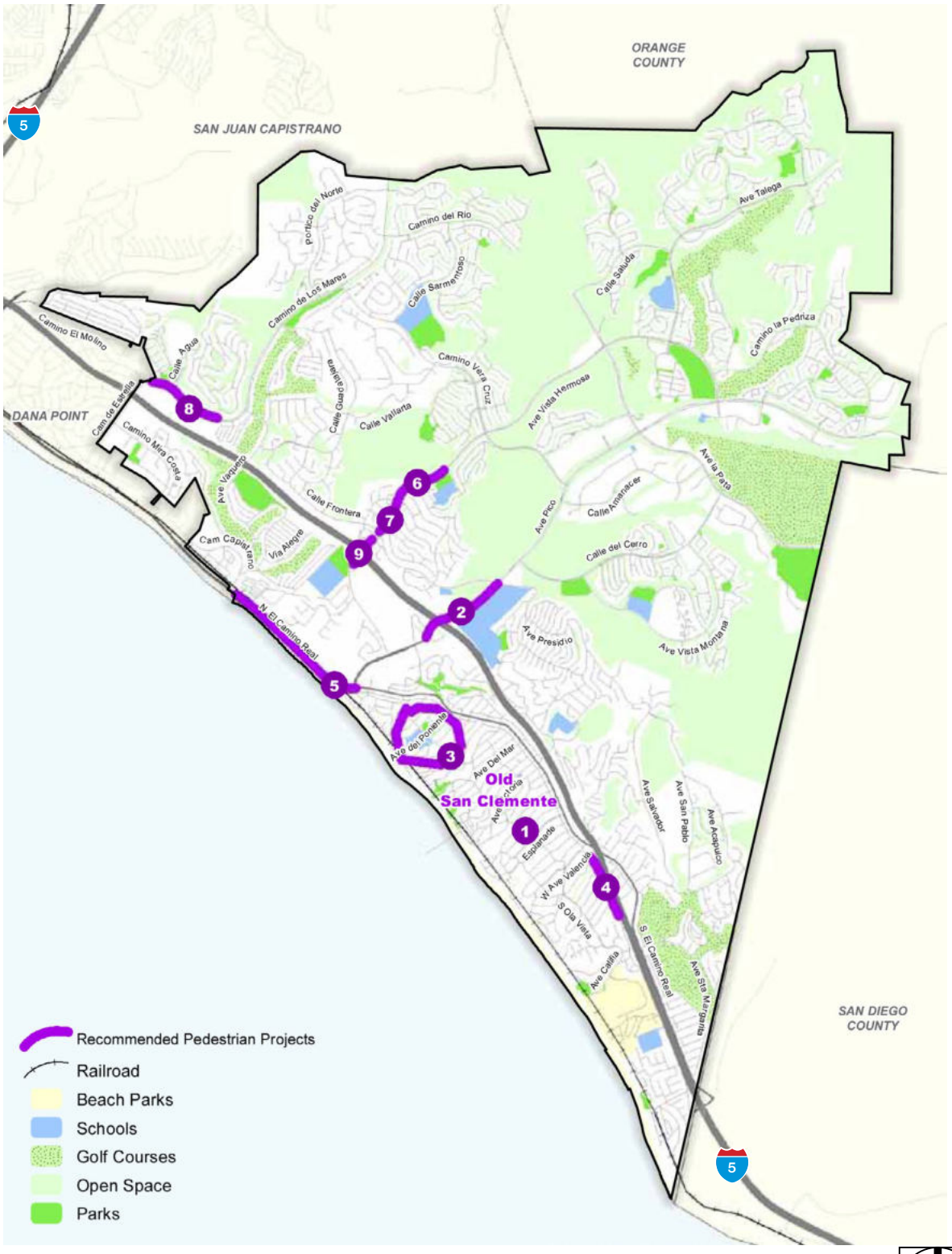
Existing and Proposed Pedestrian Network



Source: KTU+N; Fehr & Peers 2012

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M-1.02 **Transportation Infrastructure.** Traffic control devices and transportation infrastructure operate to serve the needs of all roadway users, including motorists, public transit, pedestrians and cyclists.

M-1.03 **Level of Service.** When the City determines there is a suitable tool available, we will measure and evaluate roadway performance from a multi-modal, Complete Streets perspective.

M-1.04 **Development project impacts.** We require development projects to analyze potential off-site traffic impacts and related environmental impacts through the CEQA process and to mitigate adverse impacts to less-than-significant levels.

M-1.05 **Intersection Improvements.** We evaluate impacts of intersection improvements on all modes of travel, including bicyclists, pedestrians, and transit.

M-1.06 **Driveway Access Points.** We require the number of driveway access points onto arterial roadways to be minimized and located to ensure the smooth and safe flow of vehicles and bicycles.

M-1.07 **Transportation Monitoring.** We regularly monitor the transportation system and the travel needs and behavior of residents and visitors to help guide transportation decisions.

M-1.08 **Transportation Mode Choice.** We actively work to reduce automobile use and improve the efficiency of the roadways based on locally collected data and on goals set through a collaborative process involving City staff, residents and other stakeholders.

M-1.09 **Regional Coordination.** We participate in the planning of regional transportation improvements, such as interchange improvements along I-5, the extension of the SR-241, and other major freeway and arterial improvements.

M-1.10 **Innovative Design.** We support the design principles in the City's Design Manual of Living Streets. We will consider use of innovative transportation design features, such as, but not limited to Intelligent Transportation System improvements, modern day roundabouts, midblock and corner bulbouts, and road diets where such changes can improve the balance of the roadway and its compatibility with surrounding land uses.

M-1.11 **Transportation Infrastructure Design.** In designing transportation facilities such as bridges, retaining and sound walls and related transportation facilities, the City applies the Design Guidelines to maintain high quality design, compatible with community aesthetics. Side slopes and earthen berms adjacent to roadways shall be natural in appearance to minimize visual impacts along designated scenic corridors.

M-1.12 **Design Integration.** City supports development that is designed and/or retrofitted to incorporate, and be efficiently served by, public transit, pedestrian and bicycle facilities.

M-1.13 **Neighborhood-Serving Uses.** Consistent with the Land Use Element, we encourage roadway designs that are compatible with neighborhood-serving commercial uses, schools, churches, parks and recreational areas near residential neighborhoods, for convenience.

M-1.14 **Residential Quality.** Protect the quality of residential areas by achieving quiet and by managing traffic routing, volumes and speeds on residential neighborhood streets.

M-1.15 **Transportation Technological Advancement.** We solicit ideas from private industry and public agencies for the development and implementation of innovative transportation technologies.

M-1.16 **Alternative Paving Treatments.** We support the use of alternate paving materials for public streets, highways, rail beds and other transportation corridors where they can help achieve other General Plan goals, such as noise reduction, beautification, and improved fuel efficiency.

M-1.17 **Streetscapes and Major Roadways.** During the design, construction or significant modification of major roadways, we will promote scenic parkways or corridors to improve City's visual quality and character, enhance adjacent uses, and integrate roadways with surrounding districts. To accomplish this, the City will:

a. Update and implement the Master Landscape Plan for Scenic Corridors;

b. Encourage the creation and maintenance of median planters and widened parkway plantings;

c. Retain healthy, mature trees in the public right-of-way, where feasible;

d. Emphasize the planting and maintaining California Native tree species of sufficient height, spread, form and horticultural characteristics to create the desired streetscape canopy, shade, buffering from adjacent uses, and other desired streetscape characteristics, while considering impacts to public view corridors.

e. Encourage the use of water-conserving landscaping, street furniture, decorative lighting and paving, arcaded walkways, public art, and other pedestrian-oriented features to enhance the streetscape appearance, comfort and safety.

f. Encourage and where possible, require undergrounding or stealthing of overhead utility lines, cellular facilities and related structures.

g. When possible, consolidate signs in the public right-of-way to reduce sign clutter, improve sight distance, maintain or improve safe access and reduce costs.

h. Design and locate street lighting with shielding or "cutoffs" to prevent glare, avoid excess lighting and preserve dark night time skies.

M-1.18 **Traffic Calming.** We design the circulation system serving new developments, and retrofit existing streets, where feasible, to control traffic speeds and maintain safety in all residential neighborhoods, in accordance with the City's Street Design Standards and Traffic Calming Manual.

M-1.19 **Street Redesign.** We seek opportunities to redesign streets so that they are compatible with the surrounding neighborhood context and the Community's vision of the future, and only consider street widening or intersection expansions after considering multi-modal alternative improvements to non-automotive facilities.

M-1.20 **Regional Transportation Demand Management (TDM).** We support regional efforts by the South Coast Air Quality Management District (AQMD), OCTA, and other agencies to maintain and expand regional programs designed to reduce commuting by single driver automobiles.

M-1.21 **TDM Financial Incentives.** We encourage businesses to offer financial incentives to their employees, including subsidized transit, carpool/vanpool programs, bike-to-work programs, parking cash-out programs, or a combination of incentives.

M-1.22 **Telecommuting.** We support the use of private "tele-work" centers, satellite offices, or other forms of virtual work environments.

M-1.23 **TDM in Development Review.** We encourage on-site features in all new non-residential developments that support Transportation Demand Management (TDM). Potential features may include preferred rideshare parking, car sharing vehicles, on-site food service and exercise facilities.

M-1.24 **Regional Access to Arterial Streets.** New development contributing traffic to City Arterials, including development projects outside the City including, but not limited to, Rancho Mission Viejo shall be required to mitigate all traffic impacts to be consistent with adopted LOS standards contained in the City's Mobility and Complete Streets Element.

M-1.25 **Major and Minor Scenic Corridors.** We require the following roadways be maintained and preserved as major or minor scenic corridors with key entry points as shown in Figure M-2:

a. Avenida Vista Hermosa
b. Avenida La Pata
c. Avenida Pico
d. El Camino Real/Pacific Coast Highway
e. Ola Vista
f. El Camino Real
g. Camino De Los Mares
h. Camino Vera Cruz
i. Camino Del Rio
j. Calle del Cerro
k. Avenida Vista Montana
l. Avenida Talega
m. Avenida Del Mar
n. Interstate 5, between Camino de Los Mares and South City Limits

M-1.30 **Building Heights and Setbacks.** We review the heights and setbacks of all structures to ensure the preservation of visual corridors and the maintenance of an open, scenic quality within each corridor.

M-1.32 **Signs.** We require the review of the size, height, numbers, and type of on-premise signs to minimize their impact to scenic corridors.

M-1.33 **Billboards Prohibited.** We prohibit the construction of billboards within designated scenic corridors.

Non-Motorized Modes Policies:

M-2.01 **Electric Vehicles.** We support the use of neighborhood- and long-range electric vehicles and identify routes and designate special parking for such Neighborhood Electric Vehicles (NEVs) at beaches and commercial locations.

M-2.02 **Pedestrian Facilities.** Public streets shall provide pedestrian facilities in accordance with the adopted City standards.

M-2.03 **Accessible Pedestrian Facilities.** All new streets shall have provisions for the adequate and safe movement of pedestrians, including improvements for the elderly and disabled.

M-2.04 **Accessible Transit.** We provide bicycle, pedestrian and wheelchair access to all transit facilities and maintain bicycle, pedestrian and wheelchair facilities so that they are safe, attractive and well lit.

M-2.05 **Rail Facilities and Programs.** We support the retention of passenger rail facilities at North Beach and in the Pier Bowl to help meet inter-city and regional transportation needs.

M-2.06 **Regional Rail Service.** We support the expansion of Metrolink and Amtrak service by the Southern California Regional Rail Authority, OCTA, and other agencies to enhance San Clemente's regional transit accessibility for residents, employees and visitors.

M-2.07 **Coordinated Land Use Planning for Transit.** We encourage higher density, mixed-use development in areas with existing and planned transit service.

M-2.08 **Transit Service.** We support the maintenance of existing bus service and encourage transit service enhancements by OCTA to ensure all residents have access to adequate and safe transit.

M-2.09 **Senior and Disabled Public Transit.** We support the provision of appropriate and cost-effective transit services for seniors, disabled persons and those who are unable to drive motor vehicles by coordinating with regional transit providers, non-profit service providers, private services, and community-based services.

M-2.10 **Transit Priority in Development Review Process.** Development should encourage transit ridership by including bus turnouts, passenger shelters, transportation kiosks, pedestrian connections to transit, and other measures.

M-2.11 **Bicycle and Pedestrian Wayfinding.** Bicycle and pedestrian network wayfinding and information shall be provided through signs, street markings or other technologies.

M-2.12 **Integration of Bicycle Planning.** We integrate development of the bicycle facilities network into larger land use planning and development projects.

Bicycle Policies:

M-2.13 **Bicycle and Pedestrian Network.** We plan, develop and maintain a comprehensive bicycle and pedestrian network as specified in the San Clemente Bicycle and Pedestrian Master Plan.

M-2.14 **Bicycle Friendly Streets.** We consider every public street in San Clemente as a street that cyclists could use.

M-2.15 **Bicycle-Friendly Infrastructure.** We shall employ bicycle-friendly infrastructure design using new technologies and innovative treatments, where necessary to improve bicyclists' safety and convenience.

M-2.16 **Roadway Performance Evaluation.** We shall evaluate roadway level of performance from a multi-modal, Complete Streets perspective.

M-2.17 **Traffic Control Devices.** Traffic control devices and transportation infrastructure will be operated to serve the needs of all users of the roadway and pedestrians.

M-2.18 **Design Standards.** We support the design principles in the City's Design Manual for Living Streets in determining the appropriate standard to apply to a given situation, the City will seek to maximize cyclists' and pedestrians' safety, comfort and convenience, in balance with other roadway users.

M-2.19 **Bicycle Facilities.** In preparing City Land Use plans and applicable Capital Improvement Programs, we address bicycle needs, including:

a. Attractive destination facilities, such as secure bicycle lockers, showers, and changing rooms that are conveniently located for bicyclists, i.e. a bike station);

b. Facilities for bicycle parking within newly-built and renovated multi-family residential developments, residential condominiums and apartment conversions to condominiums, multi-use and non-residential sites;

c. Safe, secure, attractive and convenient bicycle parking; and

d. Wayfinding systems and traffic control signage or markings for all bicycle facilities.

M-2.20 **Regional Bicycle and Pedestrian Coordination.** We coordinate regional trail and bicycle planning, acquisition and development efforts with adjacent jurisdictions.

M-2.21 **External Linkages.** We link on-road and off-road bicycle and pedestrian facilities within San Clemente to existing and planned facilities in in adjacent and regional jurisdictions.

M-2.22 **Off-Road Trail Linkages.** Where feasible, the City connects off-road trails with the on-road transportation network.

M-2.23 **Skateboarding.** We encourage and support skateboard use as an efficient and legitimate transportation mode to connect gaps between destination and transit stops and rail stations.

M-2.24 **Maintenance and Hazard Monitoring.** We maintain bicycle and pedestrian according to a management plan to be adopted by the City.

M-2.25 **Intersections and Crossing Locations.** We utilize Federal, State, and local guidelines and standards for traffic operations, signal timing, geometric design, Universal Access (ADA) and roadway maintenance that facilitate walking and bicycling at intersections and other key crossing locations.

M-2.26 **Bicycle and Pedestrian Facility Design Standards.** We shall utilize the Caltrans Highway Design Manual and other infrastructure guidelines as appropriate to design and maintain bicycle and pedestrian facilities to high safety standards.

M-2.27 **Unpaved Trails.** We require unpaved bicycle and pedestrian trails on City-controlled property to be built and maintained using recognized best practices.

M-2.28 **Intersection Configuration.** We shall require the intersections of local roads with the I-5 freeways and the proposed Toll Road to be designed using a "complete streets" approach.

M-2.29 **Safety Awareness.** We encourage and support the creation of comprehensive safety awareness programs for pedestrians, skateboarders, cyclists and drivers.

M-2.30 **Walking and Biking Trips.** We encourage city staff, employees, residents and visitors to walk and bicycle as often as possible.

M-2.31 **Improvements along Bicycle and Pedestrian Routes.** We improve and maintain alternative transportation infrastructure and assign a high priority to improvements along primary pedestrian and bicycle routes to schools.

M-2.32 **Non-Automotive Transportation Co-Benefits.** We utilize non-automotive transportation solutions as tools for achieving economic development and environmental sustainability goals.

M-2.33 **Grant Funding.** We pursue Federal, State, County, regional and other funding opportunities to increase bicycle and pedestrian mode share percentages, improve transportation system performance, and to improve air quality through a balanced, multi-modal transportation system.

M-2.34 **Deferred Street Improvements.** Should the City defer construction of street improvements as part of any development approval, the property owner may be required to sign an agreement to participate in the installation of the improvements when a more complete street improvement project is feasible.

M-2.35 **American Disabilities Act.** All new streets shall have provisions for the adequate and safe movement of pedestrians, in accordance with the American Disabilities Act.

M-2.36 **Sidewalks and Pathways.** Sidewalks or pathways are desirable in most areas, including coastal neighborhoods where, at a minimum, it may only be feasible to install sidewalk on one side of the street.

Safety Policies:

M-3.01 **Connected Roadway Network.** We require development projects to connect to and where necessary, improve local streets to allow travel by all modes and ensure connectivity with the larger City-wide roadway network.

M-3.02 **Complete Streets Roadway Standards.** We require that pedestrian, vehicular, and bicycle circulation on public and private property is coordinated and designed to maximize safety, comfort and aesthetics and is consistent with Federal, State, Orange County, and local laws, codes, and standards.

M-3.03 **Safe Routes to School.** We collaborate with the Capistrano Unified School District and private schools to identify and implement safety measures to improve safe travel to and from schools for students, parents, residents and school employees.

M-3.04 **Manage Traffic Speeds.** We use a combination of effective design and traffic code enforcement to manage traffic speeds.

M-3.05 **Safety Awareness Program.** We encourage and assign high priority to the creation of a comprehensive safety awareness program for pedestrians, skateboarders, cyclists, and motorists which addresses proper riding behavior, wearing helmets, using lights, and other issues as appropriate.

M-3.06 **Emergency Response.** We manage the transportation system to balance emergency response time and evacuation needs with other community concerns, such as Urban Design and traffic calming.

Parking Policies:

M-4.01 **Shared Parking.** We encourage mixed-use and multiple use developments to implement shared parking techniques as a preferred approach for complementary land uses.

M-4.02 **Parking Management.** We manage and evaluate public and private parking resources in key destination areas.

M-4.03 **Automobile Parking Demand.** We reduce parking demand by improving public transit, bicycle and pedestrian mobility, particularly to and from our key destination areas.

M-4.04 **Alternative Parking Strategies.** We consider alternative parking strategies that address multi-modal parking needs, improve land use efficiency and enhance environmental quality, such as use of energy-saving/generating features, demand-based parking strategies, stacking, alternative paving, accommodating multiple uses, and parking elevators.

M-4.05 **Parking Requirements.** We support the evaluation and possible consolidation of parking requirements to facilitate the gradual transition of land uses and to simplify standards.

M-4.06 **Comprehensive Parking Strategies.** We base parking decisions and related improvements in key commercial areas (e.g., North Beach, Del Mar/T-Zone, Pier Bowl, and Plaza San Clemente) on comprehensive parking strategies such as the adopted North Beach Master Plan.

M-4.07 **Alternative Parking Requirements and Incentives.** We will consider incentives to encourage alternative parking, such as crediting bicycle, neighborhood electric vehicles (NEV), motorcycle and scooter parking spaces toward meeting a portion of the required automobile parking.

Freight Movement Policies:

M-5.01 **Truck and Freight Movements.** We will continue to implement a program which allows efficient freight movement while minimizing negative impacts on local roads and noise-sensitive land uses by identifying and implementing vehicle weight restrictions on designated streets.

Land Use Element Policies

LU-1.06 **Residential Infill.** We require that new residential development be compatible with adjacent structures and land uses and we require:

a. mitigation of noise, traffic (automobile and truck), and lighting impacts of abutting commercial uses, where applicable;
b. use of complementary building materials, colors, and forms, while allowing flexibility for distinguished design solutions.

LU-2.03 **Neighborhood Compatibility.** We require that commercial projects abutting residential neighborhoods be designed and operated to protect residents from the effects of noise, light, odors, vibration traffic, parking and other operational impacts.

LU-7.05 **Bike and Pedestrian Environment.** We provide a high quality bicycle and pedestrian environment with "living street" designs, consistent landscaping, lighting, sidewalks, traffic calming measures, bikeways and trails, consistent with the Bicycle and Pedestrian Master Plan, Tree Ordinance and Design Guidelines.

5.14.5 Existing Regulations and Standard Conditions

State and Regional Regulations

- The California Complete Streets Act (Assembly Bill 1358)
- SB 375 Sustainable Communities and Climate Protection Act
- Orange County Congestion Management Plan

City of San Clemente Municipal Code

Chapter 10 - Vehicles and Traffic outlines the City of San Clemente requirements related to traffic.

5.14.6 Level of Significance Before Mitigation

Upon implementation of regulatory requirements and standard conditions of approval, the following impacts would be less than significant: 5.14-2, 5.14-3, and 5.14-4.

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

- Impact 5.14-1 Upon implementation of the land uses and Mobility and Complete Streets Element included in the Centennial General Plan, several intersections and roadway segments would operate below acceptable levels of service.

5.14.7 Mitigation Measures

Impact 5.14-1

Mitigation measures were developed to mitigate the impacts incurred by each scenario in the study area.

Roadway Intersections

14-1 Table 5.14-15 shows the intersection improvements that would be required categorized by each traffic scenario (i.e. "No FTC Conditions," "With FTC Conditions," etc.) to meet City's intersection minimum level of service.

Table 5.14-15 Summary of Intersection Impacts and Mitigation Measures

Intersection	Mitigation Measures	Scenario			
		No FTC	With FTC	With FTC and RD Alts	With FTC TE
Camino Del Rio and Avenida La Pata	Restripe the Camino Del Rio southbound right turn lane to a southbound through lane. This mitigation will require that the Camino Del Rio southbound receiving leg have three lanes. This mitigation will require public right-of-way acquisition.	X			
	Restripe the Avenida La Pata southbound right turn lane to a southbound through lane. Widen the Camino Del Rio eastbound approach to provide an additional left turn lane onto Avenida La Pata. This mitigation will require that the Avenida La Pata southbound receiving leg have three lanes. This mitigation will require public right-of-way acquisition.				X
Avenida Vista Hermosa and Avenida La Pata	Restripe on Avenida Vista Hermosa one eastbound through lane to an eastbound left turn lane. Restripe on Avenida Vista Hermosa one eastbound right turn lane to an eastbound through lane. This mitigation will require signal modifications.	X			
	Restripe on Avenida Vista Hermosa available right of way to provide an additional eastbound left turn lane.				X
Avenida Vista Hermosa and Camino Vera Cruz	Widen the intersection to provide an additional eastbound through and westbound through lane on Avenida Vista Hermosa, and a northbound left turn lane on Camino Vera Cruz. This mitigation will require public right-of-way acquisition and signal modifications.	X			
	Widen the intersection to provide an additional northbound left turn lane on Camino Vera Cruz. Restripe the westbound right turn lane on Avenida Vista Hermosa to a through lane. This mitigation will require that the Avenida Vista Hermosa westbound receiving leg have three lanes. This mitigation will require public right-of-way acquisition and signal modifications.				X
Avenida Vista Hermosa and Calle Frontera	Restripe on Avenida Vista Hermosa the eastbound right turn lane to an eastbound through lane. This mitigation will require that the Avenida Vista Hermosa eastbound receiving leg have three lanes, which will require public right-of-way acquisition and the implementation of signal modifications.	X			X
Avenida Vista Hermosa and I-5 NB on/off ramps	Restripe the eastbound right turn lane on Avenida Vista Hermosa to an eastbound shared through-right lane at the ramp and an eastbound through at the intersection. This mitigation may require a realignment and restriping of Avenida Vista Hermosa in the eastbound direction to provide shared through-right striping at the ramp and a third through lane at the intersection.	X			X

Table 5.14-15 Summary of Intersection Impacts and Mitigation Measures

Intersection	Mitigation Measures	Scenario			
		No FTC	With FTC	With FTC and RD Alts	With FTC TE
Avenida Pico and Avenida La Pata	Restripe the westbound approach on Avenida Pico to have one additional westbound through lane. This mitigation will require that the Avenida Pico westbound receiving leg have four lanes, which will require public right-of-way acquisition and the implementation of signal modifications.	X			
	Restripe the westbound approach on Avenida Pico to have one additional westbound through lane. This mitigation will require that the Avenida Pico westbound receiving leg have four lanes, which will require public right-of-way acquisition and the implementation of signal modifications. The volumes at this location need additional capacity at the Avenida Pico eastbound left and Avenida La Pata southbound right movements. The intersection already has two eastbound left turn lanes, however, and providing two southbound right turn lanes or providing a free southbound right turn lane will not mitigate the PM peak hour to within allowable LOS limits.				X
Avenida Pico and Calle Amanecer	Restripe on Avenida Pico one westbound through lane to a westbound left turn lane. Widen the southbound receiving leg on Calle Amanecer to have two lanes. Widen the Calle Amanecer northbound approach to provide three left and one free right turn lane. Widen Avenida Pico eastbound and provide one free eastbound right turn lane. This mitigation will require public right-of-way acquisition and signal modifications.	X			
	Restripe on Avenida Pico one westbound through lane to a left turn lane. Widen the southbound receiving leg on Calle Amanecer to have two lanes. Widen the Calle Amanecer northbound approach to provide two left and one free right turn lane. Widen Avenida Pico eastbound to provide four through lanes and one free eastbound right turn lane. This mitigation will require public right-of-way acquisition and signal modifications.				X
Avenida Pico and Calle Frontera/Avenida Presidio	Restripe the Avenida Pico eastbound right turn lane to an eastbound through lane. Widen the Avenida Pico eastbound receiving leg to have four lanes. Restripe one Calle Frontera/Avenida Presidio southbound through lane to a southbound left lane, and restripe the southbound right turn lane to a southbound through lane. Add one Avenida Pico westbound left turn lane and widen the Calle Frontera/Avenida Presidio southbound receiving leg to have two lanes. This mitigation will require public right-of-way acquisition and signal modifications.	X			X
	Restripe on Calle Frontera/Avenida Presidio the eastbound right turn lane to an eastbound through lane. Widen the Calle Frontera/Avenida Presidio eastbound receiving leg to have four lanes. Restripe the Avenida Pico southbound through lane to a southbound left, and restripe the Avenida Pico southbound right turn lane to a southbound shared through-right lane. This mitigation will require public right-of-way acquisition and signal modifications.			X	

Table 5.14-15 Summary of Intersection Impacts and Mitigation Measures

Intersection	Mitigation Measures	Scenario			
		No FTC	With FTC	With FTC and RD Alts	With FTC TE
Avenida Pico and Los Molinos	Restripe the Los Molinos northbound approach to have one northbound left turn and one northbound shared through-right turn lane. This mitigation will require signal modifications.	X			
	Restripe the Los Molinos northbound approach to have one northbound shared through-left turn and one northbound right turn lane. This mitigation will require signal modifications.		X		
	Restripe the Avenida Pico northbound approach to have one northbound shared left-through lane and one northbound right turn lane. This mitigation will require public right-of-way acquisition and signal modifications.			X	
	Restripe the Los Molinos northbound approach to have one northbound shared left-through lane and one northbound right turn lane. Restripe the Avenida Pico westbound approach to have two left turn lanes, and two through lanes. This mitigation will require the Los Molinos southbound receiving have two receiving lanes. This mitigation will require public right-of-way acquisition and signal modifications.				X
Avenida Pico and Calle Amanecer	Restripe on Avenida Pico one westbound through lane to a westbound left turn lane. Widen the southbound receiving leg on Calle Amanecer to have two lanes. Widen the Calle Amanecer northbound approach to provide two left and one free right turn lane. Widen Avenida Pico eastbound and provide one free eastbound right turn lane. This mitigation will require public right-of-way acquisition and signal modifications.		X		
	Restripe on Calle Amanecer one westbound through lane to westbound left turn lane. Widen the Avenida Pico southbound receiving leg to have two lanes. Widen the Avenida Pico northbound approach to provide two left and one free right turn lane. Provide one free eastbound right turn lane on Calle Amanecer. This mitigation will require public right-of-way acquisition and signal modifications.			X	
	Restripe on Avenida Pico one westbound through lane to a left turn lane. Widen the southbound receiving leg on Calle Amanecer to have two lanes. Widen the Calle Amanecer northbound approach to provide two left and one free right turn lane. Widen Avenida Pico eastbound to provide four through lanes and one free eastbound right turn lane. This mitigation will require public right-of-way acquisition and signal modifications.				X

Source: Fehr and Peers, 2013.
Notes: Only roadway segments which experience an impact under the analyzed scenarios are listed.
X = significant impact, FTC = Foothill Transit Corridor, RD = road diet, TE = Tesoro extension, ALT=alternative

Roadway Segments

14-5 Table 5.14-16 shows the roadway segment improvements that would be required to meet City's acceptable level of service within the anticipated buildout of the Centennial General Plan for each scenario.

Table 5.14-16 Summary of Roadway Segment Impacts and Mitigation Measures

Mitigation Measure	Roadway Segment	Scenario						
		No FTC	With FTC	With FTC and RD Alt[1]	With FTC and RD Alt [2]	With FTC and RD Alt [3]	With FTC TE	With FTC TE with RD Alt[2]
Avenida Vista Hermosa								
Widen Vista Hermosa to add travel lanes and carry additional capacity. This mitigation will require the acquisition of public right of way.	Between Calle Frontera and Via Turqueza	X	X	X	X		X	X
	Between Via Turqueza and Camino Vera Cruz	X					X	X
	Between Camino Vera Cruz and Avenida La Pata	X					X	X
Camino De Estrella								
Widen Camino De Estrella to add travel lanes and carry additional capacity. This mitigation will require the acquisition of public right of way.	Between I-5 NB on/off ramp and Camino El Molino	X	X	X	X	X	X	X
Avenida Pico								
Widen Avenida Pico to add travel lanes and carry additional capacity. This mitigation will require the acquisition of public right of way.	Between I-5 NB on/off ramp and Avenida Presidio	X	X	X	X	X	X	X
	Between Avenida Presidio and Calle del Cerro	X	X	X	X	X	X	X
	Between Calle del Cerro and Calle Amanecer	X					X	X
	Between Calle Amanecer and Camino Vera Cruz	X					X	X
Avenida La Pata								
Widen Avenida La Pata to add travel lanes and carry additional capacity. This mitigation will require the acquisition of public right of way.	Between Calle Saluda and Avenida Vista Hermosa	X					X	X
Coast Highway								
Widen Coast Highway/El Camino Real to add travel lanes and carry additional capacity. This mitigation will require the acquisition of public right of way.	Between Camino Capistrano and Camino San Clemente	X	X		X		X	

Table 5.14-16 Summary of Roadway Segment Impacts and Mitigation Measures

Mitigation Measure	Roadway Segment	Scenario						
		No FTC	With FTC	With FTC and RD Alt[1]	With FTC and RD Alt [2]	With FTC and RD Alt [3]	With FTC TE	With FTC TE with RD Alt[2]
El Camino Real								
Widen Coast Highway/El Camino Real to add travel lanes and carry additional capacity. This mitigation will require the acquisition of public right of way.	Between Camino San Clemente and Avenida Estacion	X	X	X	X	X	X	X
	Between Avenida Estacion and Avenida Pico	X	X		X		X	X
	Between Avenida Pico and Los Molinos	X	X	X	X	X	X	
	Between Los Molinos and Calle Las Bolas	X	X	X	X	X	X	
	Between Calle Las Bolas and Avenida De La Grulla	X	X	X	X	X	X	X
	Between Avenida De La Grulla and Avenida Aragon	X	X		X	X	X	X
	Between Avenida Aragon and El Portal	X	X		X	X	X	X
	Between El Portal and Canada				X	X		X
	Between Canada and Escalones				X	X		X
	Between Escalones and Mariposa				X	X		X

Source: Fehr and Peers, 2013.
Note: Only roadway segments which experience an impact under the analyzed scenarios are listed.
X = significant impact, FTC = Foothill Transit Corridor, RD = road diet, TE = Tesoro extension, ALT=alternative

5.14.8 Level of Significance After Mitigation

With implementation of Mitigation Measures 14-1and 14-2, all intersections and segments would operate at acceptable LOS D or better. However, improvements would require right-of-way acquisitions at the following intersections:

- Camino del Rio and Avenida La Pata (No FTC, and With FTC and Tesoro Extension scenarios only)
- Avenida Vista Hermosa and Camino Vera Cruz (No FTC, and With FTC and Tesoro Extension scenarios only)
- Avenida Vista Hermosa and Calle Frontera (No FTC, and With FTC and Tesoro Extension scenarios only)
- Avenida Pico and Avenida La Pata (No FTC, and With FTC and Tesoro Extension scenarios only)
- Avenida Pico and Calle Amanecer
- Avenida Pico and Calle Frontera/Avenida Presidio

All scenarios would require intersection and segment improvements that would require right-of-way acquisitions. Although implementation of the mitigation measures described above would meet the City's performance criteria, it is not guaranteed that the required right-of-way could be acquired. Therefore, impacts at the intersections and segments requiring right-of-way acquisitions would be significant and unavoidable.

Special Consideration – Modification of City LOS Policies

The City may consider a less restrictive LOS policy and allow LOS E operations at several interchanges with I-5 and also eliminate roadway segment LOS as an evaluation tool. Alternatively, the City could choose to keep its LOS policy as currently written and continue the evaluation of roadway segment LOS. The consequences of each choice are described below.

Modify LOS Policies

The use of less restrictive LOS policies will directly result in the City building less roadway infrastructure since fewer impacts will be identified. The main benefit will be that these narrower roadways and intersections will likely be more accommodating for other travel modes. As an example, it is easier for a pedestrian to cross a narrower roadway than a wider one. Bicyclists are more comfortable on narrower roadways since vehicles tend to travel slower on narrower roadways.

One disadvantage to this approach relates to development exactions. Since less restrictive policies result in fewer improvements, it will be slightly more difficult for the City to establish a nexus between development and future improvements. For example, if a future development were to degrade operations at an intersection where LOS E was allowed, the City could not require that development to implement improvements at that location as a direct impact. However, since there are only 4 locations where LOS E would be allowed, this occurrence is likely to be limited for intersection impacts. The larger change is likely to be the manner in which roadway segment impacts are evaluated. As discussed in the Traffic Report, roadway segment analysis in not as accurate or as meaningful as intersection analysis. Removing this methodology from the General Plan will make it more difficult to require a future development to widen an entire roadway segment. It is conceivable that mitigating multiple intersections along a single corridor could result in widening an entire roadway; though it would be more difficult to directly tie a roadway widening to a particular project.

Another limitation would relate to congestion. Less restrictive LOS policies typically result in higher levels of congestion. Motorists and vehicle passengers would experience more congestion with less restrictive LOS policies, particularly at those locations where LOS E conditions are allowed. However, based on the traffic model results, there appear to be only four locations were LOS E is justified.

Adoption of modified LOS Polices would result in significant and unavoidable impacts since they are not consistent with the City's existing traffic metrics.

Maintain Current LOS Policies

Keeping the LOS policies as they are currently adopted will result in the City constructing more roadway and intersection improvements than would otherwise occur. One benefit of this approach is that it would reduce congestion as compared to more relaxed LOS standards. All of the City intersections would be held to their current LOS standards.

Second, development exactions could be obtained more readily for intersection and roadway segment mitigations. For example, if the City maintains roadway segments as an evaluation methodology, then the City could tie development impacts to roadway widening.

The main limitation of this approach would be to create a transportation system which is more auto-centric. Maintaining narrower roadways are more conducive to bicycle and pedestrian travel. Conversely, wider roadways are less accommodating to pedestrians and cyclists, or, a multimodal circulation system. The City's consideration of policies and actions which relate to a balanced transportation system is consistent with the proposed Mobility and Complete Streets Element.

5.15 UTILITIES AND SERVICE SYSTEMS

5.15.1 Environmental Setting

Regulatory Setting

State

Urban Water Management Planning Act

The Urban Water Management Planning Act of 1983, California Water Code Sections 10610 et seq., requires preparation of a plan that:

- Plans for water supply and assesses reliability of each source of water, over a 20-year period, in five-year increments.
- Identifies and quantifies adequate water supplies, including recycled water, for existing and future demands, in normal, single-dry, and multiple-dry years.
- Implements conservation and the efficient use of urban water supplies. Significant new requirements for quantified demand reductions have been added by the Water Conservation Act of 2009 (Senate Bill 7 of Special Extended Session 7 (SBX7-7)), which amends the act and adds new water conservation provisions to the Water Code.

20x2020 Water Conservation Plan

The 20x2020 Water Conservation Plan, issued by the Department of Water Resources (DWR) in 2010 pursuant to the Water Conservation Act of 2009 (SBX7-7), established a water conservation target of 20 percent reduction in water use by 2020 compared to 2005 baseline use.

Senate Bills 610 and 221

To assist water suppliers, cities, and counties in integrated water and land use planning, the state passed Senate Bill (SB) 610 (Chapter 643, Statutes of 2001) and SB 221 (Chapter 642, Statutes of 2001), effective January 1, 2002. SB 610 and SB 221 improve the link between information of water supply availability and certain land use decisions made by cities and counties. SB 610 and SB 221 are companion measures that promote more collaborative planning between local water suppliers and cities and counties. Both statutes require detailed information regarding water availability to be provided to city and county decision makers prior to approval of specified large development projects. This detailed information must be included in the administrative record as the evidentiary basis for an approval action by the city or county on such projects. The statutes recognize local control and decision making regarding the availability of water for projects and the approval of projects. Under SB 610, water supply assessments (WSA) must be furnished to local governments for inclusion in any environmental documentation for certain projects subject to CEQA, as defined in Water Code Section 10912[a]. Under SB 221, approval by a city or county of certain residential subdivisions requires an affirmative verification of sufficient water supply. SB 221 is intended as a fail-safe mechanism to ensure that collaboration on finding the needed water supplies to serve a new large subdivision occurs before construction begins.

The Urban Water Management Planning Act states that every urban water supplier that provides water to 3,000 or more customers or provides over 3,000 acre-feet (af) of water annually, should make every effort to ensure the appropriate level of reliability in its water service to meet the needs of its various categories of customers during normal, dry, and multiple dry years. Both SB 610 and SB 221 identify the urban water management plan (UWMP) as a planning document that can be used by a water supplier to meet the standards in both statutes. Thorough and complete

UWMPs are foundations for water suppliers to fulfill the specific requirements of these two statutes, and they are important source documents for cities and counties as they update their General Plans. Conversely, General Plans are source documents as water suppliers update the UWMPs. These planning documents are linked, and their accuracy and usefulness are interdependent. (CDWR 2003).

Local

San Clemente Municipal Code, Chapter 13.12

The purpose of this chapter is to establish standards and procedures for water conservation, to promote the efficient use of water, to reduce or eliminate the waste of water in the City, to complement the City's Stormwater Runoff Control Ordinance (San Clemente Municipal Code Chapter 13.40), and to enable implementation of the City's water shortage contingency measures.

Water Supply and Distribution Systems

The City spans 18.45 square miles of coastline and scenic foothills in south Orange County. The City of San Clemente, Santa Margarita Water District (SMWD), and South Coast Water District (SCWD) provide potable water to the City of San Clemente. The agencies' service areas are shown on Figure 5.15-1, *Water Provider Service Areas*.

The City's water service area covers 14.7 square miles and excludes a small section in the northern portion of the City that is serviced by SCWD and the inland community of Talega, which is serviced by SMWD.

City of San Clemente Water District

Service Area and Facilities

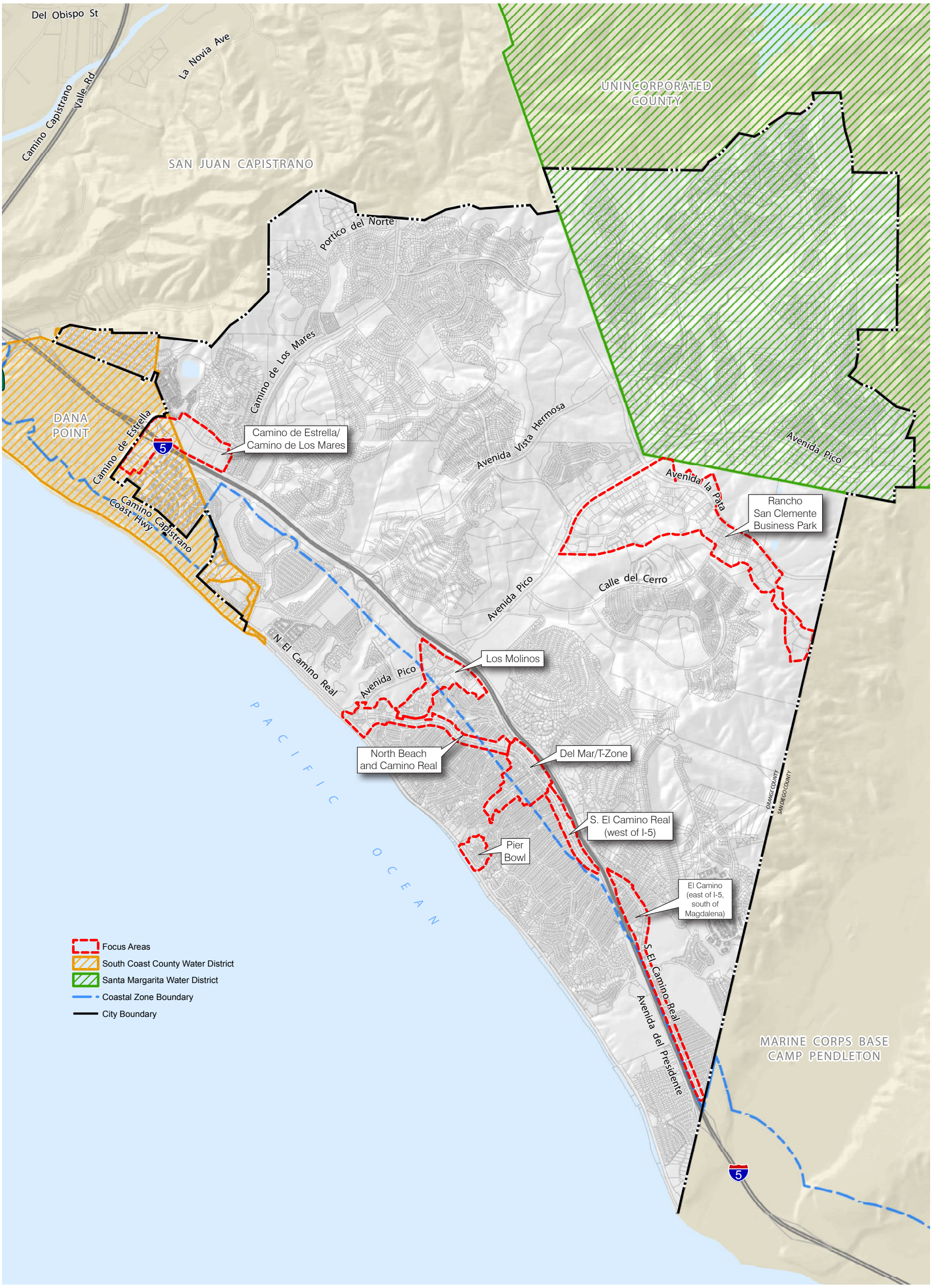
The City provides water to a population of 55,398 throughout its 14.7-square-mile service area. The City receives its water from three main sources: groundwater from the City's wells, recycled water from treated wastewater, and imported water from the Municipal Water District of Orange County (MWDOC), which is a member agency of the Metropolitan Water District of Southern California (MWD). Groundwater is pumped from two active wells in the San Clemente Sub-Basin, and imported water is treated at the Diemer Filtration Plant and delivered to the City through two imported water connections.

The City's water system consists of 13 service zones defined by reservoirs and 20 subzones through pressure reducing stations. The City maintains approximately 206 miles of distribution system piping, 16 pumping stations, 56 pressure reducing stations, one filtration plant, 14 local and two regional reservoirs, and two wells (no. 6 and no. 8). Most of the City's water supply is imported through two MWD systems: the Local Transmission Main (LTM) System and the Water Importation Pipeline (WIP) System. The City has 14.78 cubic feet per second (cfs) capacity through the LTM and 15 cfs ultimate capacity through the WIP. The WIP capacity is limited to 6.7 cfs until 2016 or until the City purchases additional capacity in the Allen McColloch Pipeline (AMP).

The City's water distribution system consists of 13 services zones defined by reservoirs and 20 sub-zones served through pressure-reducing stations. The existing system includes two active wells, a filtration plant to treat groundwater, 14 local and two regional reservoirs, 16 pump stations, 56 pressure reducing stations and 206 miles of distribution system piping.

The City currently owns and operates a water reclamation plant with a capacity of 2.2 million gallons per day (mgd), with an anticipated recycled water expansion project slated for fiscal year 2012-13 to 4.4 mgd.

Water Provider Service Areas



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Water Demand

In 2010, the total water demand for retail customers served by the City was approximately 10,090 acre-feet annually, consisting of 8,570 acre-feet of imported water, 620 acre-feet of local groundwater, and 900 acre-feet of recycled water. Water use in 2010 was down from previous years as a result of MWD's water shortage allocation and aggressive conservation outreach, the economic downturn, and above-average precipitation. The total future demand for customers served by the City is shown in Table 5.15-1.

Table 5-15-1 City of San Clemente UWMP Projected Normal Year Water Supply and Demand (afy)

	Fiscal Year Ending				
	2015	**2020**	**2025**	**2030**	**2035**
Total Demand	10,650	10,840	10,920	10,925	10,975
San Clemente Sub-Basin	1,000	1,000	1,000	1,000	1,000
Recycled Water	1,500	1,830	1,830	1,830	1,830
Imported	8,150	8,010	8,090	8,095	8,145
Total Supply	**10,650**	**10,840**	**10,920**	**10,925**	**10,975**

Source: UWMP Table 3-12.

With MWDOC's assistance, the City has chosen to comply with Option 1 of the SBx7-7 compliance options and established a water conservation target of 20 percent reduction in water use by 2020 compared to 2005 baseline use.

The City is a member of the Orange County 20x2020 Regional Alliance formed by MWDOC. This regional alliance consists of 29 retail agencies in Orange County. Under Compliance Option 1, the City's 2015 interim water use target is 167 gallons per capita per day (gpcd), and the 2020 final water use target is 148 gpcd. The City is on track to meet the SBx7-7 per capita water use reduction requirements individually and as part of a MWDOC regional alliance. Over the next 25 years, the City is projecting a 12% increase in population growth but only an 8.8% increase in total water demand. This is primarily due to the strong commitment to water conservation advocated by the City and the increased reliance on recycled water in the near future.

To achieve and maintain the target per capita water use, the City will continue to implement the Demand Management Measures listed in Section 4 of the City's UWMP, in addition to converting over 100 existing dedicated irrigation accounts now using potable water to recycled water. Because the SBx7-7 requirements apply to potable per capita water use, the City's recycled water expansion project will benefit the City's compliance; approximately 900 acre-feet per year (afy) of irrigation demand will switch from potable water to recycled water by 2020.

Water Sources and Supply Reliability

The City's main source of water is imported water from MWD through purchases from MWDOC. Imported water is supplemented by local groundwater extracted from City-owned wells and recycled water produced at the City's recycled water treatment facility. Currently, the City relies on 85 percent imported water, 6 percent groundwater from the San Clemente Sub-Basin, and 9 percent recycled water. The water supply mix is expected to shift to more recycled water use as a result of the City's recycled water treatment facility expansion. Once completed, the City's recycled water supply is projected to double to 1,830 afy by 2020, 17 percent of the total supply in 2020.

Local groundwater production is also expected to increase from the current 620 afy to the well capacity of 1,000 afy once Well No. 6 rehabilitation is complete. Consequently, the reliance on imported water is expected to decline from 85 percent to approximately 74 percent by 2020. The sources of imported water include the Colorado River and the

State Water Project (SWP). MWD's 2010 Integrated Water Resources Plan (IRP) update describes the core water resource strategy that will be used to meet full-service demands (noninterruptible agricultural and replenishment supplies) at the retail level under all foreseeable hydrologic conditions from 2015 through 2035.

It is required that every urban water supplier assess the reliability to provide water service to its customers under normal, dry, and multiple dry water years. MWD's 2010 Regional UWMP finds that MWD is able to meet full service demands of its member agencies with existing supplies from 2015 through 2035 during normal years, single dry year, and multiple dry years. As shown in Table 5.15-2, as a result of MWD, the City is also capable of meeting the water demands of its customers in normal, single dry, and multiple dry years between 2015 and 2035. (City of San Clemente UWMP 2010)

Table 5-15-2 City of San Clemente UWMP Projected Multiple Dry Year Water Supply and Demand (afy)

		Fiscal Year Ending				
		2015	**2020**	**2025**	**2030**	**2035**
First Year Supply	**Total Demand**	10,650	10,840	10,920	10,925	10,975
	San Clemente Sub-Basin	1,000	1,000	1,000	1,000	1,000
	Recycled Water	1,500	1,830	1,830	1,830	1,830
	Imported	8,150	8,010	8,090	8,095	8,145
	Total Supply	**10,650**	**10,840**	**10,920**	**10,925**	**10,975**
Second Year Supply	**Total Demand**	11,438	11,642	11,728	11,733	11,787
	San Clemente Sub-Basin	800	800	800	800	800
	Recycled Water	1,500	1,830	1,830	1,830	1,830
	Imported	9,138	9,012	9,098	9,103	9,157
	Total Supply	11,438	11,642	11,728	11,733	11,787
Third Year Supply	**Total Demand**	11,438	11,642	11,728	11,733	11,787
	San Clemente Sub-Basin	800	800	800	800	800
	Recycled Water	1,500	1,830	1,830	1,830	18,30
	Imported	9,138	9,012	9,098	9,103	9,157
	Total Supply	11,438	11,642	11,728	11,733	11,787

Source: San Clemente UWMP, Table 3-14.

Future Water Supply Projects

The City is in the design process to expand its water reclamation plant from 2.2 mgd to 4.4 mgd, based on the 2007 Recycled Water Master Plan. The projected total recycled water demand will increase to 1,830 afy and will include nearly nine miles of pipelines, conversion of a domestic water reservoir to recycled water storage, and a pressure-reducing station as well as an interconnection with Santa Margarita Water District. This expansion will reduce the City's dependency on imported water by approximately 9 percent. The project schedule estimates the first phase of new recycled water customers to come on line in 2013.

In Orange County, there are three proposed ocean desalination projects that could serve MWDOC member agencies, including one that specifically benefits the City. The City is participating jointly with MWDOC and four other south county agencies with a pilot plant to evaluate the feasibility for the South Orange Coastal Desalination Project, a potential 15 mgd facility.

Santa Margarita Water District

Service Area and Facilities

SMWD is Orange County's second largest water district, providing water and wastewater treatment services to more than 150,000 people within an area of 62,674 acres. Within the City of San Clemente, SMWD only services the community of Talega. As of March 2013, SMWD had 3,830 active service connections in the City of San Clemente (Tello 2013). Although SMWD does not track the exact number of San Clemente residents within its service boundaries, the approximate service population in Talega is 10,150 persons, calculated by multiplying the 3,830 service connections by 2.65 persons, the average household size as reported by the 2010 US Census.

SMWD receives its water from three main sources: the San Juan Basin, which is managed by the San Juan Basin Authority; recycled water; and imported water from the MWDOC. Groundwater is pumped from an active well in the southeast corner of SMWD, and imported water is treated at the Diemer Filtration Plant and is delivered to SMWD through its imported water connections.

SMWD is divided into eight basic improvement districts and its system consists of 1,209 miles of water and sewer lines, 29 domestic water reservoirs, and 7 irrigation water reservoirs. Nearly all of SMWD's water supply is purchased from MWD, which delivers water to the region from Northern California via the SWP and from the Colorado River via the Colorado River Aqueduct. Water from both sources is treated at the Diemer Filtration Plant in Yorba Linda prior to delivery to SMWD.

Water Demand

Currently, the total water demand for retail customers served by SMWD is approximately 34,200 afy consisting of 28,077 afy of imported water, 65 afy of groundwater, and 6,027 afy of recycled water. SMWD is projecting an increasing demand trend of 36 percent in the next 25 years.

With MWDOC's assistance, SMWD has chosen to comply with Option 1 of the SBx7-7 compliance options. SMWD is a member of the Orange County 20x2020 Regional Alliance formed by MWDOC. Under Compliance Option 1, SMWD's 2015 interim water use target is 189.2 gpcd and the 2020 final water use target is 168.2 gpcd.

Water Sources and Supply Reliability

SMWD's main source of water supply is imported water from MWD through purchases from MWDOC. Imported water is supplemented by recycled water and minor local groundwater supply from the San Juan Basin. Today, SMWD relies on approximately 82 percent imported water, 18 percent recycled water, and 0.2 percent local groundwater.

The water supply mix is expected to shift more toward recycled water by 2015 as a result of the Chiquita water reclamation plant expansions. The two-phase expansion would add an additional 3,000 afy of recycled water by 2015 and another 2,000 afy by 2025.

Another new source of supply expected by 2015 is potable water from the Baker Water Treatment Plant from which SMWD has a capacity right of 9,400 afy. By 2015, SMWD's water supply portfolio is expected to shift to 53 percent imported treated water, 26 percent potable water from Baker WTP from untreated imported water, 21 percent recycled water, and 0.3 percent local groundwater. Local groundwater from the San Juan Basin is a minor source of supply to SMWD's service area and is expected to remain so at around 100 afy. The sources of imported water supplies include the Colorado River and the SWP.

MWD's IRP update describes the core water resource strategy that will be used to meet full-service demands (noninterruptible agricultural and replenishment supplies) at the retail level under all foreseeable hydrologic conditions from 2015 through 2035.

Relying on MWD's 2010 Regional UWMP, SMWD is capable of meeting the water demands of its customers in normal, single dry, and multiple dry years between 2015 and 2035 (SMWD UWMP 2010).

Future Water Supply Projects

SMWD is working with neighboring agencies to expand a permanent interconnection and pumping facilities with the Irvine Ranch Water District's (IRWD) potable water distribution systems. The interconnection allows up to 30 cfs of water from IRWD to the South County agencies via the Joint Transmission Main and the Aufdenkamp Transmission Main (ATM). The current project contemplates connection to the AMP. The Baker Pipeline Regional Water Treatment Plant will be a new 25 mgd plant at the existing IRWD Baker Filtration Plant site in Lake Forest. The Baker Water Treatment Plant will treat imported untreated water from the Santiago Lateral and Irvine Lake through the Baker Pipeline. The Baker Water Treatment Plant is currently in design and is scheduled for construction in 2011 and expected to come online in Fiscal Year 2015-2016. SMWD plans to take approximately 9,400 afy from the Baker WTP.

SMWD completed the Upper Chiquita Reservoir with a capacity of 244 mg (750 af) near Oso Parkway and the 241 Toll Road. The reservoir acts as a large-scale emergency potable water supply during planned or unplanned service disruptions for South Orange County agencies. SMWD is planning to expand its Chiquita water reclamation plant tertiary capacity from 5 mgd to 10 mgd by 2015, increasing production to 11,200 afy. The expansion will reduce SMWD's dependency on imported water and provide recycled water for irrigation purposes.

SMWD is a partner in the Cadiz Valley Water Conservation, Recovery and Storage Project, a potential new water source from a large, renewable aquifer in the eastern Mojave Desert in San Bernardino County. The proposed project would manage the aquifer and conserve water from nearby watersheds otherwise being lost to evaporation in local dry lakes. Conserved water would be collected and delivered to SMWD and other water agencies. There would also be an option for carryover water storage in the Cadiz Aquifer. SMWD is also exploring possibilities for a storage project that, in wet years, would store water from the Colorado River Aqueduct into the Cadiz aquifer. This water could be used when needed in dry years.

In Orange County, there are three proposed ocean desalination projects including one that may specifically benefit SMWD. These are the Huntington Beach Seawater Desalination Project, the South Orange Coastal Desalination Project, and the Camp Pendleton Seawater Desalination Project. On June 23, 2009, SMWD signed a nonbinding letter of intent for 4.5 mgd (5,000 afy) of Huntington Beach Seawater Desalination Project supplies.

South Coast Water District

SCWD encompasses an area of approximately 8.3 square miles (5,300 acres) for water service along the coastline of Orange County. The SCWD provides domestic and nondomestic water service to residential, commercial, and institutional customers in Dana Point and Laguna Beach. A small portion of northern San Clemente, approximately 291 acres and 323 service connections, is within SCWD service boundary (Tello 2013). The approximate service population served by SCWD within the City of San Clemente is 856 people, calculated by multiplying the 323 service connections by 2.65 persons, the average household size as reported by the 2010 US Census.

Service Area and Facilities

SCWD provides water to a population of 38,641 throughout its 8.3-square-mile service area. SCWD receives its water from two main sources, the San Juan Basin and imported water from the MWDOC. Approximately 20 percent of

SCWD's water supply comes from a single well of its Groundwater Recovery Facility along with recycled water that is treated at the Coastal Treatment Plant. Imported water is treated at the Diemer Filtration Plant and is delivered to SCWD through two imported water connections as well as the Joint Regional Water Supply System, which operated, maintained, and administered by SCWD.

Water Demand

Currently, the total water demand for retail customers served by SCWD is approximately 7,000 afy consisting of 5,500 afy of imported water, 624 afy of local groundwater, and 790 afy of recycled water. SCWD is projecting a 25 percent increase in demand in the next 25 years accompanying a projected 7 percent population growth.

With MWDOC's assistance, SCWD has chosen to comply with Option 1 of the SBx7-7 compliance options. SCWD's 2015 interim water use target is 167.7 gpcd and the 2020 final water use target is 149.1 gpcd.

Water Sources and Supply Reliability

SCWD's main sources of water are a combination of imported water, local groundwater, and recycled water. Today, SCWD relies on 9 percent local groundwater, 11 percent recycled water, and 80 percent imported water. It is projected that through 2035, local groundwater will increase to 23 percent, recycled water will increase to 16 percent, and imported water will decrease to 61 percent of the total water supply. The main source of imported water is from MWD through purchases from MWDOC. MWD is able to meet full service demands of its member agencies with existing supplies from 2015 through 2035 during normal years, single dry year, and multiple dry years. SCWD is therefore capable of meeting the water demands of its customers in normal, single dry, and multiple dry years between 2015 and 2035. (SCWD UWMP 2010).

Future Water Supply Projects

SCWD has conducted a preliminary investigation of a project to intercept and treat a portion of the urban runoff in lower Aliso Creek to supplement the recycled water system. Treatment would include filtration and reverse osmosis facilities near the Coastal Treatment Plant. The plant would produce up to 0.5 mgd of water. This project could provide up to 300 afy of additional recycled water. SCWD is investigating other sources of recycled water to meet the ultimate projection of 1,400 afy.

SCWD currently owns and operates a groundwater recovery facility (GRF) with a capacity of 1 mgd that removes iron and manganese using reverse osmosis. SCWD plans to expand the GRF along with a new well to allow SCWD to draw on the Groundwater basin from a second location, as well as the construction of additional wells to reach the 2,000 afy goals.

SCWD requested to allocate 13.2 mg (49 af) of the Upper Chiquita Reservoir's capacity for additional operational use.

In Orange County, there are three proposed ocean desalination projects that could serve MWDOC, including two that specifically may benefit SCWD: the Huntington Beach Seawater Desalination Project and the South Orange Coastal Desalination Project. On July 28, 2009, SCWD signed a nonbinding letter of intent for 2.7 mgd (3,000 afy) of the Huntington Beach Seawater Desalination Project supplies. SCWD is also working in joint with MWDOC and four other South County water agencies along with MWD on the South Orange Coastal Desalination Project; SCWD's preliminary project water supply is 3 mgd (3,360 afy).

Imported Water Supply: Long Term Reliability

The Southern California region faces a challenge satisfying its water requirements and securing its firm water supplies. Increased environmental regulations and competition for water from outside the region have resulted in reduced supplies of imported water. Continued population and economic growth correspond to increased water demands within the region, putting an even larger burden on local supplies. A number of significant factors affecting delivery reliability are discussed below. Major sources of uncertainty include Sacramento Delta pumping restrictions, organism decline, climate change and sea level rise, and levee vulnerability to floods and earthquakes.

MWD's 2010 Regional Urban Water Management Plan

MWD's 2010 Regional UWMP reports on its water reliability and identifies projected supplies to meet the long-term demand within its service area. It presents MWD's supply capacities from 2015 through 2035: single dry year, multiple dry years, and average year.

Colorado River Supplies

CRA supplies include supplies that would result from existing and committed programs and from implementation of the Quantification Settlement Agreement (QSA) and related agreements to transfer water from agricultural agencies to urban uses. Colorado River transactions are potentially available to supply additional water up to the CRA capacity of 1.25 million af on an as-needed basis.

State Water Project Supplies

MWD's SWP supplies have been impacted in recent years by restrictions on SWP operations in accordance with the biological opinions of the U.S. Fish and Wildlife Service and National Marine Fishery Service issued on December 15, 2008, and June 4, 2009, respectively. In dry, below-normal conditions, MWD has increased the supplies received from the California Aqueduct by developing flexible Central Valley/SWP storage and transfer programs. The goal of the storage/transfer programs is to develop additional dry-year supplies that can be conveyed through the available pumping capacity to maximize deliveries through the California Aqueduct during dry hydrologic conditions and regulatory restrictions.

In June 2007, MWD's Board approved a Delta Action Plan that provides a framework for staff to pursue actions with other agencies and stakeholders to build a sustainable Delta and reduce conflicts between water supply conveyance and the environment. The Delta action plan aims to prioritize immediate short-term actions to stabilize the Sacramento River Delta while an ultimate solution is selected, and mid-term steps to maintain the Bay-Delta while the long-term solution is implemented.

State and federal resource agencies and various environmental and water user entities are currently engaged in the development of the Bay Delta Conservation Plan, which is aimed at addressing the basic elements that include the Delta ecosystem restoration, water supply conveyance, flood control protection and storage development. In evaluating the supply capabilities for the 2010 Regional UWMP, MWD assumed a new Delta conveyance is fully operational by 2022 that would return supply reliability similar to 2005 conditions, prior to supply restrictions.

Storage

Storage is a major component of MWD's dry year resource management strategy. MWD's likelihood of having adequate supply capability to meet projected demands, without implementing its water supply allocation plan (WSAP), is dependent on its storage resources. In developing the supply capabilities for the 2010 Regional UWMP, MWD assumed a simulated median storage level going into each of five-year increments based on the balances of supplies and demands.

Supply Reliability

MWD evaluated supply reliability by projecting supply and demand conditions for the single- and multiyear drought cases based on conditions affecting the SWP (MWD's largest and most variable supply). For this supply source, the single driest-year was 1977 and the three-year dry period was 1990-1992. The analyses are illustrated in MWD's 2010 Regional UWMP, Tables 2-11, 2-9 and 2-10. These tables show that the region can provide reliable water supplies not only under normal conditions but also under the single driest year and the multiple dry year hydrologies.

Water Supplies Contingency Plan

Recent water supply challenges throughout the Southwest and the State of California have resulted in the development of a number of policy actions that water agencies would implement in the event of a water shortage. In southern California, the development of such policies has occurred at both the wholesale and retail level. This section describes new and existing policies that MWD, MWDOC, and the City have in place to respond to water supply shortages, including a catastrophic interruption and up to a 50 percent reduction in water supply.

Shortage Actions

Metropolitan Water District

A number of water supply challenges have impacted the reliability of MWD's imported supplies. In response, MWD has implemented existing policies and developed new ones. MWD's first action implements in the event of a water shortage is the suspension and/or reduction of its interruptible supplies, which are supplies sold at a discount in return for the buyers agreeing to be the first to be cut back in the event of a shortage. MWD currently has two interruptible programs for agricultural users and groundwater replenishment, under which supplies were either suspended or reduced in 2007.

In addition, in preparation for the possibility of being unable to the meet "firm demands" (non-interruptible supplies) of its member agencies, in February 2008, the MWD's Board of Directors adopted the WSAP, which was updated in June 2009. MWD's plan includes the specific formula for calculating member agency supply allocations and the key implementation elements needed for administering an allocation. The WSAP is the foundation for the urban water shortage contingency analysis required under Water Code Section 10632 and is part of MWD's 2010 Regional UWMP.

The WSAP was developed in consideration of the principles and guidelines described in MWD's 1999 water surplus and drought management plan (WSDM), with the objective of creating an equitable needs-based allocation. The plan's formula seeks to balance the impacts of a shortage at the retail level while maintaining equity on the wholesale level for shortages of up to 50 percent. The formula takes into account: impact on retail customers and the economy; growth and population; changes in supply conditions; investments in local resources; demand hardening aspects of nonpotable recycled water use; implementation of conservation savings program; participation in MWD's interruptible programs; and investments in facilities.

MWDOC

To prepare for the potential allocation of imported water supplies from MWD, MWDOC worked collaboratively with its 28 member agencies to develop its own WSAP, adopted January 2009, to allocate imported water supplies at the retail level. The MWDOC WSAP lays out the essential components of how MWDOC will determine and implement each member agency's allocation during a time of shortage. The MWDOC WSAP uses a similar method and approach, when reasonable, as WSAP. However, MWDOC's plan remains flexible to use an alternative approach when MWD's method produces a significant unintended result for the member agencies.

City of San Clemente

The City Council adopted Water Conservation Ordinance No. 1487 on May 21, 2009, amending and restating the San Clemente Municipal Code, Chapter 13.12, which established a staged water conservation program that contains provisions for a staged water conservation program that will encourage reduced water consumption in the City through conservation, enable effective water supply planning, assure reasonable and beneficial use of water, prevent waste of water, and maximize the efficient use of water within the City.

Catastrophic Supply Interruption

Given the great distances that imported supplies travel to reach Orange County, the region is vulnerable to interruptions along hundreds of miles of aqueducts, pipelines, and other facilities associated with delivering the supplies to the region. Additionally, this water is distributed to customers through an intricate network of pipes and water mains that are susceptible to damage from earthquakes and other disasters.

Metropolitan Water District

MWD has comprehensive plans for stages of actions it would undertake to address a catastrophic interruption in water supplies through its WSDM and WSAP plans. MWD also developed an emergency storage requirement to mitigate against potential interruption in water supplies resulting from catastrophies in southern California, including seismic events along the San Andreas Fault. Under the requirement, the City must maintain seven days' worth of water supply in storage. In addition, MWD is working with the state to implement a comprehensive improvement plan to address catastrophies outside of southern California region, such as a maximum probable seismic event in the Delta that would cause levee failure and disruption of SWP deliveries. For greater detail on MWD's planned responses to catastrophic interruption, please refer to MWD's Regional UWMP.

Water Emergency Response Organization of Orange County

In 1983, the Orange County water community identified a need to develop a plan on how agencies would respond effectively to disasters impacting the regional water distribution system. The collective efforts of these agencies resulted in the formation of the Water Emergency Response Organization of Orange County (WEROC) to coordinate emergency response on behalf of all Orange County water and wastewater agencies, develop an emergency plan to respond to disasters, and conduct disaster training exercises for the Orange County water community. WEROC was established with the creation of an indemnification agreement between its member agencies to protect each other against civil liabilities and to facilitate the exchange of resources. WEROC is unique in its ability to provide a single point of contact for representation of all water and wastewater utilities in Orange County during a disaster. This representation is to the county, state, and federal disaster coordination agencies. In the Orange County Operational Area, WEROC is the recognized contact for emergency response for the water community.

City of San Clemente

In the event of an interruption of water supplies, the City will respond in accordance with the San Clemente Water Utility System Emergency Operation Manual and the regional water supply emergency response plan. The City is a member agency of WEROC. The City's preparation actions for water supply interruptions include creating an emergency response team, putting employees and contractors oncall, coordinating with other agencies and communicating with the public, and activating the City's emergency operations center (EOC). San Clemente's UWMP, Table 5-4, details the City's planned response during specific catastrophic supply interruptions.

Groundwater

City of San Clemente Water District

The City has limited access to groundwater supply. The City relies on approximately 660 acre-feet per year of groundwater from the non-adjudicated San Clemente Sub-Basin. This local source of supply meets approximately 6

percent of the City's total annual demand. The City currently has two operating wells, Wells no. 6 and no. 8. The City is projected to increase groundwater production to 1,000 afy by 2015. The City established a safe pumping yield on the San Clemente Sub-Basin of 1,100 afy. This safe pumping yield is in place to avoid seawater intrusion and prevent basin overdraft. The City has successfully relied on well water production during drought years and does not anticipate a reduction in safe yield.

Santa Margarita Water District

SMWD has limited access to groundwater supply. SMWD relies on approximately 100 afy of groundwater from the San Juan Basin to provide service on a contract basis to the Nichols Institute. This local source of supply meets only 0.2 percent of SMWD's total annual demand. SMWD currently has one operating well, Well 6.

The San Juan Basin is managed by the SJBA, a joint powers authority created in 1971 for the purpose of carrying out water resources development of the San Juan Basin. The members of the SJBA include the City of San Juan Capistrano, Moulton Niguel Water District, SMWD, and SCWD. As a member of the SJBA, SMWD is entitled to participate in the development of projects to appropriate and divert water from the San Juan Watershed. Additionally, return imported flows, defined as water imported by the SMWD from outside the drainage basin (water purchased from MWD) used within the basin can be collected by SMWD for reuse.

South Coast Water District

In 2008, SCWD incorporated local groundwater into its water resource portfolio with the construction of its GRF. SCWD extracts its groundwater from the San Juan Basin, which is part of the San Juan Creek Watershed. Groundwater currently represents 634 afy, or 9 percent, of SCWD's total water supply. SCWD plans to expand and increase its groundwater supply to 2,000 afy by 2020 with the addition of a second and third well. As a member of the SJBA, SCWD is entitled to participate in the development of projects to appropriate and divert water from the San Juan Watershed. SCWD is permitted to extract 976 afy from the San Juan Basin by the State Water Resources Control Board. The permit provides for increasing the extraction to 1,300 afy upon showing the availability of unnappropriated water. SCWD is currently assembling the data to substantiate the availability of the additional water. SCWD is also preparing background information and a request for an amendment to the permit for allowing the extraction of 3,200 afy from the San Juan Basin.

Nonpotable/Recycled Water

City of San Clemente Water District

One of the major components of the City's water conservation program is its recycled water program. The City currently uses water from their recycled water system for direct nonpotable reuse such as landscape irrigation. The City does not have the potential for indirect potable reuse within their service area.

The City provides additional treatment to a portion of its secondary treated wastewater, rather than discharging it to the ocean, and it is used for landscape irrigation services. The City currently owns and operates a water reclamation plant with a capacity of 2.2 mgd with an anticipated recycled water expansion project slated for expansion to 4.4 mgd by 2015. The projected total recycled water demand will increase to 1,830 afy and will include nearly nine miles of pipelines, conversion of a domestic water reservoir to recycled water storage, a pressure-reducing station, and interconnection with the Santa Margarita Water District. This expansion will reduce the City's dependency on imported water by approximately 10 percent.

The recycled water is used for irrigation and process water at the treatment plant and sold to the Municipal and Bella Collina Golf Courses. In fiscal year 2009-10 approximately 430 af of recycled water from the water reclamation plant were used to irrigate the City's Municipal Golf Course, or approximately 3.5 percent of the City's total water demand in

Fiscal Year 2009-10. Recycled water use in the district's service area more than doubles through the 25-year period between 2010 and 2035, from 900 afy to 1,830 afy, with landscape irrigation as its sole use.

Santa Margarita Water District

SMWD owns and operates a recycled water system with three existing treatment plants, an agreement to purchase water from IRWD, and a seasonal storage reservoir. Recycled water is part of SMWD's overall menu of water supplies included in its UWMP for purposes of meeting the projected water demand for existing and planned future uses. Supplies in any given year may exceed production due to storage capabilities. The Los Alisos Water Reclamation Plant supply exceeds projected demands and can also be used to supplement flows during dry years.

South Coast Water District

In 1984, SCWD constructed an advanced wastewater treatment (AWT) facility at the Coastal Treatment Plant (CTP) with a capacity of 2.6 mgd. The AWT is owned by SCWD and operated by South Orange County Wastewater Authority. The recycled water distribution system consists of three pumping stations with a total pumping capacity of 5,200 gpm, three reservoirs with a storage capacity of 4.7 million gallons, and 18 miles of distribution pipelines. The plant receives influent from the CTP, which provides secondary treatment before discharging the treated effluent through ocean outfall. SCWD annually produces approximately 960 afy of recycled water.

Wastewater Treatment and Collection

City of San Clemente Water District

The City provides wastewater service to most areas within the City boundaries. The 14.7-square-mile service area contains approximately 180 miles of gravity sewers ranging from 6-inches to 24-inches in diameter, 10 pump stations, and 5 miles of pressure force mains. Wastewater is conveyed to the treatment plant on Avenida Pico from two pump stations in the vicinity of the plant.

Table 5.15-3 summarizes the past, current, and projected wastewater volumes collected and treated, and the quantity of wastewater treated to recycled water standards for treatment plants within the City's service area. Table 5.15-4 summarizes the disposal method and treatment level of discharge volumes.

Table 5.15-3 Wastewater Collection and Treatment (afy)

	Fiscal Year Ending						
Type of Wastewater	2005	2010	2015	2020	2025	2030	2035-opt
Wastewater Collected & Treated in Service Area	4,200	4,400	4,700	5,000	5,000	5,000	5000
Volume that Meets Recycled Water Standards	700	900	1,500	1,830	1,830	1,830	1,830

Source: City of San Clemente 2010 UWMP.

Table 5.15-4 Disposal of Wastewater (Non-Recycled) (afy)

	Fiscal Year Ending						
Method of Disposal	2005	2010	2015	2020	2025	2030	2035-opt
Ocean Outfall Secondary/Tertiary	3,500	3,200	3,170	3,170	3,170	3,170	3,170

Source: City of San Clemente 2010 UWMP.

Table 5.15-5 summarizes the existing wastewater generation for the entire City.

Table 5-15-5 San Clemente Existing Wastewater Generation

Land Use	Population	Dwelling Units	Square Feet	*Acres*	Wastewater Use Rate	Total Daily Wastewater Generation (gal/day)	AFY
Residential (Single Family)		22,345			257 gal/du/day	5,742,665	6,432
Residential (Multi Family)		3,637			142 gal/du/day	516,454	578
Commercial			2,328,000		164 gal/tsf/day	381,792	427
Office			998,000		164 gal/du/day	163,672	183
Industrial			4,307,000		150 gal/tsf/day	646,050	723
Institutional			412,000		164 gal/tsf/day	67,568	76
Total	**n/a**	**25,982**	**8,045,000**	**-**	**-**	**7,518,201**	**8,419**

Source: City of San Clemente. June 28, 2000. Standard Provisions and Standard Drawings for the Construction of Water and Sewerage Facilities.

A Wastewater Master Plan, completed in 1995, identified capital improvement projects that would be needed to accommodate wastewater generation by buildout of the 1993 General Plan. The identified improvements have all been completed except for certain improvements at the south end of the City near the I-5 described in the Infrastructure Technical Report included as Appendix E. The capacity of the existing sewer system is considered adequate to accommodate estimated wastewater generation by buildout of the 1993 General Plan (Fuscoe 2013).

Storm Drainage Systems

A description of the regional storm drain system is provided in the Hydrology Section 5.8.1 of this DEIR. As stated, the City's storm drain systems were sized for maximum development based on the most current General Plan at the time of the 1982 Storm Drain Master Plan. All regional drainage facilities are adequately sized to accommodate peak flows based on existing land use conditions.

Solid Waste

Landfills

In 2011 about 85 percent of the solid waste from San Clemente disposed of at landfills was sent to the Prima Deshecha Sanitary Landfill in the City of San Juan Capistrano. The remainder was sent to the Frank R. Bowerman Sanitary Landfill in the City of Irvine. Both facilities are operated by OC Waste & Recycling. The two landfills are described in Table 5.15-6.

Table 5.15-6 Prima Deshecha and Frank R. Bowerman Sanitary Landfills

Landfill	City	Permitted disposal rate in tons/day	Average disposal rate, tons/day	Remaining Capacity, cubic yards	Estimated closure date
Prima Deshecha	San Juan Capistrano	4,000	1,300	132,600,000	2067
Frank R. Bowerman	Irvine	11,500	5,000	198,100,000	2053

Sources: CalRecycle 2013; OC Waste & Recycling 2013.

The existing waste generated by the City is described in Table 5.15-7.

Table 5.15-7 Existing Solid Waste Generation

Land Use	Dwelling Units	Square Feet	Solid Waste Generation Rate (pounds/day)	Total Daily Solid Waste Generation (pounds/day)
Residential (Single Family)	25,982		12.23	317,760
Commercial		2,328,000	13 per 1,000 SF	30,264
Office		998,000	6 per 1,000 SF	5,988
Industrial		4,307,000	6 per 1,000 SF	25,842
Institutional		412,000	0.007 per SF	2,884
Total	**25,982**	**8,045,000**	**-**	**382,738**

Sources: CalRecycle 2013; OC Waste & Recycling 2013.

Waste hauling is provided by CR&R, by standard weekly pickup for all three types of solid waste. Recyclable waste is sent to CR&R at San Juan Capistrano, where an extensive search is made to hand-separate any nonrecyclable items. Greenwaste is hauled to the Tierra Verde Green Waste Facility, processed, and converted into usable products. Regular refuse is sent directly to the Prima Deshecha Landfill at 32250 La Pata Avenue in the City of San Juan Capistrano. This landfill serves the majority of the City and can accept up to 4,000 tons of waste per day.

Both landfills are required to comply with numerous landfill regulations from federal, state, and local regulatory agencies. They are subject to regular inspections from CalRecycle and the Local Enforcement Agency, the California Regional Water Quality Control Board, and the South Coast Air Quality Management District.

Recycling

In accordance with state law, the City of San Clemente has achieved steady gains in its diversion rate of solid waste from landfills, through conservation, recycling, and composting. In order to facilitate the diversion of waste from landfills, the City of San Clemente participates in the Curbside Collection Program and has encouraged the use of the Demolition Debris Recycling Center, allowing for an alternative to the local landfills.

The City of San Clemente's Curbside Collection Program consists of an automated trash collection program along with a broader recycling and yard waste collection system. In collaboration with the provision of necessary and distinctive bins, CR&R also handles hauling the waste to the appropriate facility. This program promotes recycling use and awareness for commercial and residential communities. All commercial "bulk collection" from multiunit residential and commercial premises is collected weekly and taken to the Tierra Verde facility at the corner of La Pata Avenue and Ortega Highway or to the CR&R recycling transfer center.

Other Utilities

Electricity

San Diego Gas & Electric (SDG&E) supplies electricity to San Clemente. Its service area covers nearly all of San Diego County plus the southernmost part of Orange County, including the cities of San Clemente, San Juan Capistrano, and

Dana Point. Total electricity consumption in SDG&E's service area in gigawatt-hours (GWh) is forecast to be 22,550 GWh in 2015 and to increase to 25,967 GWh in 2022 (CEC 2012a).

In 2011 about 200,000 GWh of electricity were generated in California, including that generated by government agencies, utilities, and commercial generators. Net imports of electricity into the state in 2011 amounted to approximately 85,000 GWh (CEC 2013).

The California Public Utilities Commission has approved contracts with roughly 7,700 megawatts (MW) of in-state central-station resources that have not yet become operational (some these have begun construction, but most have not.) Note that, despite contracts, a not-insignificant share of these will ultimately fail to come online.

The state has implemented programs for distributed renewable generation – for example, rooftop solar – that have various targets. For example, the California Solar Initiative has a 3,000 MW target, 1,600 MW of which have been constructed. The Renewable Auction Mechanism and the Solar Photovoltaic Program have targets totaling roughly 2,100 MW, of which, perhaps 500 MW have been contracted and less than 200 MW have begun operation.

The Governor's Office has set an overall target of 12,000 MW of renewable distributed generation by 2020; existing programs (including those listed above) have targets totaling 9,000 MW, meaning that programs totaling 3,000 MW would need to be developed. Some 3,000 MW of this are operational (Vidaver 2013). For fossil fuel generation, 2,030 MW of gas-fired generation is under construction as of May 2013 (Vidaver 2013).

Natural Gas

SDG&E and Southern California Gas Company (SCGC) supply natural gas to San Clemente. The availability of natural gas service is based upon present conditions of gas supply and regulatory prices. As a public facility, SDG&E and SCGC are under the jurisdiction of the Public Utilities Commission and federal regulatory agencies. If these agencies take any action that affects gas supply or the conditions under which such service is available, gas service would be provided in accordance with the revised conditions. Total supplies of natural gas available to SDG&E and SCGC are expected to remain stable at 607 million cubic feet per day (mcfd) between 2015 and 2030. Total natural gas consumption in SDG&E's service area is forecast to be 326 mcfd in 2015 and 331 mcfd in 2030 (CGEU 2012).

Telephone

Telephone service is provided in San Clemente by AT&T.

Cable

Cable service is provided in San Clemente by Time Warner.

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:

U-1 Would exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board.

U-2 Would require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects.

U-3 Would require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects.

U-4 Would not have sufficient water supplies available to serve the project from existing entitlements and resources, and new and/or expanded entitlements would be needed.

U-5 Would result in a determination by the wastewater treatment provider which serves or may serve the project that is has inadequate capacity to serve the project's projected demand in addition to the provider's existing commitments.

U-6 Would be served by a landfill with insufficient permitted capacity to accommodate the project's solid waste disposal needs.

U-7 Would not comply with federal, state, and local statutes and regulations related to solid waste.

These impacts will be addressed in the following analysis.

5.15.3 Environmental Impacts

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

Impact 5.15-1: Project-generated wastewater could be adequately treated by the wastewater service provider for the project. [Thresholds U-1, U-2 (part), and U-5]

Impact Analysis:

The amount of wastewater that would be generated by buildout of the proposed Centennial General Plan is shown in Table 5.15-8.

Table 5.15-8 Proposed Buildout (2035) Wastewater Generation

Land Use	Population	Dwelling Units	Square Feet	*Acres*	Wastewater Use Rate	Total Daily Wastewater Generation (gal/day)
Residential (Low and Very Low)		12,274	-		257 gal/du/day	3,154,418
Residential (Medium Low)		4,672			247 gal/du/day	1,153,984
Residential (Medium)		9,645			142 gal/du/day	1,369,590
Residential (High)		2,117			142 gal/du/day	300,614
Commercial[1]		-	10,922,726		164 gal/tsf/day	1,791,327
Commercial (residential)		136	-		142 gal/du/day	19,312
Mixed Use (retail and office)		-	2,456,069		295 gal/tsf/day	724,540
Mixed Use (residential)[2]		722			142 gal/du/day	102,524
Light Industrial			2,050,605		150 gal/tsf/day	307,591
Heavy Industrial			931,376		245 gal/tsf/day	228,187
Open Space			-	5,187	10 gal/ac/day	51,870
Institutional and Public[3]			1,778,710		164 gal/tsf/day	291,708
Total	**n/a**	**29,566**	**18,139,486**	**-**	**-**	**9,495,665**
Increase over existing						**1,977,464**

Source: City of San Clemente. June 28, 2000. Standard Provisions and Standard Drawings for the Construction of Water and Sewerage Facilities.

[1] Includes Neighborhood Serving, Community Serving, Regional Serving, and Coastal and Recreation Serving Commercial general plan land use designations, which allow for retail, office, and some institutional land uses. The total square feet also includes retail and office land uses allowed within the Light Industrial and Heavy Industrial General Plan land use designations. Specifically this total includes 6,239,043 sf of land uses within the Commercial General Plan land use designation and 4,683,683 sf of land uses within the Industrial General Plan land use designation.

[2] The MU 1, 2, 3.1, 4 and 5 categories allow up to 673 units at 24-36 dwelling units/acre-comparable to the City's Residential (High) category. MU 3.2 allows up to 49 units at 10 – 24 dwelling units/acre-comparable to the City's Residential (Medium) category. Both of these categories have the same wastewater generation rate.

[3] The Public General Plan Land Use designation includes office and institutional uses. Wastewater unit flow factors for institutional uses are not specified and therefore the commercial use rate is applied.

Estimated wastewater generation in the eight focus areas at General Plan Buildout, compared to existing generation, is shown below in Table 5.15-9.

Table 5.15-9 Existing and Proposed Wastewater Generation, Eight Focus Areas

	Average Wastewater Generation, Gallons per Day		
Focus Area	Existing	Proposed Buildout (2035)	Net Change
Camino de Estrella / Camino de los Mares	149,790	259,856	+110,066
Rancho San Clemente Business Park	622,991	988,773	+365,782
Los Molinos	85,009	260,008	+174,999
North Beach / North El Camino Real	107,506	164,694	+57,188
Del Mar / T-Zone	129,251	245,925	+116,674
Pier Bowl	56,951	81,279	+24,328
South El Camino Real Area (West of I-5)	47,633	101,334	+53,701
South El Camino Real Area (East of I-5)	103,487	166,582	+63,095
Total	**1,302,618**	**2,268,451**	**+965,833**

Source: Fuscoe 2013

Full implementation of the land use changes has the potential to increase sewer flows by 0.965 MGD. The maximum increases associated for the Centennial General Plan were reviewed with City staff. The City confirmed there is sufficient capacity to accommodate the increase in sewer demand citywide and for each Focus Area and no major improvements are required. In addition, the increase of 0.965 MGD would still remain under the maximum capacity of the City's waste treatment plant of 7.1 MGD. Furthermore, the Water Reclamation Plant owned and operated by the City is also slated for a significant expansion to increase recycled water production up to 4.4 MGD by 2015. The proposed land use changes associated with the Centennial General Plan and the increase in proposed sewer flows will not exceed the treatment requirements of the San Diego RWQCB. Therefore, impacts to the wastewater treatment providers are less than significant.

No new major sewer upgrades are anticipated or recommended for the Centennial General Plan land use changes. All new development in the City will be subject to a site specific sewer capacity study as part of the approval process through the City. In the unlikely event an expansion of existing sewer facilities is required; a site-specific Storm Water Pollution Prevention Plan (SWPPP) will be required for construction thereby limiting construction impacts to less than significant. See also Section 5 of this EIR regarding construction activities and associated impact discussions. Impacts are less than significant.

Impact 5.15-2: Water supply and delivery systems are adequate to meet project requirements. [Thresholds U-2 (part) and U-4]

Impact Analysis:

Water Demands and Supplies

Buildout of the proposed Centennial General Plan, with full occupancy of planned residential units, would cause a population increase of 13,025 persons to a total of 76,547. As a result of SBX7-7, the three water districts servicing the City of San Clemente established a water conservation target of 20 percent reduction in water use by 2020 compared to baseline. Consequently, buildout of the Centennial General Plan would result in a reduction of water use compared to existing conditions, as shown in Table 5.15-10.

Table 5.15-10 Existing and Proposed Water Demand

	Population	Water Use Rate (gpcd)	Total Daily Water Use (gal/day)	Acre-Feet per Year (afy)
Existing City of San Clemente Total	64,208	186[1]	11,942,688	13,378
Buildout (2035) City of San Clemente Total	76,547	148[2]	11,328,956	12,690
Change from Existing	+12,339		-613,722	-688

[1] Source: San Clemente 2010 UWMP. City's baseline potable water use is 186 gpcd, obtained from the 10-year period: July 1, 1995, to June 30, 2005.
[2] Source: San Clemente 2010 UWMP. 2020 target equal to 20% reduction from baseline—UWMP Table 2-8. Note using the existing per capita rate that total city wide water use would be 14,237,742 gal/day without taking into account any water conservation measures.

San Clemente Water District

UWMPs are important source documents for cities and counties as they update their General Plans. Similarly, General Plans are source documents for water suppliers updating the UWMPs. The accuracy and usefulness of these planning documents are interdependent. If a project was included as part of the projected water demand of the current UWMP,

the water demand for the proposed development does not need to be separately analyzed as long as water demand for the project has remained substantially the same.

The City's UWMP was prepared in 2010, and its service population assumptions differ slightly from the Centennial General Plan population assumptions. As shown in Table 5.15-11, buildout of the proposed General Plan would result in approximately 2,698 additional people within the City's water service boundaries compared to population assumptions in the San Clemente 2010 UWMP.

Table 5.15-11 Existing and Proposed Service Populations per Water District

	UWMP Projections		Centennial General Plan Projections		Difference between UWMP Projections and Centennial GP Buildout	
Water District	Existing Service Population	2035 Service Population	Existing Population	2035 Buildout Population	Existing Population	2035 Buildout Population
Santa Margarita (SMWD)	10,150[1]	10,800[2]	10,150	10,800	-	-
South Coast (SCWD)	856[3]	911[2]	856	911	-	-
San Clemente Water District	55,398[4]	62,138[5]	53,202[6]	64,836[7]	-2,196	+2,698
Total	**66,404**	**73,849**	**64,208**	**76,547**	**-2,196**	**+2,698**

1 Approximate RMWD service population within the City of San Clemente (Telega) calculated by multiplying the 3,830 SMWD service connections in City by 2.65 persons, the average household size reported by the 2010 US Census.
2 Calculated by multiplying existing service population by 6.4%, the City's forecast population growth by 2035 above the existing population.
3 Approximate service population served within the City of San Clemente calculated by multiplying the 323 SCWD service connections by 2.65 persons.
4 Source: San Clemente UWMP Table 2-2; represents City's UWMP 2010 service population projections.
5 Source: San Clemente UWMP Table 2-2; represents City's UWMP 2035 service population projections.
6 Existing City population (64,208) minus existing SMWD and SCWD service populations (11,006).
7 2035 City Population (76,547) minus 2035 SMWD and SCWD service populations (11,711).

The City's 2010 UWMP projects the demand within its service boundaries to be 10,975 afy in 2035. Assuming all the growth of 2,698 additional people occurs within the City's water district service boundaries, buildout of the Centennial General Plan would increase demand by 399,304 gal/day or 447 afy. This is a 4.1 percent increase in 2035 demands.

The City has entitlements and/or written contracts to receive imported water from MWD via the regional distribution system. Although pipeline capacity rights do not guarantee the availability of water, per se, they do guarantee the ability to convey water when it is available to the MWD distribution system. According to the City's UWMP, the total water supplies projected to be available from MWD exceed demands; however, only the projected supplies necessary to meet projected demands are included in the City's UWMP. According to page 3-14 of the UWMP, "[t]he City would be able to meet all demands even if the demand projections were to be increased by a large margin."

Forecast Water Demands in the Eight Focus Areas

Seven of the eight focus areas, plus approximately the eastern half of the Camino de Estrella / Camino de los Mares Focus Area, are in the City of San Clemente Water District service area; the balance of the Camino de Estrella / Camino de los Mares Focus Area is in the South Coast County Water District service area, as shown on Figure 5.15-1.

Forecast water demands in the eight service areas at Centennial General Plan buildout, compared to existing conditions, are shown in Table 5.15-12. Buildout of the Centennial General Plan would increase total water demands in the eight focus areas by approximately 1.32 million gallons per day.

Table 5.15-12 Existing and Proposed Water Demand, Eight Focus Areas

Focus Area	Average Water Demand, Gallons per Day		
	Existing	Proposed Buildout (2035)	Net Change
Camino de Estrella / Camino de los Mares	341,670	463,375	+121,705
Rancho San Clemente Business Park	529,755	878,515	+348,760
Los Molinos	116,870	310,875	+194,005
North Beach / North El Camino Real	196,300	290,835	+94,535
Del Mar / T-Zone	226,065	433,550	+207,485
Pier Bowl	121,825	174,605	+52,780
South El Camino Real Area (West of I-5)	90,910	247,720	+156,810
South El Camino Real Area (East of I-5)	233,660	378,625	+144,965
Total	**1,857,055**	**3,178,100**	**+1,321,045**

Source: Fuscoe 2013

Under the most conservative approach, buildout of the Centennial General Plan would result in a 4.1 percent increase in demand within the City's service boundaries. This would not be considered a large margin. The City's projected supplies exceed demands and are sufficient to accommodate the demands of 2,698 additional people; therefore, impacts would be less than significant.

Water demands due to Centennial General Plan buildout would not deplete groundwater supplies in the San Clemente Sub-Basin because the City Water District has existing and planned water supplies that are adequate even with a large increase in water demands, while General Plan buildout is forecast to increase City Water District water demands by a small fraction, 4.1 percent; and because planned groundwater production in the Sub-Basin by 2015, 1,000 afy, would still be below the safe pumping yield of 1,100 afy.

Furthermore, not all of the population growth would occur within the City's water district service boundaries. City residents and businesses are serviced by two other water districts. As discussed below, a portion of the overall projected population growth resulting from the Centennial General Plan would occur within those districts' boundaries; those districts would be responsible for supplying water within their service boundaries.

Santa Margarita Water District

Within the City of San Clemente, SMWD only services the inland community of Talega. Although SMWD does not track the exact number of San Clemente residents within its service boundaries, the approximate service population in Talega is 10,150 persons. As shown in Table 5.15-13, by 2035 there would be approximately 650 additional people within SMWD service boundaries as a result of overall population growth.

Table 5.15-13 Existing and Future Water Demands

	Population	Water Use Rate (gpcd)	Demand		Supply	Difference (afy)
			Total Daily Water Use (gal/day)	Acre-Feet per Year (afy)	Normal Year (afy)	
Centennial General Plan Projections						
Existing	64,208	186[1]	11,942,688	13,378	-	-
Proposed 2035	76,547	148[2]	11,328,956	12,690	-	-
Difference	+12,339	-	-613,722	-688	-	-
San Clemente UWMP Projections						
2010 UWMP	55,398[3]	-	-	10,090[3]	-	-
2035 UWMP	62,138[4]	-	-	10,975	10,975	0
Difference	+6,740			+885		
SMWD Projections (portion within San Clemente boundary)						
Existing	10,150[5]	210.2[7]	2,133,530	2,389	-	-
Proposed	10,800[6]	168.2[8]	1,816,560	2,035	2,035	
Difference	+650		-316,970	-354	-	-
SCWD Projections (portion within San Clemente boundary)						
Existing	856[9]	186.4[10]	159,558	178	-	-
Proposed	911[6]	149.1[11]	135,830	152	152	0
Difference	+55		-23,728	-26	-	-
Total GP Buildout Demand				**12,690**		
Total Supply (three water districts within City's boundary)					**13,162**	
Increase in GP Water Demand from Assumption in UWMPs						**-216**

[1] Source: San Clemente 2010 UWMP. City's baseline potable water use is 186 gpdc, obtained from the 10-year period July 1, 1995 to June 30, 2005.
[2] Source: San Clemente 2010 UWMP. 2020 target equal to 20% reduction from baseline—UWMP Table 2-8. Note using the existing per capita rate that total city wide water use would be 14,237,742 gal/day without taking into account any water conservation measures.
[3] Source: San Clemente UWMP; represents 2010 water supply and demand.
[4] Source: San Clemente UWMP–Table 3-12; represents 2035 water supply and demand.
[5] Approximate service population within the City of San Clemente (Telega) calculated by multiplying the 3,830 SMWD service connections in the City of San Clemente by 2.65 persons, the average household size as reported by the 2010 US Census.
[6] Calculated by multiplying existing service population by 6.4%, the City's forecast population growth by 2035 above the existing population.
[7] SMWD's baseline water use is 210.2 gpcd, which was obtained from the 15-year period July 1, 1990, to June 30, 2005.
[8] Source: SMWD 2010 UWMP. 2020 target equal to 20% reduction from baseline—UWMP Table 2-8.
[9] Approximate service population within the City of San Clemente calculated by multiplying the 323 SCWD service connections by 2.65 persons, the average household size as reported by the 2010 US Census.
[10] Source: SCWD 2010 UWMP. SCWD's baseline water use is 186.4 gpd, which was obtained from the 15-year period July 1, 1990, to June 30, 2005.
[11] Source: SCWD 2010 UWMP. 2020 final water use target equal to 20% reduction from baseline is 149.1 gpd as summarized in Table 2-8.

The proposed Centennial General Plan includes eight "focus areas." None of the focus areas are within the service boundaries of SMWD. Therefore, no land use changes are proposed in this service area.

The City's adopted General Plan was a source document when SMWD updated their 2010 UWMP. If a project was included as part of the projected water demand of the current UWMP, the water demand for the proposed development does not need to be separately analyzed, as long as water demand for the project has remained substantially the same. No land use changes are proposed within the SMWD service area. The water demand within the built-out community of Talega will remain substantially the same, and its population growth is already accounted for in SMWD's UWMP. Therefore, buildout of the proposed Centennial General Plan would have no impact on SMWD's water supply and delivery systems.

South Coast Water District

A small portion of northern San Clemente, approximately 291 acres with 323 service connections, is within SCWD's service boundary. The City of San Clemente accounts for 5.5 percent of SCWD's service area. The approximate service population served by SCWD in San Clemente is 856 people.

One of the Centennial General Plan's focus areas is within the SCWD service boundaries; the district serves approximately two-thirds or 40.70 acres of the Camino De Los Mares Focus Area. The portion of the focus area located within SCWD (40.70 acres) is less than 1 percent of SCWD's overall service area (5,300 acres).

The Camino De Los Mares Focus Area creates new Medical Office Overlay south of I-5 that increases the maximum floor area ratio for areas designated Community Commercial from 0.5 to 1.0 north of Camino Mira Costa and 0.75 to the south to accommodate medical office expansion with supporting retail. Compared to the City's currently adopted General Plan, the above land use changes result in 35,000 additional square feet of commercial uses and 827,000 additional square feet of office uses within the Camino De Los Mares Focus Area.

The City's adopted General Plan was a source document when SCWD updated their 2010 UWMP. Therefore, with the exception of the new office and commercial square feet allowed, growth in SCDW's portion of the Camino De Los Mares Focus Area is already accounted in its 2010 UWMP.

Growth pursuant to the Centennial General Plan would result in a limited amount of new commercial and office uses within SCWD boundaries. Nonresidential water demands are included in the district's baseline water use estimates—essentially the agency's gross potable water use divided by its service area population reported in gallons per capita per day. Consequently, nonresidential potable water demands are rolled into the district's 2020 water use target of 148 gpcd. As shown in Table 5.15-11, by 2035, population growth in San Clemente would result in approximately 55 more people within SCWD service boundaries, resulting in water demand of 26 afy.

SCWD's projected 2035 water supply and demand is 8,736 afy. The proposed project would increase water demand within SCWD by 26 afy, or 0.30 percent. The portion of the Camino De Los Mares Focus Area within SCDW's service boundary is less than 1 percent of SCDW's entire service area. The SCWD 2010 UWMP states that available imported supply is greater than shown, and the district is capable of providing its customers all their demands with significant reserves in multiple dry years from 2015 through 2035. According to page 3-15 of the UWMP, "[t]his is true even if the demand projections were to be increased by a large margin." Water demands due to General Plan implementation would not deplete groundwater supplies in the San Juan Groundwater Basin because: 1), such water demands within SCWD's service area would account for only 0.3 percent of total forecast 2035 SCWD water demands; 2) SCWD expects to have imported water supplies adequate for its total water demands through the 2015-2035 period; and 3) SCWD would need approval from the San Juan Basin Authority and the State Water Resources Control Board before carrying out its planned expansion of groundwater production from the San Juan Basin from 634 to 2,000 afy. Therefore, impacts to SCWD's water supply and delivery systems would be less than significant.

The total water demand for a buildout population of 76,547 is 12,690 afy in 2035. The total available supply from all three water districts serving the City of San Clemente is at least 13,162 afy, as shown in Table 5.15-11 above. There are sufficient water supplies even under the most conservative approach, which assumes the proposed project exceeds City of San Clemente UWMP 2035 population projections by 2,698 persons, requiring additional water demand of 447 afy.

All three water districts state that available imported supply is greater than shown in their UWMPs and are capable of providing their customers all their demands with significant reserves in multiple dry years from 2015 through 2035. This is true even if the demand projections were to be increased by a large margin. The City has entitlements and/or

written contracts to receive imported water from MWD via the regional distribution system. Although pipeline capacity rights do not guarantee the availability of water, per se, they do guarantee the ability to convey water when it is available to the MWD distribution system. The total water supplies projected to be available from MWD exceed demands.

In addition to having sufficient water supply, regulations are in place to ensure sufficient water supply for the City of San Clemente. First, the Urban Water Management Planning Act requires that water districts plan for water supply and assess reliability of each source of water supply, over a 20-year period by updating their UWMPs in five-year increments. General Plans are source documents as water suppliers update the UWMPs. The next round of UWMP updates in 2015 will include the Centennial General Plan's population projections and land use plan.

Second, under SB 610, a WSA would be required for any project if it is a residential development of 500 units or more; a shopping center or business establishment project employing more than 1,000 persons or having more than 500,000 square feet of floor space; a commercial office building employing more than 1,000 persons or having more than 250,000 square feet of floor space; or an industrial, manufacturing, or processing plant or industrial park planned to house more than 1,000 persons, occupying more than 40 acres of land, or having more than 650,000 square feet of floor area. Individual development projects implemented under the proposed Centennial Land Use Plan would be required to prepare a WSA if they meet these requirements.

Finally, under SB 221, approval by a city or county of certain residential subdivisions requires an affirmative verification of sufficient water supply. SB 221 is intended as a fail-safe mechanism to ensure that collaboration on finding the needed water supplies to serve a new large subdivision occurs before construction begins. Therefore, impacts to water supply and delivery systems would be less than significant.

Long-Term Reliability

The Southern California region faces a challenge satisfying its water requirements and securing its firm water supplies. Increased environmental regulations and competition for water from outside the region have resulted in reduced supplies of imported water. Continued population and economic growth correspond to increased water demands within the region, putting an even larger burden on local supplies. A number of significant factors affecting delivery reliability are discussed in the environmental setting section.

MWD's 2010 Regional UWMP reports on its water reliability and identifies projected supplies to meet the long-term demand within its service area. It presents MWD's supply capacities from 2015 through 2035 under the three hydrologic conditions specified in the Act: single dry-year, multiple dry-years, and average year. MWD evaluated supply reliability by projecting supply and demand conditions for the single- and multiyear drought cases based on conditions affecting the SWP (MWD's largest and most variable supply). The Regional UWMP shows that the region can provide reliable water supplies not only under normal conditions but also under both the single driest year and the multiple dry year hydrologies.

Recent water supply challenges throughout the American Southwest and the State of California have resulted in the development of a number of policy actions that water agencies would implement in the event of a water shortage. In southern California, the development of such policies has occurred at both the wholesale and retail level. The environmental setting section and San Clemente UWMP Section 5 both describe new and existing policies that MWD, MWDOC, and San Clemente Water District have in place to respond to water supply shortages, including a catastrophic interruption and up to a 50 percent reduction in water supply.

Supply Shortages

MWD

In preparation for the possibility of being unable to the meet "firm demands" (non-interruptible supplies) of its member agencies, in February 2008, MWD's Board of Directors adopted the WSAP, which was subsequently updated in June 2009. MWD's plan includes the specific formula for calculating member agency supply allocations and the key implementation elements needed for administering an allocation. The WSAP is the foundation for the urban water shortage contingency analysis required under Water Code Section 10632 and is part of MWD's 2010 Regional UWMP. MWD's WSAP was developed in consideration of the principles and guidelines described in MWD's 1999 Water Surplus and Drought Management Plan.

MWDOC

To prepare for the potential allocation of imported water supplies from MWD, MWDOC worked collaboratively with its 28 member agencies to develop its own WSAP, adopted January 2009, to allocate imported water supplies at the retail level. The MWDOC WSAP lays out the essential components of how MWDOC will determine and implement each member agency's allocation during a time of shortage.

City of San Clemente

The City Council adopted Water Conservation Ordinance No. 1487 on May 21, 2009, amending and restating the San Clemente Municipal Code, Chapter 13.12, which established a staged water conservation program that will encourage reduced water consumption within the City through conservation, enable effective water supply planning, assure reasonable and beneficial use of water, prevent waste of water, and maximize the efficient use of water within the City.

Catastrophic Supply Interruption

Given the great distances that imported supplies travel to reach Orange County, the region is vulnerable to interruptions along hundreds of miles aqueducts, pipelines, and other facilities associated with delivering the supplies to the region. Additionally, this water is distributed to customers through an intricate network of pipes and water mains that are susceptible to damage from earthquakes and other disasters.

Metropolitan Water District

MWD has comprehensive plans for stages of actions it would undertake to address a catastrophic interruption in water supplies through its WSDM and WSAP Plans. MWD also developed an emergency storage requirement to mitigate against potential interruption in water supplies resulting from catastrophic occurrences within the southern California region, including seismic events along the San Andreas Fault. Under the requirement, the City must maintain 7 days' worth of water supply in storage. In addition, MWD is working with the state to implement a comprehensive improvement plan to address disasters that could occur outside of the Southern California region, such as a maximum probable seismic event in the Delta that would cause levee failure and disruption of SWP deliveries. For greater detail on MWD's planned responses to catastrophic interruption, please refer to MWD's Regional UWMP.

Water Emergency Response Organization of Orange County

In 1983, the Orange County water community identified a need to develop a plan on how agencies would respond effectively to disasters impacting the regional water distribution system. The collective efforts of these agencies resulted in the formation of the WEROC to coordinate emergency response on behalf of all Orange County water and wastewater agencies, develop an emergency plan to respond to disasters, and conduct disaster training exercises for the Orange County water community. WEROC was established with the creation of an indemnification agreement between its member agencies to protect each other against civil liabilities and to facilitate the exchange of resources.

WEROC is unique in its ability to provide a single point of contact for representation of all water and wastewater utilities in Orange County during a disaster. This representation is to the county, state, and federal disaster coordination agencies. Within the Orange County Operational Area, WEROC is the recognized contact for emergency response for the water community.

City of San Clemente

In the event of an interruption of water supplies, the City will respond in accordance with the San Clemente Water Utility System Emergency Operation Manual and the regional Water Supply Emergency Response Plan. The City is a member agency of WEROC. The City's preparation actions for water supply interruptions include creating an emergency response team, putting employees and contractors on-call, coordinating with other agencies and communicating with the public, and activate the City's EOC. San Clemente's UWMP Table 5-4 details the City's planned response during specific catastrophic supply interruptions.

Impact 5.15-3: Existing storm drainage systems are adequate to serve the drainage requirements of the proposed project. [Threshold U-3]

Impact Analysis: In general, proposed runoff rates remain essentially unchanged as compared to existing conditions. This is primarily due to the built out condition of the City and each Focus Area. As stated previously, the major components of the 1982 Drainage Master Plan were all implemented over a period of time concurrent with the development phases. Based on discussions with City staff, all regional drainage facilities are adequately sized to accommodate peak flows based on existing land use conditions. In 2014, the City of San Clemente will be updating their Drainage Master Plan and will re-evaluate all regional storm drain facilities and confirm with more sophisticated modeling tools projected runoff rates, existing capacities and identification of deficiencies and/or recommended improvement for long-term viability of the City's storm drain system (see PSFU-6.02). This report will also incorporate the proposed land uses associated with the updated Centennial General Plan and will identify if any of the improvements are needed within the eight Focus Areas and the cost sharing mechanisms for such improvements. However, no new storm water drainage facilities are anticipated with the Centennial General Plan. Impacts are less than significant.

Impact 5.15-4: Existing and/or proposed facilities would be able to accommodate project-generated solid waste and comply with related solid waste regulations. [Thresholds U-6 and U-7]

Impact Analysis:

Solid Waste Generation

The estimated increase in solid waste generation that would result from buildout of the proposed Centennial General Plan update is shown below in Table 5.15-14.

Table 5.15-14 Forecast Project-Related Solid Waste Generation

Land Use	Existing	Proposed General Plan	Difference	Solid Waste Generation (Net Change), pounds per day	
				Per Unit	Total
Residential Units	25,982	29,566	3,584	12.23	43,832
Commercial (Square Feet)	2,328,000	10,922,726	8,594,726	13 per 1,000 SF	111,731
Office (Square Feet)	998,000	2,456,069	1,458,069	6 per 1,000 SF	8,748
Industrial (Square Feet)	4,307,000	2,981,981	1,325,019	6 per 1,000 SF	7,950
Institutional	412,000	1,778,710	1,366,710	.007 per SF	9,567
Total	Not Applicable	Not Applicable	Not Applicable	Not Applicable	**181,828**

Source: CalRecycle 2013; OC Waste & Recycling 2013.

As shown in Table 5.15-12, buildout of the proposed general plan would result in an increase in solid waste generation of roughly 181,828 pounds, or about 90.9 tons, per day.

Landfill Capacity

The two solid waste facilities accepting the vast majority of solid waste from San Clemente have a combined remaining capacity of about 89,289,000 tons and closure dates as late as 2067. There is sufficient landfill capacity in the region for solid waste that would be generated by buildout according with the proposed Centennial General Plan update.

Regulations

The CalRecycle requires that all counties have an approved Countywide Integrated Waste Management Plan (CIWMP). To be approved, the CIWMP must demonstrate sufficient solid waste disposal capacity for at least 15 years, or identify additional available capacity outside of the county's jurisdiction. Orange County's CIWMP, approved in 1996, contains future solid waste disposal demand based on the County population projections previously adopted by the Board of Supervisors. The Orange County landfill system has capacity in excess of 15 years. The Orange County IWMB has also prepared a Regional Landfill Options for Orange County, a 40-year strategic plan to evaluate options for waste disposal for Orange County. Therefore, it may be assumed that adequate capacity for the proposed project is available for the foreseeable future. Furthermore, the City of San Clemente has actively pursued programs to comply with federal, state, and local regulations related to solid waste and facilities to minimize impacts from project-generated solid waste. Therefore, impacts are considered less than significant.

Impact 5.15-5: Existing and/or proposed facilities would be able to accommodate project-generated utility demands. [No specific threshold]

Impact Analysis:

Energy

Natural Gas

Future development of the project area would result in an increased demand for natural gas service. This demand would be associated with the proposed land use changes and increase in residential development. Gas service will be added to the existing system by the SDG&E and SCGC, as necessary to meet the requirements of individual development projects within the project area. The utility companies have indicated that they will be able to supply the area with natural gas without impacting existing service.

The total demand generated by the proposed project does not represent a significant increase to the existing system. The related projects are not concentrated in one area, and the utility companies can meet the needs of the related projects without adverse impacts to surrounding uses. The total cumulative demand, including growth in the surrounding areas, does not represent a significant impact to the energy service because of the substantial amount of reserves available.

Electricity

Growth in the City of San Clemente would result in additional demand for electricity service. The City of San Clemente obtains electricity from SDG&E. Existing energy demand is approximately 399 gigawatt hours (Gwh) per year based on average usage from 2009 to 2012 by residential and nonresidential uses. Future growth in accordance with the proposed land use plan would generate a demand of approximately 526 Gwh per year. The City of San Clemente does not have control over installation of new overhead transmission lines. Demand for electricity would be accommodated by the service providers. New facilities to support the demand for electric service in the City of San Clemente would be constructed by SDG&E in accordance with the demand for new service. Because developments that would be considered for approval under the proposed General Plan have not yet been designed or proposed, the specific electricity facilities that would need to be installed to serve those developments are unknown, as are the environmental impacts of such installations. Such impacts would be evaluated on a project-by-project basis.

Communication: Telephone, Mobile Phone, Cable, and Internet Service

Buildout of the City in accordance with the Centennial General Plan would result in additional demand for communication facilities. Traditionally these facilities are installed or upgraded by private service providers as new subdivisions are built, and installation is supported by service fees. Services within the City are provided by SBC Global Communications and Cox Communications.

In addition, cell towers are increasingly needed to ensure adequate coverage in the service boundaries of the City. The City provides entitlements for installation of these private services, and service providers base the need for such facilities on market demand. Though traditional phone lines only require installation of wire facilities along city streets, mobile facilities require more detailed strategic planning, as reception quality for the cell phone towers is dependent on the topography, height of the communication facility, and so on. Installation of these communication structures are studied by the Federal Aviation Administration, and installations are registered with the Federal Communications Commission. Under the Federal Communications Act of 1996, no laws or actions by any local government or planning or zoning board may prohibit, or have the effect of prohibiting, the placement, construction, or modification of communication towers, antennas, or other wireless facilities in any particular geographic area (No. 47 USC Section 332 [c]). To ensure compatibility of these towers with adjacent land uses, Chapter 12.23, Telecommunication Systems, of the San Clemente Municipal Code provides regulations for the siting of telecommunication facilities, including cell phone towers.

Cable service is provided to the City by local cable franchises, including Time Warner Cable, Comcast Cable, Cox Cable, and Charter Cable. Installation of cable services is provided by these private companies and supported by service fees.

For Internet service, transmission can be obtained through the phone lines for dial-up coverage or by broadband providers. Most Internet service providers are regulated by the California Public Utilities Commission. Broadband providers supply Internet services through cable lines or through Ethernet, a bundling of local area networks that are transmitted by fiber optics (DSL). Like cell phones, the Internet can also be provided through wireless connections.

Infrastructure to support these services is therefore run over the associated local telephone and cable service provider lines.

Growth in the City of San Clemente would necessitate the construction or expansion of these types of communication facilities; however, installation of communication infrastructure is implemented by private companies who base service needs on customer demand. The City of San Clemente has purview over design review and is required to approve new private infrastructure facilities prior to their placement, as regulated by the California Public Utilities Commission.

5.15.4 Relevant General Plan Policies

Public Services, Facilities, and Utilities Element

Policies

Water Quality and Wastewater

PSFU-5.01 **Water Resources.** We ensure that existing and new development does not degrade San Clemente's water resources.

PSFU-5.02 **Conservation Policies and Ordinances.** We review City policies, codes, development fees and service charges to ensure best management practices are followed to conserve water and ensure adequate funding for the operation, maintenance and development of water and wastewater facilities and services.

PSFU-5.03 **Hazardous Materials.** We require that new and existing business, public agencies or non-profits using or creating toxic substances and hazardous materials control their operations and adequately dispose of these materials in a manner that prevents degradation of San Clemente's water resources.

PSFU-5.04 **Septic Systems.** We prohibit the use of septic systems in San Clemente.

PSFU-5.05 **Water Supplies.** We provide and maintain adequate water supplies and distribution facilities capable of meeting existing and future daily and peak demands, including fire flow requirements.

PSFU-5.06 **Urban Water Management Plan.** We strategically plan for an adequate water supply and distribution system by maintaining and updating the Urban Water Management Plan.

PSFU-5.07 **Public Education.** We use public education to promote rebate programs, water conservation and household strategies to minimize impacts to water quality (e.g., disposal methods for fats, grease and oils).

PSFU-5.08 **Recycled Water.** We encourage, and in some cases require, the use of recycled water when available through a Mandatory Use Ordinance. The City encourages the use of domestic greywater for non-potable, non-contact uses, including landscape irrigation if there is no negative impact on urban runoff water quality, and encourages the extension of recycled water facilities to serve all areas.

PSFU-5.09 **Wastewater System.** We provide and maintain a system of wastewater collection and treatment facilities to adequately convey and treat wastewater generated in the City of San Clemente service area.

PSFU-5.10 **Wastewater Monitoring.** We monitor wastewater treatment usage and capacity and plan for wastewater infrastructure improvements or new facilities.

PSFU-5.11 **Xeriscape Planting to Conserve Water.** To conserve water, we require new development to plan drought-tolerant landscaping, consisting of at least 60 percent (by landscaped area) California Native plants, and encourage such plantings in existing development.

Storm Drainage

PSFU-6.01 **Construction, Inspection and Maintenance.** Provide for ongoing inspection and maintenance of existing public storm drains and flood control facilities and for the construction of upgraded and expanded storm drain and flood control facilities, where necessary, to protect existing and accommodate new permitted development.

PSFU-6.02 **Drainage Master Plan.** Provide for the review and, if necessary, update of the existing City Drainage Master Plan study in order to identify any deficiencies and needed improvements in the drainage system.

PSFU-6.03 **Requirement for New Facilities**. Require that adequate storm drain and flood control facilities be constructed coincident with new development.

PSFU-6.04 **New Development Limitation.** Limit new development, when necessary, until adequate flood control facilities are constructed to protect existing development and accommodate the new development runoff, or until mitigation is provided in accordance with the Growth Management Element.

PSFU-6.05 **Development Review.** Review development proposals for projects within the City's Sphere of Influence and encourage the County to disapprove any project which cannot be accommodated with an adequate drainage system.

PSFU-6.06 **Location of Facilities.** Consider, through the planning and design process, designs that provide for public utilities within the street right-of-way or some other easily accessed location.

PSFU-6.07 **Funding Requirement.** Require improvements to existing storm drain and flood control facilities necessitated by a new development proposal be borne by the project proponent; either through the payment of fees, or by the actual construction of the improvements in accordance with State Nexus Legislation.

PSFU-6.08 **Special Districts.** Consider allowing the formation of benefit assessment districts and community facilities districts, where appropriate, in which those who benefit from specific local storm drain and flood control improvements pay a pro rata share of the costs.

PSFU-6.09 **Funding.** Collect fees and charges to fund the operation/maintenance of existing facilities and to construct new facilities.

Solid Waste and Recycling

PSFU-8.01 **Coordination.** We coordinate with contractors and other public agencies to identify and implement cost-effective solid waste and recycling strategies.

PSFU-8.02 **AB 939 Monitoring.** We monitor our solid waste generation and disposal/recycling facilities to ensure we meet or exceed AB 939 requirements for the diversion of solid waste, including construction and demolition waste.

PSFU-8.03 **Education.** We provide educational materials on waste reduction and recycling to local residents, businesses, and schools, and support school recycling programs.

PSFU-8.04 **Styrofoam.** We prohibit the use of food service items comprised of expandable polystyrene (Styrofoam) by food vendors within the City and in City Facilities, City-managed concessions, City-sponsored or co-sponsored events, City permitted events and all franchisees, contractors and vendors doing business with the City, and we discourage the sale and use of expanded polystyrene products citywide.

PSFU-8.05 **Recycled Products (City Facilities/Events).** In municipal operations, we purchase recycled-content products for City-owned facilities and City-sponsored events, when such products are cost effective. We strive to minimize paper use.

PSFU-8.06 **Recycling (City Facilities/Events).** We recycle solid waste materials at all City facilities and events.

PSFU-8.07 **Building Materials.** We use recycled materials for building and facility construction, when financially feasible and safe to do so.

Energy

PSFU-9.01 **Coordination.** We coordinate with local electricity, natural gas, and other energy and utility providers to ensure adequate facilities are available to meet the demands of existing and future development and that such facilities are safely sited and operated.

PSFU-9.02 **Facility Siting.** We collaborate with various utility agencies to ensure local facilities are sited and designed to be safe and compatible with adjacent land uses.

PSFU-9.03 **City Facilities.** We use energy efficient designs that consider life-cycle costs in the planning, construction, and operation of all major City facilities and seek outside funding sources to help support these efforts.

PSFU-9.04 **Energy Audits.** We perform energy efficiency and demand response program audits at City facilities to understand our civic energy demands and plan improvements accordingly.

PSFU-9.05 **Demonstration Projects.** We participate in demonstration projects for energy conservation and savings when feasible.

PSFU-9.06 **Education.** We cooperate with local utilities to provide energy conservation information to the public.

PSFU-9.07 **Renewable Energy Resources.** We work with other agencies and utility providers to develop safe, economical, and renewable energy resources in San Clemente.

PSFU-9.08 **Solar Energy/Heating.** We incentivize the use of solar energy or solar water heating on private development by waiving related fees, when financially feasible for the City to do so.

PSFU-9.09 **Funding.** We seek grants and other outside funding for energy efficiency improvements to public or private facilities and structures in San Clemente.

PSFU-9.10 **Land Use Planning.** We encourage the development of employment centers and other land uses to improve our jobs to housing balance and minimize vehicle trips in San Clemente.

Implementation Actions

Water Quality and Wastewater

22. Study feasibility and effectiveness of new technologies to reduce the use of chemicals at the water treatment plant.

23. Continue implementation of a tiered water rate structure to incentivize water conservation.

24. Expand local water recycling capabilities.

25. Explore the feasibility of desalinization and other regional projects as an alternative resource to reduce the City's dependency on imported water.

26. Maintain and update the City's Urban Water Management Plan, as needed, and implement and enforce the water conservation ordinance.

27. Review City landscaping and irrigation requirements for public and private development to ensure regulations promote drought-tolerant landscaping and systems best practices.

28. Complete water efficiency use surveys of all City facilities.

29. Continue providing education and community outreach on water conservation options and methods.

Stormwater and Urban Runoff

34. Continue to implement the Clean Ocean Program and Stormwater Local Implementation Plan to protect local surface water quality and meet or exceed applicable regional, state and federal requirements.

35. Include specific measure to address the need for sidewalk cleaning while protecting water quality and preventing runoff.

Solid Waste

36. Expand mandatory recycling for commercial customers consistent with State requirements.

37. Establish a strategic plan and public outreach campaign to exceed solid waste diversion requirements of AB 939, including waste created by construction and demolition activities.

38. Continue using rubberized asphalt and recycled aggregate for City street projects, as appropriate.

Energy

40. Establish a schedule for energy efficiency and demand response program audits of City facilities.

41. Improve energy efficiency at City facilities by replacing incandescent lighting with energy-efficient lighting where feasible, upgrading appliances to EnergyStar, updating HVAC systems and establishing shut-off times, replacing water heaters with energy efficient models, and installing occupancy-sensored lighting.

42. Install variable speed drive motors at water and sewer pumps, where feasible.

43. Transition to light emitting diode traffic signal light bulbs and pedestrian crossing signals.

44. Where appropriate and feasible, install solar-powered street radar signs.

45. Consider adopting a wind power ordinance to define how small wind turbines can be used in the City.

46. Upgrade City facilities with EnergyStar or equivalent appliances, energy-efficient lighting, energy-efficient HVAC systems, energy-efficient water heaters, occupancy sensing lighting controls, programmable thermostats, and variable speed drive motors in many water and sewer pumping stations.

47. Explore the feasibility of establishing a City grant program to provide funding support for local energy retrofitting projects.

48. Consider requiring future City facilities to meet LEED Certification standards or equivalent standards.

49. Determine an energy efficiency baseline for City facilities and monitor use and progress.

50. Pursue grant funding and other financial resources to offset the public cost of energy retrofits to existing City facilities.

51. Update our codes to encourage the private development of alternative energy infrastructure where appropriate.

52. Implement the Climate Action Plan and Sustainability Action Plan.

53. Develop a citywide plan for the undergrounding of overhead utility lines, including implementation plan and funding strategies.

5.15.5 Existing Regulations and Standard Conditions

- Building Energy Efficiency Standards (CCR Title 24)
- Appliance Energy Efficiency Standards (CCR Title 20)
- Statewide Retail Provider Emissions Performance Standards (SB 1368).
- Renewable Portfolio Standards (SB 1078)

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: 5.15-1, 5.15-2, 5.15-3, 5.15-4 and 5.15-5.

5.15.7 Mitigation Measures

No mitigation measures are necessary.

5.15.8 Level of Significance After Mitigation

Potential impacts associated with utilities and service systems and less than significant and no mitigation measures are necessary.

6. Significant Unavoidable Adverse Impacts

Chapter 1, *Executive Summary*, contains Table 1-5, which summarizes the impacts, mitigation measures, and levels of significance before and after mitigation. Although mitigation measures would reduce the level of impact, the following impacts would remain significant, unavoidable, and adverse after mitigation measures are applied:

Air Quality

- **Impact 5.2-1:** The proposed General Plan would not be consistent with the South Coast Air Quality Management District (SCAQMD) Air Quality Management Plan because buildout of the Land Use Plan would exceed the current population and employment estimates and would cumulatively contribute to the nonattainment designations of the South Coast Air Basin (SoCAB). Mitigation measures incorporated into future development projects for operation and construction phases would reduce criteria air pollutant emissions associated with buildout of the proposed General Plan. Goals and policies included in the proposed General Plan would facilitate continued City cooperation with SCAQMD and SCAG to achieve regional air quality improvement goals, promotion of energy conservation design and development techniques, encouragement of alternative transportation modes, and implementation of transportation demand management strategies. However, no mitigation measures are available that would reduce impacts associated with inconsistency with the AQMP. Therefore, Impact 5.2-1 would remain significant and unavoidable.

- **Impact 5.2-2:** Construction activities associated with buildout of the proposed General Plan could generate short-term emissions that exceed the SCAQMD'S significance thresholds and would cumulatively contribute to the nonattainment designations of the SoCAB. Implementation of mitigation would reduce criteria air pollutant emissions from construction-related activities. However, due to the magnitude of emissions generated by future construction activities, no mitigation measures are available that would reduce impacts below SCAQMD's thresholds. Therefore, Impact 5.2-2 would remain significant and unavoidable.

- **Impact 5.2-3:** Buildout of the proposed General Plan would generate long-term emissions that would exceed the SCAQMD's significance thresholds and would cumulatively contribute to the nonattainment designations of the SoCAB. Goals and policies are included in the proposed General Plan that would reduce air pollutant emissions. Measures included as part of the Climate Action Plan to reduce idling, natural gas use, and encourage use of alternative-fueled vehicles would also reduce criteria air pollutants within the City. However, due to the magnitude of emissions generated by office, commercial, industrial, and warehousing land uses, no mitigation measures are available that would reduce impacts below SCAQMD's thresholds. Therefore, Impact 5.2-3 would remain significant and unavoidable.

- **Impact 5.2-4:** Buildout of the proposed General Plan could expose sensitive receptors to substantial toxic air contaminant concentrations. Buildout of the proposed General Plan could result in new sources of criteria air pollutant emissions and/or toxic air contaminants near existing or planned sensitive receptors. Goals and policies are included in the proposed General Plan that would reduce concentrations of criteria air pollutant emissions and TACs generated by new development.

  Review of projects by SCAQMD for permitted sources of air toxics (e.g., industrial facilities, dry cleaners, and gasoline dispensing facilities) would ensure health risks are minimized. Mitigation Measure 2-2 would ensure

mobile sources of toxic air contaminants not covered under SCAQMD permits are considered during subsequent project-level environmental review. Development of individual projects may achieve the incremental risk thresholds established by SCAQMD. However, the incremental increase in health risk associated with individual projects is considered cumulatively considerable and would contribute to already elevated levels of cancer and noncancer health risks in the SoCAB. Therefore, Impact 5.2-4 would remain significant and unavoidable.

Greenhouse Gas Emissions

- **Impact 5.6-1:** The City would not achieve the long-term GHG reductions goals under Executive Order S-03-05. The City's CAP would ensure that GHG emissions from buildout of the proposed General Plan would be minimized. However, additional statewide measures would be necessary to reduce GHG emissions under the proposed General Plan to meet the long-term GHG reduction goals under Executive Order S-03-05, which identified a goal to reduce GHG emissions to 80 percent of 1990 levels by 2050. CARB is currently updating the Scoping Plan to identify additional measures to achieve the long-term GHG reduction targets. At this time, there is no plan past 2020 that achieves the long-term GHG reduction goal established under S-03-05. As identified by the California Council on Science and Technology, the state cannot meet the 2050 goal without major advancements in technology (CCST 2012). Since no additional statewide measures are currently available, Impact 5.6-1 would remain significant and unavoidable.

Noise

- **Impact 5.10-1:** Buildout of the proposed Land Use Plan would result in an increase in traffic on roadways in the City of San Clemente, which would substantially increase the noise environment. Mitigation Measure 10-1 (land use compatibility) would reduce potential noise impacts to new uses. No mitigation measures are available that would prevent noise levels along major transportation corridors from increasing as a result of substantial increase in traffic volumes, which would affect existing sensitive uses. Impact 5.10-1 would remain significant and unavoidable.

- **Impact 5.10-6:** Construction activities associated with buildout of the individual land uses according to the proposed Land Use Plan would substantially elevate noise levels in the vicinity of sensitive land uses. Mitigation Measure 10-2 (construction-related noise) would reduce the impacts of construction noise to the extent feasible. However, due to the potential for proximity of construction activities to sensitive uses and the potential longevity of construction activities, Impact 5.10-6 (construction noise) would be significant and unavoidable.

- **Impact 5.10-7:** Construction activities associated with buildout of the individual land uses according to the proposed Land Use Plan could expose sensitive uses to strong levels of groundborne vibration. Mitigation Measure 10-4 (construction-related vibration) would reduce the vibration impacts of construction activities to the extent feasible. However, due to the potential for proximity of construction activities to sensitive uses and the potential longevity of construction activities, Impact 5.10-7 (vibration) would be significant and unavoidable.

Transportation and Traffic

- Upon implementation of the land uses and Mobility and Complete Streets Element included in the Centennial General Plan, several intersections and roadway segments would operate below acceptable levels of service. With implementation of Mitigation Measures 14-1 to 14-2, all intersections would operate at acceptable LOS D or better. However, improvements would require right-of-way acquisitions at the following intersections:
  - Camino del Rio and Avenida La Pata (No FTC, and With FTC and Tesoro Extension scenarios only)
  - Avenida Vista Hermosa and Camino Vera Cruz (No FTC, and With FTC and Tesoro Extension scenarios only)

- Avenida Vista Hermosa and Calle Frontera (No FTC, and With FTC and Tesoro Extension scenarios only)
- Avenida Pico and Avenida La Pata (No FTC, and With FTC and Tesoro Extension scenarios only)
- Avenida Pico and Calle Amanecer
- Avenida Pico and Calle Frontera/Avenida Presidio

All scenarios would require intersection and segment improvements that would require right-of-way acquisitions. Although implementation of the mitigation measures described above would meet the City's performance criteria, it is not guaranteed that the required right-of-way could be acquired. Therefore, impacts at the intersections and segments requiring right-of-way acquisitions would be significant and unavoidable.

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7. *Alternatives to the Proposed Project*

7.1 INTRODUCTION

7.1.1 Purpose and Scope

The California Environmental Quality Act (CEQA) requires that an Environmental Impact Report (EIR) include a discussion of reasonable project alternatives that would "feasibly attain most of the basic objectives of the project, but would avoid or substantially lessen any significant effects of the project, and evaluate the comparative merits of the alternatives" (CEQA Guidelines Section 15126.6). This chapter identifies potential alternatives to the proposed project and evaluates them, as required by CEQA.

Key provisions of the CEQA Guidelines on alternatives (Section 15126.6[a] through [f]) are summarized below to explain the foundation and legal requirements for the alternatives analysis in the EIR.

- "The discussion of alternatives shall focus on alternatives to the project or its location which are capable of avoiding or substantially lessening any significant effects of the project, even if these alternatives would impede to some degree the attainment of the project objectives, or would be more costly" (15126.6[b]).

- "The specific alternative of 'no project' shall also be evaluated along with its impact" (15126.6[e][1]).

- "The no project analysis shall discuss the existing conditions at the time the Notice of Preparation (NOP) is published, and at the time the environmental analysis is commenced, as well as what would reasonably be expected to occur in the foreseeable future if the project were not approved, based on current plans and consistent with available infrastructure and community services. If the environmentally superior alternative is the 'no project' alternative, the EIR shall also identify an environmentally superior alternative among the other alternatives" (15126.6[e][2]).

- "The range of alternatives required in an EIR is governed by a 'rule of reason' that requires the EIR to set forth only those alternatives necessary to permit a reasoned choice. The alternatives shall be limited to ones that would avoid or substantially lessen any of the significant effects of the project" (15126.6[f]).

- "Among the factors that may be taken into account when addressing the feasibility of alternatives are site suitability, economic viability, availability of infrastructure, general plan consistency, other plans or regulatory limitations, jurisdictional boundaries, and whether the proponent can reasonably acquire, control or otherwise have access to the alternative site (or the site is already owned by the proponent)" (15126.6[f][1]).

- "For alternative locations, "only locations that would avoid or substantially lessen any of the significant effects of the project need be considered for inclusion in the EIR" (15126.6[f][2][A]).

- "An EIR need not consider an alternative whose effect cannot be reasonably ascertained and whose implementation is remote and speculative" (15126.6[f][3]).

For each development alternative, this analysis:

- Describes the alterative,
- 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.

Per the CEQA Guidelines Section 15126.6(d), additional significant effects of the alternatives are discussed in less detail than the significant effects of the project as proposed.

7.1.2 Project Objectives

As described in Section 3.2, The City established the following objectives for the San Clemente Centennial General Plan project to aid decision makers in their review of the project and associated environmental impacts:

- Provide a new General Plan that establishes the goals and policies to create a built environment that fosters the enjoyment, financial stability, and well-being of the entire community.

- Craft a General Plan that is a living, web-based document, designed to adjust continuously to new opportunities and challenges.

- Integrate environmental analysis in the early planning phases, creating a self-mitigating General Plan, to the extent feasible.

- Create a plan that promotes sustainable economic vitality and fiscal responsibility.

- Identify and plan new opportunities for infill growth in key focus areas of the City. Opportunities must reflect the City's vision and be consistent with the Guiding Principles (below) established early on during the planning process.
    - *Small-Town Feel.* Maintain San Clemente's small-town feel: where neighbors know neighbors and merchants, the scale of the built environment does not overwhelm, and the downtown "T-Zone"—the heart of the Spanish village by the sea—is everybody's neighborhood.

    - *Arts/Culture.* Celebrate and cultivate San Clemente's surf, beach, and arts culture, through community events, preservation of landmarks, and support of the arts community.

    - *Public Safety.* Maintain and enhance personal safety (real and perceived), and maintain preparedness for catastrophic events.

    - *Beach and Ocean.* Protect and create spaces and places to enjoy a memorable beach experience on and off the sand.

    - *Education and Information.* Seek out and provide a state-of-the-art, comprehensive life-long learning and information environment.

    - *Mobility.* Develop and maintain programs and efficient connective transportation networks (e.g., pathways, trails, roads, transit, and telecommuting) that satisfy competing needs for the movement of people and goods.

- *Natural Environment*. Preserve and enhance natural resources and open space, prevent and reduce pollution, and protect the public's vistas of and access to coastal, hillside, and canyon lands.
- *Fiscal Sustainability*. Practice economically and fiscally responsible municipal decision making to avoid shifting today's costs to future generations.
- *Economic Prosperity*. Promote economic growth and prosperity that leverages our local assets and complements the other guiding principles.
- *Historic Architecture/Preservation*. Preserve and restore historic resources to showcase the city's authentic local identity and catalyze economic activity.

- Support mixed use development where it is compatible with surrounding uses.
- Reconcile General Plan buildout projections with regional and subregional estimates for growth.
- Incorporate housing sites identified in the adopted Housing Element with the Land Use Element.
- Ensure consistency with AB 32, SB 375 and other recent State mandates.
- Incorporate new goals, policies, and programs that balance multiple modes of transportation and meet the requirements of the Complete Streets Act.
- Ensure that roadway design, transit systems, and nonmotorized transportation systems are balanced against the context of the places that they are serving or attempting to connect.

7.2 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 Draft EIR (EIR).

7.2.1 Alternative Development Areas

CEQA requires that the discussion of alternatives focus on alternatives to the project or its location that are capable of avoiding or substantially lessening any significant effects of the project. The key question and first step in the analysis is whether any of the significant effects of the project would be avoided or substantially lessened by putting the project in another location. Only locations that would avoid or substantially lessen any of the significant effects of the project need be considered for inclusion in the EIR (Guidelines Sec. 15126[5][B][1]). The proposed project is a general plan update for the City of San Clemente. The General Plan is specific to the City and its jurisdiction; it is also specific to the natural, social, and cultural environments within the City. The City does not have jurisdiction over areas outside of its boundaries and sphere of influence, and therefore cannot impose General Plan policies on such areas. Therefore, an alternative development area for the proposed project is impracticable.

7.2.2 No Growth/No Development Alternative

The No Project/No Development Alternative would prohibit all new development, restricting urban growth to its current extent. The population would remain at existing levels, approximately 64,208 residents. No alterations to the

City would occur (with the exception of previously approved development), and all residential development and commercial and industrial uses would generally remain in their current conditions. Some minor population growth could occur within the City, to the extent that existing residential units or units that have already been approved could accommodate additional residents (e.g., a decrease in vacancy rates). None of the impacts of the proposed General Plan would result. Future conditions within the City, except for the impacts of regional growth, would generally be the same as existing conditions, which were described in the environmental setting section for each environmental topic.

Implementation of this alternative would not provide adequate housing supply required to meet the City's obligations to provide its fair share of affordable housing. In addition, development under this alternative would not expand mixed-use development in North Beach/North El Camino Real (Focus Area 4) or South El Camino Real Area – West of I-5 (Focus Area 7). This alternative would not create a new Medical Office Overlay in Camino de Estrella/Camino de Los Mares (Focus Area 1) or a Professional Business Overlay in Los Molinos (Focus Area 3). Since the floor area ratio (FAR) would not be increased in these areas, this alternative would not improve the jobs/housing balance of the region, potentially reducing the number of vehicle miles traveled (VMT) in the South Coast Air Basin (SoCAB). It should also be noted that this alternative would not achieve any of the objectives established for the project. As a result, this alternative has been rejected from further consideration

7.3 ALTERNATIVES SELECTED FOR FURTHER ANALYSIS

Based on the criteria listed above, the following three alternatives have been determined to represent a reasonable range of alternatives that have the potential to feasibly attain most of the basic objectives of the project but 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/1993 Adopted General Plan Alternative
- Alternative Land Use
- Reduced Intensity Alternative

An EIR must identify an "environmentally superior" alternative, and where the No Project Alternative is identified as environmentally superior, the EIR is then required to identify as environmentally superior an alternative from among the others evaluated. Each alternative's environmental impacts are compared to the proposed project and determined to be environmentally superior, neutral, or inferior. However, only those impacts found significant and unavoidable are used in making the final determination of whether an alternative is environmentally superior or inferior to the proposed project. Only the impacts involving air quality, greenhouse gas emissions, noise, and traffic were found to be significant and unavoidable. Section 7.7 identifies the environmentally superior alternative.

Alternatives Comparison

The following statistical analysis provides a summary of general socioeconomic buildout projections determined by the four land use alternatives, including the proposed project. It is important to note that these are not growth projections. That is, they do not anticipate what is likely to occur by a certain time horizon, but rather provide a buildout scenario that would only occur if all the areas of the City were to develop to the 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 7-1 identifies City-wide information regarding dwelling unit, population, and employment projections, and also provides the jobs to housing ratio for each of the alternatives.

Table 7-1 Buildout Statistical Summary

	Proposed Project	No Project/1993 Adopted General Plan Alternative	Alternative Land Use	Reduced Intensity Alternative
Dwelling Units	29,567	29,054	29,567	26,610
Population	76,547	71,763	76,547	68,892
Nonresidential square feet	18,139,484	17,393,045	15,701,484	13,604,613
Employment	39,313	37,742	34,029	29,485
Jobs-to-Housing Ratio	1.33	1.30	1.15	1.10

7.4 NO PROJECT/1993 ADOPTED GENERAL PLAN ALTERNATIVE

Section 15126.6(e) of the CEQA Guidelines requires that an EIR evaluate and analyze the impacts of the "No-Project" Alternative. When the project is the revision of an existing land use or regulatory plan, policy, or ongoing operation, the no-project alternative is the continuation of the plan, policy, or operation into the future. Therefore, in the No Project/1993 Adopted General Plan Alternative, the current Land Use Plan would remain in effect. All proposed changes to the focus areas would not occur; therefore, the maximum FAR in the Rancho San Clemente Business Park would remain at 0.5 and the Shorecliffs Golf Course would remain Commercial (Coastal and Recreation Serving), which allows hotel and ancillary facilities. Development in accordance with the 1993 General Plan would continue to occur allowing for a total of: 29,054 residential units, 5,058,456 square feet (sf) of retail, 7,615,574 sf of office, 3,007,941 sf of industrial, and 1,711,074 sf of institutional uses. This alternative would not include adoption of the Climate Action Plan or Bicycle and Pedestrian Master Plan.

7.4.1 Aesthetics

The types of impacts associated with degradation of scenic vistas, decreased visual quality, obstruction/alteration of scenic resources in a state- or locally designated scenic highway, and increased light and glare would be similar to the proposed project under this alternative, since the overall character of General Plan buildout would be similar. The proposed project does not allow for development in areas currently proposed for open space by the existing General Plan. However, development intensities in some areas of the City, such as Los Molinos, Camino de Los Mares and Rancho San Clemente Business Park, would be less under this alternative. As with the proposed Land Use Plan, the No Project Alternative would not alter the visual appearance of the City as to substantially degrade the existing visual character, because the City's General Plan has goals and polices to maintain and ensure the aesthetic qualities of the City. The No Project Alternative would have potential to generate new light or glare sources. However, any new improvements or developments would be subject to the Municipal Code and Design Guidelines, which would ensure that light and glare would be minimized. Overall, the aesthetic impacts associated with the No Project Alternative would be similar to the proposed project.

7.4.2 Air Quality

This alternative would reduce long-term emissions from stationary and mobile sources and short-term emissions from construction activities associated with new development.

This alternative would result in a capacity reduction of 513 residential units and 746,739 square feet of nonresidential uses citywide. This would result in a substantial reduction in average daily trips (ADT) and mobile-source emissions.

Furthermore, stationary-source emissions would be reduced because there would be fewer residential and nonresidential developments under the No Project Alternative compared to the proposed Land Use Plan. Additionally, a reduction in developments would reduce short-term emissions related to project construction activities. Although this alternative would reduce both long- and short-term pollutant emissions, it would not eliminate significant short- and long-term criteria pollutant contributions of volatile organic compounds (VOC), NO_X, CO, SO_2, PM_{10}, and $PM_{2.5}$; would not be consistent with the air quality management plan, since criteria pollutants thresholds would be exceeded; and would cumulatively contribute to the SoCAB nonattainment designations for O_3, PM_{10}, and $PM_{2.5}$. Implementation of the proposed Land Use Plan was found to have significant and unavoidable impacts to short- and long-term air quality. In comparison to the proposed Land Use Plan, this alternative would substantially reduce but not eliminate short- and long-term air quality impacts.

7.4.3 Biological Impacts

Impacts on biological resources would be similar for both the Centennial General Plan and the No Project Alternative, since the City is largely built out and the area planned for development would not change. Threatened and endangered species have been observed or are expected to exist in San Clemente, as indicated in Section 5.3, *Biological Resources*. However, prior to and during development, projects would be required to follow the regulations of the California and federal Endangered Species Acts, including requirements of the US Fish and Wildlife Service regarding critical habitat. Even though the intensity of development would be less under this alternative, impacts caused by development are expected to be similar since the same amount of acreage could be developed.

7.4.4 Cultural Resources

Under this alternative, development intensity would be reduced; however, the amount of undeveloped acreage available for development would remain the same. As a result, impacts to cultural resources would be expected to be substantially similar to those of the proposed project. This alternative would not impact any historic resources. Ground-disturbing activities associated with buildout of the adopted General Plan would continue to occur in order to accommodate new development. Consequently, the potential of encountering fossil-bearing soils and rock formations, destroying below-ground paleontological resources, and affecting archaeological sites and sites of cultural significance would still occur, similar to the proposed project. However, cultural resources are governed on a site-by-site basis, and the probability of uncovering new resources or disturbing known resources is considered in project-level environmental review. Mitigation measures are created for projects that have the potential to disturb cultural resources, to lessen or negate impacts. Therefore, implementation of this alternative would result in impacts similar to buildout of the Centennial General Plan, which are considered less than significant.

7.4.5 Geology and Soils

Earthquake hazards would be of similar magnitude under the No Project Alternative as under the proposed project, because future development would still occur throughout the City. Other site-specific geological hazards associated with erosion, loss of topsoil, liquefaction, subsidence, landslides, and expansive soils would also be similar for this alternative relative to the proposed project. New development under both alternatives would be expected to conform to the most recent California Building Codes, which include strict building specifications to ensure structural and foundational stability. In terms of geologic hazards, this alternative would have a less than significant impact.

7.4.6 Greenhouse Gas Emissions

The No Project/1993 Adopted General Plan Alternative would potentially reduce ADT compared to the proposed Land Use Plan, resulting in a reduction of GHG emissions from mobile sources. Additionally, because the alternative would provide less capacity for residential dwelling units and total square footage of nonresidential developments, GHG emissions from project-related construction activities would also be potentially reduced. Although this alternative would reduce daily trips, it would lose the potential benefits derived from more mixed-use and higher intensity developments proposed in specific focus areas in the Centennial General Plan. These types of developments could reduce per-capita VMT and ADT by as much as 30 percent by reducing the distance between employment, services and amenities, and residences, in addition to supporting higher utilization of alternative modes of transportation (Urban Land Institute 2008). Impacts from this alternative would still be significant and unavoidable, since additional statewide measures would be necessary to reduce GHG emissions to meet the long-term GHG reduction goals under Executive Order S-03-05, which identified a goal to reduce GHG emissions to 80 percent of 1990 levels by 2050. Therefore, GHG impacts would remain significant and unavoidable under this alternative.

7.4.7 Hazards and Hazardous Materials

This impact would be similar to the proposed project, though slightly reduced, because the No Project Alternative reduces overall development intensity. Consequently, impacts related to the routine transport, use, or disposal of hazardous materials, as well as those related to reasonably foreseeable upset conditions, would be slightly reduced, though already less than significant. In addition, development under the No Project Alternative could expose people to hazardous substances that may be present in soil or groundwater, and demolition activities could expose workers and the environment to asbestos-containing materials and/or lead-based paint and residues. However, development under both the proposed project and this alternative would be held to federal, state, and local policies protecting humans and the environment from exposure to hazards. Compliance with the provisions of hazardous material policies in the City's Municipal Code and implementation of the existing regulations related to hazardous materials would reduce this impact to a less-than-significant level. For future developments on hazardous materials sites, appropriate remediation activities would be required before construction activities could be permitted. Similar to the proposed project, impacts would be less than significant. Overall, impacts related to hazards and hazardous materials would be slightly reduced under this alternative compared to the proposed project, and impacts would remain less than significant.

7.4.8 Hydrology and Water Quality

Implementation of the adopted General Plan would have similar hydrology and water quality impacts to the proposed project. Although both residential and nonresidential intensity would be reduced under this alternative, similar alterations to drainage patterns and alterations to hydrological patterns would occur. Similar to the proposed project, runoff would be subject to NPDES permit standards and provisions stipulated in the drainage area management plan. If necessary, treatment would be employed to remove excess pollutants from runoff during the construction and operational phases of development. The adopted policies that offer protection from water quality impairment would be implemented to treat runoff to the maximum extent practicable. In terms of water quality, this alternative would have a less than significant impact, similar to the proposed project. Hydrology and water quality impacts overall would be similar for this alternative as for the proposed project, and impacts would remain less than significant.

7.4.9 Land Use and Relevant Planning

Under the No Project/1993 Adopted General Plan Alternative, the benefits of providing additional mixed-use and development intensity opportunities in specific focus areas would not occur. Therefore, although significant impacts would not result under this alternative, the Centennial General Plan increases intensity and/or mixed-use opportunities in Los Molinos, North Beach/North El Camino Real, and Del Mar/T-Zone along the I-5 corridor in order to align with SCAG's regional policies for integrating land use and transportation. Each of these focus areas are within High Quality Transit Areas; therefore, this alternative would not implement all the objectives of Compass Blueprint. However, no conflicts with adopted plans and policies would occur. Therefore, land use impacts would be slightly greater than the Centennial General Plan under this alternative but would remain less than significant.

7.4.10 Noise

The No Project Alternative/1993 Adopted General Plan Alternative would reduce short-term construction-related impacts associated with the proposed Land Use Plan. Under this alternative, there would be potentially less residential and nonresidential development given the reduced capacity, thereby eliminating potential short-term noise impacts from construction of these projects. Additionally, the reduction of residential and nonresidential development and construction activities would also reduce potential short-term vibration impacts to sensitive receptors. This alternative would also reduce potential long-term noise impacts from mobile and stationary sources. The reduction of planned land use developments would reduce the number of vehicle trips generated by new developments and would reduce the number of stationary sources of noise. Overall, this alternative would reduce short- and long-term noise impacts of the proposed project. However, buildout of the 1993 General Plan would continue to expose sensitive receptors to elevated noise levels and strong vibration from construction and result in an increase in traffic on the local roadways, which would substantially increase noise levels. Consequently, this alternative would substantially reduce but would not eliminate the construction-related unavoidable impacts of the proposed project.

7.4.11 Population and Housing

Under the No Project Alternative/1993 Adopted General Plan Alternative, buildout would result in 1,571 fewer jobs and 4,784 fewer residents. Under this alternative, the jobs/housing balance in the City at buildout would be slightly lower, at 1.30 (more housing-rich), than the proposed project. The No Project Alternative/1993 Adopted General Plan Alternative would provide fewer housing units near regional employment centers. By comparison, the proposed project allows the development of a wide range of housing and mixed-use opportunities near regional employment and activity centers in High Quality Transit Areas. Overall, impacts to population would remain less than significant with this alternative. Therefore, impacts under the No Project Alternative/1993 Adopted General Plan Alternative would be similar or slightly greater than impacts of the proposed project.

7.4.12 Public Services

Under the No Project Alternative/1993 Adopted General Plan Alternative, development would occur throughout the City as permitted by the adopted General Plan. Under this alternative, impacts associated with fire protection, law enforcement, and library services would be less compared to the proposed project, since there would be less residential development at full buildout. Fewer residential developments would result in a lower generation of new residents. Demands for fire, police, and library services would be updated as part of the City's annual budget process. Because there would be fewer residential uses under the No Project alternative compared to the proposed Land Use Plan, demands for fire, police, and library services would be reduced. In addition, there would be 513 fewer housing units

under this alternative. Impacts to school services would be less than significant through the application of SB 50 fees on project applicants. Therefore, impacts would remain less than significant under this alternative, and the No Project Alternative/1993 Adopted General Plan Alternative would have similar or slightly reduced impacts compared to the proposed project.

7.4.13 Recreation

Under the No Project Alternative/1993 Adopted General Plan Alternative, the City would continue to function under the direction of the adopted General Plan. Due to the higher level of population estimated under buildout conditions of the proposed project, the demands on existing recreational facilities would be slightly reduced under this alternative. As a result, less parkland would be required to serve the projected population at buildout. Impacts would remain less than significant, and this alternative would slightly reduce impacts of the proposed project.

7.4.14 Transportation and Traffic

In comparison to the proposed Land Use Plan, this alternative would reduce impacts to the following intersections:

- Camino Del Rio and Avenida La Pata
- Avenida Vista Hermosa and Avenida La Pata
- Avenida Vista Hermosa and Camino Vera Cruz
- Avenida Vista Hermosa and Calle Frontera
- Avenida Vista Hermosa and I-5 NB on/off ramp
- Avenida Pico and Avenida La Pata
- Avenida Pico and Calle Amanecer
- Avenida Pico and Calle Frontera/ Avenida Presidio
- Avenida Pico and Calle de Los Molinos

This alternative would also reduce impacts to the roadway segment of Avenida Pico between Calle del Cerro and Camino Vera Cruz and El Camino Real, between Avenida Del La Grulla and El Portal. This alternative would reduce ADT and roadway impacts. However, this alternative would not have as comprehensive a strategy for providing alternative modes of transportation. The proposed Land Use Plan proposes a broad range of approaches to developing alternative modes of transport, which includes creating more walkable communities, enhancements to the public transit system, and support of nonmotorized travel. This alternative would still contribute to unacceptable LOS, and therefore would still result in significant unavoidable transportation and traffic impact.

7.4.15 Utilities and Service Systems

Under the No-Project/1993 Adopted General Plan Alternative, impacts to utilities and service systems would be reduced due to the reduction in residential units and nonresidential square footage. Impacts would remain less than significant.

7.4.16 Conclusion

The No-Project/1993 Adopted General Plan Alternative would have similar impacts for aesthetics, biological resources, cultural resources, geology and soils, hydrology and water quality, and population and housing. Impacts would be slightly reduced for hazards and hazardous materials, public services, recreation, and utilities and service

systems. In addition, while it would substantially reduce significant impacts with regard to air quality, GHG, noise, and traffic, these would not be eliminated.

The adoption of the No-Project/1993 Adopted General Plan Alternative would leave the City open for future growth that may not be compatible with the goals and objectives of the City. In addition, such growth would not provide the mix of uses and housing that would be allowed under the Centennial General Plan. The No-Project/1993 Adopted General Plan Alternative fails to accomplish the project objectives in the City's vision and has other potential environmental impacts resulting from its implementation. Specifically, the No-Project/1993 Adopted General Plan Alternative does not promote mixed-use development, does not locate a mixed uses near regional employment and activity centers, does not promote multimodal transportation, and therefore would be inconsistent with SCAG's Compass Blueprint for these areas.

7.5 ALTERNATIVE LAND USE PLAN

The Alternative Land Use Plan was selected to reduce traffic impacts along Avenida Pico. Under this alternative, all aspects of the proposed Centennial General Plan would remain the same except that no change in maximum FAR would occur in the Rancho San Clemente Business Park (Focus Area 2). Development intensities prescribed in the adopted General Plan would still apply to this focus area. Compared to the proposed project, this would result in a reduction of 2,438,000 sf of nonresidential uses by reducing commercial by 116 thousand square feet (tsf), reducing office by 3,982 tsf, increasing industrial by 1,496 tsf, and increasing institutional by 164 tsf.

7.5.1 Aesthetics

Citywide, impacts would be the same as the proposed project. Focus Area 2 is developed. This alternative would not change the FAR or result in the conversion of industrial to office uses in Focus Area 2, therefore, development and redevelopment in this area would remain visually consistent with the existing use. However, the proposed project did not identify any significant impacts with respect to the visual character or alter scenic resources. Therefore, impacts are generally similar and less than significant.

7.5.2 Air Quality

Air quality impacts would be slightly reduced under this alternative due to the reduction of approximately 2.4 million square feet of nonresidential uses. This would reduce construction impacts due to less building construction and operational impacts due to the reduction in vehicle trips.

7.5.3 Biological Impacts

This alternative would result in the same impacts to biological resources as the proposed project. The Rancho San Clemente Business Park is developed and lacks natural habitat; therefore, changing the land use designations of the focus areas would not directly impact any sensitive species. As with the proposed project, construction activities could indirectly impact adjacent sensitive species such as the California gnatcatcher as a result of disturbance during the nesting season. However, this impact would be mitigated to a less than significant level by either avoiding construction in the nesting season or by implementing a minimum distance between construction activities and active nests during the nesting season. Impacts are the same and less than significant.

7.5.4 Cultural Resources

Redevelopment of Focus Area 2 consistent with the adopted General Plan would result in the same impacts as the proposed project. Impacts would remain less than significant.

7.5.5 Geology and Soils

New development under this alternative would result in similar geologic impacts. New development or redevelopment would be expected to conform to the most recent California building codes, which include strict building specifications to ensure structural and foundational stability. In terms of geologic hazards, this alternative would have a less than significant impact.

7.5.6 Greenhouse Gas Emissions

This alternative would reduce both construction- and operations-related GHG impacts associated with development within the Rancho San Clemente Business Park. A reduction in nonresidential square footage would reduce construction-related GHG emissions. In addition, this alternative would reduce daily traffic by approximately 40,000 to 50,000 trips per day, resulting in a significant reduction in the amount of GHGs emitted, since mobile sources are the primary contributors of GHG. Additionally, GHG emissions from stationary sources and energy usage would be reduced compared to the proposed project due to the reduction in building square footage. Overall, GHG emissions from stationary and mobile sources and energy use would be reduced compared to the proposed project. However, additional statewide measures would be necessary to reduce GHG emissions under this alternative to meet the long-term GHG reduction goals under Executive Order S-03-05, which identified a goal to reduce GHG emissions to 80 percent of 1990 levels by 2050. Therefore, this alternative would remain significant and unavoidable.

7.5.7 Hazards and Hazardous Materials

This alternative would result in reduced impacts because it would reduce the development intensity within the Rancho San Clemente Business Park. Consequently, impacts related to the routine transport, use, or disposal of hazardous materials, as well as those related to reasonably foreseeable upset conditions would be slightly reduced, though already less than significant. However, impacts may be slightly greater since this alternative would not result in the conversion of industrial uses, which tend to carry more hazardous materials onsite, to office uses, which have less potential to use hazardous materials. Therefore, overall impacts would be similar to the proposed project.

Future development in the Rancho San Clemente Business Park could expose people to hazardous substances that may be present in soil or groundwater, and demolition activities could expose workers and the environment to asbestos-containing materials and/or lead-based paint and residues. Development under both the proposed project and this alternative would be held to federal, state, and local policies protecting humans and the environment from exposure to hazards. Overall, impacts related to hazards and hazardous materials would be the same under this alternative compared to the proposed project, and impacts would remain less than significant.

7.5.8 Hydrology and Water Quality

The Rancho San Clemente Business Park is developed. As with the previous alternative (see Section 7.4.8), future development in this area would result in similar hydrology and water quality impacts as the proposed project. Impacts would remain less than significant.

7.5.9 Land Use and Relevant Planning

This alternative would not allow additional square footage in the Rancho San Clemente Business Park, and industrial uses would not be converted to higher density office uses. This alternative would also be consistent with regional and local plans and policies. Impacts would be similar to the proposed project and would remain less than significant.

7.5.10 Noise

This alternative would reduce both construction- and operation-related noise impacts associated with the proposed project. Under this alternative, there would be less nonresidential development, thereby eliminating potential short-term noise impacts from construction of these developments. Additionally, the reduction in construction activities would reduce potential short-term vibration impacts to sensitive receptors near the Rancho San Clemente Business Park. However, due to the scale of development activity associated with buildout of this alternative and because construction activities associated with any individual development may still occur near sensitive receptors and for prolonged periods of time, construction noise impacts from buildout of this alternative would remain significant and unavoidable. Consequently, this alternative would substantially reduce but not eliminate the project's significant and unavoidable construction noise impact.

This alternative would substantially reduce long-term noise impacts from mobile sources since there would be a reduction of 40,000 to 50,000 daily trips. Operational impacts would remain less than significant.

7.5.11 Population and Housing

As shown on Table 7-1, this alternative would result in 5,284 fewer jobs than under Centennial General Plan. Under this alternative, the jobs/housing balance in the City at buildout would be slightly reduced to 1.15, as compared to the Centennial General Plan at 1.33. This would not improve the jobs/housing balance in the City to the same extent. Therefore, this alternative would have similar or slightly greater impacts than the proposed project, and impacts would remain less than significant.

7.5.12 Public Services

Under this alternative, impacts associated with fire protection and law enforcement would be less compared to the proposed project, since there would be less nonresidential development at full buildout. Demands for fire and police services would be updated as part of the City's annual budget process. As a result, this alternative is considered to have a less-than-significant impact in terms of the provision of fire and police, and its impacts would be reduced compared to the proposed project. Since this alternative would not result in a change in residential units, impacts to schools and libraries would be the same.

7.5.13 Recreation

Since this alternative would not result in a change in residential units impacts to parks and recreational facilities would be the same as the proposed project and less than significant.

7.5.14 Transportation and Traffic

Under this alternative, the Rancho San Clemente Business Park would not increase office and industrial development intensities, would assume less conversion of industrial uses to office uses, and would result in a reduction of

nonresidential square footage. Since office uses generate higher traffic levels than industrial uses, this alternative would reduce daily traffic associated with the Business Park by approximately 40,000 to 50,000 trips per day. This would substantially reduce impacts on Avenida Pico, since the level of development associated with the previously adopted General Plan does not result in any significant impacts in the area near to the Business Park.

7.5.15 Utilities and Service Systems

Under this alternative, impacts to utilities and service systems would be reduced due to the reduction in nonresidential square footage. Impacts would remain less than significant.

7.5.16 Conclusion

The Alternative Land Use Plan would result in substantial reductions impacts related to air quality, GHG emissions, noise, and traffic. However, these impacts would not be eliminated and would remain significant and unavoidable. Impacts would also be reduced for public services and utilities and service systems. This alternative would have similar impacts for aesthetics, biological resources, cultural resources, geology and soils, hazards and hazardous materials, hydrology and water quality, land use and planning and recreation. Impacts related to population and housing would be slightly greater under this alternative.

7.6 REDUCED INTENSITY ALTERNATIVE

The Reduced Intensity Alternative was selected to reduce significant and unavoidable impacts related to air quality, GHG emissions, noise, and traffic. This alternative would reduce development intensity at General Plan buildout by 25 percent for nonresidential uses and 10 percent for residential uses. The reduction would occur citywide. A buildout statistical summary of this alternative compared to the proposed General Plan is shown above in Table 7-1. Note that this alternative would result in lower buildout development intensity than allowed under the 1993 General Plan; for instance, at buildout this alternative would permit development of 26,610 residential units and about 13.6 million square feet of nonresidential land uses; corresponding figures for the 1993 General Plan are 29,054 units and 17.4 million square feet.

7.6.1 Aesthetics

The types of impacts associated with degradation of scenic vistas, decreased visual quality, obstruction/alteration of scenic resources within a state- or locally designated scenic highway, and increased light and glare would be similar to the proposed project under this alternative, since the overall character of buildout would be similar. This alternative does not allow for development in areas currently proposed for open space by the Centennial General Plan. However, development intensities in some areas of the City would be less under this alternative. As a result, building heights could be reduced. As with the proposed Land Use Plan, the Reduced Intensity Alternative would not degrade the visual character of the City, because it would have plans and policies for maintaining the aesthetic qualities of the City. The Reduced Intensity Alternative would slightly reduce potential light or glare sources due to the reduced building heights. However, any new improvements or developments would be subject to the Municipal Code and Design Guidelines that would ensure that light and glare would be minimized. Overall, the aesthetic impacts associated with the Reduced Intensity Alternative would be similar to the proposed project. Impacts would remain less than significant.

7.6.2 Air Quality

This alternative would reduce both the construction- and operations-related air quality impacts of the proposed project.

A reduction in residential dwelling units and nonresidential square footage (commercial, office, industrial, and institutional) would reduce construction-related air pollutant emissions compared to the proposed Land Use Plan. Regional and local construction-related pollutant emissions of this alternative would be slightly reduced. However, as with the proposed Land Use Plan, due to the scale of development activity associated with buildout of this alternative, emissions would still exceed the South Coast Air Quality Management District ((SCAQMD) regional significance thresholds, cumulatively contribute to the nonattainment designations of the SoCAB for O_3 and particulate matter (PM_{10} and $PM_{2.5}$), and expose sensitive receptors to elevated concentration of air pollutants. Therefore, this alternative would substantially reduce but not eliminate the project's significant and unavoidable construction impact.

Under the Reduced Intensity Alternative, a reduction in residential dwelling units and nonresidential square footage would result in fewer vehicle trips. As a result, mobile-source emissions would be reduced. A reduction in land uses would also reduce the number of stationary sources. Overall, this alternative would reduce pollutant emissions from both mobile and stationary sources. However, operational pollutant emissions associated with the proposed Land Use Plan are projected to substantially exceed the SCAQMD's regional thresholds for criteria pollutants, and a 25 percent reduction in land uses from this alternative would not reduce operational pollutant emissions to under the regional thresholds for VOC, NO_X, CO, SO_2, PM10, and $PM_{2.5}$. Therefore, operational-related pollutant emissions would still cumulatively contribute to the SoCAB nonattainment designations for O_3, PM_{10}, and $PM_{2.5}$. In comparison to the proposed Land Use Plan, this alternative would reduce air quality impacts generated within the City by approximately 25 percent for nonresidential and 10 percent for residential uses; however, as discussed above, significant and unavoidable short- and long-term impacts would remain.

7.6.3 Biological Impacts

Impacts on biological resources would be similar for both the Centennial General Plan and the Reduced Intensity Alternative, since the area planned for development does not change. Threatened and endangered species have been observed or are expected to exist in San Clemente, as indicated in Section 5.3, *Biological Resources*. However, prior to and during development, projects would be required to follow the regulations of the California and federal Endangered Species Acts, including requirements of the US Fish and Wildlife Service regarding critical habitat. Even though the intensity of development would be less for the Reduced Intensity Alternative, impacts caused by development are expected to be similar since the same amount of acreage could be developed.

7.6.4 Cultural Resources

Under this alternative, the amount of undeveloped acreage available for development would remain the same. As a result, impacts to cultural resources would be expected to be substantially similar to those of the proposed project. The Reduced Intensity Alternative would not impact any historic resources. Ground-disturbing activities associated with buildout of the Reduced Intensity Alternative would continue in order to accommodate new development. Consequently, the potential of encountering fossil-bearing soils and rock formations, destroying below-ground paleontological resources, and affecting archaeological sites and sites of cultural significance would still exist, similar to the proposed project. However, cultural resources are governed on a site-by-site basis, and the probability of uncovering new resources or of disturbing known resources is considered in project-level environmental review. Mitigation measures are created for projects that have the potential to disturb cultural resources, to lessen or negate

impacts. Therefore, implementation of the Reduced Intensity Alternative would result in impacts similar to buildout of the Centennial General Plan, which are considered less than significant.

7.6.5 Geology and Soils

Earthquake hazards would be of similar magnitude under the Reduced Intensity Alternative as under to the proposed project, because future development would still occur throughout the City. The impacts of other site-specific geological hazards—such as erosion, loss of topsoil, liquefaction, subsidence, landslides, and expansive soils—would also be similar for this alternative as for the proposed project. New development under both scenarios would be expected to conform to the most recent California Building Codes, which include strict building specifications to ensure structural and foundational stability. In terms of geologic hazards, this alternative would have a less than significant impact.

7.6.6 Greenhouse Gas Emissions

This alternative would reduce both construction- and operations-related GHG impacts of the proposed project.

A reduction in residential dwelling units and nonresidential square footage would reduce construction-related GHG emissions. However, due to the scale of development activity associated with buildout of this alternative, emissions from construction-related activities would still cumulatively contribute to climate change impacts.

Under this alternative, mobile- and stationary-source emissions, in addition to indirect emissions from energy usage from operation of the project, would be reduced due to the reduction in residential uses and nonresidential square footage. The 25 percent reduction would result in fewer vehicle trips generated upon project buildout, which would reduce the amount of GHGs emitted, since mobile sources are the primary contributors of GHG. Additionally, GHG emissions from stationary sources and energy usage would be reduced compared to the proposed project due to the reduction in building square footage. This alternative would result in fewer mixed uses compared to the proposed Land Use Plan, and the potential reduction in VMT due to higher density and reduced distances between services and amenities would not be as great. However, any potential benefits from higher concentration of mixed uses would be offset by 25 percent less growth under this alternative. In addition, this alternative would still advance California's goal of developing and fostering sustainable communities that reduce GHG emissions. Overall, under the Reduced Intensity Alternative, GHG emissions from stationary and mobile sources and energy use would be reduced by approximately 25 percent for nonresidential and 10 percent for residential uses, compared to the proposed project. However, additional statewide measures would be necessary to reduce GHG emissions under this alternative to meet the long-term GHG reduction goals under Executive Order S-03-05, which identified a goal to reduce GHG emissions to 80 percent of 1990 levels by 2050. Therefore, this alternative would remain significant and unavoidable.

7.6.7 Hazards and Hazardous Materials

This impact would be similar to the proposed project, though slightly reduced, because the Reduced Intensity Alternative reduces overall development intensity. Consequently, impacts related to the routine transport, use, or disposal of hazardous materials, as well as those related to reasonably foreseeable upset conditions, would be slightly reduced, though already less than significant. In addition, development under the Reduced Intensity Alternative could expose people to hazardous substances that may be present in soil or groundwater, and demolition activities could expose workers and the environment to asbestos-containing materials and/or lead-based paint and residues. However, development under both the proposed project and this alternative would be held to federal, state, and local policies protecting humans and the environment from exposure to hazards. Compliance with the provisions of hazardous material policies in the City's Municipal Code and implementation of the existing regulations related to hazardous

materials would reduce this impact to a less-than-significant level. For future developments on hazardous materials sites, appropriate remediation activities would be required before construction activities could be permitted. Similar to the proposed project, impacts would be less than significant. Overall, impacts related to hazards and hazardous materials would be slightly reduced under this alternative compared to the proposed project, and impacts would remain less than significant.

7.6.8 Hydrology and Water Quality

Implementation of the Reduced Intensity Alternative would have similar hydrology and water quality impacts as the proposed project. Although both residential and nonresidential intensity would be reduced under this alternative, similar alterations to drainage patterns and hydrological patterns would occur. Similar to the proposed project, runoff would be subject to NPDES permit standards and provisions stipulated in the DAMP. If necessary, treatment would be employed to remove excess pollutants from runoff during the construction and operational phases of development. Policies that offer additional protection from water quality impairment would be adopted, and runoff would be expected to be treated to the maximum extent practicable. In terms of water quality, this alternative would have a less than significant impact, similar to the proposed project.

Since designated open space areas remain the same, the potential for depletion of groundwater and percolation of pollutants into groundwater aquifers would be less than significant, similar to the proposed project. This alternative would increase the impervious groundcover over existing conditions and increase the quantity of runoff discharged into the City storm drain system, similar to the proposed project. Policies adopted to minimize total site runoff would be implemented. Projects would be subject to additional review in order to ensure that they do not exceed the capacity of the storm drain system. It is therefore expected that the net effect would be similar, and individual projects would not exceed the capacity of the storm drain system.

Hydrology and water quality impacts overall would be similar for this alternative in comparison to the proposed project, and impacts would remain less than significant.

7.6.9 Land Use and Relevant Planning

Under the Reduced Intensity Alternative, development intensities would be reduced, although the location and designation of land uses would remain the same as those identified in the Centennial General Plan. Therefore, land use impacts would be generally the same as for Centennial General Plan under this alternative. Impacts would remain less than significant.

7.6.10 Noise

This alternative would reduce both construction- and operation-related noise of the proposed project.

Under this alternative there would be less residential and nonresidential development planned, thereby eliminating some potential short-term noise impacts. Additionally, the reduction in construction activities would reduce potential short-term vibration impacts to sensitive receptors. However, due to the scale of development activity associated with buildout of this alternative and because construction activities associated with any individual development may still occur near sensitive receptors and for prolonged periods of time, construction noise impacts from buildout of this alternative would remain significant and unavoidable. Consequently, this alternative would substantially reduce but not eliminate the project's significant and unavoidable construction noise impact.

This alternative would also reduce long-term noise impacts from mobile and stationary sources. The reduction of land uses would reduce the number of vehicle trips generated by new development and would therefore reduce the project's contribution to traffic noise on local roadways. The overall number of stationary sources would also be reduced under this alternative. Overall, this alternative would reduce short- and long-term noise impacts by approximately 25 percent for nonresidential and 10 percent for residential uses. Consequently, this alternative would substantially reduce the project's operational noise and vibration impacts. Impacts would remain less than significant.

7.6.11 Population and Housing

As shown on Table 7-1, buildout under the Reduced Intensity Alternative would result in 9,828 fewer jobs and 2,957 fewer housing units than buildout conditions under the Centennial General Plan. Under this alternative, the jobs/housing balance in the City at buildout would be reduced to 1.10, compared to the Centennial General Plan's 1.33. This would not improve the jobs/housing balance in the Orange County region. Therefore, the Reduced Intensity Alternative would have similar or slightly greater impacts than the proposed project, though impacts would remain less than significant.

7.6.12 Public Services

Under the Reduced Intensity Alternative, development intensity would be reduced by 25 percent for nonresidential and 10 percent for residential uses. Under this alternative, impacts associated with fire protection, law enforcement, and library services would be less compared to the proposed project since there would be less development at full buildout. Demands for fire, police, and library services would be updated as part of the City's annual budget process. This alternative is considered to have a less-than-significant impact in terms of the provision of fire, police, and library services, and its impacts would be reduced compared to the proposed project. Impacts to school services would be less than significant through provision of SB 50 fees and since fewer students would be generated. In general, impacts would be similar to or slightly less than the proposed project and would remain less than significant.

7.6.13 Recreation

Under the Reduced Intensity Alternative, development intensity would be reduced by 25 percent for nonresidential and 10 percent for residential uses, and 2,957 fewer housing units would be built. As a result, less parkland would be required to serve the projected population at buildout. In general, impacts would be similar to or slightly less than the proposed project and would remain less than significant.

7.6.14 Transportation and Traffic

The Reduced Intensity Alternative would generate fewer ADT than the proposed Land Use Plan. Although this alternative would reduce overall vehicle trips, a reduction in land uses would result in fewer mixed-use and higher density developments. As a result, alternative forms of transportation (i.e., walking, nonmotorized modes of transportation, and public transit) could be impacted by the loss of infrastructure and critical mass needed to support it. However, this alternative would still include the plans and policies for alternative forms of transportation found in the proposed Land Use Plan. Additionally, under this alternative, circulation improvements would still adhere to roadway design standards that would preclude the construction of any unsafe features. Overall, this alternative would substantially reduce but not eliminate the project's significant and unavoidable impact to cumulative impacts on roadways.

7.6.15 Utilities and Service Systems

Under the Reduced Intensity Alternative, development intensity would be reduced by 25 percent for nonresidential and 10 percent for residential uses. As shown on Table 7-1, buildout under the Reduced Intensity Alternative would result in 9,828 fewer jobs and 2,957 fewer housing units than buildout conditions under the Centennial General Plan. Because the vast majority of water demand is associated with landscape irrigation, this alternative's reduction in density would increase demand for water per capita, but not overall. Impacts would remain less than significant

7.6.16 Conclusion

The Reduced Intensity Alternative would result in substantial reductions impacts related to air quality, GHG emissions, noise, and traffic. However, these impacts would not be eliminated and would remain significant and unavoidable. Impacts related to hazards and hazardous materials, public services, recreation, and utilities and service systems would be reduced. The Reduced Intensity Alternative would result in similar impacts to aesthetics, biological resources, cultural resources, geology and soils, hydrology and water quality, and land use and planning.

Although the Reduced Intensity Alternative meets some of the objectives established for the project, the reduction in nonresidential square footage may reduce the City's ability to reduce per-capita VMT for the region, which is one of the goals of SCAG's Compass Blueprint for High Quality Transit Areas. By providing additional commercial square footage in the City, commuters would not need to travel outside the City to other areas of Orange County or San Diego County for employment.

7.7 ENVIRONMENTALLY SUPERIOR ALTERNATIVE

CEQA requires a lead agency to identify the "environmentally superior alternative" and, in cases where the "No Project" Alternative is environmentally superior to the proposed project, the environmentally superior development alternative must be identified. One alternative has been identified as "environmentally superior" to the proposed project:

- Reduced Intensity Alternative

Among the factors that may be used to eliminate alternatives from detailed consideration in an EIR are: i) failure to meet most of the basic project objectives, (ii) infeasibility, (iii) inability to avoid significant environmental impacts [Guidelines 15126.6(c)].

The Reduced Intensity Alternative would have the greatest effect on reducing the significant air quality, greenhouse gas emissions, noise, and traffic impacts associated with the project. However, it would not reduce these impacts to a less than significant level. Impacts related to hazards and hazardous materials, public services, recreation, and utilities and service systems would also be reduced. The remaining impacts are generally the same as the proposed project.

8. *Impacts Found Not to Be Significant*

California Public Resources Code Section 21003 (f) states: "…it is the policy of the state that…[a]ll persons and public agencies involved in the environmental review process be responsible for carrying out the process in the most efficient, expeditious manner in order to conserve the available financial, governmental, physical, and social resources with the objective that those resources may be better applied toward the mitigation of actual significant effects on the environment." This policy is reflected in the State California Environmental Quality Act Guidelines (CEQA Guidelines) Section 15126.2(a), which states that "[a]n EIR [Environmental Impact Report] shall identify and focus on the significant environmental impacts of the proposed project" and Section 15143, which states that "[t]he EIR shall focus on the significant effects on the environment." The Guidelines allow use of an Initial Study to document project effects that are less than significant (Guidelines Section 15063[a]). Guidelines Section 15128 requires that an EIR contain a statement briefly indicating the reasons that various possible significant effects of a project were determined not to be significant, and were therefore not discussed in detail in the Draft EIR.

8.1 ASSESSMENT IN THE INITIAL STUDY

The Initial Study prepared for the proposed project in April 2013 determined that impacts listed below would be less than significant. Consequently, they have not been further analyzed in this Draft EIR (DEIR). Please refer to Appendix B for explanation of the basis of these conclusions. Impact categories and questions below are summarized directly from the CEQA Environmental Checklist, as contained in the Initial Study.

Table 8-1 Impacts Found Not to Be Significant

Environmental Issues		Initial Study Determination
II. AGRICULTURE AND FOREST RESOURCES. In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Dept. of Conservation as an optional model to use in assessing impacts on agriculture and farmland. In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the state's inventory of forest land, including the Forest and Range Assessment Project and the Forest Legacy Assessment project; and forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board. Would the project:		
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
b)	Conflict with existing zoning for agricultural use, or a Williamson Act contract?	No Impact
c)	Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?	No Impact
d)	Result in the loss of forest land or conversion of forest land to non-forest use?	No Impact
e)	Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?	No Impact

Table 8-1 Impacts Found Not to Be Significant

Environmental Issues	Initial Study Determination
VI. GEOLOGY AND SOILS. Would the project:	
a) Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:	
i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map, issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.	Less Than Significant Impact
e) Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?	No Impact
VIII. HAZARDS AND HAZARDOUS MATERIALS. Would the project:	
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?	No Impact
f) For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?	Less Than Significant Impact
X. LAND USE AND PLANNING. Would the project:	
a) Physically divide an established community?	Less Than Significant Impact
XI. 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
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
XII. NOISE. Would the project result in:	
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?	No Impact
f) For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?	Less Than Significant Impact
XIII. POPULATION AND HOUSING. Would the project:	
b) Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?	Less Than Significant Impact
c) Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?	Less Than Significant Impact
XVI. TRANSPORTATION/TRAFFIC. Would the project:	
c) Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?	Less Than Significant Impact

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. Buildout of the City of San Clemente Centennial General Plan would occur over the next 20 years and more. Implementation of the proposed project would provide guidance for additional residential and commercial development consistent with the City of San Clemente's goals and policies. The significant irreversible changes due to the proposed project are:

- Future development would involve construction activities that entail the commitment of nonrenewable and/or slowly renewable energy resources, including gasoline, diesel fuel, electricity; human resources; and natural resources such as lumber and other forest products, sand and gravel, asphalt, steel, copper, lead, other metals, and water.

- An increased commitment of social services and public maintenance services (e.g., police, fire, and sewer and water services) would also be required. The energy and social service commitments would be long-term obligations in view of the fact of the low likelihood of returning the land to its original condition once it has been developed.

- Population growth related to project implementation would increase vehicle trips over the long term. Emissions associated with such vehicle trips would continue to contribute to the South Coast Air Basin's nonattainment designation for ozone and particulate matter (PM_{10} and $PM_{2.5}$).

- Future development of the proposed project is a long-term irreversible commitment of vacant parcels of land or redevelopment of existing developed land in the City of San Clemente.

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10. *Growth-Inducing Impacts of the Proposed Project*

Pursuant to Sections 15126(d) and 15126.2(d) of the CEQA Guidelines, this section is provided to examine ways in which the proposed project could foster economic or population growth or the construction of additional housing, either directly or indirectly, in the surrounding environment. Also required is an assessment of other projects that would foster other activities that 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?

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 planned land uses as described and analyzed 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?

Extensions of existing utility facilities from surrounding roadways, including water and sewer lines, may be required for future development. However, as discussed in Section 5.15, *Utilities and Service Systems*, implementation of the Centennial General Plan can be accommodated by the existing storm drain, water, and sewer infrastructure.

Proposed as part of the Centennial General Plan effort are reclassifications and improvements of certain arterials throughout the City to accommodate projected circulation needs. Figure 5.14-4 shows the future roadway network of San Clemente. An extension of Avenida La Pata in San Clemente is under final design to connect with La Pata Avenue, south of Ortega Highway in the City of San Juan Capistrano. The extension provides additional access to Avenida Vista Hermosa, Avenida Pico, and Ortega Highway. Roadway improvements are also planned for Avenida Pico from the I-5 to Camino Vera Cruz, at Avenida Vista Hermosa from the I-5 to Avenida La Pata, and on El Camino Real from Camino Capistrano to Avenida Del Mar. Improvements that focus on other modes of transportation are also recommended in the Mobility and Complete Streets Element and the City of San Clemente Bicycle and Pedestrian Master Plan. Buildout of the City's roadway network would accommodate additional vehicles resulting in greater accessibility to accommodate growth allowed in the Centennial General Plan.

The purpose of Centennial General Plan is to guide growth and development in the community and provide a framework in which the growth can be managed and tailored to suit the needs of the community and the surrounding area. Adoption of the Centennial General Plan would allow development of the City through a system of land use designations; changes to these designations occur within predominantly eight focus areas. Changes within the focus areas would allow for additional growth due to an increase in allowable floor area ratio (FAR) and land use changes in these areas. As discussed in Section 5.11, *Population and Housing*, General Plan buildout would result in a population of up to 76,547 people, 39,313 jobs, and 29,567 housing units. Therefore, the project would be considered to be growth inducing, although the project would merely accommodate growth based on market conditions.

Would this project result in the need to expand one or more public services to maintain desired levels of service?

As discussed in Section 5.12, *Public Services*, as the City of San Clemente continues to develop, it would require further commitment of public services in the form of fire protection, police protection, schools, recreation, and other public services. An increase in development in the City would require an increased commitment to public services that would be considered a long-term commitment in order to maintain a desired level of service.

Would this project encourage or facilitate economic effects that could result in other activities that could significantly affect the environment?

Implementation of the Centennial General Plan would create a number of temporary construction jobs during project development. This would be a direct, growth-inducing effect of this project.

As the population grows and occupies new dwelling units, these residents would seek shopping, entertainment, employment, home improvement, auto maintenance, and other economic opportunities in the surrounding area. This would facilitate economic goods and services and could, therefore, encourage the creation of new businesses and/or the expansion of existing businesses to address these economic needs. Three Focus Areas generate the majority of new commercial and industrial square footage and employment growth capacity in the Centennial General Plan: Rancho San Clemente Business Park, Los Molinos and Camino de Los Mares. While the capacity generated by these areas far exceeds growth forecasts, the Centennial General Plan provides flexibility as to where this growth can be accommodated—either in the existing industrial/office environment of the Rancho San Clemente Business Park, the underutilized commercial area along Camino de Estrella to accommodate new medical office potential, and/or in an institutionally-anchored professional office area in the Pico Plaza section of Los Molinos. It is highly unlikely that all of this growth with occur due to future market demand, site constraints and property owner willingness to take advantage of new overlay designations. The new commercial uses are intended to serve the shopping needs of the future residents and would generate additional employment opportunities. Therefore, the Centennial General Plan would have both direct and indirect growth-inducing effects.

Would approval of this project involve some precedent-setting action that could encourage and facilitate other activities that could significantly affect the environment?

Approval of the proposed General Plan Update would not set a precedent that could encourage and facilitate other activities that could significantly affect the environment. Cities and counties in California periodically update their General Plans pursuant to California Government Code Sections 65300 et seq.

As discussed in Section 3, *Project Description*, the proposed project consists of the preparation of the Centennial General Plan, which includes a revision of the current General Plan Land Use map; revision of the elements required by the State of California; and optional elements. The Centennial General Plan consists of the Beaches, Parks and Recreation

Element; Coastal Element; Economic Development Element; Growth Management Element; Historic Preservation Element; Land Use Element; Mobility and Complete Streets Element; Natural Resources Element; Public Services, Facilities and Utilities Element; Safety Element; Urban Design Element; and Governance Element. The proposed General Plan generally follows the land uses and development intensities already allowed in the adopted General Plan, with the exception of limited changes in land use and development intensity in some of the designated Focus Areas. Development within the Focus Areas would result from regional economic conditions and market demands for housing, commercial, office, and industrial land uses that may be directly or indirectly influenced by the proposed project.

Table 3-3 estimates the future statistics based on the buildout projections of the proposed Land Use Plan. Projections are based on the buildout capacity (dwelling units, population, nonresidential square footage, and employment) of each land use designation according to the allowable densities. As shown in Table 3-3, buildout of the Land Use Plan is projected to accommodate approximately 29,567 dwelling units, 76,547 people, and 39,313 jobs. As discussed throughout this EIR, implementation of the Centennial General Plan would result in significant and unavoidable adverse impacts related to air quality, greenhouse gas emissions, noise and traffic.

The Centennial General Plan would result in an increase of 8,248 residents, 12,713 employees, and 4,367 households above SCAG's 2035 growth projections. However, the City is almost entirely built out and future development would be mostly infill. This EIR conservatively examines buildout potential of all of the land uses regardless of market demand, individual site constraints, or more restrictive development standards. Combined, these factors will significantly limit development potential below what is contemplated by this environmental analysis, as was the case with the current General Plan (see previous Section 3.3.1). Therefore, adoption of the new General Plan is not considered a precedent-setting action. Subsequent similar actions would require environmental analysis and associated mitigation to ensure that such subsequent impacts would not significantly affect the environment.

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11. *Organizations and Persons Consulted*

CAPISTRANO UNIFIED SCHOOL DISTRICT

John G. Forney, Executive Director, Facilities

CITY OF SAN CLEMENTE (LEAD AGENCY)

Community Development Department

Pall Gudgeirsson, City Manager

Jeff Hook, AICP, Principal Planner

Public Works Department

Dave Rebensdorf

Beaches, Parks & Recreation Department

Sharon Heider, Director

Aeryn Donnelly, Park Planner

COUNTY OF ORANGE

Orange County Fire Authority

Michele Hernandez, Management Analyst

Orange County Sheriff's Department

Lt. John Coppock

Orange County Waste and Recycling

John J. Arnau, Administrative Manager

Orange County Public Library

Andrea Cowell, Financial Budget Analyst

CALIFORNIA COASTAL COMMISSION

Liliana Roman, Coastal Planning Analyst

CALIFORNIA STATE UNIVERSITY FULLERTON

South Central Coastal Information Center

Stacy St. James, Coordinator

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12. *Qualifications of Persons Preparing EIR*

THE PLANNING CENTER|DC&E

William Halligan, Esq.
Vice President, Environmental Services

- BA University of California, Irvine, Social Ecology, 1988
- JD, Chapman University School of Law, 1999

Nicole Morse, Esq.
Senior Associate

- BS, Applied Ecology, University of California, Irvine
- JD, Business Law, Whittier Law School.

Nicole Vermilion
Associate Principal, Air Quality and GHG Services

- BA, Environmental Studies and BS, Ecology and Evolutionary Biology, University of California, Santa Cruz
- MURP, University of California, Irvine

Fernando Sotelo, INCE
Senior Associate, Noise, Vibration and Acoustics

- BS, Naval Engineering, University of Sao Paulo, Brazil
- MS, Civil Engineering, University of Southern California

Denise Clendening, PhD
Associate Principal, Site Assessment Services

- BS, Geology, University of California, Riverside
- MS, Soil Science, University of California, Riverside
- PhD, Soil Physics, University of California, Riverside

Phil Brylski, PhD
Senior Scientist

- BS, Forestry & Resource Management, University of California, Berkeley
- MFS, Forestry, Yale University
- PhD, Zoology, University of California, Berkeley

Konstanza Dobreva, JD
Associate Planner

- BA University of California, Irvine, Environmental Analysis and Design, 1998
- JD, Pepperdine University School of Law, 2004

Michael Milroy
Associate

- BS, Biological Science, California State University, Long Beach
- MS, Interdisciplinary Studies/Neuroscience, California State University, Long Beach

Ryan Potter
Assistant Planner

- BS, City and Regional Planning, California Polytechnic State University, San Luis Obispo
- MURP, University of California, Irvine

FEHR & PEERS

Chris Gray, AICP
Senior Associate

- BA, Political Science, University of Florida, 1992
- MS, Planning (Transportation), Florida State University, 1995

Thao Pham
Transportation Engineer

FUSCOE ENGINEERING

Ian Adam, M.E.S.M.
Senior Environmental Resource Manager

- B.S., Ecology and Systematic Biology
- M.E.S.M., Master of Environmental Science and Management, University of California, Santa Barbara

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- 25-R: Coastal Sage Scrub Wildlife Planning Species – San Juan Creek Watershed
- 34-R: Coastal Sage Scrub Wildlife Planning Species – San Mateo Creek Watershed
- 35-R: Riparian/Aquatic Wildlife Planning Species – San Mateo Creek Watershed
- 36-R: Historic Raptor Nest Sites – San Mateo Creek Watershed
- 37-R: Grassland Wildlife Planning Species - San Mateo Creek Watershed
- 38-R: Plant Planning Species – San Mateo Creek Watershed
- 39-R: Non-Planning Sensitive Species - San Mateo Creek Watershed
- 40-R: San Clemente HA Vegetation, Planning Species, and Non-Planning Sensitive Species
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