HELIX Environmental Planning

Marisol Specific Plan Initiative Draft Environmental Impact Report

State Clearinghouse #2017091081

December 2019

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ACRONYMS AND ABBREVIATIONS

22nd DAA	22nd District Agricultural Association
AB	Assembly Bill
ACOE	Army Corps of Engineers
ADA	Americans with Disabilities Act
ADT	average daily traffic / average daily trips
amsl	above mean sea level
Applicant	Zephyr Partners
ARMTP	Archaeological Resources Monitoring and Treatment Plan
ATS	advanced treatment systems
Basin Plan	Water Quality Control Plan for the San Diego Basin
BAT	best available technology economically achievable
BC	black carbon
BCT	best conventional pollutant control technology
BG	background
BMP	best management practice
BP	before present
BSC	Bluff, Slope, and Canyon
C2ES	Center for Climate and Energy Solutions
CAA	Clean Air Act
CAAQS	California Ambient Air Quality Standards
CalEEMod	California Emissions Estimator Model
CALGreen	California Green Building Standards Code
California Repatriation Act	California Native American Graves Protection and Repatriation Act
CalRecycle	California Department of Resources Recycling and Recovery
Caltrans	California Department of Transportation
CAP	Climate Action Plan
CARB	California Air Resources Board
CASQA	California Stormwater Quality Association
CAT	Climate Action Team
CBC	California Building Code
CBPA	Coastal Bluff Protection Area
CCA	Community Choice Aggregation / California Coastal Act
CCC	California Coastal Commission
CCR	California Code of Regulations
CDC	California Department of Conservation
CDE	California Department of Education
CDFW	California Department of Fish and Wildlife
CDP	Coastal Development Permit
CDF	California Department of Finance
CEC	California Energy Commission

CEQA	California Environmental Quality Act
CFR	Code of Federal Regulations
CH_4	methane
Cl	chlorine
cm	centimeter
CNDDB	California Natural Diversity Database
CNEL	Community Noise Equivalent Level
CNPS	California Native Plant Society
CNRA	California Natural Resources Agency
CO	carbon monoxide
CO_2	carbon dioxide
CO_2e	carbon dioxide equivalent
COMM	commercial and sport fishing
COOSA	Condominium Owners of South Sierra Avenue
County	San Diego County
CPP	Citizen Participation Program
CPUC	California Public Utilities Commission
CSMP	Construction Site Monitoring Program
CRC	California Residential Code
CRHR	California Register of Historical Resources
CWA	Clean Water Act
cy	cubic yard
CZMA	Coastal Zone Management Act
dB	decibel
dBA	A-weighted decibel
Del Mar District	Del Mar Union School District
DMMC	Del Mar Municipal Code
DPM	diesel particulate matter
DWR	California Department of Water Resources
E. coli	Escherichia coli
EIR	Environmental Impact Report
EMS	emergency medical services
EO	Executive Order
EOP	Executive Office of the President
EPA	Environmental Protection Agency
ESA	Endangered Species Act / Environmental Science Associates
EV	electric vehicle
F	Fahrenheit
F-gas	fluorinated gas
FAR	floor area ratio
FEMA	Federal Emergency Management Agency
FG	foreground
FHWA	Federal Highway Administration
Fire Department	Del Mar Fire Department
First Update	*First Update to the Climate Change Scoping Plan: Building on the Framework*

FOS	factor of safety
FR	Federal Register
FRA	Federal Rail Administration
ft	foot
FTA	Federal Transit Administration
GHG	greenhouse gas
gpd	gallons per day
GWP	global warming potential
H_2S	hydrogen sulfide
HA	hydrologic area
HAP	hazardous air pollutant
HAZMIT	Hazard Mitigation Plan
HCP	Habitat Conservation Plan
HELIX	HELIX Environmental Planning, Inc.
HFCs	hydrofluorocarbons
HMP	hydromodification management plan
HR	High Residential
HSA	hydrologic subarea
HU	Hydrologic Unit
HUD	Department of Housing and Urban Development
HVAC	heating, ventilation, and air conditioning
I-	Interstate
IBC	International Building Code
IPCC	Intergovernmental Panel on Climate Change
IPS	inches per second
ITE	International Transportation Engineers
JRMP	Jurisdictional Runoff Management Plan
km	kilometer
kWh	kilowatt hours
Lagoon	San Dieguito Lagoon
lbs	pounds
LCP	Local Coastal Program
LCPA	Local Coastal Program Amendment
L_{DN}	day-night noise level
LEED BD+C	Leadership in Energy and Environmental Design for Building Design and Construction
L_{EQ}	one-hour average sound level
LID	low impact design
LLG	Linscott, Law & Greenspan, Engineers
LOS	level of service
LOSSAN	Los Angeles San Diego San Luis Obispo
LUP	Land Use Plan

MBTA	Migratory Bird Treaty Act
MEP	maximum extent practicable
Metro JPA	Metro Wastewater Joint Powers Authority
MG	middle ground
mg/m^3	milligrams per cubic meter
mgd	million gallons per day
MHz	megahertz
ml	milliliter
MMRP	Mitigation Monitoring and Reporting Program
MMT	million metric tons
mph	miles per hour
MPOs	metropolitan planning organizations
MRZ	Mineral Resource Zone
MS4 Permit	Municipal Separate Storm Sewer Systems Permit
MSCP	Multiple Species Conservation Program
MSP	Marisol Specific Plan
MT	metric tons
N_2O	nitrous oxide
NAAQS	National Ambient Air Quality Standards
NAHC	Native American Heritage Commission
NB	northbound
NCCP	Natural Community Conservation Plan
NCTD	North County Transit District
NFIP	National Flood Insurance Program
NHTSA	National Highway Traffic Safety Administration
NO_2	nitrogen dioxide
NOA	Notice of Availability
NOC	Notice of Completion
NOP	Notice of Preparation
NO_X	nitrogen oxides
NPDES	National Pollutant Discharge Elimination System
NPPA	Native Plant Protection Act
NTU	Nephelometric Turbidity Units
O_3	ozone
OPC	Ocean Protection Council
OPR	Office of Planning and Research
PDP	Priority Development Projects
PFCs	perfluorocarbons
PM_{10}	respirable particulate matter
$PM_{2.5}$	fine particulate matter
ppm	parts per million
PPOS	Parkland/Passive Open Space
PPV	peak particle velocity
PRC	Public Resources Code
Preserve	North Bluff Preserve

PRMTP	Paleontological Resources Monitoring and Treatment Plan
PVC	polyvinyl chloride
RAQS	Regional Air Quality Strategy
RARE	rare, threatened or endangered species
RCNM	Roadway Construction Noise Model
RCP	Regional Comprehensive Plan
REAP	Rain Event Action Plan
Regional Plan	*San Diego Forward: The Regional Plan*
ROW	right-of-way
RSFFPD	Rancho Santa Fe Fire Protection District
RTP	Regional Transportation Plan
RWQCB	Regional Water Quality Control Board
San Dieguito District	San Dieguito High School District
SANDAG	San Diego Association of Governments
SANTEC	San Diego Traffic Engineers' Council
SB	Senate Bill / southbound
SCAQMD	South Coast Air Quality Management District
SCCWR	Southern California Coastal Water Research
SCH	State Clearinghouse
SCIC	South Coastal Information Center
Scoping Plan	*Climate Change Scoping Plan: A Framework for Change*
SCS	Sustainable Communities Strategy
SDAB	San Diego Air Basin
SDAPCD	San Diego Air Pollution Control District
SDCWA	San Diego County Water Authority
SDG&E	San Diego Gas & Electric
SEJPA	San Elijo Joint Powers Authority
sf	square feet
SF_6	sulfur hexafluoride
SFID	Santa Fe Irrigation District
SFP	School Facilities Program
SHELL	shellfish harvesting
Sheriff's Department	San Diego County Sheriff's Department
SIP	state implementation plan
SLC	State Lands Commission
SO_2	sulfur dioxide
SO_4	sulfate
Solana Beach District	Solana Beach School District
SP	service population
Specific Plan	Marisol Specific Plan
SR	State Route
SRA	Subregional Area
SSPA	Steep Slope Protection Area
STC	sound transmission class
SWIS	Solid Waste Information System

SWPPP	Storm Water Pollution Prevention Plan
SWRCB	State Water Resources Control Board
T-BACT	Toxics-Best Available Control Technology
TAC	toxic air contaminant
TCR	tribal cultural resource
TDM	Transportation Demand Management
TIA	Transportation Impact Analysis
TMDL	total maximum daily load
TNM	Traffic Noise Model
TWSC	two-way stop control
UCSD	University of California San Diego
USACE	U.S. Army Corps of Engineers
USEPA	U.S. Environmental Protection Agency
USFWS	U.S. Department of Fish and Wildlife Service
UTC	University Town Center
v/c	volume to capacity ratio
VdB	velocity decibel
VMT	vehicle miles traveled
VOC	volatile organic compound
VSA	Visitor-Serving Accommodations
WLA	waste load allocation
WMA	Watershed Management Area
WQBEL	water quality based effluent limitation
WQSA	Water Quality Sensitive Area
WRCC	Western Regional Climate Center
WSA	Water Supply Assessment
ZNE	zero net energy

ES EXECUTIVE SUMMARY

ES.1 OVERVIEW

This Environmental Impact Report (EIR) includes an evaluation of potential environmental impacts in accordance with the California Environmental Quality Act (CEQA) associated with voter approval of the Marisol Specific Plan (Specific Plan or proposed project). The Specific Plan would amend local land use documents (i.e., the Community Plan, Zoning Code, and Local Coastal Program) to identify the development of a commercial resort in the northwestern corner of the City of Del Mar, California (or Del Mar). This Executive Summary includes an overview of the project objectives and project description, each significant effect with proposed mitigation measures and alternatives that would reduce or avoid that effect, environmental areas of controversy raised by agencies and the public during the preparation of this EIR, a discussion of the public review period for this EIR, and issues to be resolved including the choice among alternatives and whether or how to mitigate impacts.

The City of Del Mar prepared this EIR to provide decision makers, the public, and responsible agencies with information about the potential adverse effects on the environment associated with the proposed project. The proposed project involves voter approval of the Specific Plan via public vote (i.e., the Marisol Specific Plan Initiative or Initiative), which would replace the existing low-density residential land use designations with commercial, resort, and open space designations. Responsible agencies can use this EIR to fulfill their legal authority associated with permits issued for the proposed project. The analysis and findings in this document reflect the independent judgment of the City of Del Mar.

ES.1.1 LOCATION AND SETTING

The Specific Plan pertains to a total of 17.45 acres (project site or Specific Plan Area), located south of Border Avenue and primarily west of Camino del Mar, of which 11.80 acres would be identified for development with a resort, 3.07 acres would be identified for parkland and passive open space, and the remaining 2.58 acres is a combination of City of Del Mar right-of-way areas and areas that would be protected as they comprise coastal bluffs and steep slopes. A portion of one of the parcels (APN 298-241-07) includes about 0.67 acre east of Camino del Mar within the San Dieguito Lagoon (Lagoon); however, the remainder of the project site is located west of Camino del Mar. The project site is in a coastal residential area adjacent to multi-family residential development to the north in the City of Solana Beach (or Solana Beach); a restaurant, the Lagoon, and the Del Mar Fairgrounds and the Del Mar Racetrack to the east; the North Bluff Preserve (also known as the James Scripps Bluff Preserve and herein referred to as the Preserve) and North Beach (also known as Dog Beach) to the south; and the Pacific Ocean to the west.

The project site is mostly vacant, with the exception of a single-family house, and the perimeter is fenced and not accessible to the public. Previous development within the project site was residential, most of which has been removed. Portions of project site are designated for low-density residential development and include the following overlay zones: Bluff, Slope, and Canyon (BSC) Overlay; Coastal Bluff Overlay; and Beach Overlay. The project site is also located within the Coastal Zone.

Topography within the center of project site is generally flat and consists of a coastal terrace at an elevation between 65 and 80 feet above mean sea level (amsl); however, elevations in the northern part of the project site reach about 93 feet amsl and areas near North Beach at the toe of the coastal bluffs

are near sea level. Steep slopes occur at the eastern, southern, and western edges of the project site as the slope into the Pacific Ocean to the west, the Preserve and North Beach to the south, and the Lagoon to the east. The project site drains to the east and west across the site and over the bluffs into the Lagoon and Pacific Ocean, respectively. Vegetation on the project site generally includes ornamental landscaping (including Monterey Cypress and Torrey Pine trees) and non-native land cover, and about 0.66 acre of southern coastal bluff scrub, a sensitive native vegetation community.

ES.1.2 PROJECT DESCRIPTION

The proposed project includes the adoption of a Specific Plan via the Initiative process by the citizens of the City of Del Mar to amend the City of Del Mar's Community Plan, Zoning Map, and Local Coastal Program. If the Specific Plan is approved, these proposed amendments would guide future development at the project site; however, physical development of the project site would be subject to subsequent review by the City of Del Mar of a formal project application, which has not been submitted at the time this EIR was prepared. The formal project application would consist of requests for a Coastal Development Permit (CDP), Subdivision Map, Design Review Permit, Land Conservation Permit, Tree Removal Permit, Development Agreement, Irrevocable Offers of Dedication to the City of Del Mar, and Encroachment Permits for work within public right-of-way.

The Specific Plan identifies the potential for a resort on the project site with a range between 118 and 182 units and a total of 410,970 square feet (sf) of development within 11.80 acres of the 17.45-acre project site. At the lower end of the range of individual units that could be developed, the Specific Plan identifies 65 hotel guest rooms, no lower-cost visitor serving accommodations (if an in-lieu fee is accepted instead), 31 villas, and 22 affordable housing units. At the higher end of the range of units, the Specific Plan identifies 146 hotel guest rooms (65 plus an additional 81 hotel guest rooms with the division of 27 villas into three separate hotel guest rooms each), 10 lower-cost visitor serving accommodations, 4 villas (as 27 villas would be separated into hotel guest rooms under the maximum unit count), and 22 affordable housing units. Other improvements would include a total of approximately 1.5 miles in new trails, comprised of a future bluff top trail network and paved public amenity trail (or loop trail) that would provide connections to the existing bluff top trail in the Preserve.

Resort parking would be included on site in an underground parking garage with 408 off-street parking stalls, including 27 parking spaces reserved for the general public and 40 electric vehicle (EV) charging stations. Resort building setbacks include a minimum 40-foot buffer from the edge of nearby coastal bluffs or in accordance with the factor of safety as recommended by a geotechnical engineer, 20 feet from the top of non-coastal steep slopes and Border Avenue, 10 feet from the entrance driveway, and 30 feet from the Preserve. Buildings would range between one and three stories and would not exceed 46 feet in height. Resort amenities would include conference and event space, pools and event gardens, and other commercial uses, and would be open to the public.

Public utilities to serve future development would include connections to potable and reclaimed water, sewer, and storm water systems. Connections to City of Del Mar sewer and storm water systems would be made within Camino del Mar and Via de la Valle to existing infrastructure. Potable and reclaimed water service would be provided by the City of Del Mar and would require off-site improvements to construct a water line, generally from the intersection of Camino del Mar and Via de la Valle extending along one of two alignments along either Via de la Valle or Camino del Mar. Other improvements identified in the Marisol Specific Plan Initiative include a public access stairway and public restrooms to replace the temporary restrooms at North Beach, as well as a Beach Nourishment Plan that would

include an annual contribution or endowment to fund the Beach Nourishment Plan. Project construction is estimated to occur over 26 months over five phases, beginning in October 2020 and ending in November 2022.

ES.1.3 PROJECT OBJECTIVES

The Initiative includes a list of objectives that are intended to be achieved by the proposed project. A total of 11 objectives are identified, including the following:

1. Preserve and protect the scenic coastal bluffs and steep slope areas from the adverse impacts of erosion and sedimentation by establishing land use sub-designations that serve as buffers;

2. Establish development standards and design guidelines to achieve a high-quality visitor-serving development that addresses the physical site constraints and results in visually attractive and sustainable buildings, landscaping, parkland/passive open space, and amenities;

3. Plan for future sea level rise and bluff retreat projections through the use of the best available science, consistent with state guidance. Utilize an adaptive design approach to ensure no future loss of coastal public access or recreation amenities;

4. Establish an environmentally sensitive multimodal circulation system that enhances linkages to existing trail systems in the vicinity, to North Beach, and to other uses that serve the local community;

5. Implement a loop trail around the perimeter of the Marisol Specific Plan Area to achieve complete connectivity and “walk-out” nodes that will enhance the public access experience;

6. Provide sufficient and secure off-street parking, which not only satisfies the needs of the Specific Plan uses, but also includes designated public parking spaces screened from view from the public right-of-way;

7. Facilitate the development of visitor-serving accommodations and parkland and passive open space with public and private amenities consistent with the goals and policies of the Del Mar Community Plan and the City's Local Coastal Program, as amended by the Marisol Specific Plan Initiative;

8. Establish a site plan and building design that create a strong sense of place and which recognize and protect the unique features of the Marisol Specific Plan Area as a valuable asset for the community of Del Mar;

9. Provide villas, some of which are available as hotel guest rooms when not in use by owners;

10. Provide 22 affordable housing units to assist the City in fulfilling its housing goals; and

11. Facilitate the development of lower-cost shared visitor-serving accommodations.

ES.2 SUMMARY OF IMPACTS AND MITIGATION MEASURES

Table ES-1, *Project Environmental Impacts and Mitigation Measures*, provides a complete list of significant or potentially significant impacts, mitigation measures, and the resulting level of significance after mitigation. As shown, the proposed project would result in significant unavoidable adverse impacts to traffic and a statement of overriding considerations would be needed for the City of Del Mar to approve subsequent project approvals allowing physical development of the project site.

ES.3 ISSUES RAISED DURING PUBLIC SCOPING

This EIR addresses environmental issues associated with the proposed project that are known to the lead agency or were raised by agencies or interested parties during the Notice of Preparation (NOP) public/agency review period. The NOP was circulated for a 30-day public comment period between September 29 and October 30, 2017. A public scoping meeting was held at the former temporary Del Mar City Council Chambers at 2010 Jimmy Durante Boulevard, Suite 120, on October 11, 2017. At the public scoping meeting, a total of 42 people included their name on a sign-in sheet, 20 people submitted written comments, and nine speaker slips were filled out to provide a 3-minute oral comment at the meeting. During the 30-day public comment period, a total of 53 letters were received, mostly from residents of the cities of Del Mar and Solana Beach; however, letters were also received from the City of Solana Beach, the San Diego Association of Governments (SANDAG), the North County Transit District (NCTD), the 22nd District Agricultural Association, the California Department of Transportation (Caltrans), and the Viejas Band of Kumeyaay Indians. Table ES-2, *Summary of Public Comments Received*, illustrates the frequency and type of CEQA-related written comments received during the public comment period. Oral comments given at the scoping meeting were similar to the written comments submitted during the NOP period. As shown, the majority of the public comments included environmental concerns related to transportation and traffic, aesthetics, geology, and noise, which represented more than 70 percent of the public comments received. The remainder of public comments mentioned concerns related to air quality/greenhouse gas emissions; biological resources; hydrology and water quality; cultural resources; land use and planning; and utilities, service systems and energy. No public comments were received related to potential environmental impacts related to agricultural resources, mineral resources, hazards and hazardous materials, population and housing,[1] public services, or recreation. A discussion of the predominant issues raised during the public scoping period, including transportation and traffic, aesthetics, geology, and noise is provided below, followed by a summary of comments relating to other environmental topics. Copies of the comment letters are provided as part of Appendix A, as well as sign-in lists of attendees to the public scoping meeting and copies of the NOP.

Transportation and Traffic. Comments related to traffic included concerns about impacts on surrounding roadways, including Camino del Mar, Via de la Valle, Border Avenue, and South Sierra Avenue. These roadways were characterized by commenters as congested under existing conditions, including during events at the Del Mar Fairgrounds and during the summer months when the beaches and coastal areas are heavily used. Concerns were also raised about the project entrance at Border Avenue/South Sierra Avenue related to safety and congestion. Two comments suggested that the project access be either relocated or a secondary access be added to Camino del Mar. Operational issues related to taxis and ride share operators were also raised. Cumulative traffic concerns related to a mixed-use project on Sierra/Dahlia Drive were mentioned by several commenters. Several commenters

[1] While some public comments were received that related to affordable housing, they did not relate to the potential for the proposed project to induce substantial population growth or displace people.

suggested that parking be evaluated in the EIR. One comment mentioned issues related to accessing Via de la Valle from Solana Circle. Other commenters added that emergency vehicles will be impacted by traffic issues in the area. One of the comment letters estimated that the proposed project would generate 3,000 to 3,850 trips per day. Refer to subsection 4.11, *Transportation and Traffic*, presents a detailed evaluation of potential traffic-related impacts.

A letter from Caltrans requested that a traffic study be prepared to analyze the near- and long-term impacts to their facilities (e.g., freeway onramps and segments). Specifically, freeway ramps at Interstate 5 (I-5) were requested for northbound (NB) and southbound (SB) ramps at Via de la Valle, Lomas Santa Fe Drive, and Del Mar Heights Road, in addition to segments of I-5 between Lomas Santa Fe Drive and Via de la Valle, and Via de la Valle to Del Mar Heights Road. The geographic area for the traffic study was recommended to include Caltrans' highway facilities where the proposed project would add over 100 peak hour trips, or where 50 to 100 peak hour trips would be added to facilities that are experiencing noticeable delays. Caltrans also requested that the traffic study include a queue analysis for freeway ramps, including ramp metering, as well as an analysis of weekday peak hours and weekend operations. A letter from the 22nd Agricultural District requested that a traffic study analyze area intersections, street segments, freeway ramps, and freeway mainline segments.

Aesthetics. Public comments related to aesthetics mostly focused on the height of the proposed project as it relates to changes to public and private views (of the ocean, sunset, and stars), community character, and lighting (both blocking natural light and introducing artificial light). Public views of concern included views from the San Dieguito Lagoon, south of the proposed project, which included that the existing bluff is an "iconic" view from southern areas. One comment asked that public views from surrounding public viewpoints be included but did not specifically note any public viewing areas.

Related to community character, the City of Del Mar was referred to by commenters as "a small beach community" and "a village community" with a "beach community feel," and concerns were expressed regarding consistency of a four-story resort with this character. One commenter stated that the location of the proposed project at the entrance to the City of Del Mar would give the impression of a dense community, which is not consistent with the area nor desired by residents. Another commenter added that the proposed project would result in a "constant stream of celebrations that will change the character of the existing neighborhoods." Other comments were more specific to the design of the project and noted that the proposed buildings had a sleek and modern look inconsistent with the Spanish architecture in the area. Other commenters thought that a craftsman-style building would fit better with the neighborhood. Several commenters added that a two-story development would blend in more with the community, and an example of the L'Auberge Del Mar Resort was mentioned. Other suggestions included using setbacks to avoid line-of-sight impacts.

One comment letter noted issues of height, density, bulk, and character related to four-story development and referenced City of Del Mar Planning Commission meetings from 2001 where a development proposal on part of the proposed project site was scrutinized for aesthetic issues. The letter stated that views would be blocked from the Del Mar Beach Club, surrounding hillsides, and possibly some levels of the Del Mar Racetrack. The letter also noted that the City of Del Mar Community Plan's primary goal "is to preserve and protect that unique environmental quality which is the Del Mar Experience." Another commenter noted that the EIR should discuss the proposed project's proximity and relationship to the adjacent public James Scripps Bluff Preserve, which adds open space character to this part of the community. Light pollution concerns were raised as they relate to impacts on existing views of nighttime stars and as they relate to blocking sunset views and daylight from areas that would

be shaded by the proposed project. Refer to subsection 4.1, *Aesthetics*, for an evaluation of impacts related to the proposed project, which addresses potential environmental impacts related to community character, views, and lighting received during the 30-day NOP comment period.

Geology and Soils. Due to the proposed project's location on the top of a coastal bluff, one of the repeated public concerns and comments for the proposed project is related to bluff erosion and stability. Several commenters thought that a 40-foot setback was not enough to address bluff erosion and safety concerns. One resident of Solana Beach noted that they had seen the bluff in the northern portion of the project site retreat by 20 feet, including a fence that fell down the cliff on three separate occasions over 30 years. Several residents on South Shore Drive wrote a letter that noted that the existing seawall north of the project results in bluff erosion at a faster rate and suggested that a 75-year erosion line be incorporated into the setbacks. Another commenter suggested that the analysis incorporate a science-based approach that considers long-term erosion rates and sea level rise. A link to a memorandum from the California Coastal Commission (CCC), dated January 16, 2003, was included with reference to a section titled "Summary: Defining the Total Setbacks for Bluff-Top Development." One specific comment asked that the EIR evaluate the erosion rate including recent data on sea level rise, the existing seawall, and existing sea caves that destabilize the bluff and indicate unstable soils. Some comments suggested that the proposed underground parking and footings/foundations for the proposed buildings could weaken or damage the bluff and result in increased bluff erosion. Refer to subsection 4.5, *Geology and Soils*, for an evaluation of project impacts related to these issues.

Noise. Concerns related to noise were generally associated with operations at the proposed project. Residents of the Del Mar Beach Club and other residents in Solana Beach expressed concerns about noise that would be generated at the project site, which is generally quiet under existing conditions. Specific types of operational noises of concern that were mentioned in public comment letters included noise from guests, heating, ventilation, and air conditioning (HVAC) equipment, restaurants, events, delivery trucks, wedding disc jockeys, and live music. Current noises in the area were characterized as ocean and cricket noise, as well as occasional events at the Del Mar Fairgrounds and Brigantine restaurant. Refer to subsection 4.9, *Noise*, for an evaluation of project impacts related to noise.

Other Environmental Topics. Comments related to land use and planning issues included providing public access to coastal views and preserving access to the adjacent James Scripps Bluff Preserve. Comments related to air quality/greenhouse gases referenced emissions due to increases in traffic. Concerns with impacts on biology were noted in general and as they related to the San Dieguito Lagoon. Comments related to hydrology and water quality were specific to runoff and the potential to pollute the ocean and nearby San Dieguito River. A few people commented that they were concerned that any tribal interest in the project site could result in a casino development. Finally, one comment was received asking that water conservation measures be considered.

ES.4 PROJECT ALTERNATIVES

Section 15126.6 of the State CEQA Guidelines requires the discussion of "a range of reasonable alternatives to the project, or to the location of the project, which would feasibly attain most of the basic objectives of the project but would avoid or substantially lessen any of the significant effects of the project" and the evaluation of the comparative merits of the alternatives. The alternatives discussion is intended to "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. The EIR addresses the No Project (No Build)

Alternative, the No Project (Existing Land Use, Zoning, and Lot Configurations) Alternative, the Single-Family Residential (Existing Land Use and Zoning with Lot Reconfigurations) Alternative, and the Reduced Project (Specific Plan) Alternative. Alternatives to the project are evaluated in full in Section 7.0, *Alternatives*, of this EIR. A summary comparison of the impacts associated with the proposed project with the impacts of the project alternatives is included in Table ES-3, *Comparison of Project and Alternative Impacts* with the Single-Family Residential (Existing Land Use and Zoning with Lot Reconfigurations) Alternative identified as the Environmentally Superior Alternative.

ES.4.1 No Project (No Build) Alternative

Under the No Project (No Build) Alterative, no physical changes would occur and the site would remain as it does under existing conditions (see EIR Section 2.0, *Environmental Setting*, for a description of the existing site conditions). Specifically, the project site would remain as a primarily vacant and disturbed mesa top surrounded by coastal bluffs with a single-family residence, associated single-story buildings, landscaping and irrigation improvements, and a driveway that extends to just west of the Camino del Mar/Via de la Valle intersection. Components associated with the project would not occur, including utilities improvements; public access through the project site via a future bluff top trail network and paved public amenity trail; traffic improvements to the surrounding roadway network; stormwater improvements to reduce runoff over the western bluff edge; new public restrooms and a staircase at North Beach; affordable lodging; and additional public parking spaces. Also, the existing driveway near the northeastern corner of the project site would remain as it does under existing conditions.

The No Project (No Build) Alternative would avoid the potentially significant but mitigable impacts of the proposed project to aesthetics, biological resources, cultural and tribal cultural resources, geology and soils, land use and planning, and noise and vibration, as well as the significant and unmitigable impacts to transportation and traffic. This alternative; however, would not meet any of the project objectives.

ES.4.2 No Project (Existing Land Use, Zoning, and Lot Configurations) Alternative

Under the No Project (Existing Land Use, Zoning, and Lot Configurations) Alternative, the existing low-density residential land use and zoning designations as well as the existing lot configurations would continue to apply to the project site. Under this alternative, no additional lots would be modified, created, or subdivided, and development would proceed in accordance with existing development regulations. As a result, this alternative is assumed to allow up to six additional single-family residences to be constructed. Specifically, this alternative would involve the development of four residential estates on the Whalen property and two residential estates on the Lazier property. The existing 5,800-sf residence on the Gilbert property would remain and would not be modified under this alternative (see Table 2-1 for a description of the ownership of parcels). The six additional residences would be built at up to two stories or 26 feet in height, which is the current height restriction at the project site.

Several components associated with the project would not occur, including utilities improvements; traffic improvements to the surrounding roadway network; new public restrooms and a staircase at North Beach; affordable lodging; and additional public parking spaces. The existing driveway near the northeastern corner of the project site would be reconfigured to move away from Camino del Mar to better serve the six new residential estates and existing residence. Public access through the site would be made a condition of approval as part of permit review by the City of Del Mar in order to provide lateral coastal access between the City of Del Mar Coastal Viewing Access Easement and the Preserve.

Lastly, bluff erosion issues on the western side of the project site would be addressed during permit review and would be enforced by the City of Del Mar through compliance with the requirements of the existing Bluff, Slope, and Canyon Overlay Zone that would continue to apply to development at the project site under this alternative.

The No Project (Existing Land Use, Zoning, and Lot Configurations) Alternative would reduce the potentially significant but mitigable impacts of the proposed project to aesthetics, biological resources, cultural and tribal cultural resources, geology and soils, land use and planning, and noise and vibration, and would avoid the significant and unmitigable impacts to transportation and traffic. This alternative; however, would not meet most of the project objectives.

ES.4.3 Single-Family Residential (Existing Land Use and Zoning with Lot Reconfigurations) Alternative

Under the Single-Family Residential (Existing Land Use and Zoning with Lot Reconfigurations) Alternative, the existing low-density residential land use and zoning designations would continue to apply to the project site; however, 15.88 acres within the project site (including the 16.55 acres of private property minus the 0.67 acre located east of Camino del Mar which would not be buildable) would be subdivided to create a total of 23 single-family residential lots, which is the maximum amount of single-family residential development that would be allowed under existing land use and zoning designations. The development of the 23 lots could include two-story residences up to 26 feet in height.

Several components associated with the proposed project would not occur, including utilities improvements, traffic improvements to the surrounding roadway network; new public restrooms and a staircase at North Beach; affordable lodging; and 27 additional public parking spaces. The existing driveway near the northeastern corner of the project site would be reconfigured to move away from Camino del Mar to better serve the 23 new residences and existing residence. Also, public access through the site would be required as part of permit review by the City of Del Mar and would be made a condition of approval if the project site were to be developed pursuant to existing development regulations. Lastly, bluff erosion on the western side of the project site would be addressed during permit review and would be enforced by the City of Del Mar through compliance with the requirements of the existing Bluff, Slope, and Canyon Overlay Zone that would continue to apply to development at the project site under the Single-Family Residential (Existing Zoning) Alternative.

The Single-Family Residential (Existing Land Use and Zoning with Lot Reconfigurations) Alternative would reduce the potentially significant but mitigable impacts of the proposed project to aesthetics, biological resources, cultural and tribal cultural resources, geology and soils, land use and planning, and noise and vibration, and would avoid the significant and unmitigable impacts to transportation and traffic. This alternative; however, would not meet most of the project objectives.

ES.4.4 Reduced Project (Specific Plan) Alternative

The Reduced Project (Specific Plan) Alternative considers resort development at a reduced intensity at which a potentially significant environmental impact would be eliminated or reduced, in accordance with State CEQA Guidelines Section 15126.6(b). Under this alternative there would still be modifications to the City of Del Mar's Community Plan and Zoning Code, as well a Local Coastal Program Amendment (LCPA). As the environmental impacts identified in EIR Section 4, *Environmental Analysis*, were concluded to be reduced to less than significant with identified mitigation, except for traffic, this

alternative was developed by determining how much of a reduction in development would be necessary to avoid a significant and unmitigable traffic impact. Specifically, an approximately 41 percent reduction in the amount of guest rooms/units was determined to be necessary to avoid potentially significant and unmitigable traffic impacts. The Reduced Project (Specific Plan) Alternative therefore includes the development of a resort with a maximum of 107 units, including 39 guest rooms, 21 villas (18 of which would be divisible into 3 units each, totaling 54 additional guestrooms), 4 affordable housing units, and 7 lower-cost shared visitor-serving accommodations. Other resort development, such as the hotel amenities, commercial retail, special event space, meeting space, and back of house facilities would similarly be reduced by about 41 percent. While a site plan layout has not been prepared to reflect a potential design of the Reduced Project (Specific Plan) Alternative, this alternative assumes that similar areas of the project site would be developed as shown on EIR Figure 3-2; however, it is also assumed that building heights would likely be reduced from up to three stories or 46 feet with the project, up to two stories or about 30 feet under this alternative.

Other components associated with the proposed project would also occur, including utilities and traffic improvements in the surrounding roadway network; new public restrooms and a staircase at North Beach; affordable lodging (at an approximate 41 percent reduction); and additional public parking spaces (also at a 41 percent reduction, or approximately 16 parking spaces). The existing driveway near the northeastern corner of the project site would be reconfigured to move away from Camino del Mar and public access through the site would be provided, both similar to the proposed project.

The Reduced Project (Specific Plan) Alternative would have similar potentially significant but mitigable impacts to biological resources, cultural and tribal cultural resources, and land use and planning. Impacts on aesthetics, geology and soils (paleontological resources), and noise and vibration would be reduced compared to the proposed project but would remain less than significant with mitigation. While impacts at Camino del Mar/27th Street and Camino del Mar/Coast Boulevard would be avoided under the Reduced Project (Specific Plan) Alternative, operations at these intersections could be worse because existing deficient operations would remain and would not be improved with mitigation under the proposed project. Also, other significant and unavoidable transportation and traffic impacts would remain along Via de la Valle during the fair weekday and associated with queuing at Highway 101 (Camino del Mar)/Via de la Valle (Border Avenue). The Reduced Project Alternative would meet most of the project objectives (6 of the 11 project objectives); however, traffic conditions at the intersections of Camino del Mar/ 27th Street and Camino del Mar/Coast Boulevard would not be improved and existing operating conditions at these intersections may be worse than the post-mitigation condition associated with the proposed project (depending on which mitigation measure option is selected).

ES.5 PUBLIC REVIEW FOR THE DRAFT EIR

This EIR will be made available to members of the public, agencies, and interested parties for a 45-day public comment period in accordance with Section 15105 of the State CEQA Guidelines. Public comment on the EIR is intended to focus "on the sufficiency of the document in identifying and analyzing the possible impacts on the environment and ways in which the significant effects of the project might be avoided or mitigated" (14 California Code of Regulations [CCR] 15204). The Notice of Completion (NOC) of the EIR will be filed with the State Clearinghouse (SCH) as required by Section 15085 of the State CEQA Guidelines. In addition, the Notice of Availability (NOA) of the EIR will be distributed pursuant to Section 15087 of the State CEQA Guidelines. Interested parties may provide comments on the EIR in written form. This EIR and all related technical appendices are available for review upon request during the 45-day public comment period at the following locations:

- Del Mar City Hall: 1050 Camino del Mar
- Del Mar Public Library: 1309 Camino del Mar
- City of Del Mar website: www.delmar.ca.us/

Once the 45-day public comment period has concluded, the City of Del Mar will review all public comments on the EIR, provide written responses to comments, and revise to the EIR text, if necessary. The final Mitigation Monitoring and Reporting Program (MMRP) will be incorporated into the Final EIR. The Final EIR will include all comment letters received, final written response to comments, and edits made to the EIR as a result of public review/comment, if any.

Table ES-1
PROJECT ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES

Issue	Impact	Mitigation Measure(s)	Significance After Mitigation
Aesthetics			
Threshold (c) (Degradation of Existing Visual Character or Quality or Conflict with Regulations Governing Scenic Quality)	**AES-1:** The presence of built development close to the more "natural" experience of the Preserve and the proposed resort buildings would introduce a discordant note that would result in a substantial change to existing conditions and a significant environmental impact.	**MM AES-1: Enhanced Landscaping Plan**. As part of the Design Review permit application, the project applicant shall prepare a detailed Enhanced Landscaping Plan for the southern boundary of the resort. The plan shall be prepared by a qualified landscape architect, as determined by the City of Del Mar, and shall specify all proposed plants for the strip between the structures and the Preserve. No invasive plants shall be included and the palette shall incorporate plants providing both width and height to obscure all of the ground floor structure and portions of the second story, as feasible.	Less than Significant
Threshold (d) (New Substantial Sources of Light or Glare)	**AES-2:** Project implementation would substantially increase of the amount of operational lighting on the mesa top in comparison to existing conditions. This introduction of multiple sources of nighttime lighting associated with the proposed development on a primarily vacant would result in a potentially significant impact related to existing nighttime views and more specifically, potential for light trespass onto adjacent residential properties to the north.	**MM AES-2: Lighting Plan and Photometric Study**. Prior to the issuance of construction permits, the project applicant shall prepare a detailed Lighting Plan and detailed Photometric Study. The Lighting Plan shall be prepared by a qualified lighting engineer or lighting professional, as determined by the City of Del Mar, and shall specify all proposed lighting fixtures at the project site, including the intensity/characteristics of each fixture in terms of foot-candles and a detailed lighting schedule. Light levels at residential property lines adjacent and north of the project site shall be demonstrated within a Photometric Study to not exceed 0.05 foot-candle. Lighting shall be warm light rather than cool light; approximately 2,700 Kelvin, and shall be subject to review and approval by the City of Del Mar.	Less than Significant

Table ES-1
PROJECT ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES

Issue	Impact	Mitigation Measure(s)	Significance After Mitigation
Biological Resources			
Threshold (a) (Effects on Plant and Animal Species)	**BIO-1:** Direct impacts could occur if active nests or the young of nesting bird species are impacted during grading or other construction activities.	**MM BIO-1: Nesting Bird Surveys**. Construction shall be phased to avoid the migratory bird nesting season (typically February 15 through September 1) to the extent feasible. If construction must occur during the migratory bird nesting season, a focused avian nesting survey shall be performed at the project site within 300 feet of the proposed construction and by a qualified biologist no more than 72 hours prior to the start of construction. If an active bird nest is found, the nest shall be flagged and mapped on the construction plans along with an appropriate buffer, which will be determined by the biologist based on the biology of the species. The nest and buffer area shall be avoided until the nest is vacated and the juveniles have fledged or the nest is otherwise no longer active. The nest and buffer area shall be demarcated in the field with flagging and stakes or construction fencing. Construction shall be permitted in areas outside of the nest and buffer area. If nesting birds are present on site, a biological monitor shall be present daily during construction activities while the nest(s) is active to ensure that no effects to nesting birds occur.	Less than Significant
	BIO-2a: Special-status wildlife may be indirectly impacted during construction of the project through the release of chemical pollutants and accidental clearing, trampling, or grading outside designated construction zones.	Implement MM BIO-1. **MM BIO-2a: Demarcation of Bluff Scrub**. Prior to the issuance of construction permits, the project applicant shall provide evidence to the satisfaction of the City of Del Mar that the locations of southern coastal bluff scrub outside of the approved limits of disturbance shall be avoided and marked with temporary fencing or other appropriate markers clearly visible to construction personnel. No construction access, parking, or storage of equipment or materials will be permitted within 20 feet of such marked areas.	Less than Significant

Table ES-1
PROJECT ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES

Issue	Impact	Mitigation Measure(s)	Significance After Mitigation
Biological Resources (cont.)			
		MM BIO-2b: Construction Nighttime Lighting. Construction within 50 feet of the adjacent Preserve shall be prohibited between sunset and sunrise, and all construction-related lighting shall be turned off during that period. The location of the Preserve shall be shown on construction documents and verified by the City of Del Mar prior to the commencement of any construction activities.	
		MM BIO-2c: Contractor Education Program. Prior to the issuance of construction permits, the project applicant shall provide evidence to the satisfaction of the City of Del Mar that a contractor education program has been prepared and approved by the City of Del Mar and implemented to apprise all construction personnel and subcontractors of environmental restrictions. The applicant and contractor shall establish a protocol for communicating problems or potential construction changes that may affect biological resources. Workers shall be made aware of protected habitat adjacent to the project site. The sensitivity of the habitat to human activities and the roles and authority of monitoring biologists shall be discussed.	
		MM BIO-2d: Equipment Restrictions. Prior to the issuance of construction permits, staging and storage areas for spoils, equipment, materials, fuels, lubricants, and solvents shall be identified within a designated impact area that shall be marked on an exhibit for the review and approval of the City of Del Mar. Stationary equipment, such as motors, pumps, generators, compressors, and welders located adjacent to southern coastal bluff scrub shall be positioned over drip-pans or other containment. Before refueling and lubrication, vehicles and other equipment shall be moved away from the southern coastal bluff scrub.	

Table ES-1
PROJECT ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES

Issue	Impact	Mitigation Measure(s)	Significance After Mitigation
Biological Resources (cont.)			
		MM BIO-2e: Restrictions on Use of Invasive Species. Prior to the issuance of construction permits, a list of landscape plants to be used shall be reviewed and approved by the City of Del Mar and shall not include invasive plant species, as identified by the most recent version of the California Invasive Plant Inventory for the region, as published by the California Invasive Plant Council. Landscape plans shall include a plant palette composed of native or non-native, non-invasive species that do not require high irrigation rates.	
		MM BIO-2f: Signage and Fencing. Trail fencing shall be installed to prevent unmanaged access to the adjacent Preserve. Signage shall be included near access points that identify sensitive habitats and the importance of staying on designated trails/paths.	
		MM BIO-2g: Operational Nighttime Lighting. To reduce long-term nighttime lighting effects, shielded low-sodium, low-wattage lighting on proposed building and accent lighting shall be used to cut glare and light scatter, and to direct light away from sensitive biological resources.	
Threshold (d) (Wildlife Movement)	**BIO-2b:** Operation of the project may indirectly interfere with wildlife movement within the San Dieguito River outlet though the use of development-related lighting.	Implement MM BIO-2b and -2g.	Less than Significant
Threshold (b) (Direct Effects on Sensitive Natural Community)	**BIO-3a:** Approximately 0.27 acre of southern coastal bluff scrub would be permanently impacted by the proposed public access stairway, public restrooms, interpretive signage, and pathway lighting for hotel and public visitor services.	**MM BIO-3a: Restoration of Bluff Scrub**. Prior to the issuance of construction permits, a detailed southern coastal bluff scrub restoration plan to provide mitigation for the identified 0.27 acre of impact shall be submitted to and subject to the approval of the City of Del Mar.	Less than Significant

Table ES-1
PROJECT ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES

Issue	Impact	Mitigation Measure(s)	Significance After Mitigation
Biological Resources (cont.)			
		MM BIO-3a (cont.) Restoration can include enhancement of existing southern coastal bluff scrub or creation of southern coastal bluff scrub in areas where the community is not present. The detailed southern coastal bluff scrub restoration plan shall specify, at a minimum, the following: (1) the location of the restoration site; (2) site preparation, including soils preparation and irrigation installation; (3) the quantity (seed or nursery stock) and species of plants to be planted (species are to be native to the region and consist of southern coastal bluff scrub species); (4) methods for the removal of non-native plants; (5) a schedule and action plan to maintain and monitor the restoration area; (6) a list of criteria to measure the success of the restoration site (e.g., percent cover and richness of native species, percent survivorship, establishment of self-sustaining native of plantings, maximum allowable percent of non-native species); (7) measures to exclude unauthorized entry into the restoration areas; and (8) contingency measures in the event that restoration efforts are not successful. At least 0.27 acre of southern coastal bluff scrub restoration must be successful to mitigate for the proposed impacts to southern coastal bluff scrub and to meet the success criteria of the restoration plan.	

Table ES-1
PROJECT ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES

Issue	Impact	Mitigation Measure(s)	Significance After Mitigation
Biological Resources (cont.)			
	BIO-3b: If restoration activities were to occur within the remnant parcel east of Camino del Mar, potentially significant direct impacts to sensitive plants and animals and jurisdictional areas would occur.	**MM BIO-3b: Restoration Plan.** If restoration activities occur on the project parcel located east of Camino del Mar, the project applicant shall prepare and implement a restoration plan to demonstrate that significant impacts to sensitive species and jurisdictional areas would not occur. The Restoration Plan shall be submitted to the City of Del Mar and the appropriate regulating agencies for review and approval prior to implementation. The Restoration Plan shall include native plant species consistent with surrounding habitat.	Less than Significant
Threshold (b) (Indirect Effects on Sensitive Natural Community)	**BIO-3c:** Southern coastal bluff scrub beyond but adjacent to the project site may be indirectly impacted during construction and operation of the project.	Implement MM BIO-2a through -2g.	Less than Significant
Threshold (e) (Conflicts with Local Tree Ordinance)	**BIO-4:** Implementation of the project would result in the removal of protected trees, including Monterey cypress trees and Torrey pines.	**MM BIO-4: Tree Removal Permit.** The project proponent shall comply with the requirements of DMMC Section 23.50, Trees. Prior to the issuance of construction permits, the project proponent shall submit a Tree Removal Permit application to the City of Del Mar with the appropriate processing fee according to the DMMC Section 23.50.080. A Tree Removal Permit, as recommended by the Design Review Board and approved by the Del Mar City Council, would be required to cut down, remove, destroy, or move a protected tree. The project applicant shall be required to comply with the requirements of the Tree Removal Permit, which would include replanting of the protected trees on site or payment of a fee to the City of Del Mar's Tree Mitigation Fund in accordance with DMMC Sections 23.50.080(C-10), 23.50.030(D)(2), and 23.50.090(A)(2).	Less than Significant

Table ES-1
PROJECT ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES

Issue	Impact	Mitigation Measure(s)	Significance After Mitigation
Cultural and Tribal Cultural Resources			
Threshold (b) (Substantial Change to Archaeological Resource)	**CUL-1:** Implementation of the project grading and excavation could result in the demolition or impairment of site CA-SDI-10940, which is considered to be intact and mostly undisturbed.	**MM CUL-1a: Data Recovery Program**. A Data Recovery Program shall be implemented for site CA-SDI-10940 prior to any ground-disturbing activity that would cause the direct impact to the site, taking into account finalized construction plans and other concerns in order to better define impacted areas. The data recovery program shall be based on a written research design and data recovery plan that shall be prepared prior to data recovery. The research design and data recovery plan shall make provisions for adequately recovering the scientifically consequential information from the archaeological resource and provide protocols for the subsequent cataloguing, analysis, identification, dating, and interpretation of the findings. All data recovery shall include a Kumeyaay Native American monitor. Any recovered cultural material shall be identified, mapped, and catalogued as required by standard professional archaeological practices. At the completion of data recovery for CA-SDI-10940, a report shall be completed and submitted to the City describing the methods and results of the data recovery program. Recovered cultural material shall be curated with accompanying catalog and data recovery report to current professional repository standards.	Less than Significant

Table ES-1
PROJECT ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES

Issue	Impact	Mitigation Measure(s)	Significance After Mitigation
Cultural and Tribal Cultural Resources (cont.)			
		MM CUL-1b: Archaeological Resources Monitoring and Treatment Plan. Prior to the start of any ground-disturbing activity, an Archaeological Resources Monitoring and Treatment Plan (ARMTP) shall be prepared by a qualified archaeologist, subject to review and approval by the City. The ARMTP shall outline the monitoring program procedures and include recovery and subsequent treatment for the discovery of any archaeological or historical remains and associated data uncovered by ground-disturbing activities. The ARMTP shall provide procedures for the cataloguing, analyses, and curation of any recovered cultural material.	
		MM CUL-1c: Archaeological and Native American Monitoring Program. Prior to the start of any ground-disturbing activity, a qualified archaeological Principal Investigator shall be retained by the applicant. A qualified archaeologist and a Kumeyaay Native American representative shall attend the pre-construction meeting with the contractors to explain the requirements of the monitoring program and actions to be taken in the event of a cultural resources discovery, as outlined in the ARMTP. A qualified archaeological monitor and a Kumeyaay Native American monitor shall be on site during all grading, trenching, and other ground-disturbing activities, including brush clearance and grubbing, unless otherwise agreed upon by the archaeological Principal Investigator, the Native American representative, and City staff.	

Table ES-1
PROJECT ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES

Issue	Impact	Mitigation Measure(s)	Significance After Mitigation
Cultural and Tribal Cultural Resources (cont.)			
		MM CUL-1c (cont.) In the event that subsurface deposits are accidently discovered or unearthed during ground-disturbing activities, earthmoving activities shall cease in the immediate area (not less than 50 feet from the discovery) until the archaeological Principal Investigator has identified and evaluated the nature and significance of the find and treatment measures implemented, as required, per the ARMTP. Recovered artifactual materials shall be cataloged, analyzed, and curated per the protocols in the ARMTP. Recovered cultural material shall be curated with accompanying catalog to current professional repository standards. A final summary report shall be completed that describes the methods and results of the archaeological monitoring program, documents compliance, and signifies completion of the monitoring program.	
	CUL-2: Implementation of the project water pipeline would result in ground disturbances in proximity to known archaeological sites and inadvertent discovery could occur during water pipeline installation.	Implement MM CUL-1b and -1c.	Less than Significant
Threshold (c) (Disturbance of Human Remains)	**CUL-3:** Human remains were collected from CA-SDI-10940 during archaeological investigations at the site by Rogers in 1929; and while the probability of finding additional human remains during project construction is unknown, the potential exists for additional discoveries of human bone.	Implement MM CUL-1b and -1c.	Less than Significant

Table ES-1
PROJECT ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES

Issue	Impact	Mitigation Measure(s)	Significance After Mitigation
Geology and Soils			
Threshold (f) (Geologic Stability)	**GEO-1:** The locations of the loop trail, bluff top trail network, fencing, windscreen, and benches would be potentially subjected to future bluff collapse during the lifespan of the resort.	**MM GEO-1: Bluff Erosion.** All new trails, fences, windscreens, and benches shall be set back a minimum of 10 feet from the top edge of a coastal bluff. All such improvements, when providing less than the identified coastal bluff-top setback of an FOS 1.5 plus 33 feet, shall be constructed above-grade using lightweight materials and without the use of grading and/or continuous foundation components. Development plans for such improvements, as well as improvements located outside and adjacent to the coastal bluff top setback, shall demonstrate Adaptive Design strategies to allow and ensure future relocation of the public amenities to the east over time, as needed due to erosion and bluff failure. Said Adaptive Design strategies shall be subject to review and approval of the Del Mar City Council during the required discretionary design review of such development	Less than Significant
Threshold (i) (Paleontological Resources)	**GEO-2:** Direct and indirect impacts to paleontological resources could occur as a result of excavations of the Bay Point Formation at the project site and excavations related to pipeline construction.	**MM GEO-2a: Paleontological Resources Monitoring and Treatment Plan**. Prior to the start of any ground-disturbing activity, a Paleontological Resources Monitoring and Treatment Plan (PRMTP) shall be prepared by a qualified paleontologist, subject to review and approval by the City of Del Mar. The PRMTP shall address construction monitoring procedures and provide treatment measures for paleontological resources discoveries, including the development of protocols for handling fossils discovered during construction, likely including temporary diversion of construction equipment so that the fossils could be recovered, identified, and prepared for dating, interpreting, and preserving at an established, permanent, accredited research facility.	Less than Significant

Table ES-1
PROJECT ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES

Issue	Impact	Mitigation Measure(s)	Significance After Mitigation
Geology and Soils (cont.)			
		MM GEO-2b: Paleontological Monitoring Program. Prior to the start of any ground-disturbing activity, a qualified paleontologist shall attend the pre-construction meeting to consult with the grading and excavation contractors concerning excavation schedules, paleontological field techniques, and safety issues. A paleontological monitor shall be on site on a full-time basis during the original cutting of previously undisturbed deposits of high paleontological resource potential (Bay Point Formation and Delmar Formation) to inspect exposures for contained fossils. Grading activities in previously undisturbed deposits of moderate paleontological resource potential (Torrey Sandstone) shall be monitored on a part-time basis. In the event that paleontological resources are discovered or unearthed during project subsurface activities, all earthmoving activities within radius of not less than 50 feet from the discovery shall be temporarily suspended or redirected until a certified paleontologist has recovered, identified, and/or evaluated the nature and significance of the find, in compliance with CEQA Guidelines 15064.5(f). After the find has been appropriately mitigated, work in the area may resume. Any fossil remains collected during monitoring and salvage shall be cleaned, repaired, sorted, and cataloged as part of the monitoring program. Prepared fossils, along with copies of all pertinent field notes, photos, and maps, shall be deposited in a scientific institution with permanent paleontological collections such as the San Diego Natural History Museum. Donation of the fossils shall be accompanied by financial support for preparation, curation, and initial specimen storage, if this work has not	

Table ES-1
PROJECT ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES

Issue	Impact	Mitigation Measure(s)	Significance After Mitigation
Geology and Soils (cont.)			
		MM GEO-2b (cont.) already been completed. A final summary report shall be completed that outlines the results of the paleontological monitoring program. This report shall include discussions of the methods used, stratigraphic section(s) exposed, fossils collected, and significance of recovered fossils.	
Land Use and Planning			
Threshold (b) (Conflicts with Land Use Plans)	**LU-1:** If usable private outdoor areas (i.e., patios or balconies) are constructed along the northern, eastern, or southern façades, traffic noise levels at these areas would exceed the City of Del Mar's exterior noise compatibility standard of 65 CNEL established by the Del Mar Community Plan.	**MM LU-1: Compliance with Exterior Noise Standards.** Prior to the issuance of occupancy permits, if designed with usable outdoor patio or balcony areas, the rooms in the northeastern-most portion of the project site with a direct, unobstructed view of Camino del Mar would require a noise barrier with a minimum height of 5 feet, as measured from the floor of each patio or balcony, in order to meet the City of Del Mar's noise exterior noise compatibility standard of 65 CNEL. The noise barrier may be constructed of a material such as tempered glass, acrylic glass (or similar material), masonry material, or manufactured lumber (or a combination of these), with a surface density of at least three pounds per square foot. The noise barrier should have no openings or cracks.	Less than Significant
	LU-2: Interior noise levels within habitable rooms could exceed the 45 CNEL interior noise standard, resulting in an inconsistency with the interior noise standards established by the State of California.	**MM LU-2: Compliance with Interior Noise Standards.** Prior to the issuance of occupancy permits, an interior noise analysis shall be required for the proposed dwelling units. Installation of additional systems (e.g., HVAC and sound-rated windows) shall be required if the interior noise analysis shows that impacts would be above the State of California 45 CNEL interior standard. The interior noise analysis shall substantiate that the resulting interior noise levels will be less than the noise standard.	Less than Significant

Table ES-1
PROJECT ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES

Issue	Impact	Mitigation Measure(s)	Significance After Mitigation
Noise and Vibration			
Threshold (a) (Temporary or Permanent Noise Increases)	**NOI-1:** Noise associated project construction activities would exceed the 75 dBA L_{EQ} construction noise standards established in the City of Del Mar's Noise Control Ordinance.	**MM NOI-1:** Prior to initiation of project construction activities, the City of Del Mar shall approve a construction noise mitigation program to include the following so that construction noise levels do not exceed the 75-dBA L_{EQ} construction noise standard established in the City of Del Mar's Noise Control Ordinance for off-site sensitive receptors: • Temporary sound barriers/shielding shall be installed to shield non-mobile equipment in the vicinity of nearby sensitive receptors, or, alternatively, to shield at the site's boundaries (i.e., north of the project site, where adjacent residences are closest). For example, for on-site construction activities, an 8-foot high noise barrier would be constructed along the project's northern site boundary. For noisy pipeline construction activities near residential land uses, a portable noise barrier which would break the line-of-sight between the construction activity (to the extent practical) and the residences would be used. The material for a temporary noise barrier could consist of materials such as ¾-inch thick plywood, or portable barriers with a minimum sound transmission class (STC) rating of 20. • Construction equipment shall be properly outfitted and maintained with feasible noise-reduction devices (e.g., functioning mufflers and silencers, tightly closed access panels) to minimize construction-generated noise.	Less than Significant

Table ES-1
PROJECT ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES

Issue	Impact	Mitigation Measure(s)	Significance After Mitigation
Noise and Vibration (cont.)			
		• Stationary noise sources such as generators and pumps shall be located as far away from noise-sensitive land uses as feasible. • Laydown and construction vehicle staging areas shall be located away from noise-sensitive land uses if feasible. • Whenever possible, residential areas that will be subject to construction noise shall be informed one week before the start of each construction phase.	
	NOI-2: The ultimate locations and specific model types of the HVAC units are not determined at the time of the preparation of this EIR and there is a potential for on-site noise to exceed City of Del Mar standards.	**MM NOI-2:** Prior to the issuance of building permits, the project applicant shall retain an acoustical specialist to review project construction-level plans to confirm that the equipment specifications and plans for HVAC and other outdoor mechanical equipment incorporate measures, such as the specification of quieter equipment or provision of acoustical enclosures, so that noise levels will not exceed City of Del Mar noise standards (50 dBA L_{EQ} during daytime hours and 40 dBA L_{EQ} for nighttime hours) at the nearest off-site multi-family receptors located immediately north of the project site. Prior to the commencement of construction, the acoustical specialist shall certify in writing to the City of Del Mar that the equipment specifications and plans incorporate measures that will achieve the relevant noise limits.	Less than Significant

Table ES-1
PROJECT ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES

Issue	Impact	Mitigation Measure(s)	Significance After Mitigation
Noise and Vibration (cont.)			
	NOI-3: Amplified music and outdoor recreational activities at the project site could result in noise levels in excess the City of Del Mar's stationary noise standard of 50 dBA L_{EQ} during daytime hours and 40 dBA L_{EQ} for nighttime hours.	**MM NOI-3:** During the long-term operation of the project, policies and procedures shall be implemented to ensure that noise levels from the project are minimized in the surrounding areas. Such policies may include signage requesting that visitors and guests be aware and respectful of the surrounding environment and refrain from excessive noise-making. Usage of the on-site pool and other recreational areas shall be limited to the hours of between 7:00 a.m. and 10:00 p.m. Additionally, amplified music shall be limited to the hours between 7:00 a.m. and 10:00 p.m. Enforcement of these limitations shall be carried out by resort staff and management, and through the posting of signs.	Less than Significant
Transportation and Traffic			
Threshold (a) (Conflicts with Circulation System)	**TRA-1:** The project would result in significant contributions to traffic at Intersection #9 – Via de la Valle/South Cedros Avenue, during a typical weekday and horse races weekday in the PM peak hour.	**MM TRA-1: Improvements at Via de la Valle/South Cedros Avenue**. Prior to the issuance of occupancy permits, the project applicant shall be responsible for the installation of a traffic signal at the intersection of Via de la Valle and South Cedros Avenue to the satisfaction of the City of Del Mar.	Less than Significant
	TRA-2: The project would result in significant contributions to traffic at Intersection #10 – Via de la Valle/Jimmy Durante Boulevard, during a fair weekday and weekend in the peak hour.	**MM TRA-2: Improvements at Via de la Valle/Jimmy Durante Boulevard**. Prior to the issuance of occupancy permits, the project applicant shall be responsible for the re-striping of Via de la Valle at Jimmy Durante Boulevard per Figure 4.11-2, *Via de la Valle/Jimmy Durante Boulevard Intersection Improvements*, which illustrates an exclusive westbound right-turn lane for vehicles and a bike lane on westbound Via de la Valle between the right-turn lane and through lane east of Jimmy Durante Boulevard.	Less than Significant

Table ES-1
PROJECT ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES

Issue	Impact	Mitigation Measure(s)	Significance After Mitigation
Transportation and Traffic (cont.)			
	TRA-3: The project would result in significant contributions to traffic at intersection #13 – Camino del Mar/27th Street, during a typical weekend, fair weekday and weekend, and horse races weekday in the PM peak hour.	**MM TRA-3: Improvements at Camino del Mar/ 27th Street**. Prior to the issuance of occupancy permits, the project applicant shall complete one of the following improvements, to the satisfaction of the City of Del Mar:	
		Option A: Install a traffic signal at the intersection of Camino del Mar and 27th Street.	Less than Significant
		Option B: Install a roundabout at the intersection of Camino del Mar and 27th Street;	Less than Significant
		Option C: Provide manual control of the intersection during the peak hours until such time as a permanent mitigation measure is decided;	Less than Significant
		Option D: Provide a second through lane on Camino del Mar and modify the intersection control to a two-way stop control (TWSC); or	Less than Significant
		Option E: Remove the stop signs on Camino del Mar and modify the intersection control to a two-way stop control.	Less than Significant
	TRA-4: The project would result in significant contributions to traffic at intersection #14 – Camino del Mar/Coast Boulevard, during a typical weekday, fair weekday and weekend, and horse races weekday and weekend in the PM peak hour.	**MM TRA-4: Improvements at Camino del Mar/Coast Boulevard**. Prior to the issuance of occupancy permits, the project applicant shall complete one of the following improvements, to the satisfaction of the City of Del Mar:	
		Option A: Install a traffic signal at the intersection of Camino del Mar and Coast Boulevard;	Less than Significant
		Option B: Install a roundabout at the intersection of Camino del Mar and Coast Boulevard;	Less than Significant

Table ES-1
PROJECT ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES

Issue	Impact	Mitigation Measure(s)	Significance After Mitigation
Transportation and Traffic (cont.)			
		Option C: Provide manual control of the intersection during the peak hours until such time as a permanent mitigation measure is decided;	Less than Significant
		Option D: Provide a second through lane on Camino del Mar at Coast Boulevard; or	Less than Significant
		Option E: Remove the stop signs on Camino del Mar and modify the intersection control to a two-way stop control.	Significant and Unavoidable (during a typical and fair weekend)
	TRA-5a: The project would result in significant contributions to traffic at street segment #7 – Via de la Valle, from Highway 101 to South Cedros Avenue, during a typical weekday, fair weekday, and horse races weekday.	Implement MM TRA-2 and MM TRA-7	Significant and Unavoidable (during the fair weekday)
	TRA-5b: The project would result in significant contributions to traffic at street segment #8 – Via de la Valle, from South Cedros Avenue to Jimmy Durante Boulevard, during a typical weekday, fair weekday, and horse races weekday.	Implement MM TRA-2 and MM TRA-7	Significant and Unavoidable (during the fair weekday)
	TRA-5c: The project would result in significant contributions to traffic at street segment #9 – Via de la Valle, from Jimmy Durante Boulevard to I-5 SB Ramps, during a typical weekday, fair weekday, and horse races weekday.	Implement MM TRA-2 and MM TRA-7	Significant and Unavoidable (during the fair weekday)

Table ES-1
PROJECT ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES

Issue	Impact	Mitigation Measure(s)	Significance After Mitigation
Transportation and Traffic (cont.)			
Threshold (a) (Conflicts with Circulation System) and Threshold (c) (Hazards due to a Geometric Design Feature)	**TRA-6:** The project would result in conflicts with vehicles, pedestrians, and bicyclists during construction activities within right-of-way portions of Camino del Mar, Via de la Valle, Jimmy Durante Boulevard, and Border Avenue.	**MM TRA-6: Traffic Control Plan**. During the encroachment permit process, the contractor or other responsible party will provide a traffic control plan for review and approval by the City of Del Mar Public Works Department. The traffic control plan shall be prepared in accordance with the City of Del Mar's Traffic and Roadway Standards Manual and to the satisfaction of the City of Del Mar Public Works Department. It must demonstrate that adequate emergency access and egress will be maintained, and that traffic will be allowed to move efficiently and safely along Camino del Mar, Border Avenue, and surrounding roadways. The traffic control plan may include measures such as signage, detours, traffic control staff, a temporary traffic signal, or other appropriate traffic controls, as determined appropriate by the City of Del Mar Public Works Department.	Less than Significant
Threshold (c) (Hazards due to a Geometric Design Feature)	**TRA-7:** The project would result in increases in hazards due to additional queuing in excess of 10 feet at the westbound left-turn lane at the intersection of Camino del Mar/Via de la Valle during the PM peak hour.	**MM TRA-7: Improvements at Camino del Mar (Highway 101)/Via de la Valle (Border Avenue)**. Prior to the issuance of occupancy permits, the project applicant shall install either Option A or Option B, which are depicted on EIR Figure 4.11-3, *Border Avenue/Via de la Valle Intersection Improvements,* and Figure 4.11-4, *Via de la Valle Segment Improvements*, respectively:	
		Option A (EIR Figure 4.11-3): An exclusive eastbound left-turn lane, one through-lane, and one shared through right-lane within Border Avenue at Camino del Mar; or	Significant and Unavoidable

Table ES-1
PROJECT ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES

Issue	Impact	Mitigation Measure(s)	Significance After Mitigation
Transportation and Traffic (cont.)			
		Option B (EIR Figure 4.11-4): An exclusive eastbound left-turn lane, one through-lane, one shared through right-turn lane, in addition to restriping within Via de la Valle with a westbound right-turn lane, a shared through left-turn lane, and a left-turn lane with east/west split phasing. A second eastbound through lane on Via de la Valle from Highway 101 through approximately 200 feet east of South Cedros Avenue shall also be provided.	Less than Significant

Table ES-2
SUMMARY OF PUBLIC COMMENTS RECEIVED

Environmental Topic	Frequency	Percentage
Transportation and Traffic	31	26%
Aesthetics	25	21%
Geology and Soils	19	16%
Noise	15	13%
Land Use and Planning	8	7%
Air Quality/Greenhouse Gas Emissions	7	6%
Biological Resources	6	5%
Hydrology and Water Quality	5	4%
Cultural Resources	3	3%
Utilities, Service Systems, and Energy	1	1%
TOTAL	**120**	**100%**

Table ES-3
COMPARISON OF PROJECT AND ALTERNATIVE IMPACTS

Environmental Topic	Proposed Project	No Project (No Build) Alternative	No Project (Existing Land Use, Zoning, and Lot Configurations) Alternative	Maximum Single-Family Residential Development (Existing Zoning and Land Use with Lot Reconfigurations) Alternative	Reduced Project (Specific Plan) Alternative
Aesthetics	SM	N	SM -	SM -	SM -
Biological Resources	SM	N	SM -	SM -	SM 0
Cultural and Paleontological Resources	SM	N	SM -	SM -	SM 0
Geology and Soils	SM	N	SM -	SM -	SM -
Land Use and Planning	SM	N	SM -	SM -	SM 0
Noise and Vibration	SM	N	SM -	SM -	SM -
Transportation and Traffic	**SU**	N	N	N	**SU** -
Meets Most Project Objectives?	Yes	No	No	No	Yes
Project Objectives Met	All	None	1, 3, 4, 5	1, 3, 4, 5	1, 2, 3, 4, 5, 8

N = no significant impacts
SM = significant but mitigable impacts
SU = significant and unavoidable impact
0 = similar impact compared to the proposed project
- = reduced impact compared to the proposed project

1.0 INTRODUCTION

This section provides a brief description of the Marisol Specific Plan (Specific Plan or proposed project) background, the purpose and legal authority for the Environmental Impact Report (EIR), the environmental review process, and an outline of how the EIR is organized.

1.1 PROJECT BACKGROUND

The Specific Plan involves 17.45 acres of private and public property (project site or Specific Plan Area), generally southwest of the intersection of Camino del Mar and Via de la Valle, in the City of Del Mar (or Del Mar) and adjacent and immediately south of the City of Solana Beach (or Solana Beach). The project site comprises 16.55 acres of privately-owned low-density residential property, most of which is vacant and inaccessible to the public, and publicly-owned areas associated with a 0.12-acre coastal viewing access easement west of Border Avenue and 0.78 acre of public right-of-way along the western edge of Camino del Mar. The project site has historically been used for low-density single-family uses preceded by agricultural uses dating back to the early 20th century. Current development consists of one single-family residence in the southern part of the project site. Several development proposals for portions of the project site, including proposed subdivisions to create smaller residential lots, have been submitted to the City of Del Mar for consideration as recent as 2015, which was tentatively approved and extended.

In early 2017, Zephyr Partners (Applicant) entered into a purchase agreement with the owners of the project site and began to design a resort project. In July 2017, the Del Mar City Council authorized the Applicant to submit a project in the form of a Specific Plan and required that it follow Del Mar City Council Policy #112, which provides required processing steps for Specific Plan submittals. Pursuant to City of Del Mar requirements to complete a Citizens Participation Program (CPP), the Applicant held three public events to solicit community input on the Specific Plan. Two public events were held at the project site in May 2017 and one event was held at Powerhouse Park in August 2017. Outreach with members and representatives of stakeholder committees was also performed in 2017 and 2018 with the City of Solana Beach, Del Mar Foundation, Del Mar Traffic and Parking Advisory Committee, Del Mar Sustainability Committee, Del Mar Sea Level Rise Technical Advisory Committee, Del Mar Shores Advisory Committee, Del Mar Finance Committee, Del Mar Lagoon Committee, San Dieguito River Park Joint Powers Association, San Dieguito River Conservancy, Friends of the Powerhouse, Del Mar Community Connections, Del Mar Housing Corporation, Moving Del Mar Forward, Del Mar Beach Club Owners Association in the City of Solana Beach, Seascape Home Owners Association in the City of Solana Beach, Condominium Owners of South Sierra Avenue (COOSA) in the City of Solana Beach, and the Del Mar Village Association. Story poles were installed at the project site in August 2018 to demonstrate the proposed building locations and heights associated with a May 2018 draft of the Specific Plan.

On August 27, 2018, the Applicant held a project proposal meeting in accordance with the provisions of the CPP. With much public concern raised and conveyed to the City of Del Mar during the CPP process, the City of Del Mar decided to conduct a joint public workshop of its Design Review Board (DRB) and Planning Commission. The workshop was held on October 17, 2018 in the Del Mar Town Hall. Public testimony was given, both against and for the project, and the Planning Commission and DRB provided preliminary feedback regarding the requested land use/zoning changes and the conceptual design of the development. Following the October 2018 DRB/Planning Commission public workshop, the Applicant

announced that they were going to redesign the project based on the feedback received from the public and the City of Del Mar.

In August 2019, the Applicant submitted a revised Specific Plan in the form of an initiative (the Marisol Specific Plan Initiative or Initiative) to the Del Mar City Clerk to ask the registered voters in Del Mar, rather than the Del Mar City Council, to approve the Specific Plan. On October 7, 2019, the required 328 signatures from Del Mar residents were presented to the Del Mar City Council for certification. On November 4, 2019, the Del Mar City Council voted to place the Initiative on the ballot for March 3, 2020 during the California Presidential Primary election. Resolutions confirming the City Council's action were adopted on December 2, 2019. As such, the potential environmental impacts discussed within this EIR relate to the information provided in the Initiative.

1.2 PURPOSE AND LEGAL AUTHORITY

The City of Del Mar prepared this EIR to provide the public and responsible agencies with information about the potential adverse effects on the environment associated with the proposed Specific Plan (proposed project), which would change the land uses within the project site from low-density residential to specific plan land uses that would allow for future development of a commercial resort with a residential component and public access improvements. The Initiative consists of the adoption of the Marisol Specific Plan and amendments to the City of Del Mar's Community Plan, Zoning Code, and Local Coastal Program to create a new regulatory framework to govern future development within the project site (e.g., land use/zoning designations, development standards, and design guidelines within the proposed Specific Plan). If the Initiative is successful and the California Coastal Commission (CCC) certifies the Local Coastal Program Amendment (LCPA), applications for development permits would follow to approve physical development within the project site. A discussion of future discretionary approvals is included in subsection 3.5 of Section 3, *Project Description*.

The proposed project includes the development of a resort with up to 182 units, including 65 hotel guest rooms, 31 resort villas (27 of which could be split into 81 additional hotel guest rooms), up to 10 lower-cost shared visitor-serving accommodations, and 22 affordable housing units, as well as underground parking and publicly-accessible trails. The existing residential land use/zoning designations of the project do not allow for a resort.

Development of a resort is described in concept in the Specific Plan, which is a regulatory document that would create new land use and zoning to regulate the permitted uses, density, height, and other development criteria for the project site. These land use changes, if passed by the voters in March 2020, would replace the low density residential land use designations currently in place at the project site. Specifically, Chapter 3 of the Specific Plan includes details regarding the proposed land use plan, public services and facilities, circulation and access, and development standards. Chapter 4 of the Specific Plan includes design guidelines for future resort development at the project site. These chapters would guide future development within the project site. Chapter 5 details future subsequent project approvals that are not currently under consideration by the City of Del Mar or the voters as part of the Initiative but would be necessary to build and operate a resort. Lastly, Chapter 6 of the Specific Plan includes a consistency analysis with the City of Del Mar's Community Plan, the California Coastal Act, including the City of Del Mar's Local Coastal Program (LCP), and the City of Del Mar Climate Action Plan (CAP).

The purpose of this EIR is to identify the potentially significant effects of the proposed project on the environment and to indicate the manner in which those significant effects can be avoided or

significantly lessened; to identify significant and unavoidable adverse impacts that cannot be mitigated to a less-than-significant level; and to identify reasonable and feasible alternatives to the proposed project that would avoid or substantially lessen environmental effects associated with the proposed project. It is not the purpose of an EIR to recommend approval or denial of a project.

The voters in the City of Del Mar (and subsequently the CCC if the Initiative is passed by voters) have the principal responsibility for approving the Specific Plan. Complete project applications for entitlement approvals have not been submitted to the City of Del Mar and the subsequent project approvals listed in subchapter 5.1.2 of the Specific Plan are not under consideration by the City of Del Mar at this time. As the Specific Plan is subject to voter approval (rather than City of Del Mar decision-makers), compliance with CEQA is not mandatory at this time and this EIR has been prepared as an informational item for voter consideration. If the Initiative is successful, subsequent applications and supporting documentation are expected to be prepared and submitted to the City of Del Mar to construct a project consistent with the Specific Plan. The City of Del Mar would then have the principal responsibility for approving the related entitlement approvals to physically develop within the project site and would be the CEQA Lead Agency for subsequent project approvals (State CEQA Guidelines Section 15367).

The land use and zoning approvals under consideration as detailed in the Specific Plan, as well as documentation related to subsequent project approvals that would be considered by the City of Del Mar if the Initiative is successful, are discussed in EIR Section 3.0, *Project Description*. As the CEQA Lead Agency, the City of Del Mar would be required to certify that an EIR has been completed in compliance with CEQA prior to the issuance of subsequent project approvals. Certification of an EIR by the City of Del Mar for the proposed project may occur after the March 2020 Initiative vote if the Initiative is successful, and after a formal project application is submitted and processed by the City of Del Mar.

The CCC has approval authority over the proposed Local Coastal Program Amendment (LCPA) and is identified as a responsible agency with discretionary approval power (State CEQA Guidelines Section 15381). The CCC may rely on this EIR when considering approval of the LCPA. Subsequent project-related approvals would be at the discretion of the City of Del Mar; however, the Coastal Development Permit (CDP) would also be considered by the CCC.

If the Specific Plan is passed by voters via the Initiative process and subsequent project approvals are approved by the City of Del Mar, a Mitigation, Monitoring, and Reporting Program (MMRP) would be adopted to describe the measures that were made a condition of project approval to mitigate or avoid significant effects on the environment. The MMRP would be adopted at the time of Final EIR certification and is designed to facilitate compliance during and after project implementation. If the City of Del Mar and the CCC decide to approve subsequent development per the Specific Plan, the City of Del Mar would be responsible for implementation of the MMRP for the project.

1.3 SCOPE OF THE ENVIRONMENTAL IMPACT REPORT

In accordance with CEQA; California Public Resources Code [PRC], Section 21000 et seq.), the State CEQA Guidelines (14 California Code of Regulations [CCR] 15000 et seq.), and the City of Del Mar's CEQA Supplemental Regulations, which contain the City of Del Mar's environmental review procedures, this EIR is an informational document intended to inform decision makers, responsible agencies, and the public of significant environmental effects associated with the project prior to project approval. Pursuant to Section 15161 of the State CEQA Guidelines, this document focuses "primarily on the changes in the environment that would result from the development." Where environmental impacts

were determined to be potentially significant, this EIR presents mitigation measures directed at reducing those adverse environmental effects. Developing mitigation measures provides the CEQA Lead Agency with ways to substantially lessen or avoid significant effects of a project on the environment, to the degree feasible. Alternatives are presented to evaluate whether there are alternative development scenarios that could further minimize or avoid environmental impacts, while still meeting most of the project objectives.

1.4 ENVIRONMENTAL REVIEW PROCESS

This EIR examines the environmental impacts of the Specific Plan, as described in Section 3.0, *Project Description*, with a focus on the changes in the environment that would result from all phases of the project (e.g., construction and operation). Below is an overview of the environmental review process for an EIR, as required by CEQA.

In reviewing the Initiative and supplemental information provided by the Applicant, the City of Del Mar concluded that the project could result in potentially significant environmental impacts and that an EIR would be prepared. Per State CEQA Guidelines Section 15082, the City of Del Mar as the CEQA Lead Agency issued a Notice of Preparation (NOP) on September 29, 2017 to the Office of Planning and Research's State Clearinghouse (SCH) to begin a 30-day public comment period, which closed on October 30, 2017. The NOP was also distributed to various government agencies, including the California Air Resources Board (CARB), the CCC, the California Department of Fish and Wildlife (CDFW) Region 5, the Native American Heritage Commission (NAHC), the San Diego Regional Water Quality Control Board (RWQCB), the State Lands Commission (SLC), and the State Water Resources Control Board (SWRCB), as well as approximately 200 interested parties that had requested notices about the project. The NOP identified the following environmental topics would be discussed in the EIR: aesthetics; air quality; biological resources; cultural resources (including tribal cultural resources); geology and soils (including bluff erosion/instability); greenhouse gas emissions; hazards and hazardous materials; hydrology and water quality; land use (including coastal zone requirements); noise; public services; transportation and traffic; and utilities, service systems, and energy.

The City of Del Mar also conducted a public scoping meeting on October 11, 2017 at the temporary Del Mar City Hall, located at 2010 Jimmy Durante Boulevard, to provide an opportunity for interested parties to learn about the environmental review process, opportunities for public participation, and the scope of the project. A summary of the 53 comment letters submitted during the 30-day public comment period is provided in the Executive Summary to this EIR. A copy of the NOP, the scoping meeting sign-in sheet, and written comments received are included in Appendix A.

This EIR and the related technical analyses are available for review by the public and public agencies for 45 days to provide comments "on the sufficiency of the document in identifying and analyzing the possible impacts on the environment and ways in which the significant effects of the project might be avoided or mitigated" (State CEQA Guidelines Section 15204). The public review period for the EIR will be from December 20, 2019 to February 3, 2020. The EIR and supporting technical studies and documents are available for review at City Hall (1050 Camino Del Mar) and the Del Mar Public Library (1309 Camino Del Mar). An electronic copy of the EIR and the technical analysis is posted on the City of Del Mar's website at: www.delmar.ca.us/.

Following the close of the public review period, the voters of the City of Del Mar will cast their votes for approval or denial of the Initiative. If the Initiative passes, the City of Del Mar, as the CEQA Lead Agency,

would then consider the written comments received on the Draft EIR in making its decision whether to certify the Final EIR as complete and in compliance with CEQA. The Final EIR would include copies of the public comments received during the 45-day review period and would provide written responses to each comment. If public comments on the Draft EIR result in necessary changes, they would be shown in the Final EIR in ~~strikeout~~/underline format.

1.5 EIR ORGANIZATION

This EIR is an informational document and has been prepared in a format that allows the decisionmakers and public to easily review and comprehend the environmental implications of the project. The report is divided among 10 sections:

- **Executive Summary**, summarizes the entire EIR, and includes a brief overview of the project description; the objectives of the project; project alternatives; environmental concerns raised by the public; and a table of all project-related environmental impacts, mitigation measures, and a determination if impacts would remain significant after mitigation.

- **Section 1.0, Introduction**, describes the background of the proposed project and an overview of the environmental review process, as well as the organization of the EIR.

- **Section 2.0, Environmental Setting**, describes the regional setting and location, existing conditions at the time the NOP was prepared, surrounding land uses, and the planning framework for the proposed project.

- **Section 3.0, Project Description**, gives a description of the Specific Plan, including its location, project objectives, a description of the components of the project, conceptual construction and phasing information, and an overview of subsequent project approvals by the City of Del Mar and responsible agencies if the Specific Plan is supported by voters via the Initiative process.

- **Section 4.0, Environmental Analysis**, constitutes the main body of the EIR and includes impact analyses for each environmental issue identified in the NOP as potentially resulting in significant environmental impacts. The topics analyzed in this section include: aesthetics; air quality; biological resources; cultural and tribal cultural resources; geology and soils; greenhouse gas emissions; hydrology and water quality; land use and planning; noise and vibration; public services; transportation and traffic; and utilities and service systems. Under each topic, Section 4.0 includes a discussion of existing conditions, applicable thresholds and standards of significance, an evaluation of the impacts associated with implementation of the project, and the identification of appropriate mitigation measures, when necessary.

- **Section 5.0, Other CEQA Considerations**, includes a discussion of effects found not to be significant, growth inducement, significant and unavoidable environmental impacts, and whether the project would result in significant and irreversible environmental effects.

- **Section 6.0, Cumulative Effects**, considers the cumulatively significant environmental impacts of past, present, and reasonably foreseeable future projects within the project vicinity and determines if the proposed project's contribution to these impacts would be cumulatively considerable.

- **Section 7.0, Project Alternatives**, provides a description and evaluation of alternatives to the proposed project that could avoid or substantially reduce the significant effects of the proposed project. This section includes a "no project" alternative, which is required by CEQA.

- **Section 8.0, References**, provides a comprehensive list of references used to support the information included in this EIR.

- **Section 9.0, Preparers and Organizations Consulted**, identifies the individuals who prepared this EIR and those who were consulted during its preparation.

2.0 ENVIRONMENTAL SETTING

This section provides a description of the existing site conditions, surrounding land uses, and the land use planning context relevant to the project site. This section also includes an overview of the built and natural features that exist at and surrounding the project site.

2.1 REGIONAL SETTING AND LOCATION

The proposed project is in north coastal San Diego County within the City of Del Mar. As shown on Figure 2-1, *Regional Location*, the project site is located about 35 miles north of the San Diego–Tijuana border, 20 miles north of downtown San Diego, and one mile west of Interstate 5 (I-5). Coastal San Diego County has a Mediterranean climate characterized by warm, dry summers and mild, wet winters. Average annual temperatures range between 56 degrees Fahrenheit (°F) in the winter up to 70° F in the winter. The average relative humidity is 69 percent and is based on the yearly average humidity at Lindbergh Field in downtown San Diego (Western Regional Climate Center [WRCC] 2018).

Figure 2-2, *Project Vicinity*, shows project site or the Specific Plan Area in relation to surrounding areas, which include the City of Solana Beach to the north, the Del Mar Fairgrounds to the east, North Beach (also known as Dog Beach) to the south, and the Pacific Ocean to the west. Border Avenue is aligned in an east-west direction along the project site's northern boundary and becomes Via de la Valle east of Camino del Mar before connecting with I-5. Camino del Mar, which is part of Highway 101, is a north-south roadway that travels through the City of Del Mar. It is the City of Del Mar's main thoroughfare in the downtown area, which is located about 1.5 miles south of the project site. Surrounding uses include multi-family and single-family residences in Solana Beach to the north and commercial development and the San Dieguito River Valley and San Dieguito Lagoon (Lagoon) to the east in the City of Del Mar. Areas south and west of the project site include North Beach and the Pacific Ocean, respectively. Photographs that illustrate the character of the project site and surrounding areas are included in subsection 4.1, *Aesthetics*.

2.2 SITE CONDITIONS

The project site includes a total of 17.45 acres, most of which is located on a coastal terrace surrounded by coastal bluffs adjacent to the Pacific Ocean in Del Mar. The project site consists of portions of nine separate parcels, of which 16.55 acres are under private ownership and 0.90 acre is under public ownership. The privately-owned properties consist of three residential ownerships over eight parcels and are referred to as (north to south) the Whalen, Lazier, and Gilbert properties. A portion of the Lazier property spans east of Camino del Mar and is near the San Dieguito Lagoon (Lagoon). The publicly-owned areas include a City of Del Mar coastal viewing access parcel and portions of public right-of-way (ROW) along the western edge of Camino del Mar in the City of Del Mar. A breakdown of the nine parcels and ROW that comprise the project site is shown in Table 2-1, *Existing Project Site Configuration, Zoning, and Ownership*, and a description of the existing natural and built environment at the project site is included below.

Table 2-1
EXISTING PROJECT SITE CONFIGURATION, ZONING, AND OWNERSHIP

Parcel	Assessor's Parcel Number	Acres	Base Zoning	Common Name
Private				
1	298-241-29	0.63	R1-14	Whalen Property (919 Border Avenue)
2	298-241-34	2.46	R1-14	
3	298-241-35	1.21	R1-40	
4	298-241-36	1.25	R1-40	
5	298-241-06	2.02	R1-40	Lazier Property (929 Border Avenue)
6	298-241-07	4.80*	R1-40	
7	299-030-14	0.10	R1-40	
8	299-030-15	4.08	R1-40	Gilbert Property (101 Border Avenue)
	Private Subtotal	*16.55*	--	*Private Parcels*
Public				
9	298-241-18	0.12	R1-14	City of Del Mar Coastal Viewing Access Parcel
ROW	--	0.78	--	Portions of Camino del Mar right-of-way (City of Del Mar)
	Public Subtotal	*0.90*	--	*Public Parcels*
	TOTAL	***17.45***	--	

Source: PDC 2019.
* Includes 0.67 acre east of Camino del Mar near the Lagoon
R1-14 = Modified Low Density Residential, one dwelling unit per 14,000 sf of net land area
R1-40 = Very Low Density Residential, one dwelling unit per acre of net land area

2.2.1 Natural Features

The majority of the project site is an undeveloped flat mesa (also referred to as a mesa top or coastal terrace) and consists of ornamental vegetation and disturbed habitat primarily surrounded by a coastal bluff that occurs above surrounding areas to the west, east, and south; however, there is a remnant of APN 298-241-07, east of Camino del Mar, that is undeveloped and adjacent to the Lagoon. Areas further north of the project site are at a similar elevation to the coastal terrace. The project site is generally flat near the center and is surrounded by steep cliffs to the east, south, and west which begin near sea level. Project site elevations range from about sea level at the base of the cliff at the beach on the west portion of the site to 93 feet above mean sea level (amsl) at the northern portion of the property; however, elevations for the majority of the site (e.g., the coastal terrace where resort development is identified in the Specific Plan) generally range between 65 and 80 feet amsl (see Figure 2-3, *Site Topography*). Two previously recorded prehistoric cultural sites are recorded within the project site and additional discussion of these sites is provided in subsection 4.4, *Cultural and Paleontological Resources*. The project site is mostly pervious and there are no private storm drains to collect or convey stormwater runoff to a public storm drain system. Storm runoff and drainage flow from the project site to the east and west. Western flows continue over the coastal bluff into the Pacific Ocean and eastern flows are routed towards North Beach and the Lagoon via two existing curb inlets along Camino del Mar. The project site is not located within a 100-year floodplain. Additional discussion related to hydrology, including flooding and runoff, is provided in EIR subsection 4.7, *Hydrology and Water Quality*.

Geologic formations within the project site include marine beach deposits and topsoil/undocumented fill, followed by Old Paralic Deposits (locally and herein referred to as the Bay Point Formation) underlain by Torrey Sandstone and Delmar Formation. The marine beach deposits occur at the base of the coastal

bluff on the western and southeastern project boundaries. The topsoil/undocumented fill comprises most of the top layer of the project site and extends generally between 2.5 and 6 feet in depth, although undocumented fill is anticipated to extend up to 10 feet below the existing ground surface near the center of the coastal terrace as a result of previous demolition of residential structures and the backfill of basements and foundations. The closest active faults include the Newport-Inglewood Fault and Rose Canyon Fault Zone, both located about two miles west of the project site. For more information about the geology of the area and the potential for impacts, refer to EIR subsection 4.5, *Geology and Soils*. There are no identified hazardous materials or related sites within or adjacent to the project site.

Sensitive plant communities are limited to approximately 0.66 acre of southern coastal bluff scrub. This vegetation community consists of a variety of dwarf shrubs, herbaceous perennials, and annuals with woody and/or succulent plants and is found in areas exposed to coastal winds with high salt content on rocky or poorly-developed soils. There are an estimated 164 landscaping trees that have been planted throughout the project site, including 79 Monterey cypress and 12 Torrey pines. The private portions of the project site include a total of 134 trees, consisting of 73 ornamental trees, 12 Torrey pines, and 49 Monterey cypress. Additionally, 30 Monterey cypress are present within the project site within the City of Del Mar right-of-way. Sensitive wildlife is generally not expected to occur; however, the following 10 animal species have a low potential to occur at the project site: San Diegan tiger whiptail (*Aspidoscelis tigris stejnegeri*); red diamondback rattlesnake (*Crotalus ruber*); coast patch-nosed snake (*Salvadora hexalepis virgultea*); coastal California gnatcatcher (*Polioptila californica californica*); pallid bat (*Antrozous pallidus*); Dulzura pocket mouse (*Chaetodipus californicus femoralis*); northwestern San Diego pocket mouse (*Chaetodipus fallax fallax*); western mastiff bat (*Eumops perotis californicus*); San Diego desert woodrat (*Neotoma lepida intermedia*); and Pacific pocket mouse (*Perognathus longimembris pacificus*). Additional discussion of sensitive natural features is provided in subsection 4.3, *Biological Resources*.

2.2.2 Built Features

Much of the project site is disturbed due to past residential development dating back to the 1930s, although previous development has been mostly removed from the Lazier and Whalen properties. Residential development remaining on the Gilbert Property was constructed in 1980 and includes a 5,800-square-foot (sf) single-story residence and garage, guest house, pool and pool house, and an associated driveway that occurs along the eastern project boundary and connects the existing residence to just west of the intersection of Camino del Mar/Highway 101 and Via de la Valle. Septic systems associated with previous residential uses at the project site are anticipated to be located beneath the ground surface. Utilities infrastructure for electricity, natural gas, sewer, potable water, reclaimed water, and stormwater are located within or near the project site (i.e., within Camino del Mar, Via de la Valle, or Border Avenue).

2.3 SURROUNDING LAND USES AND COASTAL ACCESS

The project site is in a developed residential and commercial area that is characterized by outdoor activities supported by the area's beaches, trails, and bicycle/pedestrian amenities. The area adjacent and north of the project site consists of multi-family residential development and office within the City of Solana Beach, north of the intersection of Border Avenue and South Sierra Avenue. A two- and three-story multi-family residential development, known as the Del Mar Beach Club, occurs adjacent to the northwestern boundary of the project site that consists of a 192-unit condominium development. An easement (i.e., the City of Del Mar coastal viewing access parcel) currently exists adjacent to the Del Mar

Beach Club to provide western-facing public views of the beach; however, physical beach access is not provided. Areas further north of the project site consist of multi-family residential development within Solana Beach that is similar in scale with the multi-family residential development immediately north of and adjacent to the project site. Other office and commercial uses are located north of Border Avenue along Highway 101 within the City of Solana Beach.

Areas east of the project site include the Camino del Mar roadway, followed by the Brigantine restaurant and parking lot at the southeastern corner of Camino del Mar and Via de la Valle, railroad tracks, the Lagoon, the Del Mar Fairgrounds, and the Del Mar Racetrack. The Lagoon is fed by the San Dieguito River, which ends south of the project site at North Beach. The San Dieguito River originates at Vulcan Mountain nearly 24 miles east of the project site, and is controlled by Lake Hodges Dam, located about 10 miles east of the project site. Areas within the Lagoon, between Camino del Mar and the railroad tracks, are undeveloped and consists of wetland and upland areas with vegetation and sandy areas that are protected, and public access into the Lagoon is not permitted. Areas south of the project site include the North Bluff Preserve (also known as the James Scripps Bluff Preserve and herein referred to as the North Bluff Preserve or Preserve), followed by North Beach and the confluence of the Lagoon and the Pacific Ocean. The Preserve includes a pedestrian trail (herein referred to as the "existing bluff top trail") that connects to North Beach and terminates just south of the project site. Del Mar City Beach is located further south of North Beach. The nearest residences south of the project site are located about 0.20 mile from the top of the bluff at the project site. Areas west of the project site include beach areas and the Pacific Ocean.

Due to the project's location adjacent to and above the Pacific Ocean, access to the project site is limited to Border Avenue, near the intersection with South Sierra Avenue, along part of the northern project boundary. However, several other major streets in the vicinity serve the project site and surrounding areas, including Villa de la Valle, Highway 101, Camino del Mar, Lomas Santa Fe Drive, and South Cedros Avenue. Several existing intersections and street segments currently operate at level of service (LOS) E or worse on weekdays and weekends under typical, fair, or horse races scenarios. Specifically, the following five intersections currently operate at LOS E or F: (1) Highway 101/Lomas Santa Fe Drive; (2) Villa de la Valle/Jimmy Durante Boulevard; (3) Camino del Mar/Coast Boulevard; (4) Camino del Mar/ 27th Street; and (5) Camino del Mar/ Del Mar Heights Road. The following five street segments also currently operate at LOS E or F during weekdays and weekends under typical, fair, and horse races scenarios: (1) Camino del Mar, Via de la Valle to 27th Street; (2) Camino del Mar, 27th Street to Coast Boulevard; (3) Via de la Valle, Hwy 101 to South Cedros Avenue; (4) Via de la Valle, South Cedros Avenue to Jimmy Durante Boulevard; and (5) Via de la Valle, Jimmy Durante Boulevard to I-5 SB Ramps. A complete discussion of the existing circulation network that would serve the proposed project is provided in EIR subsection 4.11, *Transportation and Traffic*.

2.4 PLANNING, ZONING, AND DEVELOPMENT CONTEXT

This subsection includes an overview of the existing rules for development that apply to the project site, including the legislative framework associated with the Specific Plan as well as entitlement requirements associated with subsequent approvals. Additional discussion of the required permits is provided in EIR subsection 3.5, *Project Approvals*, and an analysis of the existing and proposed planning considerations and potential impacts is provided in EIR subsection 4.8, *Land Use and Planning*.

The basis for the type and amount of development permitted begins with planning and zoning restrictions that apply to a specific site and are set forth in the City of Del Mar's Community Plan, Zoning

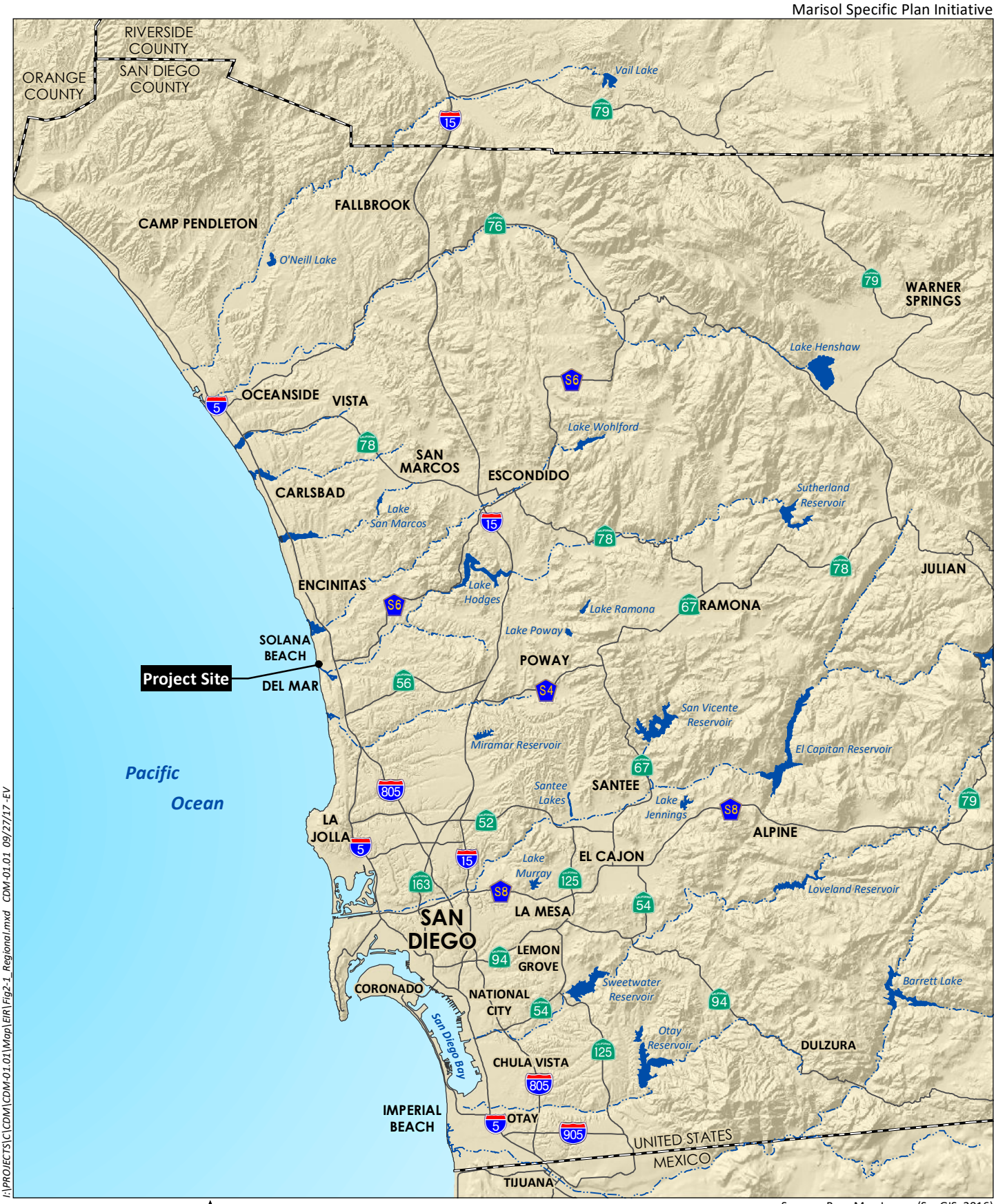
Code, and LCP. As shown above in Table 2-1 above, most of the private areas of the project site (approximately 13.46 acres) are designated within the R1-40 zone, which allows for one single-family home per one acre of land area, and two of the private parcels (approximately 3.09 acres) are zoned R1-14, which allows one home per 14,000 sf of net land area. The publicly-owned parcels are within the street right-of-way along Camino del Mar and within the City of Del Mar coastal viewing access parcel west of Border Avenue. Overlay zones that apply to the project site includes the Bluff, Slope, and Canyon (BSC) Overlay Zone, the Coastal Bluff Overlay Zone, and the Beach Overlay Zone. Permitted uses in the overlay zones are subject to the underlying zones.

Allowed uses in the residential zones (R1-40 and R1-14) include a single-family residence and second dwelling (Accessory Dwelling Unit), a small family day care facility, or a small community care facility. Heights within both zones are restricted to no greater than 26 feet; however, for areas within the BSC Overlay Zone, building height is limited to 14 feet unless it is demonstrated that a greater height is consistent with the standards of the BSC Overlay Zone. The BSC Overlay Zone is designed to protect the health, safety, and general welfare, and to control the development of properties in the Overlay Zone so as to preserve scenic bluffs and canyons. It is also intended to protect downstream resources from erosion and sedimentation issues by providing setback regulations, height restrictions, natural preservation requirements, and erosion and/or drainage control measures.

The Coastal Bluff Overlay Zone is applied to areas with steep escarpments with a slope gradient equal to or greater than an average of one foot vertical to one foot horizontal and a vertical rise of 15 feet or more that is subject to ocean wave action. The Beach Overlay Zone, which was established by a citizens' initiative, regulates the uses of the beaches in the City of Del Mar for the benefit of present and future generations, and includes shoreline protection measures.

A Specific Plan combines planning and zoning restrictions into a single document and contains a unique set of development standards that apply to a particular geographical area that will carry out the intent and goals of the City of Del Mar's Community Plan. Voter approval of a Specific Plan assigns a new land use designation to a property within the Specific Plan (project site), along with accompanying regulatory development parameters. In other words, a Specific Plan applies unique land use designations and zones for an area and identifies any deviations from the otherwise applicable (existing) zoning regulations. Finally, a Specific Plan identifies benefits to the community that would be derived from the development of a project consistent with the Specific Plan. The adoption of a Specific Plan on its own does not entitle the development of a property; rather, it establishes the type, density, and parameters for what can be built in the future. Physical development of the property would require City of Del Mar approval of subsequent discretionary actions, which would be processed if the Specific Plan Initiative is approved by the voters.

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Source: Base Map Layers (SanGIS, 2016)

HELIX Environmental Planning

Regional Location

Figure 2-1



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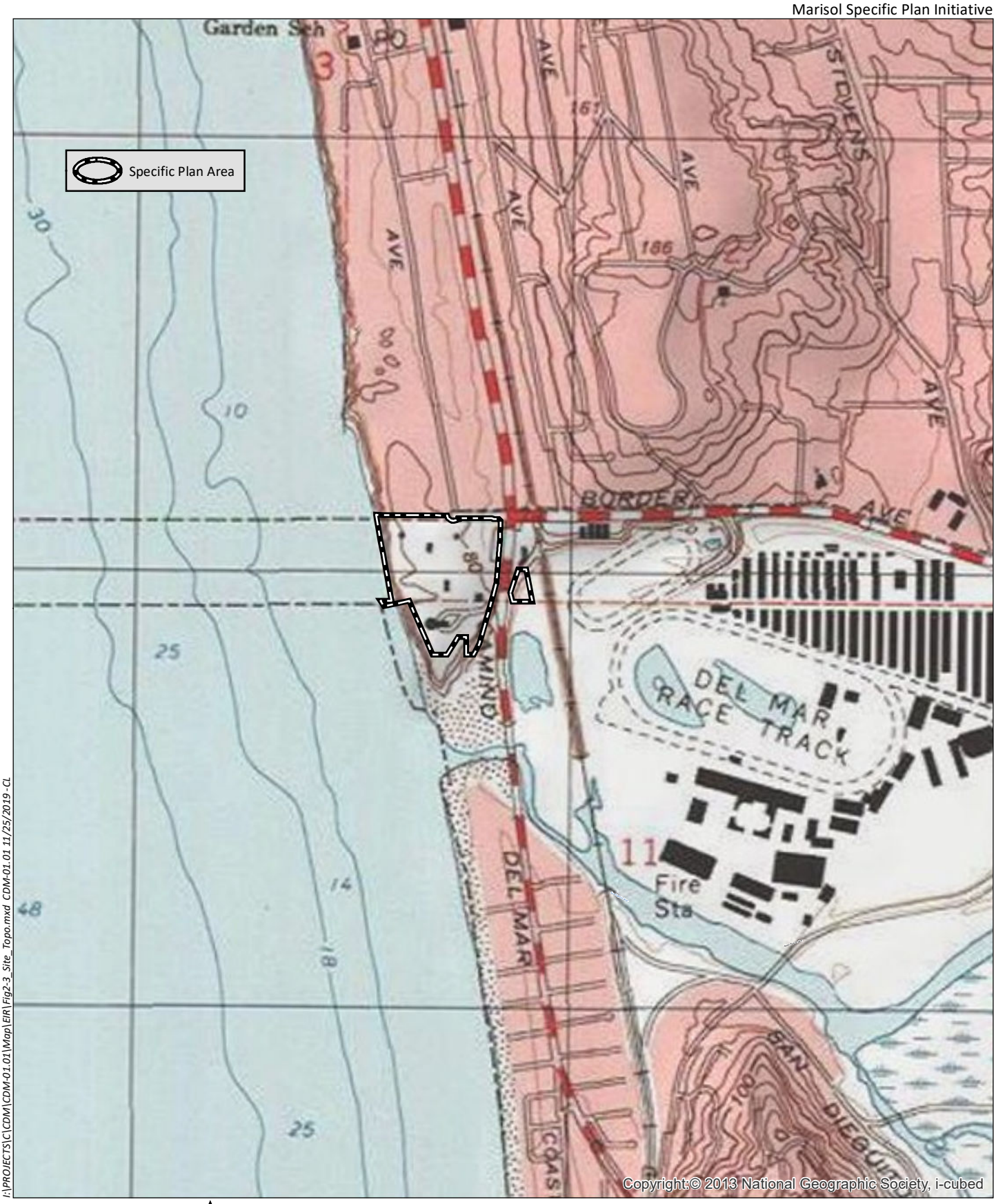
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Source: Base Map Layers (SanGIS, 2014)

HELIX Environmental Planning

Project Vicinity

Figure 2-2



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HELIX Environmental Planning

Site Topography

Figure 2-3

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3.0 PROJECT DESCRIPTION

This section of the EIR provides information regarding the project location, project objectives, the components of the Specific Plan and related project actions, project phasing and construction, and the subsequent discretionary actions that would be required to construct the project if the Initiative is successful. This section has been prepared pursuant to Section 15124 of the State CEQA Guidelines.

3.1 PROJECT LOCATION

The proposed project includes 17.45 acres in Del Mar within north coastal San Diego County. As shown on Figure 2-2, the project site is located along the coast, west of Camino del Mar. Regional access is provided via I-5, which is about one mile east of the project, and the project site is accessed from I-5 at Via de la Valle. As shown on Figure 2-2, the project site is located in the northwestern portion of the City of Del Mar adjacent to the City of Solana Beach and Border Avenue to the north, the Pacific Ocean to the west, the Preserve and North Beach to the south, and the Camino del Mar roadway, followed by commercial development, the Lagoon, and the Del Mar Fairgrounds further to the east.

3.2 PROJECT OBJECTIVES

Chapter 3 of the Specific Plan includes an overview of the components of the Specific Plan, including a list of objectives that would be achieved by the proposed project. A total of 11 objectives are identified, including the following:

1. Preserve and protect the scenic coastal bluffs and steep slope areas from the adverse impacts of erosion and sedimentation by establishing land use sub-designations that serve as buffers;

2. Establish development standards and design guidelines to achieve a high-quality visitor-serving development that addresses the physical site constraints and results in visually attractive and sustainable buildings, landscaping, parkland/passive open space, and amenities;

3. Plan for future sea level rise and bluff retreat projections through the use of the best available science, consistent with state guidance. Utilize an adaptive design approach to ensure no future loss of coastal public access or recreation amenities;

4. Establish an environmentally sensitive multimodal circulation system that enhances linkages to existing trail systems in the vicinity, to North Beach, and to other uses that serve the local community;

5. Implement a loop trail around the perimeter of the Marisol Specific Plan Area to achieve complete connectivity and “walk-out” nodes that will enhance the public access experience;

6. Provide sufficient and secure off-street parking, which not only satisfies the needs of the Specific Plan uses, but also includes designated public parking spaces screened from view from the public right-of-way;

7. Facilitate the development of visitor-serving accommodations and parkland and passive open space with public and private amenities consistent with the goals and policies of the Del Mar

Community Plan and the City of Del Mar's Local Coastal Program, as amended by the Marisol Specific Plan Initiative;

8. Establish a site plan and building design that create a strong sense of place and which recognize and protect the unique features of the Marisol Specific Plan Area as a valuable asset for the community of Del Mar;

9. Provide villas, some of which are available as hotel guest rooms when not in use by owners;

10. Provide 22 affordable housing units to assist the City of Del Mar in fulfilling its housing goals; and

11. Facilitate the development of lower-cost shared visitor-serving accommodations.

3.3 PROJECT COMPONENTS

The project includes approvals that will be considered by the Del Mar voters in March 2020. If the Initiative is successful, the CCC would consider certification of an LCPA to allow the Specific Plan to amend the City of Del Mar's current LCP. Further, subsequent project approvals would also be considered by the City of Del Mar. As shown in Table 3-1, *Proposed Project Summary*, and in Figure 3-1, *Land Use Plan*, adoption of the Marisol Specific Plan would remove the residential designation and apply the following land use designations within the 17.45-acre project site: 11.80 acres of Visitor-Serving Accommodations (VSA), 3.07 acres of Parkland/Passive Open Space (PPOS), 1.21 acres of Coastal Bluff Protection Area (CBPA), and 1.37 acres of Steep Slope Protection Area (SSPA). The existing Coastal Bluff Overlay Zone and Bluff Slope Canyon Overlay Zone within the boundaries of the Specific Plan would be replaced by the zoning restrictions contained within the Specific Plan.

Physical development associated with the project would include hotel guest rooms for rent, lower-cost shared visitor-serving accommodation (affordable hotel guest rooms), villas (condos for sale), and affordable housing units (rentals). The Specific Plan would allow for some flexibility regarding the total number of units, which would range between 118 and 182; however, no more than 182 units and a maximum floor area ratio (FAR) of 0.57 or 410,970 sf of development would be permitted. As shown on Table 3-1, there would be 97 rooms for rent (comprised of 65 hotel rooms, 22 affordable housing units, and 10 lower-cost visitor-serving accommodations) and 31 for-sale units (e.g., villas). Of the 31 villas for sale, 27 could be split into an additional 81 rooms for rent (each villa would convert into three separate rooms for rent). If the 27 villas are rented as 81 rooms, the project would accommodate a maximum of 146 hotel guest rooms, four villas, 22 affordable housing rental units, and 10 lower-cost visitor-serving accommodations. It should be noted that if an in-lieu fee is accepted by the CCC, the 10 lower-cost visitor-serving accommodations may not be constructed. A conceptual layout of a future resort development is depicted on Figure 3-2, *Conceptual Site Plan*, which shows that buildings would be clustered towards the center of the coastal terrace.

Table 3-1
PROPOSED PROJECT SUMMARY

Specific Plan Land Use Designation	Acres	Units[1]	Square Feet[2]
Visitor-Serving Accommodations (VSA)	11.80	--	--
Hotel Guest Rooms[3]		65-146	61,000[4]
Lower-Cost Shared Visitor-Serving Accommodations[5]		0-10	6,800
Villas[6]		4-31	158,400[7]
Affordable Housing		22	16,100
Hotel Amenities[8]		--	8,900
Ancillary Commercial Retail		--	19,200
Special Event Space, Meeting Space		--	14,300
Back of House Facilities		--	32,000
Villa Amenities		--	13,200
Subtotal	***11.80***	***118 - 182***	***329,900***
Additional Development Permitted		0	81,070[9]
Parkland/Passive Open Space (PPOS)	3.07	--	--
Coastal Bluff Protection Area (CBPA)	1.21	--	--
Steep Slope Protection Area (SSPA)	1.37	--	--
Subtotal	***5.65***	***0***	***81,070***
TOTAL	***17.45***	***118 - 182***	***410,970***

[1] The square footage and unit count for associated uses may be revised during the review of the design review permit and coastal development permit, provided the project totals do not exceed the maximum FAR allowed by the Specific Plan.
[2] Square footage includes the interior square footage of units, auxiliary uses, and circulation.
[3] Hotel Guest Rooms include 65 rooms. An additional 81 hotel guest rooms are possible if 27 of the 31 villas are divided into 3 rooms each and rented, for a total of 146 hotel guest rooms.
[4] Square footage is based on 65 units. Additional hotel guest room space beyond 65 units is accounted within the 158,400 sf of villas development.
[5] Lower-cost shared visitor-serving accommodations may not be included if an in-lieu fee is permitted by the CCC.
[6] Villas include 31 villas, 27 of which could each be split into three hotel guest rooms each.
[7] Square footage is based on 31 units. Reduced villas space less than 31 units would be added to the 61,000 sf of hotel guest rooms development.
[8] Includes specialty restaurant, bar/lounge, restaurant, pool bar, and retail. Does not include outdoor amenity space.
[9] The project includes 329,900 sf of development within the VSA land use; however, the Specific Plan would permit a total floor area ratio (FAR) of 0.57 or up to 410,970 sf of development, which is an additional 81,070 sf. While the individual sizes of units may be increased, the total of 182 units and 410,970 sf would not be exceeded.

Buildings would be set back the greater of 40 feet from the top edge of the coastal bluff or in accordance with the factor of safety (FOS) as recommended by the geotechnical engineers and would vary between one, two, and three stories above grade or a maximum height of 46 feet above natural grade (see the discussion in EIR subsection 4.5, *Geology*, as well as EIR Appendix F, *Geotechnical Investigation*, for detailed information relating to the setback). Two public trails are included as part of the project, including a paved public amenity trail (or loop trail) and future bluff top trail network, to provide public access within and through the project site (see *Circulation and Access* subheading and discussion below for details). Landscaping improvements would generally include replacing existing invasive and non-native plant species with locally-adapted species and plantings native to the southwestern United States within the setbacks surrounding the project site as well as decorative resort-themed planting throughout the developed areas. Parking within the Specific Plan would include a total of 408 parking spaces, including 381 spaces for hotel guest rooms, lower-cost shared visitor-serving accommodations, villas, affordable housing, daily customers, and employees, as well as

27 spaces for the general public. Vehicular parking would be provided via a parking lift operation in the on-site parking garage and/or via valet stacking and parking within the on-site parking garage structure. The proposed project also includes conceptual plans for water, sewer, stormwater infrastructure improvements. A more detailed discussion of each of the project components is provided in the subsections below.

3.3.1 SPECIFIC PLAN LAND USE DESIGNATIONS

3.3.1.1 Visitor-Serving Accommodations (VSA)

The VSA Specific Plan land use designation would apply to 11.80 acres near the center of the project site and would allow for the development of rentals consisting of hotel guest rooms, affordable housing units, lower-cost visitor-serving accommodations, and for-sale units consisting of villas. Other development within the VSA land use designation would include resort amenities including restaurants, commercial retail spaces (such as a leasing office, business center, storage facilities, salon, florists, and health conditioning), special event and community space, recreational facilities (such as swimming pools, spas, and fitness centers), and outdoor common area patio spaces. As detailed above in Table 3-1, the proposed VSA designation would include between 65 and 146 hotel guest rooms, up to 10 low-cost shared visitor-serving accommodations, between 4 and 31 villas (as 27 villas could be split into three hotel guest rooms each for a total of 81 additional hotel guest rooms), and 22 affordable housing units. As shown on Figure 3-3, *Maximum Allowable Building Heights*, building heights would vary between one and three stories, ascending from the edges of the VSA land use towards the center. Specifically, single-story buildings would be allowed in the northwestern corner of the project site, two-story buildings along the edges of the development footprint, and three-story buildings clustered towards the center. Building height for the three-story buildings would not exceed 46 feet; however, architectural appurtenances (e.g., ventilation pipes, elevator overrides, mechanical equipment, screening, and stair tower projections) would be allowed to exceed the maximum height of 46 feet. Temporary uses allowed in the VSA land use designation would include the placement of construction trailers, villas information trailers, and temporary events such as weddings or entertainment, and other non-permanent structures such as small-scale entertainment stages. No special events would be allowed within 30 feet of the Preserve. A description of the each of the VSA-related development components is provided below.

Hotel Guest Rooms. The proposed 65 hotel guest rooms (which could be increased to 146 rooms if 27 villas are split into three rooms each) would provide temporary lodging, with or without meals, for nightly compensation. Rooms would average about 743 square feet each and may include multiple rooms for use by those lodging in the room. As shown on Figure 3-2, the proposed hotel guest rooms would be located in the northern-central part of the VSA land use designation and would be positioned to maximize ocean views.

Low-Cost Shared Visitor-Serving Accommodations. These overnight accommodations would provide lower-income members of the public, including those that live further from the coast, access and recreation opportunities at the coast. Consistent with the California Coastal Act's requirement to maximize access and promote lower cost visitor and recreational facilities, the low-cost shared visitor-serving accommodations would provide opportunities for individuals and families from underserved communities to visit the coast when they might not be able to do so otherwise due to costs, including costs for overnight accommodations.

Villas. The proposed 31 villas would be available for purchase and used for longer-term occupancy by owners, but not exceeding 120 days per year for the 27 attached villas. When not in use by the owners, the 27 attached villas could be divided into three rooms each for a total of 81 additional hotel guest rooms for occupancy by others, with such stays coordinated and managed by operators of the resort. Four of the 27 villas would not be permitted to be further divided into additional rooms. The 31 villas would average between approximately 3,780 and 7,000 sf each. As shown on Figure 3-2, the proposed resort villas would occur in the northern-central part of the project site. Access to the resort villas would be provided by internal pathways (i.e., the paved public amenity trail [or loop trail] and the future bluff top trail network).

Affordable Housing. The affordable housing component of the project includes 22 affordable rental housing units near the northeastern portion of the project site, just south of the proposed low-cost shared visitor serving accommodations, with an average size of approximately 504 sf per unit.

Special Event Space and Gardens. A facility, or garden area, without fixed seating, designed and used for the gathering of no more than 250 attendees is designated in the eastern-central portion of the Specific Plan. Facilities may operate entirely within a structure, outside of a structure, or both inside and outside. Event spaces may include but are not limited to event gardens/lawns, ballrooms, and banquet facilities, and shall not be located outside of the VSA land use designation.

Pools. The pool facilities would be designated for resort guests through the use of safety fencing and key card access.

Ancillary Commercial. Approximately 19,200 sf of commercial uses that are subordinate in area, extent, and purpose to the principal resort use and which contribute to the comfort, convenience, or necessity of occupants or visitors of the principal resort use. Examples of ancillary commercial uses include, but are not limited to, convenience and specialty shopping, gift shops, art galleries, snack shops, recreation and spa facilities, and beach-equipment rental operations.

3.3.1.2 Parkland/Passive Open Space (PPOS)

The PPOS Specific Plan land use designation would accommodate recreational uses intended for use by guests of the resort, resort villa residents and guests, and public visitors including trails, vista points, picnic areas, and passive recreational uses. Generally, the PPOS areas are interconnected and would occur around the VSA uses as a transitional buffer between the resort and surrounding coastal bluffs and steep slopes, except for the northern boundary of the Specific Plan that parallels Border Avenue. The PPOS designation also allows for ingress/egress roads, as well as the installation and maintenance of underground utilities. Temporary uses allowed in the PPOS land use designation would include construction trailers, information trailers, and temporary event facilities such as tents, canopies, and other non-permanent structures such as small-scale entertainment stages.

3.3.1.3 Coastal Bluff Protection Area (CBPA)

The CBPA is comprised of the coastal bluff along the western edge of the project site and would serve as a buffer zone to protect public health, safety, and general welfare, as well as downstream resources from erosion and sedimentation. This designation would replace the Bluff, Slope, and Canyon Overlay Zone and would apply to areas along the western project boundary. Disturbances in the CBPA would be permitted for drainage control only.

3.3.1.4 Steep Slope Protection Area (SSPA)

Improvements within the SSPA land use designation are also designed to protect and preserve steep slopes and protect downstream resources from erosion and sedimentation. This designation would also replace the BSC overlay zone and would apply to the steep areas in the eastern part of the project site. The SSPA includes the steep slope areas and a buffer zone.

3.3.2 PARKING

Parking associated with the proposed project would be accommodated on-site via subterranean parking beneath the resort. Parking would be provided for hotel guest rooms (including lower-cost shared visitor-serving accommodations) occupants, daily customers, villa occupants, affordable housing residents, employees, event customers, and visitors to both the resort and public recreational amenities in the area (e.g., the beach). On-site parking would include a total of up to 408 parking spaces to meet the anticipated demands during project operation, including 27 spaces for the general public. The underground parking structures would be accessed via the proposed driveway at Border Avenue in the northern portion of the Specific Plan. Parking stalls would have clearly designated stalls for public parking, designated residential parking, and valet parking. Parking facilities would include a parking lift operation in the on-site parking garage and via valet stacking and parking within the on-site parking garage structure.

3.3.3 CIRCULATION AND ACCESS

Circulation and access to, within, and from the proposed Specific Plan is depicted on Figure 3-4, *Conceptual Circulation and Access Plan*. As shown, the proposed project would include vehicular access into the resort as well as emergency vehicle access around the perimeter of the resort. Vehicular and pedestrian access to the project area would be provided at a driveway at the intersection of Sierra Avenue and Border Avenue, just west of the intersection of Camino del Mar and Via de la Valle. Pedestrian access would also be provided to connect Border Avenue to North Beach via the proposed paved public amenity trail (or loop trail) and the future bluff top trail network, both of which would connect to the existing bluff top trail within the Preserve. All pedestrian facilities would be consistent with the Americans with Disabilities Act (ADA) and would be unrestricted and fully accessible to the public.

Also conceptually depicted on Figure 3-4 are improvements within Border Avenue. Specifically, a left-turn lane from westbound Border Avenue would be installed to facilitate inbound turning movements into the resort. All vehicles exiting the resort onto Border Avenue would be required to make a right-turn from the resort and head eastbound towards Camino del Mar and Via de la Valle and would not be allowed to travel northbound along Sierra Avenue.

3.3.4 PUBLIC ACCESS STAIRWAY, RESTROOMS, AND RELATED FACILITIES

The proposed project includes a public access stairway, public restrooms, and related facilities for resort, City of Del Mar, and general public visitor services at North Beach. The public restrooms would replace the temporary restrooms. The public access stairway would connect the beach to the project site, adjacent to the proposed restrooms at North Beach. A secured storage closet for public beach amenity equipment would be provided and would be no greater than an area of five feet by five feet. The conceptual improvements related to public access and restrooms are shown on Figure 3-2 and

improvements identified as "New Bluff Access Stairway and Facilities" in the legend would be a part of the proposed paved public amenity trail.

3.3.5 LANDSCAPING AND FENCING

The landscaping plan for the proposed project includes a Mediterranean and coastal California plant palette that would include some native plant species. Landscaping features for the proposed project are categorized into bluff top restoration plantings, transitional native ornamental (buffer) planting and resort theme plantings. Suggested types of trees, palms, vines, shrubs, perennials, and annuals are included in Figures 3-5a and 3-5b, *Conceptual Planting Legend*, and the general locations of the two planting types are shown on Figure 3-6, *Conceptual Planting Plan*. Invasive species would be prohibited. Fencing at the proposed project would include two different types of fencing, including one type for pool safety and another type for bluff top safety. The pool safety fencing would be constructed of glass panels or view fencing to maximize visibility of the pool. The bluff top safety fencing would be located at least 10 feet from the top of the coastal bluff and would be constructed of wood supports with metal accents. Fiberglass sheeting, bamboo sheeting, barbed wire, razor ribbon, or similar materials are prohibited as fencing material.

3.3.6 SIGNAGE AND LIGHTING

Monument, directional, and directional coastal access signage would be permitted within the project site. Conceptual signage types and designs are depicted in Figure 3-7, *Conceptual Signage.* Specifically, monument signage would be permitted at two locations, including at the main entrance into the resort and near the intersection of Camino del Mar and Border Avenue for emergency access. Monument signage would be no taller than eight feet in height and would be consistent in size with the City of Del Mar's Sign Ordinance. Directional signage would be allowed throughout areas within the VSA land use designation to help direct guests to other destinations and would be used to direct visitors to coastal access points. Finally, coastal access signage would identify public coastal access points. Rooftop signs would be prohibited and applicable provisions of the City of Del Mar's Municipal Code, Chapter 30.84, would apply to future signage within the Specific Plan.

Lighting within the Specific Plan Area would include accent lighting, architectural lighting, pathway lighting, and roadway lighting, each of which is illustrated in Figure 3-8, *Conceptual Lighting Types*. The potential locations of the proposed lighting types within the Specific Plan are shown on Figure 3-9, *Conceptual Lighting Plan*. Accent lighting would provide lighting on focal points and objects surrounding the entrance to the resort, pools and spas, fountains, and events garden. Lighting intensity would range between one and five footcandles and fixtures would be located low to the ground or in locations out of sight. Architectural lighting would include illumination of structures and walls to emphasize elevation changes and barriers and would range in brightness between 1 and 10 footcandles. Pathway lighting would frame emergency access and pedestrian pathways and would average one footcandle in brightness. Pathway lighting poles would not exceed 42 inches in height and would be directed away from adjacent properties and rights-of-way. Low-voltage lighting fixtures would be used along trails. Roadway light fixtures would be employed to illuminate driving surfaces within the project site and would include a maximum pole height of 20 feet. Lighting would be directed away from adjacent open space areas. Parking and loading areas would include adequate lighting for safety and security.

3.3.7 UTILITIES

The proposed project would include necessary connections, extensions, and upgrades to existing public utility infrastructure related to potable and reclaimed water, sewer, and stormwater, each of which is further described below.

3.3.7.1 Water

The Santa Fe Irrigation District (SFID) provides water in the vicinity of the project site via an existing 10-inch-diameter water main in Border Avenue and a 4-inch-diameter water main located in the private drive extending off Border Avenue along the east side of the project site. However, water service for the proposed project would be provided by the City of Del Mar for drinking water, pools and fountains, fire suppression, and reclaimed water for landscaping irrigation. Proposed water infrastructure connections are shown on Figure 3-10, *Conceptual Water Infrastructure Plan*. As shown, a proposed water pipeline connection would occur near the intersection of Via de la Valle and Camino del Mar. Off-site improvements associated with the water pipeline would be necessary and would occur either within Via de la Valle (Option 1) or Camino del Mar (Option 2). Option 1 would involve the installation of 4,000 linear feet of pipeline and would connect to an existing 16-inch diameter City of Del Mar water pipeline at the intersection of Jimmy Durante Boulevard and Via de la Valle. The pipeline would then proceed westward along Via de la Valle to provide a connection to the project site. All pipeline construction for Option 1 would occur within paved roads. Option 2 would involve the construction of approximately 5,000 linear feet of 16-inch diameter pipeline to an existing 20-inch City of Del Mar water pipeline on the west side of the Jimmy Durante Boulevard/San Dieguito Drive intersection. The new pipeline would extend northwest, following the City of Del Mar Public Works Yard paved access road. The pipeline would then extend along the dirt access road adjacent to the Public Works Yard, cross the existing railroad right-of-way and drainage ditch using jack-and-bore construction methods, continue west via 27th Street or 28th Street to Camino del Mar, and proceed north within the Camino del Mar roadway until Via de la Valle. The construction of Option 2 would also include the replacement of existing water pipelines in Camino del Mar, south of Sandy Lane, and the construction of new pipelines in Camino del Mar, north of Sandy Lane to Via de la Valle. All construction for Option 2 would occur within paved roads, City of Del Mar and North County Transit District right-of-way, or the City of Del Mar Public Works Yard dirt access road. A total of seven fire hydrants connected by a fire service main are included around the perimeter of the proposed resort development, as shown on Figure 3-10. Connections to the private fire protection system include a backflow preventer assembly.

3.3.8 Sewer

Existing sewer infrastructure near the project site includes a 10-inch diameter sewer force main in Camino del Mar and Via de la Valle that is owned and operated by the City of Del Mar. Sewage would be collected using private on-site sewer mains, which are depicted on Figure 3-11, *Conceptual Sewer Infrastructure Plan*. As shown, gravity-fed sewer mains are anticipated to connect with the City of Del Mar's existing force main at the southeast corner of Camino del Mar and Via de la Valle. A proposed gravity (or force main with a check valve) sewer line from a proposed lift station in the southeastern part of the project site would extend off-site to an existing force main on the east side of Camino del Mar within the City of Del Mar's right-of-way. Lastly, two grease interceptors are proposed behind the event space in the northeastern corner of the project site.

3.3.9 Stormwater

Implementation of the proposed project would require compliance with all current stormwater quality standards and codes, including low-impact development and pollutant control best management practices (BMPs) in accordance with the City of Del Mar's adopted BMP Design Manual. Stormwater runoff generated on-site would be treated prior to discharge. Implementation of the proposed project would require construction of on- and off-site storm drains and water quality biofiltration basins to collect and treat on-site stormwater. Based on the topography of the project site, storm drain mains would confluence at the northeast portion of the project site. The proposed stormwater infrastructure to serve the project site is shown on Figure 3-12, *Conceptual Stormwater Infrastructure Plan*. As shown, two modular wetland systems, in addition to storm mains, are proposed within the project site. A storm main is also proposed off-site within Camino del Mar and would direct stormwater southward to an existing 12-inch storm drain just east of Camino del Mar.

3.3.10 PUBLIC BENEFITS

Community benefits are defined as on- and/or off-site improvements, protections, regulations, or programs that have been committed to the City of Del Mar as part of the proposed project that would not otherwise result or result to the same extent. The proposed community benefits include the following improvements:

- Public Accessibility – For the first time, visitors and members of the public would be provided access to a loop trail amenity dedicated to the City of Del Mar for passive recreation and walking purposes, in a parkland-like setting. These benefits are currently limited because the majority of the project site is currently closed off as three gated/fenced property ownerships. To further enhance the public access experience, the loop trail shall allow pedestrians to circumnavigate the project site and would include viewing nodes and picnic areas situated at various points along the trail. Aside from the visitor-serving accommodations, the villas, and certain hotel-specific amenities, the entirety of the project site would be accessible to the public.

- Bluff Stewardship – The land use plan includes comprehensive bluff preservation and conservation, including bluff erosion runoff avoidance, building setbacks, and adaptive design – with no bluff armament or revetment. Dedicated for public enjoyment, the bluff setback area would be maintained by property ownership/management.

- Sustainable Design and Construction – The Specific Plan's design and construction methodology involve significant state of-the-art energy and water conservation features, along with a myriad of sustainability measures to reduce the Specific Plan's carbon footprint and be a model of environmental stewardship (see Section 3.7.15 of the Initiative, Sustainable Design Standards).

- Additional Beach-Area Public Parking – The Specific Plan requires the installation of excess parking to be made available for public use. Specifically, a minimum of 27 parking spaces in this heavily used beach area would be dedicated and available for use by the general public at all times.

- Dining Amenities and Meeting Space – Included in the land use plan is an ocean-view bar/lounge and restaurants, which would be open to the public. The Specific Plan also includes meeting space facilities, which shall be made available free of rental charge to the City of Del Mar, City of

Del Mar-affiliated organizations, and bona fide non-profit groups for no less than ten events per year on a first come, first served basis subject to space availability for the time requested.

- Public Amenities for Beach Visitors – The Specific Plan would provide improvement/installation of beach amenities, including a public access stairway, public restrooms, and related facilities for hotel, City of Del Mar, and public visitor services at North Beach, funded and maintained by the property owner/management and/or developer of the project site. The new modern public restrooms shall replace the temporary "porta-potties." A path-stairway would connect the beach to the Specific Plan property, adjacent to restrooms at North Beach. A secured storage closet for public beach amenity equipment shall be provided on-site and shall be no greater than an area of 5 feet by 5 feet.

- Mobility – The Specific Plan provides electric vehicles to be used for transportation to the City of Solana Beach and the City of Del Mar. The Specific Plan also includes a zero-emission community shuttle (see Section 3.6, Circulation and Access Plan, of the Initiative).

- Revenue Generation for City of Del Mar Projects and Programs – Marisol would result in a significant, steady stream of income to the City of Del Mar from the following existing taxes:

    - Marisol's Transient Occupancy Taxes revenue in the amount of 13 percent of gross room rental revenues, per current existing tax rates.

    - Increased property taxes that would derive from the reassessment of the property.

    - Sales taxes from Marisol's restaurants, spa, and retail components.

    These three sources represent a multifold increase in the revenue generated by the project site under the previous Low-Density Residential land use designation and under existing conditions.

- Substantial contribution to achieving the City of Del Mar's Housing Goals and Requirements – The Specific Plan requires 22 affordable housing units be provided within the Specific Plan. This number is more than the six units required by the inclusionary housing provisions of the DMMC (see Section 3.7.13 of the Specific Plan, Affordable Housing Units, for further details).

- Public Art – The property ownership/management and/or developer of the Specific Plan would provide on-site public art.

- Beach Nourishment Plan – The property ownership/management and/or developer of the Specific Plan shall provide a Beach Nourishment Plan, which shall include an annual contribution or endowment by the property ownership/management and/or developer to pay for the Beach Nourishment Plan.

- Off-Site Landscaping – The Specific Plan requires the property ownership/management and/or developer of the property to finance, implement, and maintain off-site landscaping on the right-of-way on Camino del Mar immediately adjacent to the project site and the median on Camino del Mar between Via de la Valle and the Lagoon.

3.3.11 SUSTAINABLE DESIGN FEATURES

The project would include features such as applying for Leadership in Energy and Environmental Design for Building Design and Construction (LEED BD+C) gold certification. Additionally, the project design includes mobility measures to reduce vehicle miles travelled and transportation-related GHG emissions including the provision of on-site housing, shuttle service to and from the Solana Beach Transit Center, an electric vehicle and bike share program, and electric vehicle charging stations. The following bullets include sustainable design features that are components of the proposed project.

Transportation

- Transit subsidies for resort employees
- A zero-emission community shuttle service to transport visitors to and from the commercial areas of Del Mar and Solana Beach, including the Solana Beach Transit Center
- Ride-sharing opportunities
- Electric vehicles and a bicycle share program for guests and visitors
- A minimum of 40 electric vehicle charging stations

Energy Conservation

- Prioritize energy efficiency, increasing the City of Del Mar's use of renewable energy sources and building benchmarking (i.e., measurement of a building's energy efficiency)

- Reduce building heating and cooling loads from the exterior environment through optimization of the building envelope, including installation of:

    - Light-colored roofing or shading by rooftop solar and window overhangs/balconies

    - Concrete construction to provide thermal mass to buildings (to delay heat gain and shift cooling to later in the day)

    - Wall and roof insulation to reduce peak summer cooling and winter heating

    - Photovoltaic panels to offset 50 percent of the hotel and villas energy demand. Additionally, 65 percent of the hotel water demand would be served by solar thermal collectors.

- Reuse of energy, including evaluating using heat rejected from heating, ventilation, and air conditioning systems to preheat domestic hot water or other such systems

Water Conservation

- Employ low-flow plumbing fixtures and fittings
- Utilize reclaimed water for outdoor irrigation
- Landscape with locally-adapted or native, drought-tolerant vegetation
- Employ permeable hardscapes wherever feasible
- Utilize evapotranspiration sensors to adjust daily water needs automatically

Waste Reduction

- Employ non-toxic pest control
- Source building materials from salvaged, rapidly-renewable and sustainable sources, wherever possible
- Provide water refill stations in lieu of plastic water bottles and prohibit plastic straws and plastic ware
- Employ a solid waste and food waste reduction program, including composting and other diversion techniques

Environmental Sustainable Stewardship

- Show proof that the project site is participating in the purchase of 100 percent green power electricity from the City of Del Mar's Community Choice Aggregation (CCA) program, or if this program is not in place, any successor CCA program or the San Diego Gas & Electric Eco-Choice Program.
- Join or adopt an ocean protection restaurant program for all food establishments within the Specific Plan boundaries.

Beach Nourishment Plan

- The property ownership, management, and/or developer shall prepare a Beach Nourishment Plan for sand replenishment of beaches within the City of Del Mar.

3.4 CONSTRUCTION AND PHASING

Construction is anticipated to occur over an approximate 26-month period over five phases beginning in October 2020 and ending in November 2022. Construction activities would begin with preparing areas within the VSA land use designation for construction and would include the operation of rubber-tired dozers, tractors, loaders, and backhoes over a one-month period. The construction phasing and duration estimates are as follows:

- Site Preparation and Demolition: One month (October – November 2020)
- Grading and Pipeline Construction: Two months (November 2020 – January 2021)
- Building Construction: 20 months (January 2021 – September 2022)
- Paving: Two months (September – November 2022)
- Architectural Coatings: 18 months (April 2021 – November 2022)

Grading would occur on about 13.35 acres of the 17.45-acre project site and would involve the use of excavators, graders, scrapers, tractors, loaders, and backhoes over a two-month period. A conceptual grading plan is shown on Figure 3-13, *Conceptual Grading Plan*, and would involve 105,000 cubic yards (cy) of cut and 62,000 cy of fill, for a net export of 43,000 cy of soil. Building construction during the third phase of construction would involve the use of cranes, forklifts, generator sets, and welders over an estimated 20-month period. Paving the area during the fourth phase of construction would involve

pavers, paving equipment, and rollers over a two-month period. Finally, architectural coatings during the fifth phase of construction would intermittently overlap during the building construction and paving phases and would involve the use of air compressors overran 18-month period. All staging would occur within the project site, including equipment and materials laydown areas.

During construction, BMPs would be implemented to control and treat stormwater runoff before leaving the project site. Specific BMPs that would be implemented during construction would include but not be limited to fiber rolls, silt fencing, sand bags, silt traps, sedimentation basins, inlet protection, stabilized construction entrances, concrete washout station(s), street sweeping and cleaning programs, and solid waste management. For additional discussion of BMPs, see EIR subsection 4.7, *Hydrology and Water Quality*.

3.5 PROJECT APPROVALS

This EIR is intended to provide documentation pursuant to CEQA to include an evaluation of environmental impacts associated with the Specific Plan, which would designate the project site for visitor-serving development and conceptual physical development that could occur consistent with the Specific Plan. The Initiative will be considered by the voters of the City of Del Mar and involves amendments to the City of Del Mar's Community Plan, Zoning Code, and a Local Coastal Program Amendment (LCPA). If the Initiative is successful, the Specific Plan, LCPA, Community Plan and Zoning Code amendments would be approved by the voters and no further City of Del Mar action would be necessary; however, the CCC would need to certify the LCPA.

- **Specific Plan**. Passage of the Initiative would result in approval of a Specific Plan to create a new regulatory framework to govern future development within the project site (e.g., land use/ zoning designations, development standards, and design guidelines).

    - **Community Plan Amendment**. An amendment to the Del Mar Community Plan would modify the existing land use designation of "Very Low Density Residential" to the proposed "Marisol Specific Plan" land use designation for the project site.

    - **Zoning Code Amendment**. An amendment to the Del Mar Zoning Code is required to modify the existing zoning designations of R1-40: Very Low Density Residential, R1-14: Very Low Density Residential, and FW: Floodway with "MSP." Future development would be subject to the specific land uses identified in the Specific Plan (i.e., Resort, Passive Recreation/Open Space, Coastal Bluff Protection Area, and Steep Slope Protection Area).

    - **Local Coastal Program Amendment**. An amendment to the City of Del Mar's LCP for the Land Use Plan and Implementing Ordinances is required to modify the existing land use designation of "Very Low Density Residential" to the proposed "Marisol Specific Plan" land use designation for the project site. The LCP is a policy and regulation document required by the California Coastal Act (CCA) that identifies land use, development, natural resource protection, coastal access, and public recreation policies within the Coastal Zone that implement the CCA. This amendment must first be approved through the Initiative process and then submitted to the CCC for certification.

If the Initiative is successful and the LCPA is certified by the CCC, more specific development details would be submitted by the applicant in order for the City of Del Mar to process and consider approval/ denial of future entitlements, including the Tentative and Final Subdivision Maps, Design Review Permit, Land Conservation Permit, Tree Removal Permit, Development Agreement, Encroachment Permit and acceptance of an Irrevocable Offer to Dedicate an easement for public access through the project site. All subsequent entitlement approvals would require initial consideration by the Design Review Board or Planning Commission, and a recommendation would be made to the Del Mar City Council for project approval or denial. The Del Mar City Council would make a decision to approve or deny the following entitlement permits which are not part of the proposed project at this time. If approved by the City of Del Mar, a CDP would then be considered by the CCC prior to the issuance of grading and building permits.

- **Coastal Development Permit**. A CDP is required to demonstrate that the proposed project is consistent with the City of Del Mar's LCP, which addresses land use, development, natural resource protection, coastal access, and public recreation within the Coastal Zone. The Planning Commission would consider the CDP and would make a recommendation to the City Council for approval or denial. The CDP would then be appealable to the CCC.

- **Subdivision Map**. A Subdivision Map is required for the division of any improved or unimproved land for the purpose of sale, lease, or financing. In this case, the Tentative Subdivision Map process would involve merging the eight private parcels within the Resort boundaries and creating condominium lots for the 31 resort villas for individual sale and ownership. Any conditions that are needed to demonstrate compliance with the City of Del Mar's Subdivision Ordinance (DMMC Title 24), the California Subdivision Map Act, or other City regulations would be included with the approval of the Tentative Map. The Planning Commission would consider the Tentative Subdivision Map and would make a recommendation to the City Council for approval or denial. Once the conditions of the Tentative Map are satisfied, a Final Subdivision Map is considered by the Del Mar City Council and upon approval, is recorded with the San Diego County Recorder's Office.

- **Design Review Permit**. A Design Review Permit is required to affirm consistency with the City of Del Mar's Design Review Ordinance (DMMC Chapter 23.08), which is in place to ensure that new development maintains property values, preserves the natural environment, protects primary scenic views, and ensures a high aesthetic quality for the community by incorporating harmonious materials and colors, compatible proportional relationships, and appropriate use of landscaping with a proposed project. The Design Review Board would consider the Design Review Permit and would make a recommendation to the City Council.

- **Land Conservation Permit**. A Land Conservation Permit is required for activities in the City of Del Mar that would alter the existing or natural grade in excess of 18 inches. A Land Conservation Permit can be approved if the Applicant demonstrates that the proposed project would result in minimum disturbances to existing or natural terrain and vegetation and that issues related to soil erosion, silting of lower slopes, slide damage, flooding problems, or severe cutting and scarring would not result from project construction and/or operation. The Design Review Board would consider the Land Conservation Permit and would make a recommendation to the City Council for a final decision.

- **Tree Removal Permit**. A Tree Removal Permit is required for activities in the City of Del Mar that would remove a Protected Tree, which include Monterey cypress (*Cupressus macrocarpa*) and/or Torrey pine (*Pinus torreyana*), or any trees within public lands. The Design Review Board would consider the Tree Removal Permit and a final decision would be made by the City Council.

- **Development Agreement**. A Development Agreement may be prepared to memorialize and vest the rights embodied in the Specific Plan. The Del Mar Planning Commission would consider the Development Agreement and would make a recommendation to the Del Mar City Council for acceptance.

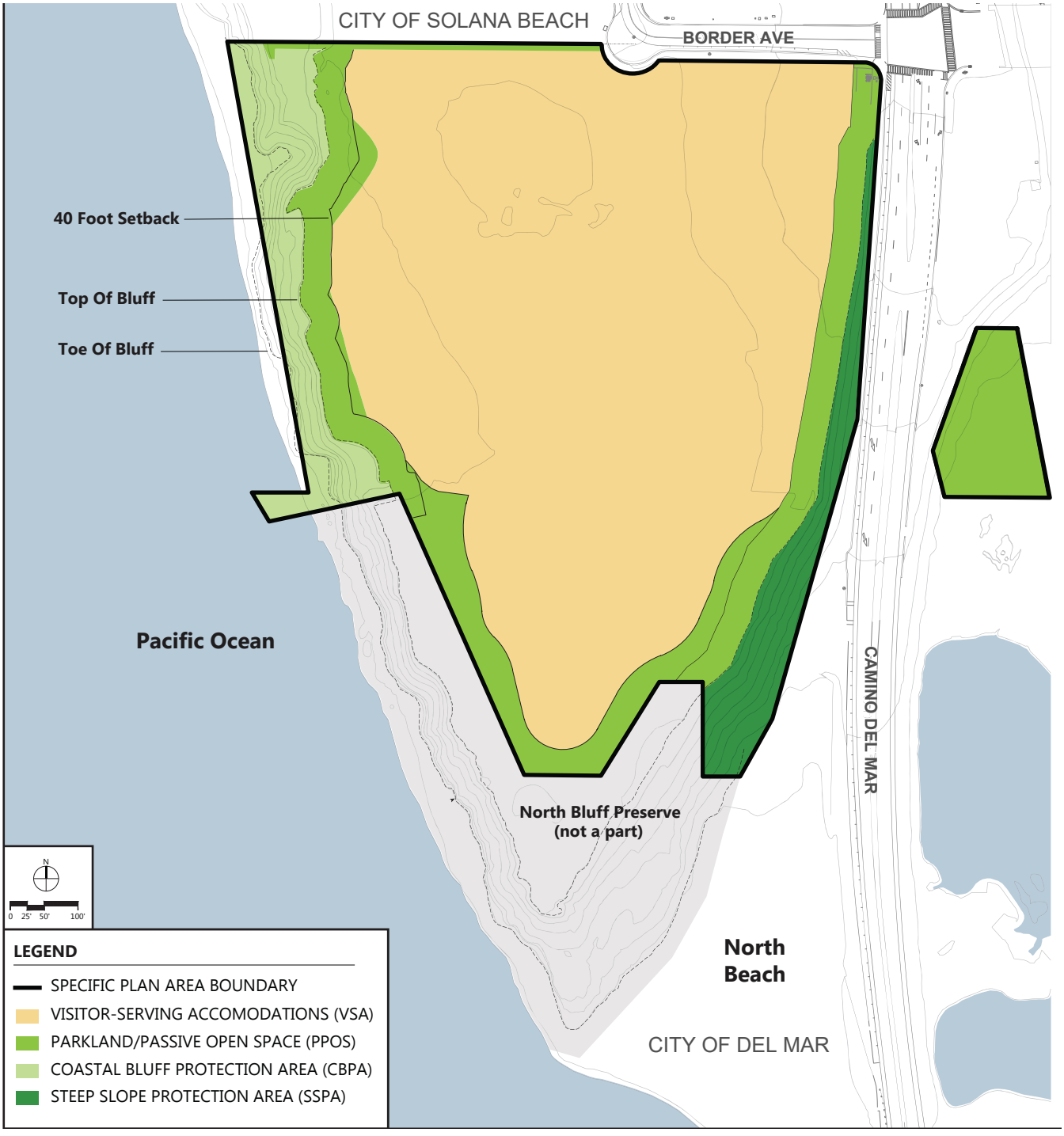
- **Irrevocable Offer of Dedication (Loop Trail)**. A public easement for the proposed pedestrian loop trail would be provided to the City of Del Mar.

- **Encroachment Permit**. All work and improvements performed in public rights-of-way will require receipt of Encroachment Permits authorizing all temporary and permanent encroachments.

3.5.1 Other Agency Approvals

As stated above, the CCC would be responsible for approval of the LCPA. Confirmation of National Pollution Discharge Elimination System (NPDES) compliance from the State Water Resources Control Board (SWRCB) would be necessary to address water quality issues during and following construction.

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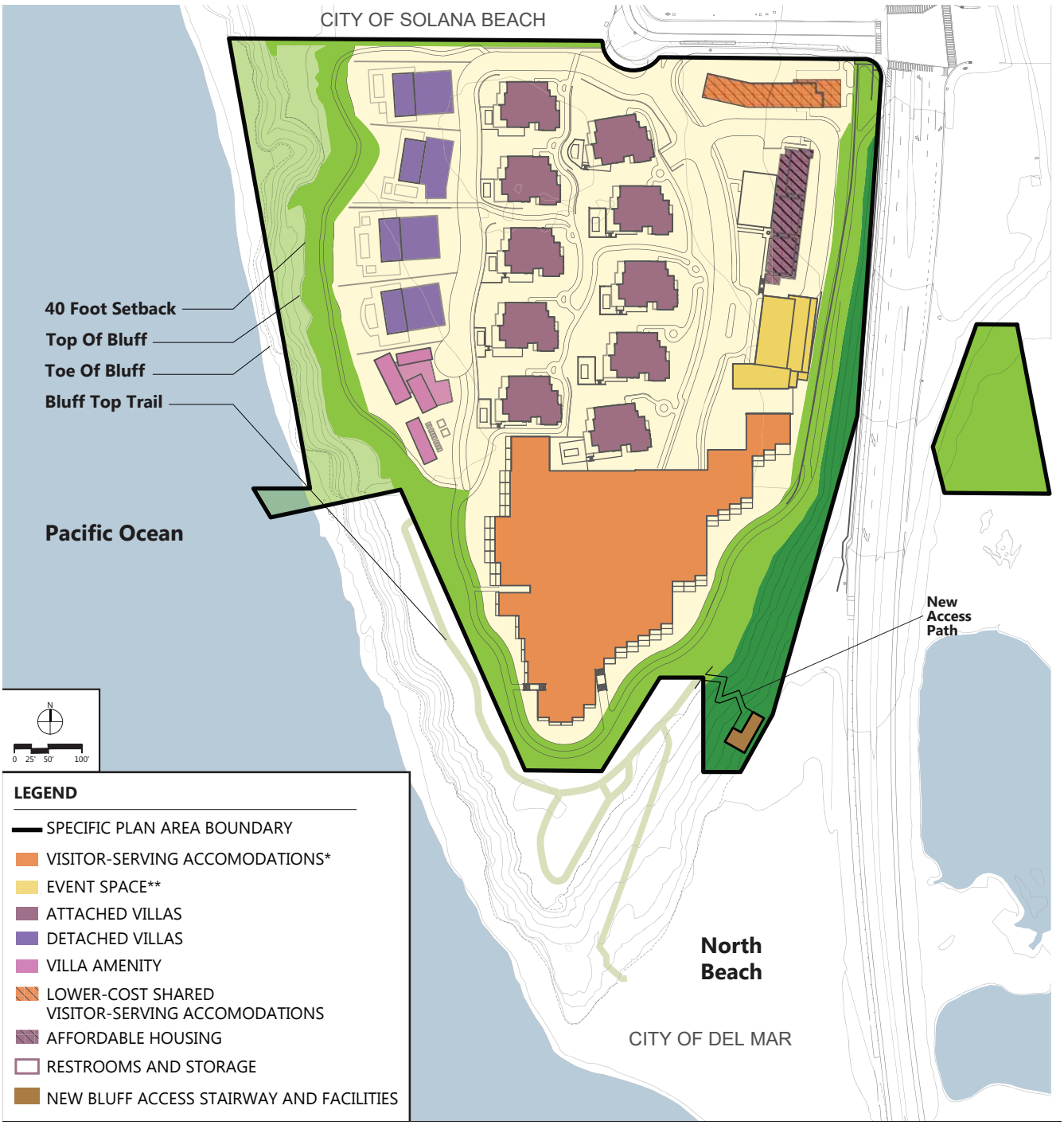
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Source: Dudek 2019

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Land Use Plan

Figure 3-1



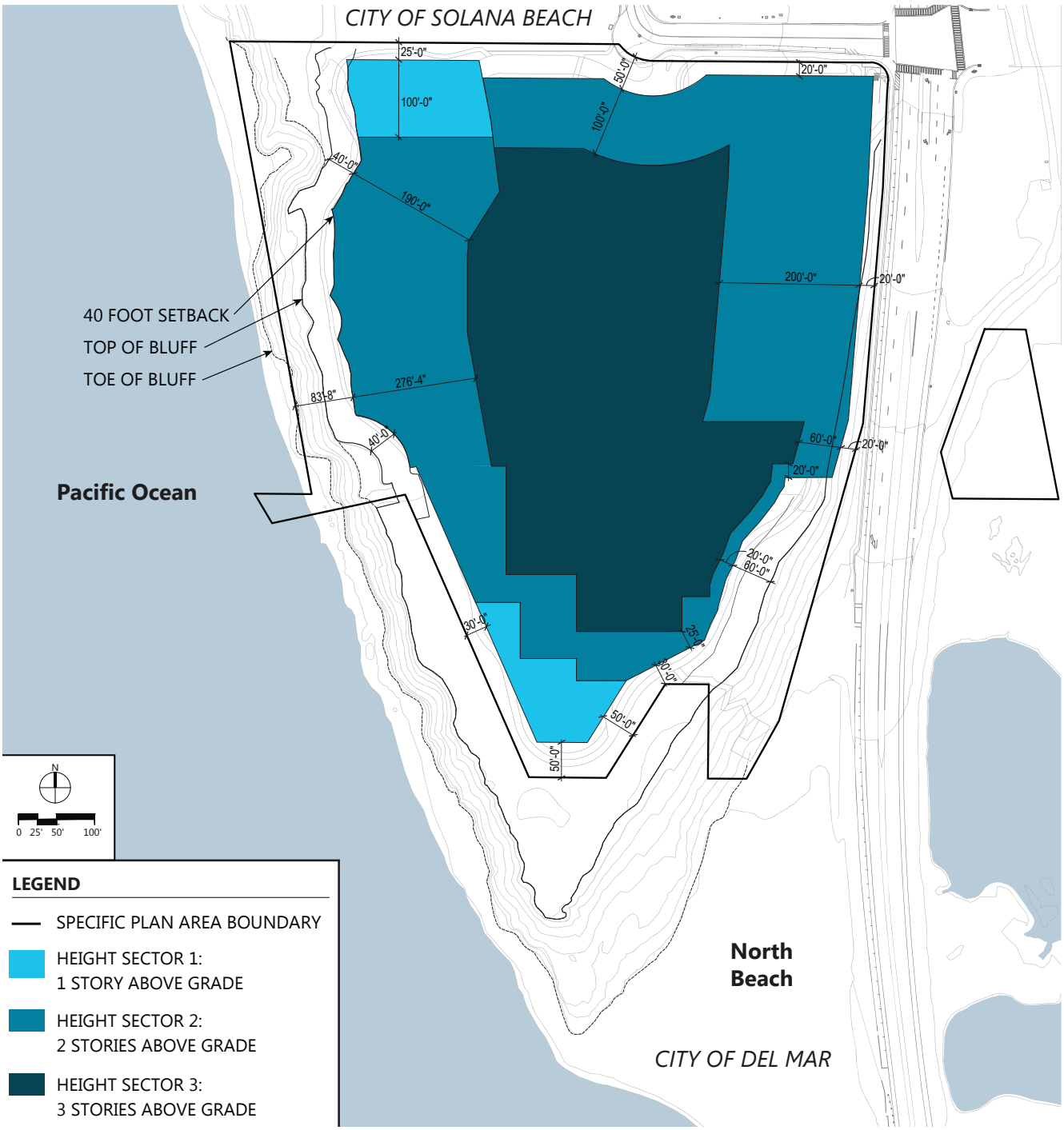
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Source: Dudek 2019

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Conceptual Site Plan

Figure 3-2



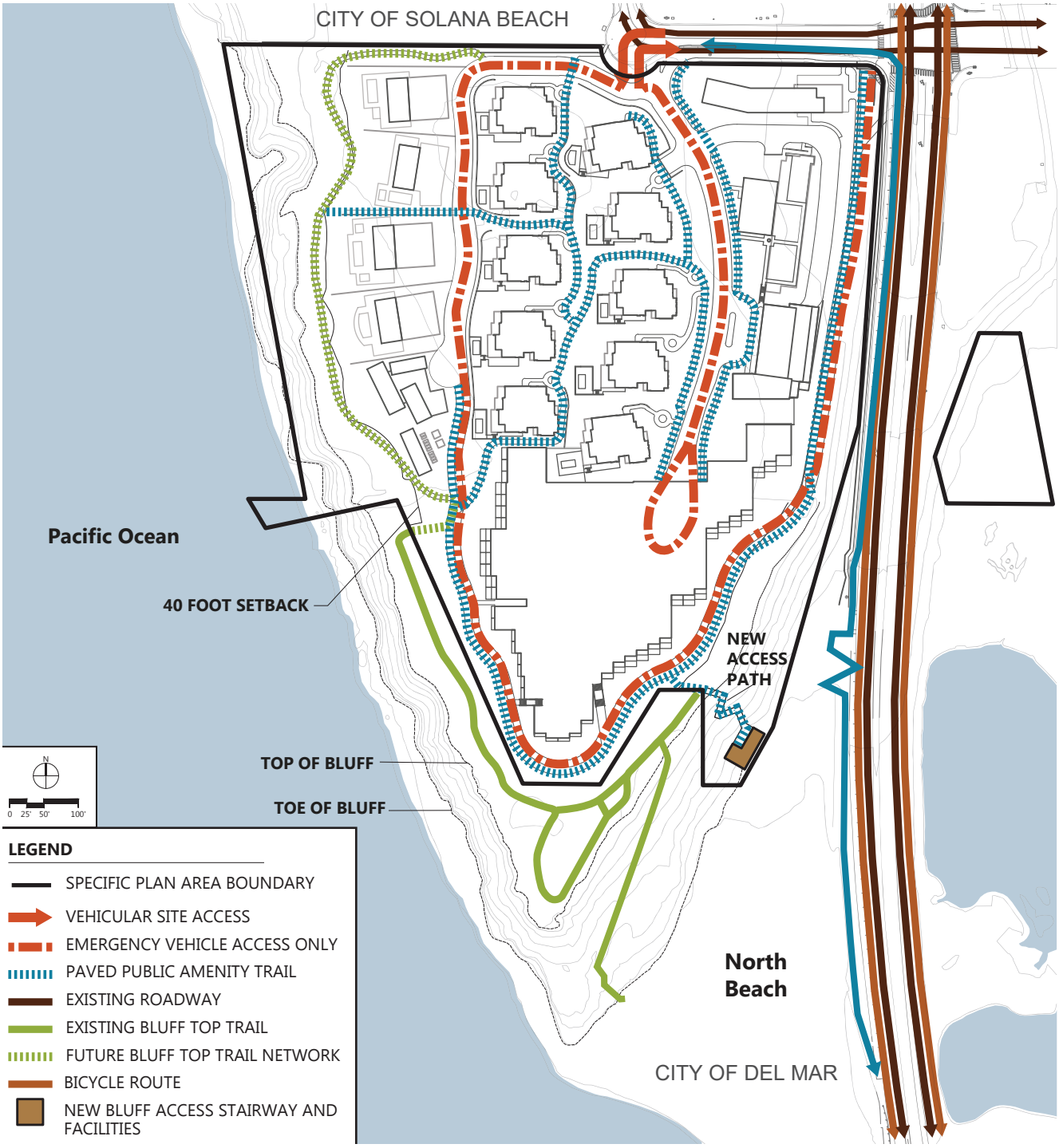
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Source: Dudek 2019

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Maximum Allowable Building Heights

Figure 3-3



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Source: Dudek 2019

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Conceptual Circulation and Access Plan

Figure 3-4

Trees

Botanical Name	Common Name
Pinus torreyana	Torrey Pine

Shrubs, Perennials and Annuals

Botanical Name	Common Name
Artemisia californica	California Sagebush
Atriplex leucophylla	Beach Saltbush
Baccharis pilularis	Dwarf Coyote Bush
Castilleja exserta	Owl's Clover
Encelia californica	California Sunflower
Eriogonum fasciculatum	California Buckwheat
Eriogonum parvifolium	Seacliff Buckwheat
Eriophyllum confertiflorum	Golden Yarrow
Eschscholzia californica	California Poppy
Hazardia squarrosus	Sawtooth Goldenbush
Isocoma menziesii	Menzies' Goldenbush
Isomeris arboreous	Bladderpod
Lasthenia californicus	California Goldenfields
Lotus scoparius spp scoparius	Deerweed
Lupinus bicolor	Coastal Bush Lupine
Lupinus succulentus	Arroyo Lupine
Malosma laurina	Laurel Sumac
Mimulus aurantiacus	Sticky Monkeyflower
Mimulus aurantiacus var. puniceus	Sticky Monkeyflower
Mirabilis californica	Wishbone Bush
Phacelia parryi	Parry's Phacelia
Plantago erecta	California Plantain
Rhus integrifolia	Lemonade Berry
Salvia mellifera	Black Sage

Ornamental Grasses

Botanical Name	Common Name
Melica imperfecta	Smallflower Melicgrass
Nassella pulchra	Purple Needle Grass

Cactus and Succulents

Botanical Name	Common Name
Dudleya species	Dudleya
Opuntia littoralis	Coastal Prickly Pear
Yucca schidigera	Mojave Yucca

Trees

Botanical Name	Common Name
Aloe barberae (bainesii)	Tree Aloe
Arbutus 'Marina'	No Common Name
Citrus species	Citrus
Cupressus macrocarpa	Monterey Cypress
Dracaena draco	Dragon Tree
Juniperus chinensis 'Kaizuka' ('Torulosa')	Hollywood Juniper
Lagerstroemia indica	Crape Myrtle
Laurus nobilis	Sweet Bay
Metrosideros excelsa	New Zealand Christmas Tree
Olea europaea	Olive
Pinus eldarica	Afghan Pine
Pinus pinea	Italian Stone Pine
Pinus torreyana	Torrey Pine
Platanus racemosa	California Sycamore
Prunus caroliniana	Carolina Laurel Cherry
Quercus agrifolia	Coast Live Oak

Palms (existing on site)

Botanical Name	Common Name
Phoenix canariensis (Relocated)	Canary Island Date Palm
Washingtonia robusta (Relocated)	Mexican Fan Palm

Vines and Espaliers

Botanical Name	Common Name
Ficus pumila	Creeping Fig
Grewia occidentalis	Lavender Starflower
Parthenocissus tricuspidata	Boston Ivy
Podocarpus gracilior	Fern Pine
Stephanotis floribunda	Madagascar Jasmine

Shrubs, Perennials and Annuals

Botanical Name	Common Name
Achillea species	Yarrow
Anigozanthos species	Kangaroo Paw
Annual Color	Varieties to Be Selected by L.A.
Artemisia 'Powis Castle'	Powis Castle Artemesia
Asparagus densiflorus 'Myers'	Myers Asparagus
Baccharis pilularis	Dwarf Coyote Brush
Buddleja davidii	Butterfly Bush
Ceanothus species	Ceanothus
Convolvulus mauritanicus	Ground Morning Glory
Coreopsis maritima	Sea Dahlia
Dietes species	Dietes
Encelia californica	California Sunflower
Fremontodendron californicum	Common Flannel Bush
Galvezia speciosa	Island Bush-Snapdragon

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Source: Dudek 2019

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Conceptual Planting Legend

Figure 3-5a

Shrubs, Perennials and Annuals

Botanical Name	Common Name
Heteromeles arbutifolia	Toyon
Heuchera maxima	Island Alum Root
Ilex species	Holly
Lavandula species	Lavender
Lavatera maritima (bicolor)	Tree Mallow
Leonotis leonurus	Lion's Tail
Melaleuca nesophila	Pink Melaleuca
Myoporum 'Pacificum'	No Common Name
Myrica californica	Pacific Wax Myrtle
Myrtus communis	Myrtle
Oenothera species	Primrose
Phlomis fruiticosa	Jerusalem Sage
Phormium tenax	New Zealand Flax
Pittosporum crassifolium 'Nana'	Dwarf Karo
Pittosporum tobira	Tobira
Pittosporum tobira 'Wheeler's Dwarf'	Wheeler's Dwarf Tobira
Prunus caroliniana 'Bright 'n Tight'	Carolina Laurel Cherry
Rhamnus species	California Coffeeberry
Rhaphiolepis species	Indian Hawthorne
Rhus integrifolia	Lemonade Berry
Ribes viburnifolium	Evergreen Currant
Rosmarinus species	Rosemary
Salvia species	Sage
Santolina rosmarinifolia (virens)	No Common Name
Stachys byzantina	Lamb's Ears
Tagetes limonii	Copper Canyon Daisy
Trichostema lanatum	Wooly Blue Curls
Westringia species	Coast Rosemary

Ornamental Grasses

Botanical Name	Common Name
Carex praegracilis	Western Meadow Sedge
Festuca species	Fescue
Juncus patens	California Gray Rush
Juncus xiphioides	Iris Leaved Rush
Leymus triticoides	Creeping Wild Rye
Lygeum spartum	False Esparto Grass
Lomandra longifolia 'Nyalla'	Nyalla Mat Rush
Nassella pulchra	Purple Needle Grass
Sesleria heuffleriana	Green Moor Grass
Stipa tenuissima (Nassella)	Mexican Feather Grass

Groundcover

Botanical Name	Common Name
Arctostaphylos species	Manzanita
Armeria maritima	Common Thrift
Bulbine frutescens	Bulbine
Carissa macrocarpa 'Green Carpet'	Natal Plum
Crassula species	No Common Name
Dymondia margaretae	Silver Carpet
Myoporum species	No Common Name
Origanum dictamnus	Dittany Of Crete
Pelargonium sidoides	Kalwerbossie Geranium
Rosmarinus officinalis 'Prostratus'	Rosemary
Sedum kamtschaticum	Stonecrop
Sedum rubrotinctum	Pork and Beans
Sedum rupestre 'Angelina"	Crooked Stonecrop

Cactus and Succulents

Botanical Name	Common Name
Aeonium species	No Common Name
Agave species	Agave
Aloe species	Aloe
Aloe vera (barbadensis)	Medicinal Aloe
Aloe x Always Red	Always Red Hybrid Aloe
Crassula ovata (argentea)	Jade Plant
Dudleya virens ssp. insularis	Bright Green Dudleya
Echeveria species	Hen and Chicks
Euphorbia characias wulfenii	Mediterranean Spurge
Euphorbia ingens	Candelabra Tree
Kalanchoe thyrsiflora	Paddle Plant
Opuntia species	Prickly Pear
Pachycereus marginatus (Stenocereus)	Mexican Fence Post Cactus
Sedum species	No Common Name
Senecio species	No Common Name
Yucca gloriosa	Spanish Dagger

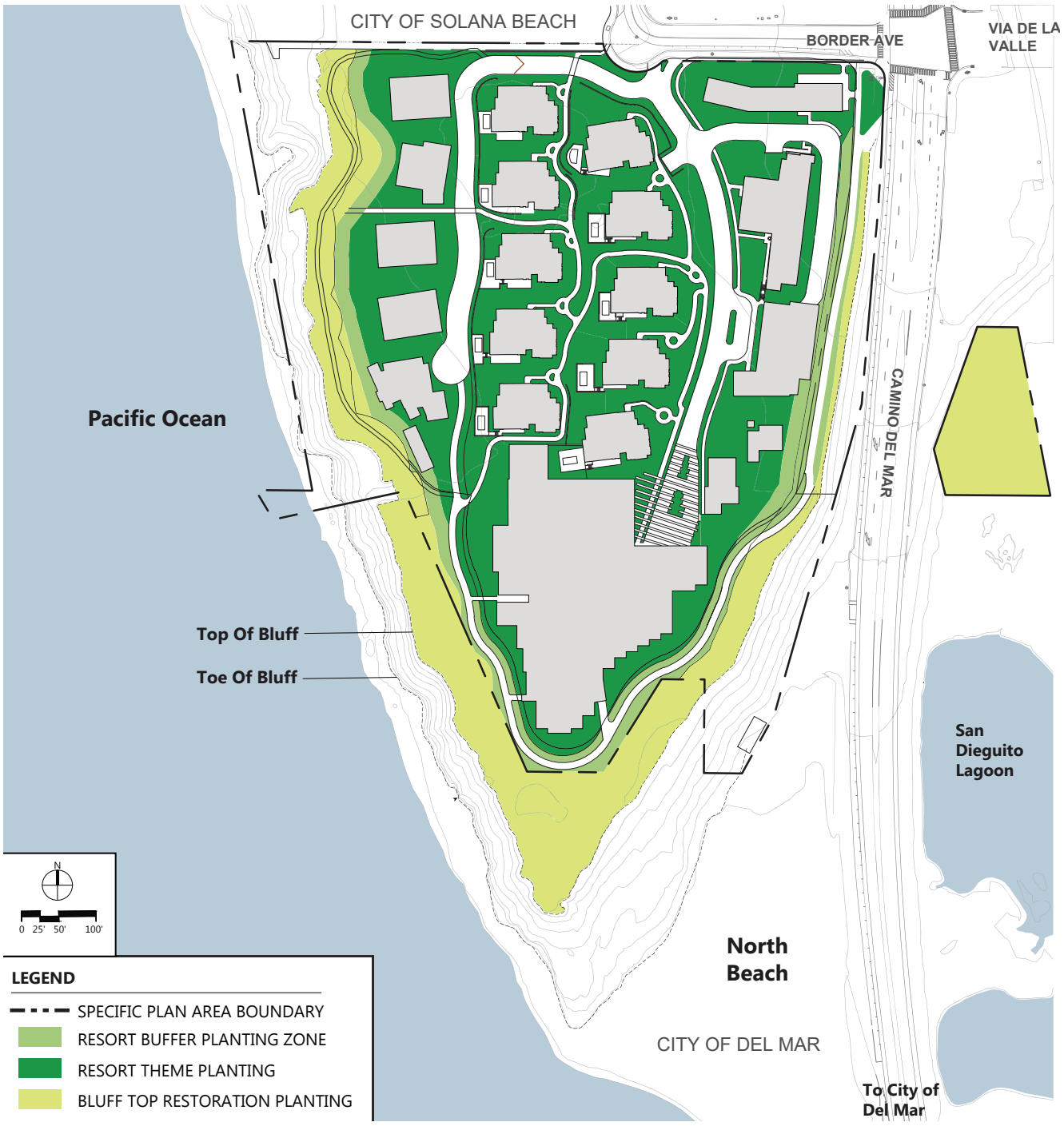
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Source: Dudek 2019

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Conceptual Planting Legend

Figure 3-5b



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Source: Dudek 2019

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Conceptual Planting Plan

Figure 3-6













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Source: DUDEK 2019

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Conceptual Signage

Figure 3-7


EVA Pathway Lighting


Primary Pathway Lighting


Secondary Pathway Lighting


Driveway Wood Pos


Architectural Staircase Lighting


Landscape Staircase Lighting


Beach Staircase Lighting


Landscape Wall Uplighting


Tree Downlighting


Tree Uplighting


Tree Hanging Lantern


Under Bench Light at Lookout


Landscape Lantern


Low Pathway Light

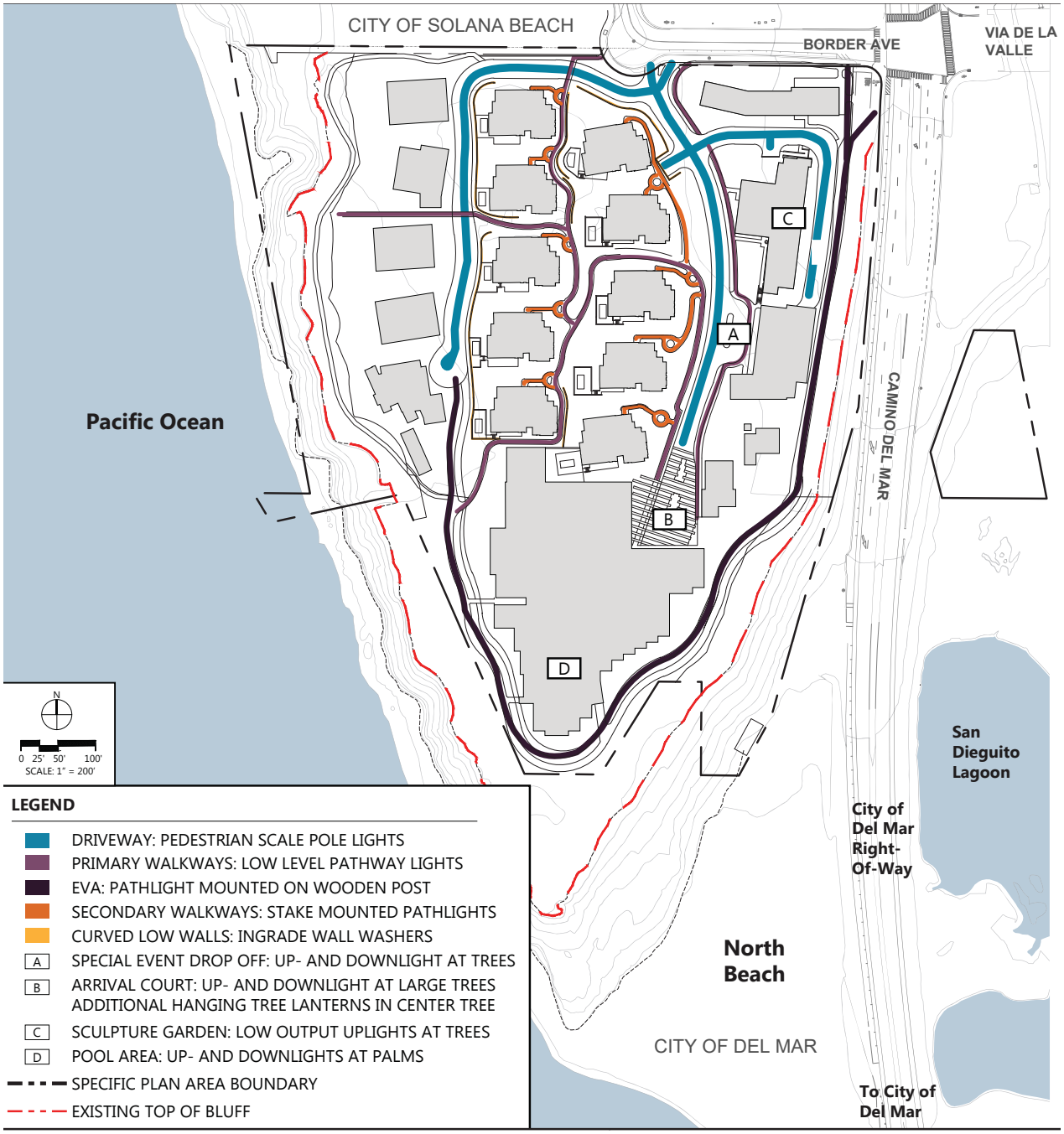
Source: DUDEK 2019

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HELIX Environmental Planning

Conceptual Lighting Types

Figure 3-8



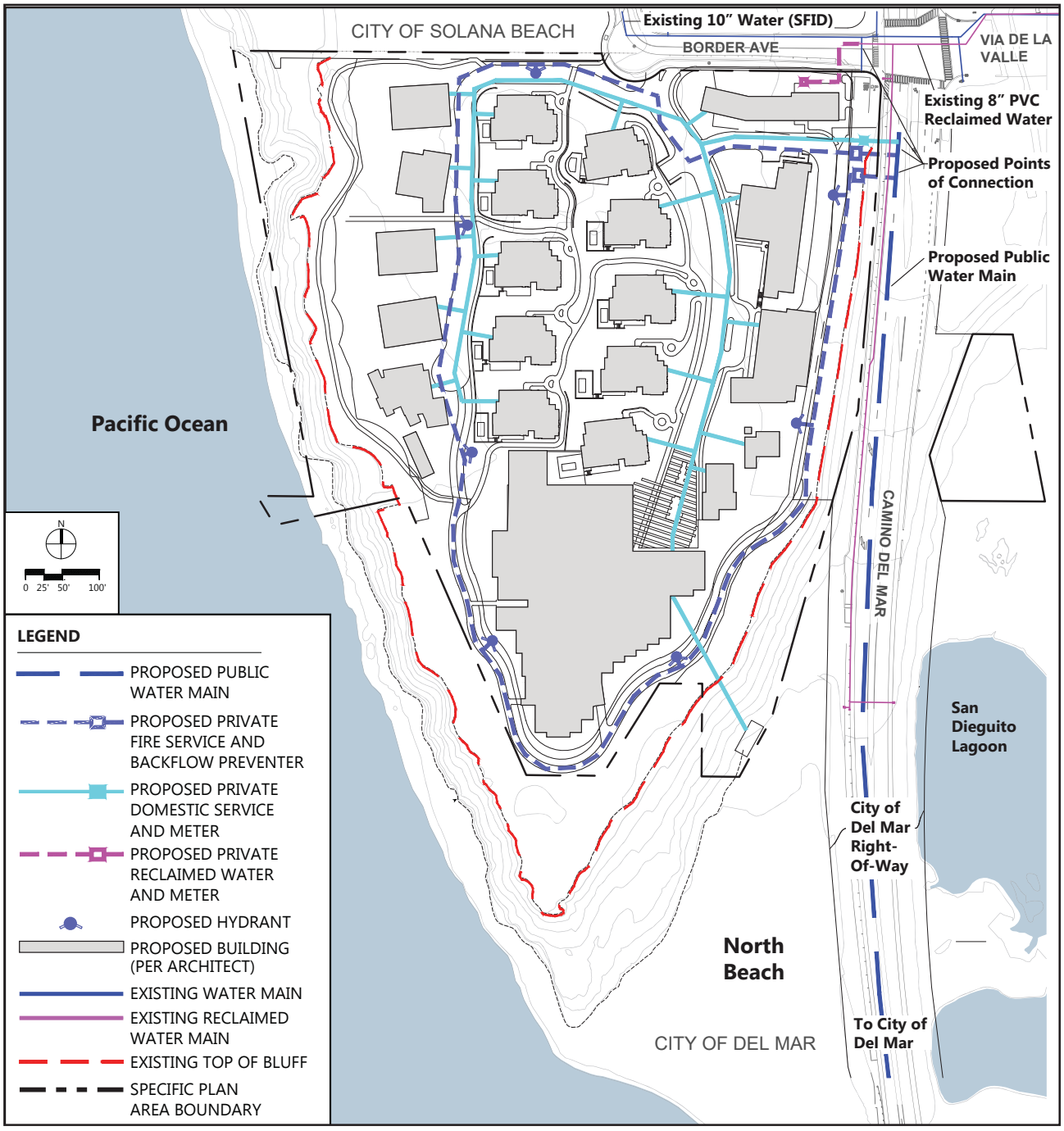
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Source: DUDEK 2019

HELIX Environmental Planning

Conceptual Lighting Plan

Figure 3-9



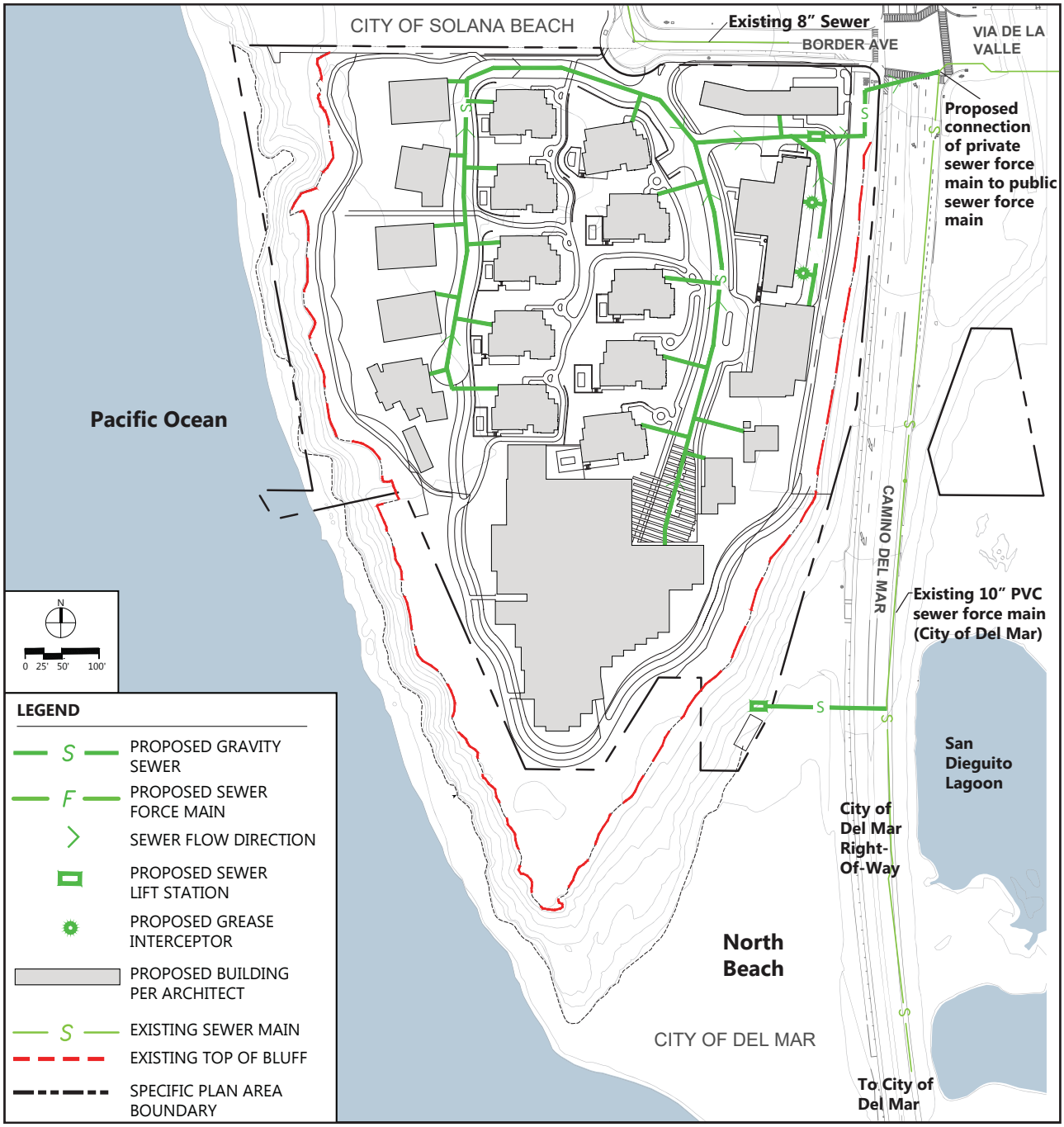
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Source: DUDEK 2019

HELIX Environmental Planning

Conceptual Water Infrastructure Plan

Figure 3-10



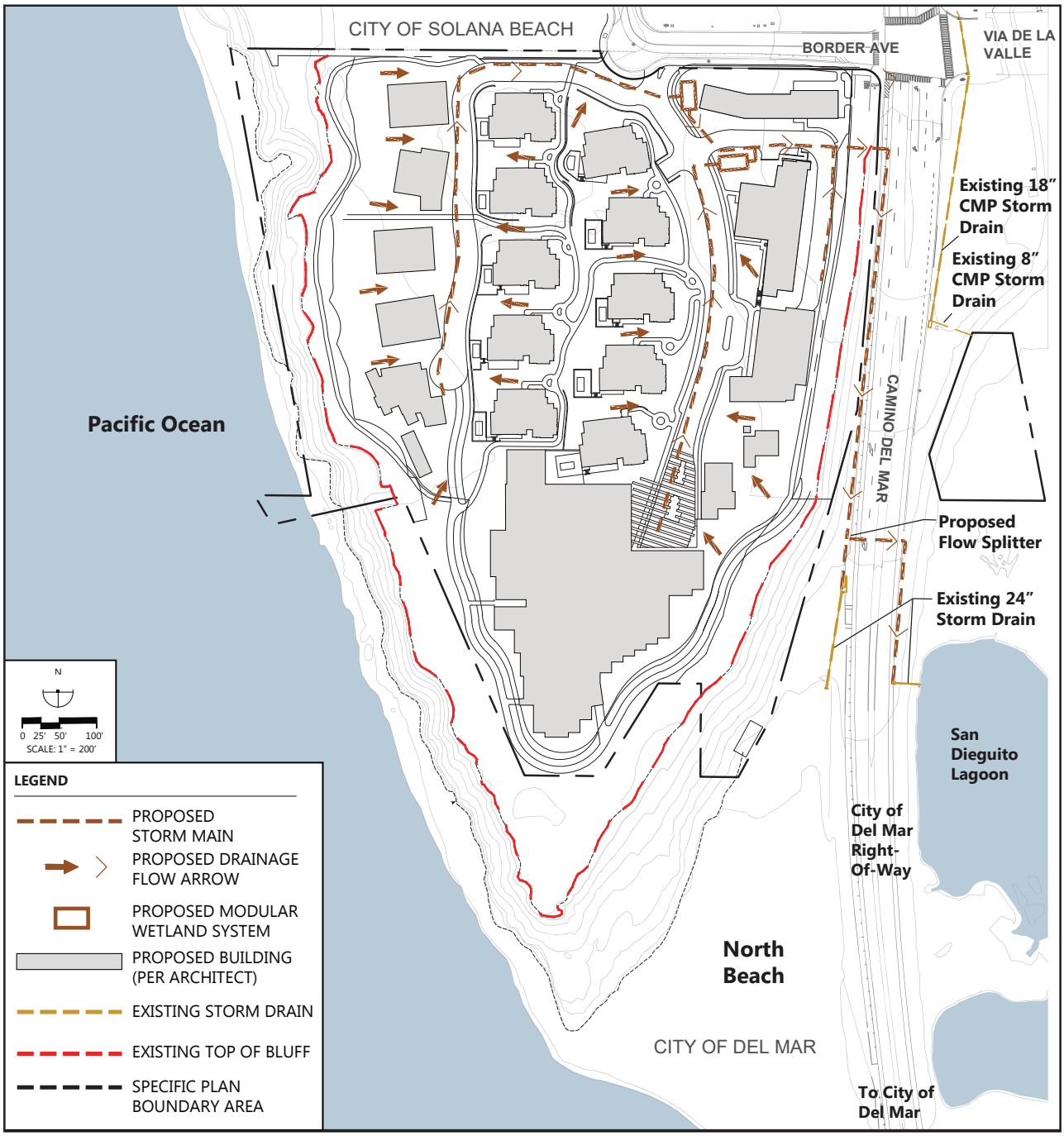
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Source: DUDEK 2019

HELIX Environmental Planning

Conceptual Sewer Infrastructure Plan

Figure 3-11



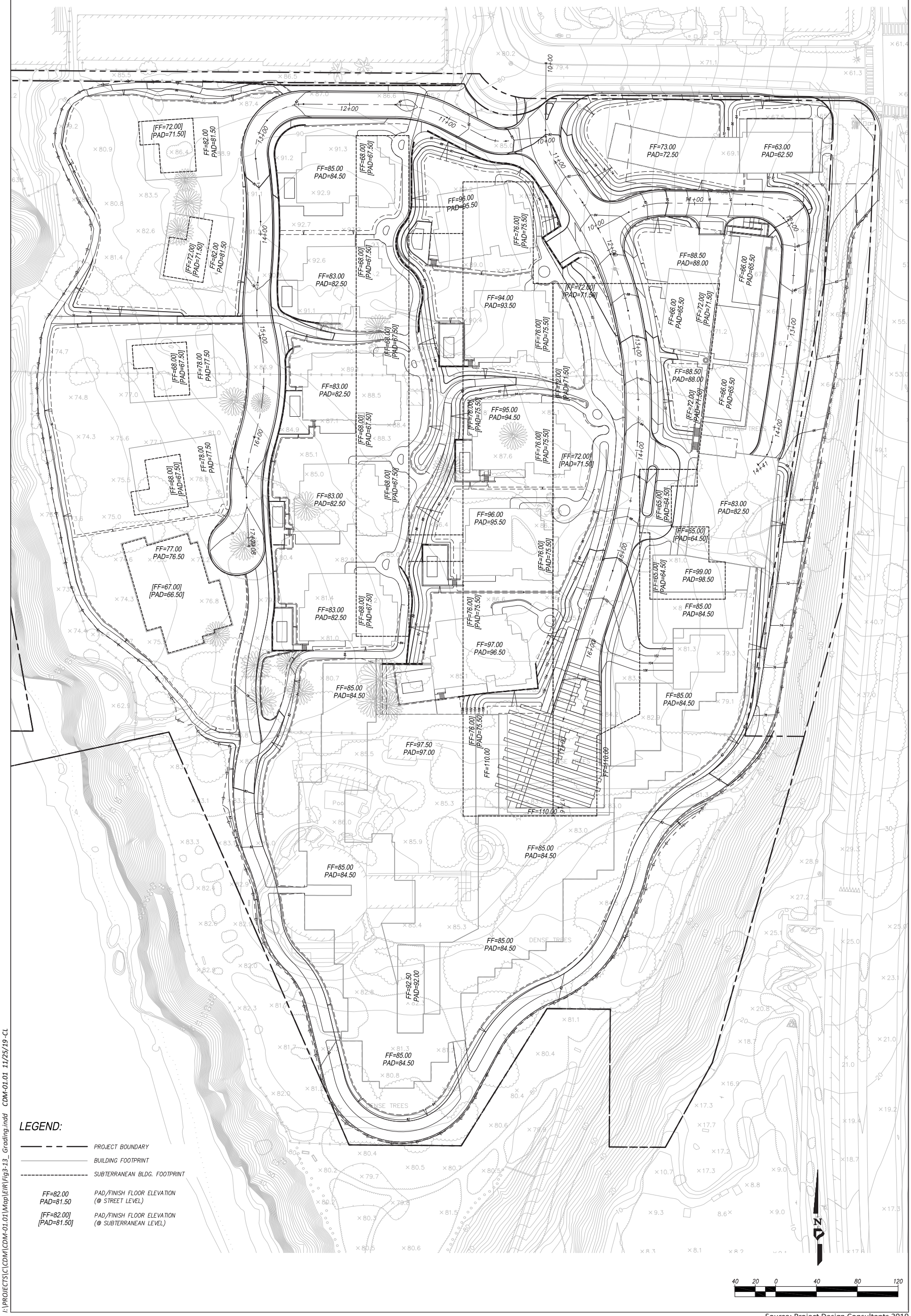
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Source: DUDEK 2019

HELIX Environmental Planning

Conceptual Stormwater Infrastructure Plan

Figure 3-12



Source: Project Design Consultants 2019

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HELIX Environmental Planning

Conceptual Grading Plan

Figure 3-13

4.0 ENVIRONMENTAL ANALYSIS

4.1 AESTHETICS

This subsection includes a description of existing conditions, regulatory requirements, and potential impacts on aesthetics associated with the proposed project. The technical information in this subsection is based on a Visual Impact Assessment, prepared by Dudek in November 2019 (Dudek 2019a). This technical report, including methodologies used and citations and references relied upon, is included as Appendix B to this EIR.

4.1.1 Existing Conditions

4.1.1.1 Location

The location of the project site, development in the surrounding area, and natural and built features are depicted on an aerial photograph in Figure 2-2 of this EIR. The project site is located upon a relatively flat mesa (also referred to as a coastal terrace) and edged by coastal bluffs that encompasses a triangularly shaped portion of land in the northwestern corner of the City of Del Mar. The top of the coastal mesa overlooks the Pacific Ocean and features descending slopes on its west, east, and south sides with on-site elevations gradually rising from east to west across the site. Elevations on the coastal terrace range between 65 and 80 feet above mean sea level (amsl) in the central portions of the site with elevations in the northern portion of the site reaching about 93 feet amsl. Areas at North Beach are near sea level (see Figure 2-3 for a depiction of the project site topography and surrounding areas).

According to the Community Plan (see further discussion under Section 4.1.1.2, below), Del Mar is characterized by scenic stretches of coastal beaches, picturesque sea cliffs, flat-topped coastal areas, steep mesa bluffs, broad level-floored stream valleys, and gently rolling hills (City 1985). The Del Mar Municipal Code (DMMC) Chapter 23.51 also states that scenic views of the Pacific Ocean, nearby lagoons, canyons, the community and its landscapes and urban forest character, or other scenic vistas, "produce a variety of significant and tangible benefits for residents, property owners and visitors" (DMMC Section 23.51.010[C]) within the City of Del Mar. The municipal code defines scenic views as views of the ocean, lagoons, canyons, the community and its landscapes and urban forest character, or other scenic vistas, from the primary living area of a residence. Existing visual resources (i.e., natural or built objects or features visible on a landscape) at and near the project site include the coastal bluffs along the western, southern, and eastern project boundary; the Pacific Ocean, immediately west of the project site; the James G. Scripps Bluff Preserve (Preserve) and the juncture of the San Dieguito River and the Pacific Ocean at North Beach south of the project site; and the Del Mar Fairgrounds, located about 0.15 mile east of the project site as well as other built resources, as addressed below.

4.1.1.2 Visual Quality

Any view encompasses a variety of visual elements. Each view is a "snap shot" of a particular location determined by the size, shape, color, texture, and general composition of perceived elements (both natural and built), as well as the relationships between these elements, as seen from a specific key view. The visual quality from a key view is typically defined on a three-part scale, including high, moderate, and low visual quality. Each of these concepts is further explained below:

- **High** - Areas with high visual quality may offer varying vertical relief; established natural or planted vegetation with notable form, color, texture, or pattern; water features; or other elements that create a visually unified landscape. Particular views with high visual quality may include those with distinct focal points or patterns, enhanced or existing natural scenery, compatibility with the character of the surrounding landscape, and/or a unique visual setting within the surrounding area.

- **Moderate** - Moderate visual quality is generally represented by views that are interesting but not visually exceptional with regard to landforms or other physical characteristics. Such views may consist of dominant types of vegetation, water features, or other elements that visually unify a particular view or landscape.

- **Low** – Low visual quality consists of areas with limited or no distinct landforms or changes in topography, sparse or indiscernible vegetation types due to density, absence of water features, monotonous color palettes, or limited visual elements of varying visual interest. Visual quality may be considered to be low if views are varied but visually disconnected, lack perceivable visual patterns, are adjacent to views that devalue the existing scenic quality, or do not generally represent a visual setting that is valued within the surrounding area.

4.1.1.3 Visual Setting

This discussion addresses the existing visual setting both at the project site and within areas to the north, east, and south of the project site. Areas west of the site consist of the Pacific Ocean and are not further described below. A series of 20 photographs is included as Figures 4.1-1b through 4.1-1f, *Project Setting*, to illustrate the existing visual setting surrounding the project site in the northwestern part of the City. The locations of each of the viewpoints is located on the key map provided in Figure 4.1-1a, *Project Setting Photographs Key Map*.

Project Site

The project site consists of a coastal terrace abutting the coastline on the west and bluffs dropping to lower elevations below. As shown on Figures 4.1-1b and 4.1-1c, most of the areas on the mesa top are vacant and consist of various trees (i.e., pines, figs, peppers, palms, and cypress), bare ground, gravel, ornamental landscape, and low-lying grasses, with the exception of an occupied 5,800-square-foot single-story residence and guesthouse with a pool. Photo E on Figure 4.1-1c depicts the residence, roof of the guesthouse, landscaping, and private pedestrian paths. The residence is set back from the coastal bluff and provides long and broad views south and north along the coastline and to the west. Photo F on Figure 4.1-1c depicts a southerly view from the existing residence. As shown, the residential property is landscaped with turf, ice plant, various shrubs, and tall and mature pine (*Pinus sp.*), cypress (*Cupressus* sp.), and two varieties of palm trees (*Phoenix canariensis* and *Washingtonia robusta*). Photo G on Figure 4.1-1c illustrates landscaping along the southern boundary of the project site as viewed from the Preserve.

Vehicular access to the mesa top is provided from a private access road/driveway. The driveway parallels Camino del Mar and extends perpendicular to Border Avenue (see Photo H of Figure 4.1-1c). The access driveway is approximately 20 feet wide and lined by cypress and other mature trees on the west and pine and other trees and shrubs on the east. Trees along the southern, western, and eastern areas of the site largely preclude views onto the mesa top and beyond to the ocean (see Figure 4.1-1c,

Photos G and H); however, the northern portion of the project site is mostly devoid of trees and views onto the mesa top are available. This open area in the northern portion of the project site is occasionally used for overflow parking for local special events. A City of Del Mar coastal viewing access easement consisting of 0.12 acre also occurs along the northern boundary of the project site, adjacent to and immediately south of the (off-site) Del Mar Beach Club. The coastal viewing access easement is oriented in an east-west direction and consists of a narrow pedestrian pathway about 450 feet in length and 5 feet in width. The coastal viewing access easement is accessed at the western terminus of Border Avenue and provides visual access to the coast; however, physical beach access is not provided and the coastal viewing access easement pathway stops before reaching the coastal bluffs along the western edge of the project site. The coastal viewing access easement is not known to be frequently accessed and is overgrown with vegetation. Travelers to the beach; however, have open views onto the northern portion of the project site where their gaze encompasses areas to the south, across the project site, as they walk along the coastal viewing access easement. Three abandoned telephone poles and lines are visible in the northernmost portion of the project site (see Figure 4.1-1b, Photos A and B). Excluding the coastal access easement discussed above, public access to the project site is otherwise restricted by a chain-link fence, including at the edges of the coastal bluff.

Surrounding Areas

Areas surrounding the project site include the Preserve to the south, a restaurant and the Lagoon opposite of Camino del Mar to the east, multi-story residential and commercial development in Solana Beach to the north, and the Pacific Ocean to the west. The intersection of Via de la Valle and Camino del Mar is located near the northeast corner of the project site. Trees line an access driveway along the fenced eastern project boundary between the project site and Camino del Mar. Each of the developed areas described below feature varying densities of landscaping, including mature trees and tall hedges.

Immediately abutting the southern border of the project site is the Preserve, an open space area that includes passive recreational improvements (i.e., trails, benches, signage). The south- and east-facing bluff slopes are covered with low, bluff scrub vegetation that displays tones of brown, grey, and green. Tan exposed soils are also evident on the bluff slopes visible from Camino del Mar and the visible trees atop the bluff are located within the project site. As noted above, access to the Preserve is provided from North Beach and a semi-paved access path is constructed into the east-facing slope of the bluff visible in Photo N. The juncture of the San Dieguito River and the Pacific Ocean are located further south of the Preserve and the project site. North Beach is popular with local residents and dog owners and also includes a lifeguard tower and beach volleyball nets. Figure 4.1-1e, Photo N, depicts the mouth of the San Dieguito River, North Beach, and the project site. These features are visible within the immediate area but diminish in prominence due to the comparatively large size of the Pacific Ocean and notable bluff in relation to relatively small physical improvements. A private, beachfront residential development is located to the south of the San Dieguito River and west of Camino del Mar (Sandy Lane development). North and south of the river crossing, beach parking is available along Camino del Mar, a two-lane road with a raised median that features low grasses, shrubs, and near the project site, mature pine trees.

A local restaurant and a surface parking lot are located east of Camino del Mar opposite the northeastern portion of the project site. The restaurant (the Brigantine) is situated atop a small bluff overlooking the Lagoon (see Figure 4.1-1e, Photo O) and a local rail corridor to the south and east. Tall palm trees are planted along the property frontage of Camino del Mar at the restaurant. Shorter palms and low flowering shrubs occupy narrow planters that line the sidewalk. The Del Mar Fairgrounds are

sited farther to the east. Condominium development is located farther yet to the south, south of the Lagoon and east of Camino del Mar. The restaurant and underlying terrain are located approximately 40 to 50 feet higher in elevation than the Lagoon and Del Mar Fairgrounds. Notable visual elements of the Del Mar Fairgrounds include the wide oval-shaped turf and dirt track with water features and a collection of single-story buildings in the infield. Vegetation on the Del Mar Fairgrounds property is scattered and somewhat limited; however, the inner track is planted with turf, trees, and shrubs surrounding the interior water features. The multistory Mission-style offices and grandstand building exceeds 75 feet in height, and the many long, rectangular stable buildings are also visible (see Figure 4.1-1e, Photo P). North-south railroad tracks are located east of the Lagoon and west of the Del Mar Fairgrounds. North of Via de la Valle in the City of Solana Beach, the railroad tracks are located at a lower elevation than areas to the west and east.

Ten residential properties are located east of the Brigantine restaurant on the south side of Via de la Valle in the City of Del Mar. Robust vegetation and walls largely obscure the westernmost three dwellings, which are two-story structures. The remaining seven residential properties are developed with two-story residences, are characterized by boxy white painted stucco exteriors, and are part of the Boca Del Mar development. The small development is gated and includes palm trees and bird of paradise landscaping. A six-foot high, lightly colored masonry wall borders the development on the north (see Figure 4.1-1f, Photo Q). The northern portion of the project site is located due west of these properties. Excluding the westernmost home that has views of the project site over the Brigantine restaurant parking lot, and the westernmost two-story home in Boca Del Mar, that has views of the site over homes to the west, views to the project site would be largely blocked by intervening residential structures. Additional single- and multi-family residential development is located north of Via de la Valle in the City of Solana Beach and the local terrain rises from south to north and west to east, creating opportunities for ocean view lots and terraced development. Figure 4.1-1f, Photo S, provides a “typical” view from these areas. As shown, scenic views to the Pacific Ocean are available from these higher elevation residential areas in Solana Beach, including condominiums off Solana Circle and single-family homes located off East and West Solana Circle. Residential developments incorporate tans to bluish stucco and grey to brown wood exteriors, flat to slightly pitched wood shingle or tiled roofs, stone and/or brick accents, and large to small expanses of glass windows on elevations (see Figure 4.1-1f, Photos S and T). Architectural styles of individual multi-family developments and single-family homes vary. Residential properties are landscaped with turf, low shrubs and hedges, and trees including palm, pine, and occasionally, coral (*Erythrina* sp.), eucalyptus, and pepper trees. Relative to apartment or condominium uses, single-family residential lots tend to include a more diverse assortment of shrubs and trees. The project site abuts Border Avenue and a three-story condominium development (the Del Mar Beach Club) immediately to the north; the ground floor of which (on the western edge of the Del Mar Beach Club) is below grade, or partially “submerged” into the coastal bluffs. The development is adjacent to the coastal viewing access easement on the project site and appears as a two-story building from Border Avenue (see Figure 4.4-1b, Photo B). Development further north along South Sierra Avenue includes primarily two-story multi-family residential complexes (see Figure 4.1-1d). The eastern edge of the Del Mar Beach Club facing South Sierra Avenue includes a low, beige masonry wall topped with short metal bars, situated atop a 25-foot wide slope landscaped with groundcover and a few tall pine and paperbark (*Melaleuca quinquenervia*) trees located west of South Sierra Avenue (refer to Figure 4.1-1b, Photo B, as well as Figure 4.1-1d, Photo I). Attached homes consist of two-story boxy structures featuring a beige/off-white stucco exterior and flat, wood-shingled roofs. Homes to the east across South Sierra Avenue display similar design elements, including landscaping. A three-story office building is located east of the Del Mar Beach Club and west of Highway 101. The rectangular, light cream-colored stucco and natural-looking wood office building is partially obscured from view by

mature pine trees located immediately south and east of the building (see Figure 4.1-1d, Photo J). Located in Solana Beach, the stuccoed office development features terraces on the upper floors and a rectangular and flat roofline. Additional two- and three-story multi-family residential developments are located further north along South Sierra Avenue and include the green-blue and off-white painted wood and stucco exterior of the La Playa Del Mar buildings; the beige/nude stucco and flat, red tile roof of the Del Mar Shores Terrace buildings; and the wood clad, asymmetrical, and angular roofline Seascape Chateau and Seascape buildings designed in the Shed architectural style, commonly built as second homes or primary residences in suburban areas of California between 1965 and 1990 (see Figure 4.1-1d, Photo K). Residential properties are consistently fenced along South Sierra Avenue.

In the City of Solana Beach, one- to three-story residential and commercial uses are located along the Highway 101 corridor further north of the project site. Development along Highway 101 includes restaurants and shops in one- and two-story wood structures with long pitched roofs and rectangular glass windows and hotels operating out of warm, two- and three-colored stucco exterior and red tile roof buildings (see Figure 4.1-1d, Photo L). The concrete and glass Solana Beach City Hall building (former nightclub), and the Beachwalk neighborhood retail plaza (featuring one- and two-story buildings painted in browns, light green, or light gold colors) are also located along the Highway 101 corridor on the southbound approach towards the project site (see Figure 4.1-1e, Photo M). As with residential uses, commercial and other development along Highway 101 are situated on properties with generally small or narrow planters featuring turf, low shrubs, flowers, and tall trees including palm, pine, and conifers (i.e., *Podocarpus* sp). The Solana Beach General Plan designates the area to the north of the project site and west of Highway 101 for multi-family residential development (generally west of South Sierra Avenue) and Commercial and Office (east of South Sierra Avenue and west of Highway 101).

4.1.1.4 Viewer Groups

Viewer groups include people that have existing views of the project site and include viewers from residences, vehicles, recreational and leisure areas, commercial areas, and from rail cars. Due to the characteristics of topography within the surrounding area, and because the project site mostly is located atop noticeable bluffs, views to the project site are available throughout southern Solana Beach, northern and central Del Mar, and distantly, from mesa-top homes in the City of San Diego. In addition, the project site is visible from North Beach and other local beaches, trails along/near the Lagoon, Interstate 5 (I-5) and from parks and local roads. Viewer groups with a view to the project site include residential viewers (in the cities of Del Mar, Solana Beach, and San Diego); motorists on I-5, Camino del Mar, Via de la Valle, and various local roads; and recreational groups including trail users, beach and park goers, and surfers, kayakers, and others recreating in the ocean. Other groups provided views to the project site include visitors to the Brigantine restaurant and workers at the nearby office complex to the north, rail users (i.e., Coaster and Amtrak riders), and persons attending events at the Del Mar Fairgrounds.

Viewer responses to changes in the visual environment are based on both level of viewer sensitivity as well as the proximity and duration of the view. The following discussion provides detail on sensitivity and exposure, and then addresses proximity in more detail for each of the viewer groups.

When viewing the same landscape, people are likely to respond differently to that landscape and proposed visual changes, based upon their familiarity with, concern for, and/or expectations of that landscape and its scenic quality. Because each person’s attachment to and value for a particular landscape is unique, visual changes to that landscape inherently affect viewers differently. Viewer

response is composed of two elements: *viewer sensitivity* and *viewer exposure*. These elements combine to form a method of predicting how the viewers might react to visual changes brought about by a project.

- *Viewer sensitivity* is described in qualitative terms of high, medium, or low, and is based on the number of users and attitudes toward changes to the visual environment. Factors considered include the number and types of viewers potentially affected, viewing distances, and documented public concerns about visual changes. Residential viewers are considered highly sensitive as they may experience frequent views to a specific locale, are often emotionally invested in those views, and generally have a desire for existing conditions to continue. Recreational viewers can also have high sensitivity, as they are anticipated to have expectations of certain view quality during the recreational experience and changed view conditions can affect that experience. Commercial viewers are expected to be more focused on their commercial goals than on the setting overall, although views from specific locales such as a restaurant that touts scenic views may be more sensitive. Viewers moving through a locale, particularly at speed – such as from within a vehicle or train – are expected to have lessened sensitivity as they are travelling to another destination, and have views of short duration, as explained further below.

- *Viewer exposure* varies depending on the angle of view (i.e., normal, inferior, or superior viewing angles), view distance (i.e., foreground, middle ground, and background), relationship to sun angle (e.g., backlighting vs. front or side lighting), the extent of visibility (i.e., whether views are panoramic or limited by vegetation, topography, or other land uses), and viewer screening conditions (e.g., whether the project facilities would be skylined on ridgelines, backscreened by topography and/or vegetation, or screened by structures or vegetation in the foreground). Viewer exposure also considers the duration of view based on viewer activity (e.g., travel, residential use, and recreation), and often relates to speed of travel (i.e., pedestrian, vehicular, or stationary). Viewer exposure is considered long term for residents, short term for travelers along roadways, and moderate for users of public trails.

Exposure also considers volume, or the number of potential viewers from any given point. Viewer volume can be defined by the number of travelers (average daily traffic [ADT]) on a roadway, residents in a development, consumers at a large commercial center, or users of a recreational area. Although viewer volume does not directly translate to viewer sensitivity, it can combine with this factor by taking into consideration the number of potential viewers at a given observation point. Viewpoints offering views to high numbers of viewers (particularly where the viewpoint is a scenic overlook or identified vista) can raise the overall assessment. The remainder of this subsection discusses viewer types likely to experience views of the project. Descriptions of specific key views are provided in Subsection 4.1.1.5, further below.

Residential Viewers

As noted above, residential viewers may experience frequent and long-term views to a specific locale, are often emotionally invested in those views, and generally have a desire for existing conditions to continue. These considerations result in an expectation that generally they are highly sensitive to changes occurring in the project viewshed, particularly where these viewers are in proximity to a site and have open views to it. Due to the partially- to fully-screened nature of views toward the project site

due to intervening topography, vegetation, and/or distance, some residential viewers are expected to have moderate to low sensitivity.

a) Foreground Views

The nearest residence expected to have views of the project site in the City of Del Mar is located approximately 330 feet to the east at 103 Via de la Valle (under construction at the time of EIR preparation). Although there is some intervening landscaping, views toward the residence from Camino del Mar indicate that views are possible to the project site from that residence, although some current blockage from specific locales within the property occur due to intervening landscaping (including landscaping within the railway corridor and along the eastern boundary of the project site). Approximately eight homes located east of this residence (and south of Via de la Valle) also may have views to the project site from west-facing windows on the second story of homes. It is noted; however, that these private views also may be partially obstructed or blocked by intervening landscaping (they are not visible from the ground level on Camino del Mar looking easterly). Residences are also located south of the mouth of the San Dieguito River. Residences within the gated Sandy Lane development west of Camino del Mar are located as close as 600 feet from the southern portion of the Preserve below the bluff, with homes sited approximately 50 feet or lower in elevation than the mesa-top portions of the project site. Generally, the residences are constructed close to one another and have narrow side yards. Due to the close proximity of neighbors to the north and south, valued views from the majority of residences in the Sandy Lane development tend to be to the west and more directly toward the Pacific Ocean and northern views toward the project site are limited. With the exception of the northernmost residences in the Sandy Lane development, northward views towards the project site may be regularly blocked from residences by intervening development and landscaping located on adjacent properties in the foreground.

Views to the project site are also available from residential properties east of Camino del Mar. With the exception of two- or three-story multi-family residential development with available and unimpeded northerly views of the project site, the project site is screened from view from the majority of homes due to intervening residential development, private yard landscaping, and street trees along Camino del Mar located in the foreground and middle ground.

The nearest residential viewers in Solana Beach are located immediately north of the project site and experience foreground views from the southern windows at the private Del Mar Beach Club. These viewers look onto the City of Del Mar coastal beach view access easement and the northern portions of the project site. When heavily vegetated (as under current conditions), views to the south are likely to be blocked at ground level. With vegetation management, views from ground level are still somewhat blocked by individual patio enclosure landscaping and privacy walls sited between the project parcels and the residences. Views to the property from second stories are open, and allow for views of disturbed vegetation and ornamental trees planted on the project site. Other residences in the central and northern areas of the Del Mar Beach Club experience partially- to fully-screened southerly views, including those of the project site. Due to the Del Mar Beach Club's proximity to the project site, the project site is obscured from the majority of residential development to the north of the Del Mar Beach Club and along the western side of South Sierra Avenue further north in the City of Solana Beach.

b) Middle Ground Views

The topography of southern Solana Beach rises to the east and northeast away from the project site and creates a noticeable hill to the north of Via de la Valle and west of Stevens Avenue. South Nardo Avenue

(approximately 0.6 mile from the project site) somewhat functions as a "ridgeline" to this hill and several residential developments to the west and southwest of Nardo Avenue (i.e., closer to the project site) have elevated and relatively unimpaired views to the Pacific Ocean and the project site. For example, homes constructed off West Solana Circle are oriented to the west and sited at elevations of 150 to 170 feet amsl. The residences are located within 0.4 mile of the north portion of the project site, which is approximately 70 to 90 feet lower in elevation, and in the visible middle ground. From these elevated vantage points, clear views to the project site are available. Terrain falls to the west of West Solana Circle and therefore, homes to the west are located below the line of sight to the project site. Lastly, middle ground views to the project site are available to some homes constructed atop hilly terrain off Sea Turf Circle, Shoemaker Court, and Cofair Court in Solana Beach.

c) Background Views

South of Coast Boulevard, the local topography rises and the landform east of Camino del Mar consists of a locally prominent hill. Residential development climbs the west-facing slope of the hill and private residential lots can have sweeping views to the north, west, and southwest, including distant views of the proposed project site. Hillside homes with elevated and relatively clear views to the site are located within 0.65 mile of the project site. While visible from these elevated residences, the project site is generally located in the background of the visible landscape. As a result, site details are somewhat muted and difficult to detect.

Views to the project site from the southeast generally extend to the southern extent of the Lagoon and to homes located along Racetrack View Drive, located in the City of San Diego. From these residences, the site is located in the background of available views (being approximately one mile or farther distant), and tall and mature Torrey Pines somewhat obscure longer views to the northwest. Site details are additionally muted and difficult to detect.

Also in the City of San Diego but east of I-5, views onto the project site are somewhat limited due to distance but extend to homes lining the San Dieguito River Valley, which includes low-lying areas near the Lagoon and the San Dieguito River. For example, homes off Ocean Vista Road, High Bluff Drive, and Landfair Road are constructed on elevated, ridgetop terrain overlooking the river valley. Views from private yards and High Bluff Drive are expansive and include the river valley, I-5 corridor, Lagoon, Del Mar Fairgrounds, project site, and Pacific Ocean. Although situated at elevations between 300 and 315 feet (the highest point on the project site is 93 feet amsl), and therefore with potentially open views, these homes are located over two miles from the project site, and detailed views into the site are unavailable. As El Camino Real descends the elevated terrain of the Del Mar Highlands area and enters the San Dieguito River Valley, development disappears from the foreground to the west. Westerly views towards I-5 and the coast consist of an undeveloped river valley. Homes to the east of El Camino Real have views that extend to the project site, again located approximately two miles away. Background views to the site from each of these areas would therefore encompass many other visual elements between the two locales and be somewhat extensive in nature, so that the project site would comprise only an aspect, rather than the focus, of the view. As viewed from each of these areas east of I-5, the project site is located in the background of the visible landscape and details are somewhat muted and difficult to detect.

Vehicular Viewers

Vehicular viewers would have views to the site from a number of public roads in the area, including I-5, Camino del Mar, Via de la Valle, Jimmy Durante Boulevard, and local roads, as described below.

a) Interstate 5

I-5, which is located 1.2 miles to the east, provides opportunity for views extending to the west across the San Dieguito River Valley toward the project site. Such views are available for an approximately 1.2-mile-long segment of northbound I-5 as it descends the elevated terrain located north of Del Mar Heights Road, traverses the river valley, and approaches Via de la Valle. North of the San Dieguito River span, long westward views from I-5 are significantly shortened in length by the presence of Del Mar Fairgrounds buildings in the middle ground; and later, by hotel development and landscaping in the foreground. Southbound views do not look to the site due to intervening topography and freeway landscaping on the descent into the valley. Outside of peak hours, prevailing travel speed is approximately 65 to 70 miles per hour (travel speeds are substantially reduced during morning and evening peak hours). While the project site is located in the background of the available view, the mesa and dense grouping of mature trees can be distinct in westerly views across the San Dieguito River Valley and beyond Del Mar Fairgrounds development. Assuming a prevailing travel speed of 65 miles per hour (mph), views to the project site are available for approximately 66 seconds over the 1.2-mile segment of I-5 located within the project viewshed. Of the westerly view available to motorists and passengers, the project site comprises a small percentage, and the foreground river valley landscape tends to dominant the visual environment. As a result, motorists and passengers are often visually attracted to the elements in the foreground as opposed to elements in the background (including the project site). Lastly, interstate motorists and motorists in general tend to focus on the road instead of fixating on specific points or features in the landscape.

Due to the factors discussed above, the exposure of interstate motorists and passengers is moderate and sensitivity is reduced the distant location of the project site in the available view and competing elements of interest in the foreground and middle ground (i.e., fairgrounds buildings) of the interstate.

b) Camino del Mar

Camino del Mar is the major north-south route through the City of Del Mar. North of the Lagoon, the two-lane divided road features parallel and diagonal street parking and a bike lane adjacent to the southbound travel lane, and bike lane and parallel street parking also available going northbound. The eastern boundary of the project site is within 20 feet of Camino del Mar, which descends approximately 45 feet in elevation from Via de la Valle south to the vicinity of North Beach and the Lagoon crossing. Existing ADT on Camino del Mar between Via de la Valle and 27th Street averages about 15,300 vehicles per day in both directions (LLG 2019). There is a posted speed limit of 30 mph near the project site.

The project site is visible to northbound and southbound motorists on Camino del Mar. On the northbound approach, the project site is briefly visible at the Camino del Mar/Jimmy Durante Boulevard intersection. Specifically, the background bluff top (located 0.90 mile away) is noticeable over an approximately 370-foot long segment of the road. Along this stretch, views are available for approximately eight seconds assuming a travel speed of 30 mph. Beyond this segment, the project site is abruptly obscured from view as the elevation of the road descends and homes and trees shorten the length of available northerly views. The slopes along the eastern project boundary are visible from the vicinity of 25th Street (approximately 0.6 mile away) and a larger portion of southernmost area of the

project site is visible to motorists near the San Dieguito River. From the bridge north, the project site is visible in foreground views to northbound travelers on Camino del Mar for approximately 0.4 mile. Assuming a travel speed of 30 mph, views are available for approximately 50 seconds. While views are available, it is noted that the San Dieguito River, San Dieguito Lagoon, Del Mar Fairgrounds, and the Pacific Ocean, all compete with the project site for the viewers' attention. In addition, as Camino del Mar climbs in elevation north of the bridge that spans the Lagoon, a line of 12 mature trees installed in the Camino del Mar median briefly obscures views to the project site, and the proximity and elevation of the bluff landform obscures the central, northern, and western portions of the project site from view. Near the Brigantine restaurant, median plantings are no longer present, but a dense line of cypress trees along the eastern site boundary and motorists along Camino del Mar limit clear views to the interior of the project site from northbound Camino del Mar. The combination of this low exposure with the potential for more sustained exposure of the project parcels when traveling north along Camino del Mar results in a moderate level of exposure for northbound travelers. Sensitivity is equally moderate, as there are many competing elements in the view.

The northeastern corner of the project site is visible to southbound motorists as Highway 101 in the City of Solana Beach ends at Via de la Valle and becomes Camino del Mar as it crosses into the City of Del Mar. South of the intersection, the previously noted line of mature cypress trees along the eastern project site boundary screens the interior of the project site for Camino del Mar motorists. Due to proximity to the project site, westward views from southbound Camino del Mar fully encompass the steep east-facing slopes of the bluff landform and views beyond the elevated eastern edge of the project site are not available. The southbound travel lane of Camino del Mar parallels the project site for approximately 0.20 mile and motorists are within the site viewshed for approximately 24 seconds (assuming a travel speed of 30 mph). Views to the project site generally consist of steep-sloped terrain and the crowns of mature trees near the eastern boundary of the bluff.

North of Via de la Valle, Camino del Mar becomes Highway 101 and continues north through the coastal cities of Solana Beach followed by the City of Encinitas. While the project site is outside of the normal field of vision of northbound motorists as they pass through the Highway 101/Via de la Valle intersection, the site is briefly visible (i.e., for approximately four seconds assuming a 30 mph travel speed) to southbound Highway 101 motorists. South of Dahlia Drive and on the approach to Via de la Valle, the presence of one- and two-story commercial, hotel, civic, and office development, as well as street trees located west of the road, screen the project site from southbound Highway 101 motorists. At the Highway 101/Via de la Valle intersection; however, it is noted that the northern portion of the project site is visible to the first three to four cars queued in the three southbound travel lanes available westward views consist of steep sloped terrain and the crowns of mature trees atop the eastern boundary of the bluff. Due to generally low exposure of the project site combined with the opportunity for more sustained exposure for a small number of viewers (the first three to four vehicles queued at the intersection), exposure is moderate to low for southbound travelers. Sensitivity is considered low for southbound travelers, as there are many competing elements in the view and, with the exception of the Camino del Mar/Via de la Valle intersection, the project site is generally outside of the normal field of view, as it is either directly west of, or behind southbound motorists as they travel along Camino del Mar.

c) Via de la Valle

Via de la Valle is a major east-west access corridor connecting southern Solana Beach and northern Del Mar to I-5. At its intersection with Highway 101, Via de la Valle is situated at an approximate elevation of

60 feet amsl, approximately two to three feet lower than the northeast corner of the project site located approximately 150 feet away. Existing ADT on Via de la Valle near the project and east of South Cedros Avenue averages about 18,800 vehicles per day in both directions (LLG 2019).

Due to the characteristics of local terrain, the project site is largely screened from westbound Via de la Valle east of Solana Circle. West of Solana Circle (approximately 0.28 mile east of the project site) mature trees and a sliver of previously disturbed lands in the northern portion of the project site are generally visible in the middle ground. As measured from Solana Circle to the west, these features of the project site remain visible for approximately 24 seconds assuming a 40 mph travel speed. Due to the narrow view available through the Via de la Valle corridor, private yard landscaping tends to attract the attention of westbound viewers on Via de la Valle. In addition, due to the screening effects of landscaping in the foreground, the visible sliver of the northern portion of the project site represents a small percentage of the available view. Further, with the exception of an approximately 175-foot long segment of Via de la Valle between the bridge span over railroad tracks and Highway 101, the central and southern portions of the project site are screened from view of westbound motorists by mature landscape trees and residential development in the foreground of the viewshed. At the bridge span, available views to the west encompass the road corridor and the rising terrain of the northern portion of the project site. At the bridge, views to the southwest include views through the Brigantine restaurant parking lot and Camino del Mar to existing trees on the southern portion of the project site in the middle ground. The cluster of cypress trees along the project site's eastern boundary are also noticeable and partially block the central portion of the project site from view. Exposure to views of the project site is increased when cars begin to queue at the Via de la Valle/Highway 101 intersection, such as during a red light event. At the intersection, the project site is located in the foreground and while partially screened from view by trees planted along the eastern boundary, the site occupies a substantial portion of the visible landscape to the west. Eastbound motorists on Via de la Valle are not provided views to the site as the project site is located directly behind them.

Excluding the potential to be stopped at the Via de la Valle intersection with Camino del Mar, travelers generally have relatively low exposure – much of the road (east of Solana Circle) does not have views, and eastbound travelers have the project site at their back, and therefore do not have views toward the project site. The combination of this low exposure with the potential for more sustained exposure when stopped at the northeast corner of the project parcels results in a moderate level of exposure. Sensitivity is equally moderate, and many of the viewers may be locals with frequent views of the site, although viewers on this primary roadway may be passing through with no expectations.

d) Jimmy Durante Boulevard

Jimmy Durante Boulevard is a primarily north-south corridor that generally parallels Camino del Mar before extending east over the San Dieguito River and along the eastern perimeter of the Del Mar Fairgrounds. Near its confluence with Camino del Mar, Jimmy Durante Boulevard is situated at an approximate elevation of 55 feet amsl. North of this point and as the northbound travel lane approaches a bridge over the San Dieguito River, the elevation of the road gradually decreases and ultimately reaches a low point of approximately 8 feet amsl at the intersection with San Dieguito Drive. Jimmy Durante Boulevard is a two-lane road with a raised median and sidewalk paralleling the northbound lane between Camino del Mar and the bridge over the San Dieguito River. North of the bridge, the road expands to four lanes, includes sidewalks adjacent to north- and southbound travel lanes and has a wide (approximately 20 feet) painted median. Based on 2018 traffic counts conducted by the City of Del Mar, the average number of vehicles per hour on northbound Jimmy Durante Boulevard (238 trips per hour)

as measured at the bridge is noticeably greater than the average number of vehicles per hour on southbound Jimmy Durante Boulevard (137 trips per hour) at the bridge (City 2018a).

Limited background views to the project site are available to northbound Jimmy Durante Boulevard motorists at and near the confluence with Camino del Mar and at the bridge crossing the Lagoon. With the exception of at the river crossing, southbound motorists are not provided views to the project site. Near Camino del Mar as the road descends into the San Dieguito River Valley, the crowns of tall trees on the project site are somewhat detectable in the background but not overly distinct in the available northward view. Partially obscured background views to the project site are available for approximately nine seconds over a distance of 400 feet at 40 mph, and as experienced from this segment, vegetation on the project site occupies an extremely small portion of the view. North of this short segment, mature pine trees planted in the foreground median, and intervening middle ground development/landscaping to the northwest, block the project site from view. On the bridge crossing the Lagoon, the project site (located 0.60 mile away) is briefly visible (i.e., approximately seven seconds) in the background of the northwestern view. While visible, the bluff landform occupies a relatively small portion of the visible landscape; foreground elements, including the San Dieguito River and the distinct hall and grandstand buildings at the Del Mar Fairgrounds, tend to dominate the northwestward view. East of the river crossing, long, one- and two-story buildings (and eventually, the grandstand building) at the Del Mar Fairgrounds enter the foreground views and block the project site from view. Similar brief views to the project site lasting less than seven seconds are available to southbound motorists on the bridge span. As experienced from the southbound travel lane; however, the project site tends to be located in the viewers' peripheral view and then behind the viewer southwest of the San Dieguito River where the road turns more southerly. With the exception of the river crossing, southbound motorists do not have views to the project site.

e) Local Roads

In addition to the primary transportation corridors and routes listed above, the project site also is visible from a number of local roads in Del Mar, Solana Beach, and the City of San Diego. For example, partially screened views are available from westbound San Dieguito Drive and narrow roads on the west-facing slope of prominent terrain developed with single-family residences to the southeast. Roads to the north and northeast of the project site in Solana Beach (including Border Avenue and South Sierra Avenue) offer unobstructed foreground views to the northern and central portions of the project site. For example, Border Avenue parallels the northeastern portion of the project site for approximately 350 feet (with view duration of approximately eight seconds), during which the project site occupies a substantial portion of the available southward view. Border Avenue turns into South Sierra Avenue where it turns north and the road is aligned perpendicular to the site for approximately 0.80 mile. While visible from southbound South Sierra Avenue, the project site occupies a small percentage of the view and is generally indistinct north of Del Mar Shores Terrace (located 0.15 mile to the north). South of Del Mar Shores Terrace, the site is centrally located in the view and increasingly dominates the landscape as motorists approach Border Avenue. Motorists on Highway 101 and South Cedros Avenue, southbound Solana Circle (for approximately 140 feet) and East and West Solana Circle are also provided fleeting foreground and middle ground views to the project site that range from open and unencumbered to partially screened by intervening development and landscaping. Within the City of San Diego, High Bluff Drive and El Camino Real between approximately Derby Downs Road and the southern parking lot of the Harvest Evangelical Church (a distance of 0.60 mile) provide motorists longer distance (far edge of middle ground and background) views to the project site in which the site occupies a very small portion of the view. At its closest point, High Bluff Drive is situated at an elevation of approximately 330 feet

amsl and 2.1 miles to the southeast of the project site. El Camino Real (at its closest point) is situated at an elevation of 45 feet amsl and located approximately 1.8 miles to the southeast of the project site. Viewer exposure from local roads is considered moderate, based on areas with intervening development and distracting elements in the view combined with areas with open and unencumbered views to the project site. Sensitivity is considered low to moderate, based on multiple competing elements in the view and the fact that although the project site generally comprises a small percentage of the available views, it is dominant in views from some portions of local roads.

Recreational Viewers

The viewshed of the project site encompasses several recreational areas in the vicinity, including bluff areas, mesa top/coastal bluffs and overlook parks, beaches and open water, and trails. Also, Preserve trails and vista points include views of the coastal bluff and mesa top. The trails and westerly-oriented vista points are accessible via a set of existing stairs at North Beach and a long, paved pathway that climbs the east-facing escarpment from south to north. While the southernmost portion of the project site is visible to recreationists within the Preserve in the foreground and occupies a substantial portion of the visible landscape to the north, Preserve benches are generally oriented to the south and west towards the coastline and ocean. In addition, approach trails lead to an approximately 170-foot-long trail that parallels the western edge of the coastal bluff. Both the vista points and bluff top trail provide open and expansive views to the south and west, considered to comprise the most valued views from the Preserve. Recreationists at vista points and along the bluff top trail are transitory receptors but are assumed to have moderate to high sensitivity to changes to visual resources that make up the valued coastal and ocean views.

Located adjacent to the Preserve, north of the Lagoon, and west of Camino del Mar, North Beach is a popular beach for recreation (primarily volleyball) and dog owners.[1] Elevations on the northern triangle-shaped portion of North Beach bounded by the Preserve, the Lagoon, and Camino del Mar, range from approximately 6 to 10 feet amsl. Vista points and trails atop the Preserve are at an elevation of approximately 47 and 57 feet amsl. As such, foreground views in the southern portion of the project site and the south- and east-facing slopes of the underlying bluff are available to recreationists and dog owners at North Beach. Ocean views are generally located to the west/southwest, the coastal bluff is abrupt, and the primary purpose of recreationists and dog owners in visiting North Beach is assumed to be recreational activities. In addition, as these views are only available for the duration of the visit to North Beach, view exposure is considered temporary. Therefore, recreationists and dog owners at North Beach are considered to have low to moderate sensitivity to changes to visual resources at the project site.

Stretches of ocean to the west and southwest of the project site provide water-based recreationists (swimmers, surfers, stand-up paddle boarders, boaters etc.) primarily low-angle views to the western slope of the coastal bluff top underlying the project site. Landscaping along the western edge of the mesa top is visible to these receptors and the extent of views to the project site tends to widen with increased distance from the shoreline. Excluding the western edge of the coastal mesa top at the project site, foreground and middle ground views to the project site from the water are limited and temporary in nature. Expected to be focused on the ocean and immediate recreational activities, the sensitivity of these viewers to change in visual resources is assumed to be low to moderate.

[1] The City permits dogs to be leash free on beaches north of 29th Street between the day after Labor Day through June 15 and from dawn to 8:00 a.m. year-round.

Several trails in the vicinity of the project site provide trail-based recreationists opportunities to view the San Dieguito River and Lagoon, as well as the project site. Extending north from Jimmy Durante Boulevard near the San Dieguito River bridge, a public trail (the River Path) is situated atop the southern bank of the Lagoon and provides pedestrian access between Jimmy Durante Boulevard and Camino del Mar. The approximately 0.40-mile segment of the River Path located north of Jimmy Durante Boulevard (the path also extends south of the boulevard) provides pedestrians opportunities for relatively clear, temporary middle ground views to the east-facing slope, and existing landscaping and trees at the project site. In addition, the southern terminus of the Solana Beach Coastal Rail Trail provides opportunities for southbound pedestrians and runners to view the northern portion of the project site. The series of arches at the southern terminus of the Solana Beach Coastal Rail Trail is located approximately 170 feet to the northeast of the project site. This allows for relatively open foreground views to the northern portion of the project site, and the site occupies a relatively large portion of the available southerly view. View exposure and sensitivity of coastal rail trail users is considered temporary and low to moderate, respectively.

Lastly, the elevated project site is visible from trails abutting Lagoon areas; including the low-lying Coast to Crest Trail (west of I-5 the average elevation of the trail is approximately 9 feet amsl) and the Dust Devil Nature Trail (located east of I-5 and over one mile distant). The Coast to Crest Trail passes beneath I-5 and roughly parallels the northern bank of the San Dieguito River for approximately 0.75 mile to Jimmy Durante Boulevard. Due to its elevated location edging a prominent coastal bluff, the project site is visible above the Del Mar Fairgrounds buildings from portions of the trail. The Dust Devil Nature Trail is approximately 1.75 miles long and consists of three intersecting loops (North, East, and West) that provide views of the Lagoon east of I-5. A parking area is provided off of El Camino Real and the eastern extent of the North Loop Trail, from which recreationists can access the East and West Loops. While the project site topography is detectable across the Lagoon, I-5 and above Del Mar Fairgrounds buildings, it is located over 1.5 miles from the nearest trail segment and in the view background. As such, the distant project site is not a dominant feature in westward views available from the Dust Devil Nature Trail. At the southwesterly-oriented lookout point located at the westernmost extension of the West Loop trail, the project site is located approximately 1.6 miles to the northwest, also in the view background. Views from these trails are experienced during trail use, a temporary condition, by recreationists (walkers, hikers, and trail-runners) and users are considered to have moderate sensitivity to changes in the visual environment.

Located in the City of San Diego and paralleling High Bluff Drive, Overlook Park (over two miles southeast of the project site and east of I-5) is comprised of three irregularly shaped turf areas lined (and connected by) concrete paths. Overlook Park is bordered on the northwest by low and mounded flowering shrubs and wooden post and rail fence that is installed along the nearby bluff's edge. The turf areas and paths are situated at elevations ranging from 320 to 325 feet amsl and provide wide views to the north and northwest, across the San Dieguito River and to rising, developed and undeveloped terrain to the north of Via de la Valle, the Del Mar Fairgrounds, and the Pacific Ocean. While located over two miles away and in the view background, the project site is located at a lower elevation than Overlook Park and is visible. View exposure to recreationists at Overlook Park is temporary and viewers generally are considered to have moderate to high sensitivity to changes to resources that make up the existing view. The distance of the site from these viewers, and the fact that the project site comprises only part of an expansive view, however, minimizes the visual importance of project site specifics.

Leisure Viewers

The Del Mar Fairgrounds and nearby equestrian center are located approximately 630 feet to the east of the project site and are bounded by Via de la Valle to the north, Jimmy Durante Boulevard to the east, Jimmy Durante Boulevard and the San Dieguito River to the south and the Amtrak and North County Transit District (NCTD) Coaster rail corridor to the west. The terrain underlying the Del Mar Fairgrounds and equestrian center is generally flat and the average elevation across the 340-acre area is approximately 9 feet amsl. Managed and operated by the 22nd District Agricultural Association (22nd DAA), the Del Mar Fairgrounds and horse park host approximately 350 events each year. Events include those produced by the 22nd DAA (National Horse Show, San Diego County Fair, Scream Zone, and Surfside Race Place [off-track betting]) and events/activities produced by companies that rent or lease facilities including horse races from July to September and in November, as well as consumer, trade, and private events (Del Mar Fairgrounds 2018).

The project site is visible from the westerly paved portion of the Del Mar Fairgrounds, grandstands, track infield, and the driveway and parking lot. It is not anticipated that views from the parking lot would be sensitive. Viewers from these areas are expected to be focused on parking, avoiding other vehicles, and accessing activities within the fairgrounds. Visitors to the county fair, horse races, and other popular events are expected to generally be focused on activities occurring at or on the Del Mar Fairgrounds property. Although middle ground views to the project site are available from publicly accessible locations on the Del Mar Fairgrounds, such views also would be temporary during the time spent at the Del Mar Fairgrounds and as the viewer moves around them. As a result, these viewers are assessed as having low sensitivity to visual change occurring in the environment off fairgrounds property.

Commercial Viewers

Commercial groups provided views to the project site consist of nearby office employees, customers at the Brigantine restaurant, and customers of third-story shops and restaurants at the Del Mar Plaza. A three-story office building is located at the northwestern corner of the Highway 101/Via de la Valle intersection and approximately 70 feet north of the project site. As described above, views from this structure, including those to the project site, are partially obscured from view by mature pine trees located immediately south and east of the building. Employees are provided views to the project site as they travel on Via de la Valle and Border Avenue to access the building's surface parking lot (approximately 40 spaces are available). As a specific viewer group, office employees are considered to be primarily focused on work and to have a low to moderate sensitivity to visual change in the surrounding area.

The Brigantine restaurant is located west of Camino del Mar and approximately 130 feet from the project site. From the restaurant's parking lot adjacent to Camino del Mar, customers are provided westerly foreground views to the low, east-facing slope comprising the easternmost boundary of the project site. Foreground views are also available through windows on the west elevation of the restaurant building. These views are limited in number, however, and inside diners are likely to be more focused within the room than diners seated on the restaurant's outside patio. Foreground views to the project site are available from a small outdoor seating area constructed off the building's south elevation, but these views include the Del Mar Fairgrounds and Lagoon areas and thus the project site is not a focal features in the view. A garden area is located on the east side of the building, facing away from, and without views to, the project. Further, as customers are likely to be attracted to the wider and more diverse views to Fairgrounds or focused on their dining companions, foreground westerly views to

the project site are not considered to comprise particularly valued views by customers for purposes of this discussion. From the Brigantine restaurant, view exposure to the eastern portion of the project site is temporary and viewer sensitivity is considered low.

Rail User Viewers

North of the juncture of Camino del Mar and Jimmy Durante Boulevard, the AMTRAK and NCTD rail corridor roughly parallels Camino del Mar. Over an approximately 0.50-mile long segment of the track beginning at the San Dieguito River and continuing north, AMTRAK and NCTD riders are provided westerly views to the project site. At its closest point, rail track and riders are located within approximately 380 feet of the project site. Over the approximately 0.50-mile long segment of track within the project's viewshed, available views primarily encompass the east-facing slope and landscaping installed along the eastern edge of the mesa top. Due to generally high travel speeds and mobile nature of views from train cars, view exposure to rail users is brief. Viewer sensitivity for AMTRAK and NCTD Coaster commuters and leisure riders is therefore considered to be low to moderate.

4.1.1.5 Key Views

Because it is not feasible to analyze all the views in which the project would be visible, key views have been selected to depict the visual effects of the proposed project site. Although located in a specific location, key views are indicative of the types of views, and adjacent views, from the area surrounding the project site. They are representative because they depict the worst-case (e.g., closest) views, as well as those that are typical due to the greatest number of viewers (e.g., heavily-travelled roads or visited recreational areas), or the most typical types of locales (e.g., elevated views over the project due to increasing elevations). Key views represent the primary viewer groups that would potentially be affected by the proposed project and also help to illustrate the extents to which the project site can be seen from surrounding areas. The initial assessment of the extent of available views to the project site was conducted by performing a viewshed analysis (see Figure 4.1-2, *Project Viewshed*) based on the height of proposed project buildings and on- and off-site terrain to present a graphical representation of the extent of available views to and from the project site. Because the model is based solely on terrain and potential project structures, it does not take into account existing vegetation or off-site structures that could impede views to the project site. The viewshed analysis therefore represents a conservative estimate regarding the geographic extent of available views to the project site. Table 4.1-1, *Key View Distance Zones*, identifies the key view, distance to the project site, and whether the site would be in the foreground, middle ground, or background from that vantage point. The locations of the 13 key views are shown on Figure 4.1-3, *Key View Locations,* and existing images from these key views are shown on Figures 4.1-4a through 4.1-15a.[2]

[2] The simulated views of the proposed project are included as Figures 4.1-4b through 4.1-16b. While figures are typically numbered in succession as they are referenced in the EIR, the existing and simulated views are included next to each other to provide an easier comparison for the reader of the existing versus the proposed view.

Table 4.1-1
KEY VIEW DISTANCE ZONES

Key View	Distance to Project Site	Distance Zone (FG/MG/BG)*
Key View 1 – West Solana Circle (City of Solana Beach)	0.25 mile	MG
Key View 2 – South Sierra Avenue (City of Solana Beach)	130 feet	FG
Key View 3 – Via de la Valle at Highway 101	150 feet	FG
Key View 4 – Via de la Valle at South Cedros Avenue	450 feet	MG
Key View 5 – Del Mar Coastline Northwest of North Beach	120 feet	FG
Key View 6 – Camino del Mar (North of Lagoon Bridge)	230 feet	FG
Key View 7 – Camino del Mar (South of Lagoon Bridge)	0.25 mile	MG
Key View 8 – Del Mar Coastline South of North Beach	0.3 mile	MG
Key View 9 – Jimmy Durante Boulevard at San Dieguito River Bridge	0.65 mile	MG
Key View 10 – Balboa Avenue (City of Del Mar)	0.8 mile	BG
Key View 11 – Camino del Mar at Jimmy Durante Boulevard	0.9 mile	BG
Key View 12 – Del Mar Plaza Roof Deck	1.2 miles	BG
Key View 13 – James Scripps Bluff Preserve Trail	190 feet	FG

*FG = foreground, MG = middle ground, BG = background

Key View 1 (Figure 4.1-4a, *Existing Key View 1 - West Solana Circle [City of Solana Beach]*) is located in a residential area of Solana Beach on West Solana Circle, near Solana Circle. The project site is visible in the middle ground approximately 0.25 mile from Key View 1. Further, a view corridor is identified in Exhibit 4 of the Solana Beach General Plan consisting of westerly, northwesterly, and southwesterly views from West Solana Circle (City of Solana Beach 1988). As shown, views from Key View 1 are expansive to the south and west toward the project site and the Pacific Ocean. Key View 1 is representative of views to the project site available to nearby City of Solana Beach residents and motorists located atop prominent terrain. From Key View 1, the eastern boundary of the project site is visible in the middle ground approximately 0.25 mile away. Key View 1 is situated at an elevation of approximately 165 feet amsl, about 100 to 115 feet higher than the coastal terrace at the project site, and as such, panoramic coastal and ocean views, including portions of the site, as well as views of the ocean and Lagoon are available from this key view and along West Solana Circle. For example, at Key View 1, “blue water” ocean views are currently available to local motorists and residents on West Solana Circle. From here the elevated bluff underlying the project site is evident due to the proximity of lower elevation land (e.g., North Beach) to the south. From this vantage point, the project site appears as an elevated coastal bluff with steep and vegetated southeasterly facing slopes and dense landscaping (primarily mature trees planted as landscaping) on the southern portion of the project site in the middle ground of the view.

As shown in Key View 1 (Figure 4.1-4a), the elevated vantage point available at Key View 1 provides motorists and a limited number (approximately 10) residences broad views that extend to the distant western horizon above the Pacific Ocean. Motorists traveling at 25 mph along West Solana Circle are afforded views to the coast and project site for an approximately 0.25-mile stretch. Therefore, views available to motorists along this portion of West Solana Circle are available for approximately 36 seconds, at which point southbound West Solana Circle turns to the east and joins East Solana Circle. Exhibit 4 of the Solana Beach General Plan identifies the hilltop area near Key View 1 as a view corridor within the City of Solana Beach. At Key View 1, views extend beyond the sloped, grey and reddish tiled roofs of nearby multi-family housing and the flat, white-topped roofs of office and residential

development in Solana Beach, to the southwest and west towards North Beach (obscured by tall palm trees), and to the project site. From Key View 1, the project site appears as an elevated topographic feature with steep and vegetated southeasterly facing slopes and dense to clumped landscaping (primarily mature trees) on the southern portion in the middle ground of the view. While partially obscured by tall and spreading residential landscaping located east of Highway 101 and in the middle ground, the northern portion of the site gently climbs to the west and is covered by low golden grasses.

Key View 2 (Figure 4.1-5a, *Existing Key View 2 - South Sierra Avenue [City of Solana Beach]*) is located in Solana Beach on South Sierra Avenue, approximately 130 feet north of the project site, and looks to the south toward the project site in the foreground. Key View 2 is representative of views of the project site available to Solana Beach residents and motorists headed southbound on South Sierra Drive. Additionally, the entrance to an existing coastal access easement is located at the northern extent of the project site and stretches along the property line west of Border Avenue. This viewpoint is also representative of views afforded to recreationists at Key View 2. The northern portion of the project site and Key View 2 are located at a similar elevation; however, the project site gently climbs to the west and is covered by low grasses, shrubs, mature trees and patches of the unvegetated land. A visually dense row of mature trees (including cedar and pines) crosses the project site from east to west and screens the southern portion of the site from view. A chain link fence separates the site from the road, creating thin and greyish horizontal and vertical lines at site edge. The hazy silhouette of densely vegetated prominent terrain in the City is visible to the southeast beyond the project site. Lastly, due to the location and orientation of Key View 2 and the presence of street trees and two-story residential development to the west of South Sierra Avenue, ocean views and views onto the Preserve and North Beach are not available from this key view. Note that Key View 2 does not represent the westerly views available in the City of Solana Beach view corridor discussed under Key View 1, as Key View 2 looks directly south onto the project site.

Key View 3 (Figure 4.1-6a, *Existing Key View 3 - Via de la Valle at Highway 101*) is located at the northeastern corner of the Via de la Valle/Highway 101 intersection and looks southwest across the intersection toward the project site in the foreground. It is representative of view accessibility and blockage provided by locales in close proximity to the project. Located approximately 150 feet away and at an approximate elevation of 62 feet amsl, the recently mowed (at the time of the photo), tan-colored surface of the northern portion of the project site is visible through a 5 to 6-foot high chain-link fence. The east–west slope across the northern portion of the site is evident, as are dense and spreading trees along the site's eastern boundary. This row of trees limits the availability of views to the project site from locations to the east, such as the Brigantine restaurant and some residences located south of Via de la Valle in the Boca Del Mar development. Key View 3 is focused on the project site and located in proximity such that existing structures and land uses to the north and east are not visible in the image. The southern portion of the site is hidden from view due to perimeter and interior trees and a local distribution utility line supported by wood poles is visible as it crosses the project site from east to west. Ocean views and views onto the Preserve are not available from Key View 3.

Key View 4 (Figure 4.1-7a, *Existing Key View 4 - Via de la Valle at South Cedros Avenue*) is located on Via de la Valle approximately 300 feet east of Key View 3 and 450 feet east of the project site. This key view looks west across wide east- and westbound travel lanes and an undivided median toward the Via de la Valle/Highway 101 intersection and the northern portion of the project site. The site is visible in the middle ground from Key View 4, which is representative of views afforded to motorists traveling westward on Via de la Valle. The Via de la Valle corridor is flanked by tropical residential landscaping and street trees, power and telecom lines, tall streetlights, and wooden support poles. Residential

development, including the boxy white exteriors of residences in the Boca Del Mar development, is also located north and south of the road. With the exception of the low and tan-colored grasses and soils of the gently climbing northern portion, the project site is largely blocked from view by residential landscaping on the south side of Via de la Valle.

Key View 5 (Figure 4.1-8a, *Existing Key View 5 - Del Mar Coastline Northwest of North Beach*) is located west of North Beach and looks toward the broad and striated western face of the bluff that underlies the project site. The bluff is located in the foreground from this key view, sited approximately 120 feet from the prominent bluff terrain. Key View 5 is representative of views to the project site available to beachgoers and others engaged in water-based activities to the immediate west. Views to the bluff face are limited to the westernmost edge of the site that currently supports a low, wood-post and chain fence and chain-link fencing. Instead, viewers are provided views of a sandy beach that transitions to clusters of rocky outcrops and the sheer, striated, and granular western face of the ocean bluff. With the exception of mesa top fencing and signage above the key view, no existing on-site development or trees are visible from Key View 5.

Key View 6 (Figure 4.1-9a, *Existing Key View 6 - Camino del Mar North of Lagoon Bridge*) is located on Camino del Mar/Highway 101, approximately 230 feet from the top of the mesa, with the project site in the foreground. Camino del Mar is designated as a scenic corridor by the City of Del Mar and Del Mar's Community Plan specifically identifies ocean and lagoon views as scenic views available from the road (City 1985).

Viewers are at an approximate elevation of 16 feet amsl, approximately 49 to 64 feet lower than the mesa top. Key View 6 is representative of views of the project site afforded to motorists, cyclists and pedestrians traveling on Highway 101. Public beach parking and coastal access is available near Key View 6, and therefore, beachgoers are afforded similar views of the site when arriving or departing the beach. The project site is characterized by a relatively steep east-facing slope covered with low, grey-to-green mounded vegetation separated by expanses of unvegetated sandy soil. The faint horizontal line of a black chain-link fence is visible along the site's eastern extent and moderate-to-tall, dark green, and spreading trees rise from the flat mesa top. The reddish tan color and angular lines of a gate and residential structure on the project site are barely visible. Small rectangular white signs are installed along the fence, which interrupt the otherwise generally consistent green of the mesa top vegetation. Low, greyish green vegetation and scant trees are visible in the Camino del Mar median, as are cars parked along the southbound travel lane of the road.

Key View 7 (Figure 4.1-10a, *Existing Key View 7 - Camino del Mar South of Lagoon Bridge*) is located on Camino del Mar, just south of the Lagoon bridge, approximately 0.25 mile southeast of the project site and in the middle ground of views toward the site. Situated at an approximate elevation of 14 feet amsl, Key View 7 looks to the north-northwest along the divided travel lanes of Camino del Mar toward the project site, situated at approximately 64 feet amsl. As noted above, this road is designated a City of Del Mar scenic corridor, based on ocean and Lagoon views available from the road. Key View 7 is representative of views available to motorists and cyclists traveling northbound on Camino del Mar, private residences located immediately west of Key View 7 in the City of Del Mar, and beachgoers and recreationalists on the trails that line the Lagoon (e.g., the San Dieguito River Valley Coast to Crest Trail and the River Path Del Mar). The low horizontal and vertical lines created by the road, bridge fencing and railing draw the viewer's attention along the Camino del Mar corridor to a focal point to the north, comprised of the coastal bluff underlying the project site. Visual focus tends to be directed toward the activity of cars and cyclists on Camino del Mar, but then transitions to the tan-to-brown colored slopes,

trapezoidal form, and dense, dark green vegetation (on top) of the prominent bluff. Although partially obscured, ocean views are available to the northwest, and the lifeguard tower and the surface of North Beach within the project site are also visible. As viewers travel north on Camino del Mar, ocean views to the west become wider and more prominent as the road spans the Lagoon. Estuarine habitat consisting of wetlands, sandy shores and low grasses and shrubs is visible east of the road. Visible development is largely screened by vegetation and limited to the grayish exterior and angular lines of the Brigantine seafood restaurant and boxy, lightly colored exterior of partially obscured structures to the north and northeast. Fencing and a gate installed on the bluff top is difficult to detect from this key view, and the existing residence on the project site is blocked from view by dense clusters of mature trees and other vegetation.

Key View 8 (Figure 4.1-11a, *Existing Key View 8 - Del Mar Coastline South of North Beach*) is situated approximately 0.30 mile from the project site, south of North Beach and the mouth of the San Dieguito River. The project site is visible in the middle ground from Key View 8, and is representative of views available to beachgoers (local beach access is provided to the public off of Camino del Mar at 29th Street) and nearby beach residents located west of Camino del Mar. The view looks north across coastal waters and the sandy coastline of North Beach in the foreground to the prominent southern and western bluff faces underlying the project site. The horizontal and vertical lines and light exterior colors of single-family residences to the immediate east of Key View 8 are visible. The lightly colored North Beach lifeguard tower is visible on the sand against a backdrop of the southeastern bluff face. The south- and southeast-facing slopes of the coastal bluff are covered with primarily dry grasses and vegetation ranging from light to dark brown and dark green. An existing bluff access trail forms a faint, diagonal line across the southeastern bluff face that climbs the slope from west to east. The west-facing slope has exposed tan and gold sandy soils with horizontal striated lines and jagged crevices that cast dark shadows on the lower half of the bluff face, and slanted vertical lines from the top of the bluff with occasional patches of brown, dry vegetation on the upper half of the bluff face. The existing structure set back from the bluffs is not visible from Key View 8; dense clusters of dark green, tall trees form soft, rounded lines atop the bluff.

Key View 9 (Figure 4.1-12a, *Existing Key View 9 - Jimmy Durante Boulevard at San Dieguito River Bridge*) is located on Jimmy Durante Boulevard at the San Dieguito River crossing. As opposed to a view from the road in which the concrete walls and parallel metal railing of the bridge walls would be visible, Key View 9 approximates westerly views from the bridge available to pedestrians and hikers/walkers along the nearby River Path Del Mar trail. Located approximately 0.65 mile from the project site, Key View 9 looks to the northwest across the San Dieguito River, beyond the buildings at the Del Mar Fairgrounds to the brownish stippled, east-facing slope and flat mesa top of the project site in the middle ground. From Key View 9, foreground views are dominated by the bluish waters and vegetated banks of the San Dieguito River; long, tan buildings topped with pitched, red, metallic roofs of the Del Mar Fairground structures located north of the river and the taller, tan, and red-roof Del Mar Fairgrounds grandstand building to the north. The northern extent of a bridge that supports the railroad tracks is visible as it spans the river. The numerous dark support beams and flat, horizontal deck of the bridge create dark horizontal and vertical lines in the view. In the middle ground, mottled brown vegetation is visible on the east facing slopes of the bluff and dense clusters of trees are visible atop the bluff. The lightly colored roof and rectangular form of the existing structure on the project site are visible from Key View 9, but additional details are indistinct due to distance. With the exception of this element of development, vegetation is most notable on the mesa top.

Key View 10 (Figure 4.1-13a, *Existing Key View 10 - Balboa Avenue [City of Del Mar]*) is located approximately 0.80-mile to the southeast of the project site in a hilly, residential neighborhood of the City of Del Mar. Key View 10 is representative of the expansive, panoramic views of the Pacific Ocean and coastline available from elevated vantage points in the residential hills of Del Mar. The project site is visible in the background. The view encompasses adjacent residential development in the foreground, undeveloped land located south of the San Dieguito River and east of the railroad line, and single- and multi-family development, and residential landscaping located west of the railroad line. In addition, the western extent of the Del Mar Fairgrounds, North Beach, the Preserve, the ocean, and the southern and eastern bluffs and mesa top of the project site are visible from this key view. Existing structures located on the southern parcel of the project site are visible as slivers of light colors and angular lines. Existing on-site trees obscure existing structures and available views are intermittent, and structures are not visually prominent. Visible development tends to display boxy and rectangular forms and grayish tones as viewed from Key View 10 and lots routinely incorporate moderate to dense site landscaping that effectively obscures elements of development from view.

Key View 11 (Figure 4.1-14a, *Key View 11 - Camino del Mar at Jimmy Durante Boulevard*) is located on Camino del Mar, near the Jimmy Durante Boulevard split and Luzon Avenue. Situated approximately 0.90 mile south of the project site, Key View 11 looks to the north along the northbound travel lane of Camino del Mar to the partially screened edge of the southeastern bluff below the project site. This key view includes hilly terrain and the project is in the background. This key view is representative of northerly views experienced by motorists at the apex (and therefore most open view) toward the project parcel from two well-traveled roads in the area (Camino del Mar and Jimmy Durante Boulevard). Plants along the Camino del Mar corridor and foreground vegetation to the north partially block views to the south-facing slope of the project site, and views onto the Preserve and North Beach are not available. Architectural details of the existing on-site structure are indistinct, and the view is also interrupted and partially concealed by existing site landscaping. The hilly terrain to the north in Solana Beach is densely developed with residential structures, and the whitish to tan tones of building exteriors are notable. While discontinuous due to the presence of mature, spreading vegetation along the Camino del Mar corridor, distant views of the horizon over the ocean are available to the northwest.

Key View 12 (Figure 4.1-15a, *Existing Key View 12 – Del Mar Plaza Roof Deck*) is located at the rooftop dining and seating area within the Del Mar Plaza shopping mall, approximately 1.2 miles from the project site, and looks to the north along Camino del Mar and into Solana Beach. Key View 12 is representative of views from elevated commercial areas (higher than Camino del Mar) where viewers may linger to look toward water and northerly to the project area. The project site is visible in the background. Restaurant furniture, travel lanes, and median and streetscape plantings occupy immediate foreground views. Streetscape plantings, including tall and spreading pine trees and dense ficus trees (*Ficus* sp.), conceal residential and resort development located to the northwest of Del Mar Plaza from Key View 12. The ocean, and tan and gold colors on the south-facing slope of the project site bluff, are visible. Faint, light-colored lines associated with the existing structures located on site also are detectable. Due to distance, however, existing site uses are indistinct and not visually prominent.

Key View 13 (Figure 4.1-16a, *Existing Key View 13 – James Scripps Bluff Preserve*) is located approximately 190 feet south of the project site within the Preserve, atop the same mesa as the project site. This area is comprised of the southern extent of the mesa top with low-lying coastal vegetation and a small trail system where visitors are afforded panoramic views of the Pacific Ocean to the west. Key View 13 looks north toward the project site along a bluff-top trail (see Figure 4.1-16a), and is representative of views of the site afforded to recreationists visiting the Preserve. The project site is

visible in the foreground, beyond two parallel sandy, dirt trails, a vista point and surrounding low lying coastal shrub habitat. A low wood-post and chain fence is installed along the westernmost edge of the bluff, and a meandering, black chain-link fence chain continues along the bluff edge as it forms the western boundary of the existing on-site residential property. Chain-link fencing with barbed wire and periodic small, white, rectangular signs separate the southern edge of the residential property from the Preserve area. Existing vegetation and landscaping within the residential property is prominently visible. Vegetation consisting of dense clusters of various shrubs, and tall and mature pine (*Pinus* sp.), cypress (*Cupressus* sp.), and ficus trees (*Ficus* sp.) effectively conceal the existing residence, apart from small portions of the sandy-beige colored roof tiles and stone chimney. The Pacific Ocean and western face of the bluff are visible to the northwest. The viewers' attention is drawn to the expansive, panoramic views of the Pacific Ocean to the west.

4.1.2 Regulatory Setting

This section highlights regulations, ordinances, and policies applicable to aesthetics and visual resources for the reader's information. There are no federal regulations or policies pertaining to visual resources that are applicable to the project or project site. The project's consistency with state and local regulations, ordinances, and policies listed below is evaluated in Section 4.8, *Land Use*, of this EIR.

4.1.2.1 State

California Coastal Act

The California Coastal Act (CCA) contains resource planning and management policies applicable to lands within the Coastal Zone, which encompasses 100 percent of the project area and City of Del Mar. Management policies addressing aesthetics are applicable to the project and project site. "[S]cenic and visual qualities of coastal areas shall be considered and protected as a resource of public importance" (Public Resources Code [PRC] Division 20, Chapter 3, Article 6, Section 30251). In addition, it is noted that development "shall be sited and designed to protect views to and along the ocean and scenic coastal areas, to minimize the alteration of natural land forms, to be visually compatible with the character of surrounding areas and where feasible, to restore and enhance visual quality in visually degraded areas."

4.1.2.2 Local

Del Mar Community Plan

The City of Del Mar's Community Plan, also known as a General Plan, is its "constitution for development." The Community Plan includes multiple elements, including elements related to environmental management, transportation, community development, housing, and recreation. According to the Community Plan, Del Mar is characterized by scenic stretches of coastal beaches, picturesque sea cliffs, flat-topped coastal areas, steep mesa bluffs, broad level-floored stream valleys, and gently rolling hills (City 1985). The project site is located within Del Mar's North Bluff District. According to the Community Plan, the North Bluff District includes the four-acre Del Mar-owned natural Preserve, two residential estates, and a vacant parcel of land planned for modified low-density residential land use. Applicable policies of the Del Mar Community Plan related to visual resources and the character of development include the following:

- Limit building height to two stories in all residential areas, prohibit three-story façades, and encourage single story development in areas where two-story construction would be disruptive to neighborhood character and scale of development.

- Strengthen height controls to protect scenic vistas from both private and public areas. Construction in areas of view sensitivity should require design approval to ensure protection, in an equitable manner, or the right to view scenic vistas from both near and far.

- Encourage harmonious development which is in scale with the character of existing development.

On page 66 of the Community Plan, a figure titled "Community Development Plan" designates the Specific Plan Area as Very Low Density. The Community Plan includes the following General Criteria for the evaluation of future development within areas of bluffs, slopes, and canyons:

1. Encourage one story, wood frame construction in order to maximize the seismic resistance of structures, preserve views and preserve the open space appearance of the areas from a distance.

2. Protect steep slopes by prohibiting construction or grading within 20 feet of the top and ten [sic] feet of the bottom of substantial slopes exceeding 25 percent grade. No structures shall overhang such slopes or setbacks.

3. Harmonize construction and landscaping with the natural as well as the man-made environment and ensure that the protection of the natural values of the landscape take precedence over architectural values.

4. Require that future development not obstruct scenic views from public streets, roads, or pedestrian trails.

For non-residential area criteria, the following General Criteria are established:

1. Ensure that future development is sensitive to bluff, lagoon, and ocean views, and blends with the open character of the land.

2. Limit development to low intensity uses that maintain a low-profile character and are of low mass and lot coverage (10 to 20 percent).

The Community Plan also identifies six principal roads within Del Mar that are identified as scenic roadways. Views of the project site are not available from four of the roads due to distance, intervening topography and structures, or because views from these roadways are oriented to the west at the Pacific Ocean. Travelers along two roads have views of the project site, including Camino del Mar, which is identified as scenic due to views of the ocean and the coastline, and Jimmy Durante Boulevard which is noted as having scenic views of the San Dieguito River Valley. Views of the project area are available from Camino del Mar and Jimmy Durante Boulevard and existing views are represented by Key View 3 from Camino del Mar and from Key Views 9 and 11 for Jimmy Durante Boulevard (see Figures 4.1-6a and 4.1-12a and -14a, respectively, for existing views from these roadways towards the project site).

City of Del Mar Local Coastal Program Land Use Plan and Implementing Ordinances

The CCA requires each local jurisdiction along California's coastline to prepare a Local Coastal Program (LCP) for the portion of its areas within a specified Coastal Zone. As noted above, the entire City of Del Mar (including the project site) lies within the City of Del Mar's coastal zone boundary. The following general land use development goals and policies are applicable to the project site:

- **Policy II-1:** Maintain the existing small-scale character of the community and permit only one- and two-story, low intensity development with a maximum allowable height of 26 feet.

- **Policy II-2:** [E]nsure that future development, whether commercial or residential, retains the aesthetic quality of the community by protecting and preserving public views to the ocean and other significant natural resources; and by minimizing the disturbance of natural topography and vegetation.

- **Policy III-9a:** A minimum of 40 feet from the edge of the coastal bluff top shall be provided in the construction of all principal structures and all accessory structures.

- **Policy III-9e:** Native and other drought-tolerant plant species shall be utilized in all new bluff top construction projects so as to minimize irrigation requirements and to reduce potential slide hazards due to over watering of the bluffs.

- **Policy IV-22:** Enhance public improvements along appropriate bluff top areas which provide significant scenic vistas when such improvements are not in conflict with bluff preservation policies.

The project site is located in the City of Del Mar LCP Land Use Plan's Bluff, Slope and Canyon Overlay Zone. Applicable development review policies of that zone include the following:

- **Regulation E (1):** In order to preserve viewsheds and the open space appearance of the area from a distance, no structures shall exceed a height of 14 feet as measured pursuant to the provisions of the Del Mar Municipal Code unless it is found that scenic viewsheds and the open space appearance of the areas will be less affected by structures of a greater height.

- **Regulation E (2):** New development shall be sited and designed to minimize grading and alteration of natural topography and shall be subservient to and complement the natural topography of the area. Protection of the natural values of the surrounding topography and landscape shall take precedence over architectural values.

- **Regulation E (7):** No primary scenic views or scenic views from public streets or pedestrian trails shall be obstructed unless it is found that there is no feasible alternative siting which eliminates or significantly reduces the obstruction. In such cases, the bulk and scale of the proposed structure shall be minimized to the greatest extent feasible commensurate with preserving the physical characteristics of the site.

- **Regulation E (8):** In order to maximize and preserve natural open space, natural open space, natural landforms and view projects involving more than one dwelling unit on a lot shall be clustered on the flatter portions of the site, if determined to be practicable and desirable. "Clustering" in this context shall mean the siting of dwelling units in proximity to each other so

as to maximize the amount of undeveloped open space. A clustered project within this overlay zone may disregard existing interior lot line and is not bound to comply with the minimum lot size, width, depth and setback provision of the underlying Del Mar Zoning Ordinance. A suitable site plan showing the clustered proposal shall be submitted for subdivisions and multiple unit construction projects in this overlay zone.

Del Mar Municipal Code

According to the City of Del Mar Zoning Map (City 1988), the project site is located in the Coastal Bluff Overlay Zone. Allowable uses within the Coastal Bluff Overlay Zone include those allowed by the underlying zone. Regarding development within the overlay zone, "no building, improvement, structure, or portion thereof shall be erected, constructed, converted, established, altered or enlarged; nor shall any lot or premises be excavated or graded for any purpose including, but not limited to, in-ground structures such as swimming pools or spas; nor shall clearance of vegetation occur until both a Conditional Use Permit and a Coastal Development Permit are obtained from the Planning Commission" (City of Del Mar Municipal Code [DMMC] Section 30.55.070). A minimum 40-foot setback from the top edge of the coastal bluff is also established for development on lands within the Coastal Bluff Overlay Zone. Chapter 23.51, Trees, Scenic Views, and Sunlight addresses scenic views and potential for their loss/retention. This is discussed below under its own heading.

a) Design Review Ordinance

The City Design Review Ordinance requires new projects within the Plan area to obtain a Design Review Permit in accordance with DMMC Chapter 23.08. The purpose of the City of Del Mar's design review process is to achieve and protect a residential, seaside community which is both beautiful and pleasant in character, by fostering and encouraging good design which encompasses the use of harmonious materials and colors, compatible proportional relationships and appropriate use of landscaping, and to protect the citizens of the City of Del Mar. Policies address light and glare, as well as signs.

The City of Del Mar addresses lighting policies in the DMMC Chapter 23.08, Design Review Ordinance. Compliance with the ordinance ensures that new project lighting (associated with structures and signs) will not have substantial adverse effects. The ordinance requires exterior lighting to be functional, subtle, and architecturally integrated with the building's style, materials, and colors in DMMC Title 23, Section 23.08.077.K. It also requires signs to relate to their surroundings in terms of size, shape, color, texture, and lighting so that they are complementary to the overall design of the building and visually compatible with other approved conforming signs in the neighborhood.

Sign requirements are listed in Section 23.08.079. DMMC Section 23.09.010 provides the design review process to ensure that new signs will be in keeping with the small town, pedestrian-oriented character of the City.

b) Tree Ordinance

Chapter 23.50 specifically references the preservation of natural vegetation, including tree species. The code establishes that Monterey cypress (*Cupressus macrocarpa*), Torrey pine (*Pinus torreyana*) and all species of trees located within the Central Commercial zone and the environmentally sensitive Open Space Overlay zone are of particular significance to the City of Del Mar and should therefore be protected to conserve the environmental qualities of the City. Permits are required to cut, remove, destroy or move a protected tree.

Chapter 23.50 of the DMMC protects certain trees in the City of Del Mar. Relevant measures include:

- In the interest of the public health, safety and welfare, as well as general aesthetics of the community and the importance of the ecology of the area, the City of Del Mar finds it necessary to encourage conservation of trees and the application of management techniques to create a healthy, diverse urban forest, including but not limited to pruning, thinning, trimming, shaping, and selective planting and removal of trees and vegetation within the City of Del Mar on private as well as public property. [Ord. 749]

- The species Torrey pine, the species Monterey cypress, and all species of trees located within the Central Commercial zone and the environmentally sensitive Open Space Overlay Zone are of particular significance to the City and should therefore be protected to conserve the environmental qualities of the City.

c) Public Tree Policy Manual

Relevant to the ordinance, the City prepared a Public Tree Policy Manual in 2004 that provides specific technical regulations, standards, and specifications for public tree maintenance, tree removal/replacement/planning, hazard identification, tree protection during construction and standardizing arborists' reports. Trees species of particular concern include Torrey pines (*Pinus torreyana*) and Monterey cypress (*Cupressus macrocarpa*) although the manual indicates all trees within the Plan area are considered significant. A Tree Removal Permit is required to remove a Protected Tree, except in certain situations outlined in the DMMC Chapter 23.50.050. In the case of public trees, a separate Encroachment Permit from the City is also required (this statement does not apply to the City or its contractors). Through the Design Review process, trees are also required to be protected during construction to prevent tree loss.

d) Trees, Scenic Views, and Sunlight Ordinance

DMMC Chapter 23.51 acknowledges that scenic views of the Pacific Ocean, nearby lagoons, canyons, the community and its landscapes and urban forest character, or other scenic vistas, "produce a variety of significant and tangible benefits for residents, property owners and visitors" (DMMC Section 25.51.010[C]). The municipal code defines scenic views as views of the ocean, lagoons, canyons, the community and its landscapes and urban forest character, or other scenic vistas, from the primary living area of a residence. Further, the municipal code establishes a process for private property owners to seek restoration and preservation of their scenic views as follows:

> "A person shall have the right to seek restoration and preservation of Scenic Views or Sunlight that existed at the time they purchased or occupied a property or in the last ten years, whichever is shorter, when such Scenic Views from the Primary Living Area, or Sunlight available to the Primary Living Area or solar energy system of a residence, have subsequently been unreasonably obstructed by the growth of Trees or Vegetation located within the Del Mar City limits and 300 feet of the Applicant's property boundary."

The procedure for resolving a conflict between Trees, Scenic Views, and Sunlight is described in Section 23.51.040 – Procedure – of the DMMC. Standards for Determining Unreasonable Obstruction are established in Section 23.51.050.

e) Bluff, Slope, and Canyon Overlay Zone

Per Chapter 30.52 of the DMMC (Bluff, Slope, and Canyon Overlay Zone), the term "substantial steep slopes" is defined as:

> *[a]ny areas of slopes with a gradient of 25 percent or greater on a site where the total elevation differential within such slope areas themselves is 20 feet or more, or where such slopes on a site adjoin contiguous slopes of 25 percent grade or greater on adjoining property and together involve an elevation differential of 20 feet or more.*

Additionally:

> "'Substantial steep slopes' shall include smaller, isolated pockets of area with less than 25 percent grade when surrounded by contiguous "substantial steep slopes" located either entirely or partially on site."

4.1.3 Thresholds of Significance

The City of Del Mar relies on the thresholds of significance that are based on Appendix G of the 2019 State CEQA Guidelines. Impacts related to aesthetics resources would be significant if implementation of the project would:

a) Have a substantial adverse effect on a scenic vista;

b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway;

c) In non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings. If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality; or

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

4.1.4 Impact Analysis

The following discussion addresses each of the thresholds identified in Subsection 4.1.3. The analysis is supported by photo simulations prepared for each of the key view locations described in Subsection 4.1.1.2. The simulations model proposed resort structures, graded slopes, roadway improvements, driveways, parking lots, fencing, and landscaping. Landscaping is shown at estimated 10-year growth, and modeled lighting/shadows match the time of day the baseline photographs were taken.

It is noted that the simulations are conceptual in nature and reflect proposed architectural characteristics and building materials. Project architectural guidelines permit a mix of contemporary styles and a range of exterior materials and finishes including both natural and man-made material sources. Due to the range of styles, building materials, and finishes, permitted by the Specific Plan Design Guidelines, the final project design may differ in specifics from the simulations. They would not,

however, vary from the design level of quality or overall consistency of the project buildings with surrounding uses.

a) Would the project have a substantial adverse effect on a scenic vista?

In order to provide context and to reduce duplicative analysis, "scenic vistas" are defined as views or vistas generally panoramic in nature and identified as view points/vistas (e.g., formal turn-outs along roadways) or within planning documents. For the proposed project, it includes views obtained from the City of Del Mar coastal viewing access easement along the northwestern boundary of the project (west of Border Avenue), open water views (based on identification of the above view corridor and provision of parking areas/trails to access such viewpoints) and a view corridor identified in the City of Solana Beach General Plan. For purposes of this assessment, a substantial adverse effect on a scenic vista or view would occur where the majority of an existing view would be blocked or substantially interrupted. The reader is referred to impact c), below, for discussion of general scenic view degradation and plan conformance relative to visual impacts.

As shown in text and photographs of existing conditions, views of the ocean and Lagoon are available from public roads adjacent to the project site located atop elevated topography to the north and south in Solana Beach and Del Mar. Preservation of existing coastal views is demonstrated in the visual simulations prepared from Key Views 1, 6, 7, 8, 9, 10, 11, 12 and 13 and contrast with project implementation is shown in project simulations on Figures 4.1-4b and 4.1-9b through -16b).

While the key views are representative of views to the project site available from roads, residences, and recreational areas, nine key views have been selected to assess potential project impacts to scenic vistas and views in Solana Beach and Del Mar in which "blue water" views and the project site are experienced alongside one another. Key views that were not selected for the following scenic vista analysis (Key Views 2, 3, 4, and 5) were excluded due to their lack of "blue water" views to the ocean or Lagoon. While key views did not specifically include residential views from private property due to the privately held nature of such parcels, several of the key views (i.e., Key Views 1, 7, 8, 10 and 12) are located on public roads within/near residential neighborhoods. Due to their proximity, these key views are also representative of permanent private views available to residents. The potential project-related effects to scenic views are addressed more specifically below for each identified key view.

Key View 1: West Solana Circle View (City of Solana Beach)

As illustrated in the Key View 1 simulation on Figure 4.1-4b, *Proposed Key View 1 – West Solana Circle (City of Solana Beach)*, the introduction of a one- to three-story resort development on the primarily vacant project site would alter the existing ocean view. Although the project would result in a contrast from the existing visual character of the site, it would not degrade the existing views of the ocean from this middle ground location approximately 0.25 mile from the viewpoint (see Figures 4.1-4a and b). The mesa top comprises a small amount of the view and existing and proposed comparison between Figures 4.1-4a and 4.1-4b shows that the buildings would basically replace robust vegetation that currently obscures a small part of the potential overall ocean view. From vantage points similar to this key view, the project would essentially mimic existing conditions relative to obstruction of water views.

Key Views 6 and 7: Camino del Mar Views

The project site is visible in the foreground approximately 230 feet from Key View 6 as shown on Figure 4.1-9b, *Proposed Key View 6 – Camino Del Mar North of Lagoon Bridge*, and in the middle ground

approximately 0.25 mile from Key View 7 as shown on Figure 4.1-10b, *Proposed Key View 7 – Camino Del Mar South of Lagoon Bridge*. The bluff itself currently blocks ocean views from areas where Camino del Mar parallels the bluff, and some northerly ocean views from locations to the south. Views to the Lagoon from southbound Camino del Mar from the same general location would be unchanged. While implementation of the project would noticeably alter the existing character of the bluff top and east-facing slope as viewed from Key Views 6 and 7 (see Figures 4.1-9 and 4.1-10), existing coastal and Lagoon views from Camino del Mar would not be obstructed or otherwise affected. Therefore, the project would have no impact on existing scenic views ("blue water" coastal and Lagoon views) from Camino del Mar that are specifically identified in and protected by the Del Mar Community Plan.

Key View 8: Del Mar Coastline View

At Key View 8, as shown on Figure 4.1-11b, *Proposed Key View 8 – Del Mar South of North Beach*, coastal beach, water, and the prominent form of the coastal bluff underlying the project are evident to viewers from this middle ground location approximately 0.3 mile distant. From this and similar viewpoints, the immediately adjacent shore and open water combine to create an immediate coastal experience. Visible project elements are toward the right-hand side of the bluff (the new bluff access stairway and facilities) and above the coastal waters, requiring the viewer to focus inland and up from the coast. As such, the coastal and open water views would remain exactly the same, and implementation of the project would not result in substantial degradation of coastal views as seen from Key View 8 and similar locations.

Key View 9: Jimmy Durante Boulevard at San Dieguito River Bridge

At Key View 9, as shown on Figure 4.1-12b, *Proposed Key View 9 – Jimmy Durante Blvd. at San Dieguito River Bridge*, views of the San Dieguito River are prominent in the foreground, and views to the project site are available in the distant middle ground (approximately 0.65 mile away) beyond long white and red buildings within the Del Mar Fairgrounds and the railroad tracks. Views of the San Dieguito River, which dominate the view, would remain unchanged. As such, no impact would occur to views of Lagoon waters.

Key View 10: Balboa Avenue Views (City of Del Mar) and Key View 12: Del Mar Plaza Views

Key Views 10 and 12 are both located in more distant, higher elevation vantage points within the City of Del Mar. The project site is visible in the background approximately 0.8 mile and 1.2 miles from Key Views 10 and 12, respectively. These key views are shown on Figure 4.1-13b, *Proposed Key View 10 – Balboa Avenue (City of Del Mar)*, and on Figure 4.1-15b, *Proposed Key View 12 – Del Mar Plaza Roof Deck*.

Ocean views directly beyond the project site in these views are obscured or are not visually prominent in comparison to ocean visible to the south of the site. Further, in some areas beyond the project site, ocean views are generally not available due to the elevated form of the bluff and the presence of dense, mature vegetation on the mesa above it. With implementation of the proposed development, vegetation would be removed from the site to accommodate resort buildings and grounds. The introduction of a multi-story resort development on the primarily vacant project site would alter existing views from this point; however, available ocean views would be minimally altered when compared to existing conditions. Furthermore, the quality and extent of existing unimpeded and uninterrupted ocean views available at Key Views 10 and 12 to the west, as well as the Lagoon to the northwest in Key View 10, would not be altered.

From these key views, proposed resort development atop the bluff would be noticeable in the background in views from private and public vantage points. From the relatively distant vantage points, however, project development would not dominate the scene, and the scale and mass of the project would display similarities with the scale and mass of existing development in the surrounding area (see Figures 4.1-13 and 4.1-15, respectively). Further, the prominent bluff landform would remain visible, and project development would not attract visual focus because "blue water" ocean and Lagoon views would not be affected.

Key View 11: Camino del Mar at Jimmy Durante Boulevard

At Key View 11, as shown on Figure 4.1-14b, *Proposed Key View 11 – Camino Del Mar at Jimmy Durante Boulevard*, the site is visible in the background at a distance of approximately 0.9 mile. In the vicinity of Key View 11, motorists are provided intermittent "blue water" ocean views. Views are interrupted or partially screened by intervening vegetation and infrastructure as motorists travel along the roadway.

The resort buildings associated with the proposed project would display a low vertical profile and flat rooflines atop the flat bluff (see Figure 4.1-14b). While the density of visible vegetation on site would be reduced, the replacement of existing on-site trees with resort development would be barely noticeable from Key View 11. The project would not result in increased blockage of "blue water" ocean or coastal views and would not result in substantial visual changes.

Key View 13: James Scripps Bluff Preserve

Key View 13 is located approximately 190 feet south of resort portions of the project site within the Preserve. From this viewpoint, as shown on Figure 4.1-16b, *Proposed Key View 13 – James Scripps Bluff Preserve*, developed portions of the site would comprise a small percentage of the view. Recreationists are afforded immediately adjacent to more distant foreground views as they move on trails with low-lying coastal shrub habitat within the Preserve south of the site. The western bluff face and "blue water" ocean views are available to the northwest from Key View 13 and areas adjacent to it. Although ocean views are not available to the north due to existing residential structures and associated dense vegetation, the small trail system within the Preserve provides visitors panoramic views of the Pacific Ocean to the west. The project would implement substantial multi-story structures closer to the private property line. The reader is referred to analysis under impact c), below, relative to visual effect of change associated with the development. Relative to views to open water and Lagoon from the Preserve, no impact would occur. Views to the west, south, and east from the top of the Preserve toward water would be retained. In fact, the project would result in the creation of new public vantage points with ocean and coastal views. Approximately 8,900 linear feet, or 1.69 miles of trails, would be available. Large open-space courtyard areas would provide coastal views and the proposed access path would provide new and improved pedestrian access to the Preserve terrace top, where visitors are provided panoramic ocean views. No impacts would result.

Summary

As previously discussed, project development would be visible in the key viewpoints analyzed for purposes of this threshold. Project elements (buildings, landscaping, and bluff access improvements) would be noticeable but would not be visually prominent or substantially detract from existing scenic views to the Pacific Ocean or Lagoon from these off-site locations. As proposed, resort buildings would be sited so that the low-intensity structures would be located closest to the coastal bluff to maintain views and open space. Taller buildings would be constructed along the more southern, central, and

eastern portions of the project site in an effort to reduce impacts on existing coastal views. Views from off-site locales would generally include two-story structures where structures can be differentiated, with three-story structures restricted to internal portions of the site that would be less prominent and visible. As specified in the Specific Plan, buildings would be designed to follow the natural topography and display flat rooflines in order to preserve existing views to the extent practicable and to minimize the appearance of bulk and massing. In conclusion, while some scenic elements would be interrupted by the proposed project, the majority of scenic views of the Pacific Ocean and coastal areas at and in the vicinity of North Beach would remain intact. Where affected, the amount of encroachment would be less than substantial. As a result, impacts to scenic vistas associated with implementation of the proposed project would be less than significant.

b) Would the project substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?

The project site is not located near an officially designated state scenic highway, as there are none within the northwestern San Diego County region (Caltrans 2018). The nearest facility included in the State Scenic Highway Program, I-5, is located about a mile east of the project site. Although not a designated facility, from roughly Coronado north to SR-74 near San Juan Capistrano, I-5 is an "eligible" state scenic highway under Caltrans' Scenic Highway Mapping System (Caltrans 2018). In the interests of a conservative analysis, it is therefore discussed here.

Within this portion of I-5, the project site is temporarily visible to northbound I-5 motorists as they pass Del Mar Heights Road and I-5 begins a noticeable descent as it approaches the Lagoon. Along this approximately 1.2-mile stretch of the interstate, the prominent bluff outcropping supporting the project site is visible in the distance in northwesterly views to the coast. As I-5 spans the Lagoon, motorists are provided views of estuarine habitat to the east and west. Westerly views also include densely vegetated hillsides with scattered development, coastal development within the City of Del Mar, the Del Mar Fairgrounds and the Pacific Ocean; easterly views include densely vegetated hillsides with scattered development, the San Dieguito River valley framed by distant hills.

The westerly and northwesterly views to the coast and project site are available to motorists for approximately 66 seconds before being abruptly obscured by tall buildings at the Del Mar Fairgrounds. As such, motorists would be traveling through the scenic landscape as the I-5 spans the Lagoon for over one minute. The distance between I-5 and the project site, however, would reduce the apparent scale and mass of proposed development, and the project would be relatively indistinct in views from northbound I-5. Further, due to the variety of surrounding visual elements on and adjacent to I-5, it is anticipated that motorists would be primarily focused on the road and the foreground views of estuarine habitat rather than distant views to the coastal bluff located over one mile away.

The project site is generally located outside the normal field of vision of southbound I-5 motorists in this area. As such, existing views available to motorists from southbound I-5 would not be noticeably altered by development of the project. Proposed development would not entail removal or damage to historic buildings or trees within a state scenic highway. There are no historic buildings on site and trees proposed for removal as part of the project would be replaced. Specifically, there are 42 protected trees proposed for removal as part of the project (12 Torrey pines and 30 Monterey cypress) that would be replaced with 77 new protected specimen trees. It should also be noted that on-site trees are not particularly discernible from I-5. No impact to an officially designated scenic highway would occur and the introduction of proposed development on the project site would result in minor visual change as

experienced from an eligible state scenic highway. Therefore, as I-5 is not an officially designated state scenic highway and visual changes would be minor as viewed from such a distance, impacts to scenic resources within the eligible state scenic highway would be less than significant.

Also as discussed above in Subsection 4.1.2.1, views of the project site are available from Camino del Mar and Jimmy Durante Boulevard, both of which are identified locally in Del Mar as scenic roadways. Figures 4.1-6a and 4.1-6b, as well as 4.1-12a and 4.1-12b, illustrate the existing and proposed views of the project site from Camino del Mar and Jimmy Durante Boulevard, respectively. As shown on Figure 4.1-6b, views of the proposed project from Camino del Mar would include views of the proposed new bluff access stairway and facilities outside of the Preserve as well as views of some of the eastern portion of the proposed resort buildings. The bright blue porta potties that line a portion of the base of the slope adjacent to Camino del Mar would be removed and earth-toned permanent facilities and the stairs up to the mesa top would be sited in a nearby location. While larger and permanent, they would be less visually intrusive due to color, as well as tucking the restroom facilities a bit "behind" the bluff for southbound viewers rather than paralleling the road. While views of the mesa top from Camino del Mar would change from mostly undeveloped to developed with resort buildings, views of the ocean, Preserve, and coastline would not be affected and the scenic views from Camino del Mar would not be impacted. Views from Jimmy Durante Boulevard are noted as scenic due to views of the San Dieguito River Valley, which appears in the foreground. Due to the distance of the project site from Jimmy Durante Boulevard (about 0.6 mile) as it crosses the San Dieguito River and the resultant small percentage of the site in the view, and the location of the San Dieguito River Valley and completing Del Mar Fairgrounds structures in the foreground, the proposed project would not substantially intrude upon views of the scenic San Dieguito River from Jimmy Durante Boulevard. As a result, no impacts to scenic resources within an officially designated scenic highway or locally designated scenic roadway would occur.

c) In non-urbanized areas, would the project substantially degrade the existing visual character or quality of the site and its surroundings? If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?

Although the project is located within the City of Del Mar and is immediately adjacent to developed uses, the specific locale is largely undeveloped, contains visual open space, and is located immediately adjacent to the Preserve, an open space area. Visual quality within the City of Del Mar relies on "views of the ocean, lagoons, canyons, the community and its landscapes and urban forest character" (DMMC Chapter 23.51). Views to the ocean and Lagoon are primarily addressed under impact a), above, and the reader is referred to that discussion. This discussion focuses on substantial degradation of other valued views (e.g., urban forest, or notable landform). For example, the selected key views include public vantage points from which the prominent, elevated form of the bluff comprising the part of the project and underlying site is distinct such that it may be considered by viewers a valued component of the City of Del Mar's landscape. For purposes of this assessment, a substantial degradation would occur where the majority of an existing view would be modified or where a distinct landscape (or landform) is evident and implementation of a project would result in strong visual contrast in existing views. This discussion is followed by a discussion of plan and regulatory conformance relative to visual assessment.

Non-urbanized Areas Substantial Degradation

The proposed project would include resort structures with intervening open space, landscaping, and a paved public amenity trail (or loop trail) with scenic view nodes around the perimeter of the coastal bluff top. This loop trail would enhance and provide public panoramic views of the Pacific Ocean to the

west, the City of Del Mar and coastal areas to the south, and the Lagoon, Cuyamaca Mountains and Del Mar Fairgrounds to the east. Resort development would occur on previously developed areas on the mesa top and would introduce new one-, two-, and three--story structures, with the highest structures up to 46 feet tall, which would be noticeable from surrounding areas. Buildings would be clustered in the middle of the project site to minimally disrupt existing coastal views available from off-site locations. In addition, the siting and positioning of on-site buildings and the parking structure belowground would achieve a low profile resulting in generally retained coastal views from private residential properties and outdoor private gathering spaces where they currently exist (see Figure 3-2 of this EIR and Key View 1 [Figure 4.1-4b], Key View 10 [Figure 4.1-13b], and Key View 12 [Figure 4.1-15b]).

Architectural design would emphasize horizontal elements over vertical ones to tie the buildings to the landscape. The placement of buildings considers the organic, undulating edges of the bluff and the existing natural topography in order to achieve a design that conceals building mass and scale and preserves views. The heights of the proposed structures (maximum of 46 feet) would be similar to the canopies of existing mature trees on site in order to minimally disrupt available coastal views from the surrounding area. Further, in accordance with the Specific Plan and City of Del Mar regulations for bluff development, structures would be required to be set back from the top of the bluff condensing structures toward the central and eastern portions of the site. The majority of most noticeable views of the project occur from areas north of the project site within about one-quarter mile of the project site. As shown on Figures 4.1-4b through 4.1-15b, the proposed project is most noticeable from Key Views 1, 2, and 3, which would include views onto the proposed resort buildings from higher elevations to the northeast in a residential area of Solana Beach (Key View 1), from areas directly north of the proposed buildings at a similar elevation as the project site along South Sierra Avenue (Key View 2), and at the intersection of Via de la Valle and Camino del Mar (Key View 3). From the two closest locations (Key Views 2 and 3), it is apparent that City of Del Mar elements to be protected from view degradation are not seen. The site is undeveloped, but there is no distinct or special landform that would be modified. Although bluff elements rise in the view to the south and west, from these closest locations, the northern end of the project parcels appear at grade, with gentle slope to the west and south. To the extent that these views contain elements of urban forest character, the simulations demonstrate that an equally “forested” view would occur following project implementation. Most of the property edging trees along Camino del Mar (23 out of 30) would be retained, and others would be planted among the resort structures.

Existing neighboring development adjacent to the north in Solana Beach consists of three- and four-story, multi-family condominium structures (e.g., the Del Mar Beach Club and Del Mar Shores Terrace), which would render the height of the proposed structures generally consistent. Southerly views toward the project site from the residential neighborhood immediately to the north, however, would be noticeably shortened (see Figure 4.1-5b, *Proposed Key View 2 – South Sierra Avenue [City of Solana Beach]*). Southerly views of views of the primarily vacant, vegetated bluff top would be replaced with landscaping, access roads and multi-story buildings, although it is noted that the change here is one of a relatively undeveloped to developed lot – it is not loss of an open water, Lagoon, or canyon view. From certain public vantage points that have views of the project site from foreground and middle ground distances (see Key Views 1, 2, 3,6, 7, and 8), the project would alter the primarily undeveloped appearance of the mesa top. The bluffs would appear similar or the same from these key views.

As mentioned above, the removal of select vegetation from the project site would be required to accommodate the proposed project and would be noticeable from public vantage points in the surrounding area, including the three noted just above. Site development would include the installation

of new landscaping and select tree species would be retained and relocated on-site. Transitional edge treatments would be included in the areas visible from public spaces. Where appropriate, the edge treatment would include installation of landscaping to further soften the edge appearance. In fact, the landscape palette includes a net increase of protected species trees with the project. This would result in a generally lush look to the landscaping, as depicted in the simulations for Key Views 2 and 3. In addition, and as depicted on Figure 3-6 of this EIR, development of the project site would include installation of restoration plantings that would consist of a tailored plant palette of endemic shrub species to promote stabilization and beautification of the coastal environment. This area would provide a backdrop to the public access trail enhance user experience of the walking and seating areas. It should be noted that the project would result in the creation of new public vantage points with ocean and coastal views. Large open-space courtyard areas would provide coastal views and the proposed loop trail and bluff top trail network would provide new and improved pedestrian access to the bluff edge where visitors are provided panoramic ocean views and connections to North Beach via the Preserve. Conceptual species are listed on Figures 3-5a and 3-5b of this EIR.

The scale of proposed development would be noticeable when viewed from an immediate foreground distance such as from Border Avenue/South Sierra Avenue (see Key View 2; Figure 4.1-5b) or from within the Preserve (see Key View 13; Figure 4.1-16b). From more distant viewing locations the apparent scale of proposed structures would be reduced. For example, as experienced at Key View 4, (i.e., Via de la Valle at South Cedros Avenue), the one- to three-story scale of proposed buildings (see Figure 4.1-7b, *Proposed Key View 4 – Via de la Valle at South Cedros Avenue*) would be visible but would be comparable to the two- and three-story scale of surrounding development in the Via de la Valle corridor. Further, at Key View 8 (located 0.3 mile southwest of the project site) the scale of the proposed development would be moderated by distance and existing trees on site that display comparable scale (see Figure 4.1-11b). From coastal viewing locations and relatively distant and elevated vantage points such as Key Views 11 and 12, the mass and scale of the project would be partially obscured by distance as well as existing and proposed landscaping (see Figures 4.1-14b and 4.1-15b, respectively).

Pursuant to the Specific Plan Design Guidelines, the selected architectural styles for the project would include a coastal-inspired character to blend with the character of surrounding development and the coastal bluff. The colors of materials would consist of warm, natural tones and may include the following materials: wood siding/rain screen, terra-cotta rain screen, synthetic wood composite, and cementitious composite siding. As depicted for Key Views 1 (Figure 4.1-4b), Key View 2 (Figure 4.1-5b), Key View 3 (Figure 4.1-6b), and Key View 4 (Figure 4.1-7b), use of contemporary materials (primarily natural-appearing wood) in architectural finishes of proposed buildings would be evident as the structures would display warm tones of brown that mimic natural wood. Project architecture would incorporate lightly-colored concrete in the structural aspects of buildings; similar to lightly-colored (and darker) finishes of existing residential, office, and commercial development in the surrounding area (refer to Figures 4.1-1d, e and f). As such, incorporation of lightly-colored finishes would not be unique to the project. They would be consistent with other area uses and would not result in substantial degradation of existing visual character and quality. Lighter colors also harmonize more closely with the colors of existing on-site soils as demonstrated in the simulations and can visually fade into sky and fog better than very dark tones.

Further, the architectural design would emphasize horizontal elements over vertical ones to tie the building to the landscape and to help reduce the appearance of height and scale. The horizontal form of proposed buildings is depicted in visual simulations prepared from Key Views 1, 7, 8, 9, 10, and 11 (see Figures 4.1-4b, 4.1-10b, 4.1-11b, 4.1-12b, 4.1-13b, and 4.1-14b, respectively). Subtle variations and

site-specific adjustments of architectural façades would also be incorporated to help reduce scale and to appear as a more organic pattern of development while creating visual interest.

The second most notable views into the project would be from the Preserve, which edges the southern boundary of the project site. Although viewers accessing the mesa top are expected to be focused on expansive coastline and open water views to the west (or alternatively, looking easterly off mesa to the Lagoon, Del Mar Fairgrounds, and development features to the east), the northern boundary of the Preserve would edge the resort development. In this area existing dense ornamental landscaping would be removed, as well as some partly visible (but mostly obscured) existing residential structure. The area would be built out with multi-story resort structures and some intervening landscaping that would only intermittently provide visual shielding of the buildings. This is expected to be notable and would substantially vary from the existing condition.

It is noted that proposed stairs from the beach to the mesa top would be constructed along the steep slope of the east-facing bluff. The implementation of the stairway in this disturbed area is expected to be noticeable but not to result in substantial degradation of the site or its surroundings in this busy area. The reader is also referred to discussion of specific key views (incorporating the stairs Key Views 6, 7, 8, and 10), later in this section.

As described in Section 4.1.1. above, temporary views (approximately 20 seconds at 65 mph northbound) toward the project site also are available to northbound I-5 motorists as I-5 approximately ¾ mile north of Del Mar Heights Road as the freeway opens into the Lagoon and approaches Via de la Valle. Due to the brief nature of views to the project site from I-5, and distance between I-5 and the project site (which would reduce the apparent scale and mass of proposed development), the project would be relatively indistinct in views from northbound I-5. The middle ground view of the Del Mar Fairgrounds dominates the viewshed. Further, motorists would be expected to focus on interstate traffic and conditions as opposed to coastal development located over one mile away. As such, existing views from I-5 would not be noticeably altered by development of the project.

Anticipated visual changes are illustrated in the photo simulations from 13key views in Figures 4.1-4a through 4.1-16b of this EIR and are described in detail below.

Key View 1 – West Solana Circle (City of Solana Beach)

The proposed mass, scale, and bulk of the proposed project would be evident from Key View 1 and would noticeably contrast with the existing visual character of the vacant and vegetated site. Under existing conditions, the primarily vacant project site is scattered with mature trees that effectively shield the existing on-site residence from view. The project would result in a change in the site's less developed appearance, vegetation and trees, which contribute to the area's current landscapes and contain an element of urban forest character. The project includes resort structures that would appear as a cluster of rectangular buildings displaying flat rooflines. At Key View 1, viewers would be able to distinguish building materials on the façades of resort structures, including natural wood elements and glass windowpanes and partitions (see Figure 4.1-4b). The flat roofline of the proposed structures would mimic the relatively flat topography of the mesa top and abuilding colors would include warm tan, grey and brownish earth tones found in the surrounding landscape.

As viewed from the elevated vantage point at Key View 1, the increased site coverage with the proposed resort development would be apparent. Similar to existing visible development in the view, portions of the resort development would be partially screened by existing and proposed landscaping that would

help break up the bulk of the proposed buildings. Further, resort buildings would be partially screened by intervening development and vegetation, and scale and line contrasts would be relatively weak. The contrast in scale between project structures and existing two- and three-story development in the view would be relatively minor. The closest (and intervening) foreground views would remain unchanged as would water views to the south and north of the project site. The project would result in an overall reduction in the site's undeveloped appearance, vegetation and trees in the area immediately south of existing Solana Beach development. "Protected" trees would be replaced. Nonetheless, the project would result in the alteration of the existing visual character of the bluff-top landscape. Existing ocean views would be slightly changed from locales represented by Key View 1. These views to the ocean, however, would not be substantially obstructed or altered and other surrounding uses and the panoramic views of the ocean would continue to dominate the scene. Additionally, the project would appear generally similar in bulk and scale to surrounding development as pictured in Key View 1 (see Figure 4.1-4b). Therefore, although the project would result in a contrast from the existing visual character of the site, it would not substantially degrade the existing visual character of the project site. Therefore, as viewed from Key View 1, impacts to existing visual character or quality of the project site and surrounding area would be less than significant.

Key View 2 – South Sierra Avenue (City of Solana Beach)

This key view is taken from just off site, and the proposed development fills the simulation. As depicted on Figure 4.1-5b, views of the primarily vacant vegetated mesa top would be replaced with landscaping, access roads, and multistory resort buildings constructed in a modern architectural style. The façades of proposed resort guest room buildings would incorporate stucco/concrete, natural wood, and glass windowpanes. The exterior materials and neutral tones of the resort guest room buildings would contribute a natural look to the development. As seen in the visual simulation presented on Figure 4.1-5b, a low-lying entryway monument sign would be installed at the main resort access road and would incorporate similar elements as the resort guest room building façade, creating a cohesive look between buildings and signage. A short post and wire fence would replace the existing chain link fence along the access path that extends to the west along the northern site boundary. As no ocean views are available from Key View 2, development of the site would not result in blockage of ocean views from that vantage point. Distant background views to the southeast of dark, densely vegetated hillsides in the City of Del Mar would be screened from view by the proposed resort buildings and existing views to the variably vegetated site would be replaced by large structures, paved roads and landscaping.

As proposed and depicted on Figure 4.1-5b, the project would introduce building scale and bulk that would contrast with the sloping, vacant, and undeveloped character of the northern portion of the project site as viewed from Key View 2. The proposed project's vertical bulk and scale would change the visual setting. Further, proposed landscaping would noticeably shorten views across the project site from the existing coastal viewing access easement. Although the character of the site would substantially change, the existing visual quality of the site is moderately low from Key View 2. As viewed from Key View 2, the site lacks particularly memorable features and cohesive elements. For example, a dilapidated chain-link fence lines the project site and abuts a recently mowed strip of undeveloped land bordered by a row of tall and shorter vegetation. In comparison to the undeveloped portions of the project site that are visible under existing conditions from this viewpoint, implementation of the project would introduce cohesive landscaping and modern buildings. Further, development of the modern three-story structure visible from Key View 2 would be located in close proximity to existing two- and three-story development in Solana Beach (not visible in the key view). Specifically, existing two-story

multi-family development buildings are located to the north of the site along Border Avenue and South Sierra Avenue and a three-story office building is located approximately 70 feet away at the northwestern corner of Highway 101 and Border Avenue. These existing structures display primarily stucco exteriors and shake hipped roofs and contribute multistory building scale and multi-building properties to the immediate area that relate to the project and site layout. Topography would remain visually similar to existing conditions and no notable natural features would be eliminated. Finally, the robust landscaping plan would soften structure edges and provide visual relief from built environment. As such, the project would change the existing visual character of the site but would not substantially contrast from surrounding existing development and impacts would be less than significant.

Key View 3 – Via de la Valle at Highway 101

Similar to Key View 2, this key view is taken from just off site, at an intersection edged by the project site. At project buildout, views of the gently sloping, tan-colored surface of the northern portion of the project site visible from Key View 3 would be replaced with views of a multistory terraced resort development. The majority of trees along the site's eastern boundary would be retained and additional landscaping would be provided, resulting in the perception of a substantially vegetated development. The combination would largely screen views into the eastern portion of the project site. Portions of the top stories of resort structures toward the southeast boundary of the site would be visible from this point through and above the existing tree line bordering the eastern side of the access road. Architectural details of the proposed development, including concrete and wood façades, wooden balcony partitions, low glass balcony walls, concrete overhangs, and large glass windows would be identifiable from Key View 3 (see Figure 4.1-6b). The primary building materials (i.e., wood, concrete, glass, etc.) utilized for the proposed development are typical of materials displayed in remodeled residences, residential complexes, and commercial and hospitality structures in the Del Mar and Solana Beach communities. Project landscaping would include low-lying shrubs, with small and large trees surrounding the eastern and northern boundaries of the project site. Additionally, proposed trees, including palms and jacaranda, would dot the project site. Development of the project site would not block views of the ocean from this point since no ocean views are available under existing conditions.

The existing visual quality of the site is defined by a long tan strip of recently mowed land and a row of tall trees that traverse the project site from east to west. The central, southern, and western portions of the site are obscured from view by dense clusters of mature trees. Visual quality of the site is moderately low because particularly striking visual features or patterns are lacking, and existing site elements are not especially cohesive. The site has been previously disturbed and currently supports low grasses and exposed soils. While implementation of the project would enhance site unity through introduction of consistent visual elements, the bulk and scale of the proposed development would dominate the scene. The project would result in a substantial change from existing views of the primarily vacant site. Proposed and existing landscaping along the eastern and northern project boundaries would partially or fully screen some of the proposed resort structures and break up the mass of visible project components. The mass of the project; however, would be noticeable and visible from Key View 3. Still, given the low visual quality of the site in the existing condition, and the presence of existing two- and three-story office, residential, and civic development along the Highway 101 corridor that contributes long and tall building mass and scale to the visual landscape, the project would not substantially degrade the existing visual character of the site and surrounding area. Therefore, impacts to existing visual character or quality as viewed from Key View 3 would be less than significant.

Key View 4 – Via de la Valle at South Cedros Avenue

Due to existing landscaping installed adjacent to the eastbound travel lanes of Via de la Valle, the majority of the proposed development is blocked from view at Key View 4. However, the portion of the project site that is visible would be completely built out and would represent a visual change in comparison to existing conditions that would affect a small percentage of the view seen in this key view. The proposed bulk and multistory scale of the project (located near the Via de la Valle/Highway 101 intersection) and taller resort guest room buildings to the west would be apparent. Although it would display greater scale and mass than the existing condition as viewed from Key View 4, the blocky mass of the proposed development would bear a resemblance to the boxy form of existing residential structures located in the foreground and to the south of Via de la Valle (see Figure 4.1-7b). Further, while not visible in the particular vantage point presented in Figure 4.1-7b, two- and three-story development incorporating wood, glass, stucco, and concrete building materials are typical along the nearby Highway 101 and Via de la Valle corridors. Existing development establishes one- to three-story residential, office, commercial/retail, hotel, and civic uses in the visual landscape and tempers the expectations of mobile receptors for pristine and undeveloped properties and unencumbered views. Therefore, implementation of the project would result in a noticeable change but would not result in substantial degradation of the existing condition, and therefore would result in less-than-significant impacts to existing visual character as viewed from Key View 4.

Key View 5 – Del Mar Coastline Northwest of North Beach

At Key Views 5, the prominent form and distinct topography of the bluff is evident to viewers standing on the shore below the southern extent of the bluff. The proposed development would be set back from the edge of the coastal bluff**,** and as a result, project components would not be visible from Key View 5 due to proximity and the difference in elevation between the viewer and the mesa top. As seen on Figure 4.1-8b, *Proposed Key View 5 – Del Mar Coastline Northwest of North Beach*, existing and proposed views from this point are identical. With consideration that the visual character of the project site would not change as viewed from Key View 5, there would be no contrast or change compared to the existing condition and substantial degradation to existing views would not occur. As such, no impact to the existing visual character or quality of the project site and surrounding area as viewed from Key View 5 would occur. Although some elements would be visible to boaters and other ocean recreationists located at greater distance from the coastline, there would be a substantial variation in elevation between the viewer on the ocean and the development atop the bluff. Additionally, view focus also could be expected to be toward the open water views from swimmers and boaters in the area, rather than the elevated bluff top. Less than significant impacts would result from Key View 5.

Key View 6 – Camino del Mar (North of Lagoon Bridge)

Implementation of the project would alter the existing visual character of the project site as viewed from Key View 6. Architectural elements of proposed three-story resort villa buildings located along the eastern project boundary, including light brown wood façades, glass windows, and flat and thin concrete balconies and building, would be evident from Key View 6 (see Figure 4.1-9b). In comparison to the scattered and varying tree and shrub species that characterize the existing mesa top, project development would create a consistent silhouette of zigzag lines displayed by concrete balconies and building overhangs. In addition to proposed resort buildings surmounting the bluff, the proposed restroom facility, roof observation deck, and stair system that would provide access to the Preserve would be visible from Key View 6. As proposed, the rectangular, single-story restroom facility may incorporate a variety of suitable materials. For purposes of this analysis, a split-face concrete block

structure covered with a concrete and wood slat observation deck was assumed. The new bluff access stairway system would be constructed of concrete support pylons and wooden decks, stairs, and railing.

The proposed restroom facility would create a boxy yet low profile form that would block a small portion of the base of the bluff from view. However, the restroom facility would negate the need for temporary restroom facilities ("porta-potty") to be deployed along Camino del Mar and would avoid the color contrast associated with the presence of bright blue structures at the base of the bluff (see Figure 4.1-9a). A system of concrete stairs would climb the east-facing slope of the bluff and would create hard, lightly colored angular lines (see Figure 4.1-9b) that would contrast with the scattered shrub- and grass-covered slope terrain.

Incorporation of natural wood and earth-toned materials and colors in the exterior of proposed project structures would create a visual connection between the resort and existing surrounding tan-colored soils and would reduce overall contrast. While the restroom facility and stair system would be a noticeable new feature in the visual landscape at Key View 6, project components would not produce overly strong contrast and the stairs would create relatively thin lines against the greys and tans displayed by nearby soils. As such, these project components would not dominate the scene. In addition, a significant portion of the east-facing slope would remain unaltered and the restroom facility and stair system would improve public services and enhance bluff top access. As viewed from Key View 6, the proposed project would represent visual change along the Camino del Mar visual corridor; however, existing characteristics of the slope and mesa top would remain prominent in the view. Therefore, implementation of the project would not substantially degrade the existing visual quality or character and quality of the site and surrounding area and would result in less-than-significant impacts as viewed from Key View 6.

Key View 7 – Camino del Mar (South of Lagoon Bridge)

Implementation of the project would alter the existing view from Key View 7. Once constructed, the proposed development would be visible atop the mesa from this location, and would result in a minor change to the view from this and similar vantage points.

The introduction of the proposed resort development would result in a noticeable visual change from existing conditions along the eastern property boundary due the lack of visible development currently atop the mesa as viewed from Key View 7. As proposed, the south elevation of three-story resort villas along the eastern portion of the project site would be partially screened by existing and proposed landscaping. However, the warm colors of natural wood elements, large windows and flat, angular rooflines and balconies on the structures would contrast from the round, dark green treetops visible under existing conditions. In addition to these structures, landscaping and structures displaying a natural wood element exterior in the southwestern corner of the project site would be visible. These structures would display a low vertical profile and due to the warm color of exterior finishes, would tend to blend into surrounding landscaping and flat terrain in the westernmost portion of the mesa.

In addition to the mesa top resort development, the proposed stairs that would provide beach access for the project as well as new pedestrian access to the Preserve, would add sharp angular lines and shadows to the east-facing slope of the bluff. The proposed restroom facility and roof observation deck would display tan and grayish tones and boxy shapes at the base of the east-facing slope. The light grey concrete supporting pillars and natural wood stairs and railing would zigzag from the roof of the restroom facility to the top of the bluff. Apart from the proposed restroom facility, roof observation

deck and stair system the majority of the south- and east- facing slopes would remain unaltered and would retain their dense to dotted shrub and grass covered appearance and natural character.

While development would be visible, the majority of the project would be obscured from view by existing and proposed landscaping and by intervening development on the project site (i.e., the visible three-story villas). Visible development on the easterly portion of the project site would be located in relatively close proximity to existing development in the view along the Camino del Mar and Via de la Valle corridors that tend to display similar architectural elements (i.e., warm tones on building exteriors, flat rooflines, wood and glass building materials) as the project. The bluff provides a prominent focal point in the view and the project would not substantially change the existing visual character of the landform and would therefore no result in substantial degradation. Project implementation would result in less than significant impacts as viewed from Key View 7.

Key View 8 – Del Mar South of North Beach

A visual simulation of the project as viewed from Key View 8 is provided on Figure 4.1-11b. The prominent form and distinct topography of the bluff is evident. The top one to two stories of the proposed three-story resort buildings would be partially visible from Key View 8, resulting in noticeable visual change atop the mesa. The natural wood elements in building exteriors, and flat, horizontal rooflines of three-story villas on the eastern portion of the project site would be visible above the round, soft lines displayed by existing mesa top vegetation and landscaping. Although the project would change the undeveloped feel of the terrace top, it would not change the bluffs as seen from this vantage point and would have no effect on foreground views of the coastline and adjacent development. Project buildings would not dominate the view and would be viewed in the context of existing (and more proximate) residential development. The natural dark brown and grey colors displayed by exterior finishes in the south elevation so of buildings depicted in Figure 4.1-11b would help the proposed development merge with the existing setting of dark greens displayed by existing landscaping. As a result, scale and color contrasts would be lessened. Further, the subtle diagonal line created by the existing road/access path would be removed and replaced with appropriate native shrubs (revegetation of the road is not depicted in Figure 4.1-11b). The proposed stairs would create a thin zigzag line on the east-facing slope of the bluff that would be noticeable but would not be visually prominent in the view. Vertical, concrete support pillars would be the most noticeable feature of the stair system, as the natural wood color of the stairs and railing would blend into the surrounding bluff landscape. As viewed from Key View 8, the introduction of the project would not substantially degrade the existing character or quality of the site and the surrounding area and views would not be substantially altered. Therefore, impacts to existing visual quality and character of the site and surrounding area as viewed from Key View 8 would be less than significant.

Key View 9 – Jimmy Durante Boulevard at San Dieguito River Bridge

A visual simulation of the project as viewed from Key View 9 is provided on Figure 4.1-12b. Views to the San Dieguito River are prominent in the foreground and views to the project site are available in the middle ground (at a distance of approximately 0.65 mile) beyond long white and red buildings within the Del Mar Fairgrounds and the railroad tracks. The coastal bluff rises above the intervening development, and the mottled brown and tan appearance of the eastern bluff face is visible. Due to the distance of the project site from Key View 9 and the greater elevation of the project site compared to the key view location, indistinct and partially screened views of project components atop the bluff would be available. As shown on Figure 4.1-12b, rooflines of proposed resort development would create a barely

visible, stepped horizontal line atop the bluff that would replace the irregular line displayed by the crowns of existing trees. Visible flat rooflines would generally replicate the horizontal lines displayed by foreground buildings and the warm colors of architectural finishes of the proposed development would help the project blend in with the existing mesa terrain and vegetation (see Figure 4.1-12b). Further, the inclusion of two- to six-story buildings within the Del Mar Fairground contributes multistory building mass and scale to the view. In addition to distance between Key View 9 and the project site that reduces the apparent scale of project buildings, these existing features establish a developed character in the view that would reduce effects to the visual setting resulting from introduction of the project. Implementation of the project would not result in substantial change to the view in comparison with existing conditions. Therefore, implementation of the project would result in less than significant impacts to visual quality or character from Key View 9.

Key View 10 – Balboa Avenue

Key Views 10 is located in more distant, higher elevation vantage points within the City of Del Mar, approximately 0.8 mile southeast of the project, located in the visual background. A visual simulation of the project as viewed from Key View 10 is provided on Figure 4.1-13b, demonstrating the level of project-related change visible from this key view area. Although distant and indistinct, the majority of the structures associated with the proposed resort would be visible. Existing and proposed trees and shrubs that currently run along the southern boundary of the project site would shield ground-level elements of the project from view; however, the mounded forms and lines and dark green color displayed by existing dense vegetation on site would be replaced by rectangular and lightly colored multi-level resort buildings (Figure 4.1-13b). Additionally, the proposed stair system on the southeast face of the bluff would be visible as it zigzags down the bluff face. The natural wood and warm color of the stair system would blend into the existing topography and vegetation, however, and would not be visually prominent. Both the restroom facility and stairs would be visible but faint.

As noted under impact a), above, ocean views directly beyond the project site in this key view are not visually prominent in comparison to the uninterrupted ocean views available to the south of the site, and would be minimally affected. The modified mesa top does not comprise a majority of the viewshed.

The flat mesa top would continue to display a primarily flat, horizontal form. As shown on Figure 4.1-13b, proposed development would contribute tan/brown tones and long rectangular forms to the mesa top. However, the buildings would display flat rooflines and as viewed from approximately 0.80 mile away, the project would appear to exhibit comparable site coverage to that of existing development located west of the Amtrak and NCTD Coaster rail corridor (see Figure 4.1-13b). In addition, existing development present in the view displays a varied architectural character and project architecture would contribute to the existing visual variety displayed by visible commercial and residential development. While the proposed development would be evident from this view and would alter the existing character of the mesa top, the visual change depicted in Figure 4.1-13b would be experienced by a relatively limited number of private residents and the small percentage of view area modified by the project would not constitute substantial degradation of the site and surrounding area. The prominent bluff landform would remain visible, and project development would not attract visual focus because the great majority of other view elements would remain the same. As such and as viewed from Key View 10, development of the project would not substantially degrade the site and surrounding area and impacts would be less than significant.

Key View 11 – Camino del Mar at Jimmy Durante Boulevard

A visual simulation of the project as viewed from Key View 11 is provided on Figure 4.1-14b. As viewed from Key View 11, the resort development would display a low vertical profile and flat rooflines. These elements would be generally located central to the view and just above mature landscaping installed immediately adjacent to the bridge in the foreground. Due to the low profile and flat rooflines, proposed development atop the bluff would not be visually prominent in the landscape. The density of visible vegetation on site would be reduced to accommodate the project; however, existing vegetation would be retained along the eastern and southern property boundaries. As a result, the site would retain a semblance of its existing characteristics. In addition, the distance between the viewer at Key View 11 and the project site (approximately 0.90 mile) reduces the visual prominence of proposed resort buildings as experienced by local motorists on northbound Camino del Mar at the Jimmy Durante Boulevard split. The mesa top project elements would not comprise a majority of the view. Further, Camino del Mar and Jimmy Durante Boulevard are the dominant elements in the landscape and motorists are not provided continuous and long-duration opportunities for views away from the road and towards the project site. Rather, glimpses to the project site are available and motorists must pay attention to the immediate foreground (i.e., the road) to safely navigate the Camino del Mar and Jimmy Durante Boulevard split and watch for other vehicles, cyclists, and pedestrians. Further, the background bluff top (located 0.90 mile away) is noticeable over an approximate 370-foot long segment of the road. Along this stretch, views are available for approximately eight seconds assuming a travel speed of 30 mph. Beyond this segment, the project site is abruptly obscured from view as the elevation of the road descends and homes and trees shorten the length of the available northward views. Because the project would not result in a substantial visual change from this point in comparison to existing conditions and the proposed resort buildings would not be visually prominent in the fleeting views to the project site, the project would not substantially degrade the existing character or quality of the site and surrounding area. Therefore, implementation of the project would result in less than significant impacts to existing visual character or quality as viewed from Key View 11.

Key View 12 – Del Mar Plaza Roof Deck

Key View 12 is located in more distant, higher elevation vantage points within the City of Del Mar. The project site is visible in the background approximately 1.2 miles away. A visual simulation of the project as viewed from Key View 12 is provided on Figure 4.1-15b. With implementation of the project, views of the project site from Key View 12 would be altered; however, due to distance between the viewer at Key View 12 and the project site, proposed resort development would be indistinct and would not be visually prominent (Figure 4.1-15b), and the scale and mass of the project would display similarities with the scale and mass of existing development in the distant surrounding area. While the scale and materiality of resort villas proposed near the southern property boundary would be visible from the Del Mar Plaza, the bulk of the proposed resort development would not be evident due to partial screening of the site associated with dense ficus trees installed in the foreground along Camino del Mar. In addition, the project would blend with the existing topography and landscape of the project site due to distance and would not result in a substantial visual change as viewed from Key View 12. Ocean views to the west would not be affected. As a result, implementation of the project would result in less-than-significant impacts to existing visual character and quality as viewed from Key View 12.

Key View 13 – James Scripps Bluff Preserve Trail

A visual simulation of the project as viewed from Key View 13 is provided on Figure 4.1-16b. It is noted that views of the ocean and western face of the bluff landform would remain unchanged. Further, there

are notable views from this location that are not shown in the simulation as the focus is on proposed change and not retained conditions. These include panoramic views of the Pacific Ocean to the west, coastline views to the north and south, river and estuarine habitat to the southeast, and distant hilly terrain to the east.

Implementation of the project would result in a noticeable visual change along the southern project boundary, to north-looking views from the Preserve on the mesa top. In this area, proposed development would be in immediate proximity to current protected open space is along the southern resort development boundary. Existing views of dense vegetation and trees would be replaced with views of one- to three-story resort structures with flat, angular rooflines. As proposed, the south-elevation of three-story resort villas would be partially screened by existing and proposed landscaping. The warm colors of natural wood elements, large windows and flat, angular rooflines and balconies on the structures, however, would contrast with the light to dark shades of green presented by existing vegetation. While the bulk, scale and materials of structures proposed near the southern property boundary would be visible from Key View 13, these structures would display a low vertical profile with flat rooflines. The project would use warm colors for exterior finishes, and install some screening landscape. While variable based on where a viewer is located within this portion of the Preserve, in the key view the developed portions of the project would not comprise a majority of the view from Key View 13.

In sum, the project would implement multi-story structures closer to the southern project boundary than currently exist, and although resort landscaping would be installed, it would not obscure the proposed structures, which would vary from single-story to three-stories in height, as depicted in Figure 4.1-16b. Existing views of dense, green vegetation and trees would be replaced with building facades, large windows and flat, angular rooflines. This would introduce a notably developed element into the view that does not currently exist.

Although the mass of non-native and irrigated landscaping is not considered sensitive in its own right and also provides a non-native/disturbed element to mesa top, the increase in structural views so close to the Preserve boundary is substantially different from existing conditions. Although the valued and protected view elements depicted in this area of the open ocean or Lagoon to the west and south, respectively, would not be blocked or obscured, the presence of built development so close to the more "natural" experience of the Preserve and the proposed dense landscaping would introduce a discordant note that would result in a substantial change to existing conditions and a significant environmental impact (Impact AES-1). As a result of the potentially significant aesthetic impacts associated with the project, mitigation measure MM AES-1 would be required to reduce impacts to less than significant.

Conclusion

As detailed above, project implementation would change the existing character of the primarily vacant site with the proposed resort development. From a visual perspective, the proposed mass and one- to three-story scale of buildings would be consistent with the massing of the surrounding area. Specifically, existing two-story multi-family development buildings are located north of the site along Border Avenue and South Sierra Avenue and a three-story office building is located within approximately 70 feet at the northwestern corner of Highway 101 and Border Avenue. These existing structures display primarily stucco exteriors and wood paneled roofs and contribute multistory building scale and multibuilding properties to the immediate area.

Overall, implementation of the project would alter the existing character and quality of the natural appearance of the site. As viewed from Key Views 1, 2, 6, 7, the existing largely undeveloped site would be replaced with that of resort development. Therefore, the introduction of multiple one- to three-story structures to the primarily vacant site would result in a substantial change to the character and quality of the distinct landform. Project landscaping would install shrubs and trees that would replace vegetation removed during construction, however, and lighting and signage would comply with City ordinances.

The project also would result in the creation of new public vantage points with ocean and coastal views. Large open-space courtyard areas would provide coastal views and the proposed access path would provide approximately 1.7 miles of new and improved pedestrian access to the Preserve, where visitors are provided panoramic ocean views.

Taking all of these elements into consideration, and as demonstrated by the key view assessment; however, these changes generally do not represent a substantial degradation of visual character to the project site and surrounding area. This is because:

1. Additional development on the site would not result in substantial (or in some cases even noticeable or notable) changes in views to the ocean, Lagoon, or area canyons from surrounding locations;

2. The project would not substantially modify a notable landform (bluff components would remain largely untouched, with only improved public access facilities provided); and

3. Trees removed from current ornamental landscaping would be replaced at a greater than 1:1 ratio.

Relative to the close-in views to resort development available from the Preserve at mesa top, the presence of built development so close to the more “natural” mesa-top experience and existing dense ornamental landscaping; however, introduces a discordant note. This is considered a notable current view element and implementation of the project would result in strong visual contrast in existing views, resulting in a significant visual impact. Mitigation measure AES-1 would mitigate the impact.

Urbanized Area Zoning and Regulations

Scenic view preservation is established within the DMMC (Section 23.51) and the City of Del Mar also has established a process for restoration and preservation of private scenic views for residents of Del Mar under that same section. To assist in view preservation efforts, the City has enacted height restrictions and a comprehensive design review process.

As mentioned above in Subsection 4.2.2, the Design Review Chapter (23.08.040) of the DMMC defines a primary scenic view as “a view of the ocean, the community, lagoons, canyons, or other scenic vistas from the primary living area of a residence.” A primary living area is defined as “that portion of a residence determined [...] to be the main gathering and entertainment room used by residents and guests of the residence.” A residence is limited to one primary living area (oftentimes a living room, dining room or great room), which, in no case shall be a bedroom, bathroom, storage area, stairwell, or hallway.

Relative to restoration of views and sunlight, as noted in the DMMC, the ability to remove vegetation on neighboring property where there is unreasonable obstruction is focused on vegetation blocking sunlight or views within 300 feet of the viewer's primary living area. Where such vegetation in the City of Del Mar affects residents of the City of Solana Beach it is also considered advisory under the Design Review Ordinance.

The only locale with possible view obstruction based on installation of trees within 300 feet of a neighboring property, is the Del Mar Beach Club residences sited along the northern project boundary. As described above, while looking out onto largely undeveloped property with some ornamental landscaping, the views onto the northern extent of the project do not encompass canyons or ocean, existing community, etc. The largely non-vegetated and disturbed area adjacent to the Del Mar Beach Club residences is shown in Photo B of Figure 4.1-1. Where scenic elements are provided by trees incorporated into ornamental landscaping, they would be retained or replaced. As such, although changed conditions would occur, they do not rise to the level of a significant environmental impact.

Proposed resort development would include buildings that would not exceed 46 feet in height and would be oriented and spaced such that the proposed buildings and open space areas would maintain important vistas encompassing ocean, Lagoon and community views to the west, south, and east. For example, the proposed building orientation design has a transect that clusters the majority of development at its center (see Figure 3-2 of this EIR) and a reduced scale of building along the perimeter, providing a transitional edge treatment for the areas visible from public spaces, such as nearby roadways and the beach. As proposed, the project would feature a combination of one- to three-story structures, with the highest structures clustered in the central portion of the project site. In accordance with the Specific Plan and City of Del Mar regulations for bluff development, structures would be required to be set back from the top of the bluff, further condensing structures toward the central, eastern and northern portions of the site. The heights of the proposed structures would be similar to the canopies of existing mature trees on site in order to minimally disrupt available coastal views from the surrounding area.

These building heights conflict with plan height restrictions of 26 feet and two stories, as well as prohibition of three-story structures in residential areas. Relative to visual effects, as shown in the project simulations, the distance of most viewers from the project, combined with variations in elevation (resulting in the viewer often looking down, or up, to the project, and in isolation from other built features), results in this deviation being less than significant *visually*. The reader is referred to Land Use, subsection 4.8 of this EIR, for conformity relative to that issue.

Existing trees proposed for removal as part of the project would be appropriately mitigated. Specifically, 42 protected trees are proposed for removal as part of the project and 49 protected trees would be retained on site. The 42 protected trees proposed for removal would be replaced with 77 new protected specimen trees.

Relative to construction on steep slopes, and consistency with the Bluff, Slope and Overlay Zone, all structures would be located on relatively flat terrain. The only disturbance allowed within/adjacent to the steep slopes is the minimal amount necessary to provide a public access stairway, public restrooms, and related facilities for hotel and public visitor services at the toe of slope; to implement drainage control measures to protect the steep slope area from degradation and/or erosion; and to allow interpretive signage and pathway lighting.

Conclusion

The discussion above demonstrates that the project-proposed deviations from City of Del Mar standards and regulations would not result in significant visual degradation. Steep slopes would not be substantially modified, and structural changes would be visually consistent with nearby development heights. Landscaping would be robust, and approximately two-thirds of the existing trees on site would be retained. Those to be removed would be replaced at more than a 1:1 ratio, resulting in ultimately a more "forested" look than currently exists. The reader is referred to Subsection 4.8 of this EIR for land use conformity discussion relative to these standards and regulations.

d) Would the project create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?

Lighting

The site is primarily undeveloped and contains limited sources of existing lighting and glare associated with the existing on-site residence. As existing development on site is primarily shielded from public viewing by existing landscaping and setback, the visibility of nighttime lighting at the project site under existing conditions is extremely limited. The project would add new sources of light.

Construction of the project would be limited to hours between 7:00 a.m. and 7:00 p.m., and construction lighting would not generally be required. However, construction activities including the delivery of materials and more focused earthwork or building construction occurring in later months of the year may temporarily require or result in a need for artificial lighting during evening hours, when it could be dark. In these limited instances, construction lighting would be focused on the active area of construction and would be directed downward to minimize the potential for light trespass and skyglow. Because potential sources of nighttime lighting during evening construction would not be regularly occurring, temporary use of limited construction lighting would not substantially affect existing nighttime views. Therefore, lighting and glare impacts to existing nighttime and daytime views during construction would be less than significant.

Operation of the proposed project would introduce numerous sources of permanent exterior nighttime lighting. Architectural lighting would be located throughout the development in order to illuminate areas around the resort guestrooms and resort villas, and to emphasize elevation changes and barriers. Illumination from architectural lighting would range from 1 to 10 foot-candles (a unit of illumination equivalent to that produced by one candle at a distance of one foot [and equal to one lumen incident per square foot]). New sources of lighting also would be associated with proposed resort pathway/safety lighting and accent lighting (refer to Figures 3-8 and 3-9). Exterior lighting fixtures would be positioned to illuminate outdoor use areas such as pools, spas, event gardens, internal walkways, and the arrival court and other drop-off areas.

Proposed pathway lighting would be primarily located along the perimeter of the resort, framing the emergency access pathways. Illumination from pathway lighting would average one foot-candle, and fixtures would be relatively low in profile, and would be directed away from adjacent properties and public rights-of-way. Also, low foot-candle lighting elements would primarily be installed along the development side (i.e., eastern side) of the loop trail closest to the bluff edge. Siting and use of low foot-candle fixtures would prevent light spillover from these sources onto the beach. Additionally, low-voltage lighting fixtures would be used along the loop trail. Accent lighting would be located throughout internal portions of the resort among open space areas and landscaping; providing lighting on focal

points and objects surrounding the main road leading to the arrival court, pools and spas, fountains, and events garden. Illumination from accent lighting would range from one to five foot-candles and fixtures would be located low to the ground or in locations where illumination would not be visible to off-site viewers. Lighting installed adjacent to open space areas (including the Preserve) would be shielded and directed away from those areas to prevent light spillover.

Consistent with Design Guidelines outlined in the Specific Plan, lighting fixture selection for the project would be tailored to frame each distinct area within the property while preventing light pollution and glare. Energy conservation, safety, and security would be emphasized when designating the lighting system. The project would incorporate gradual reduction of light intensity between major points of activity, in order to provide the desired modulation of light without sacrificing safety and utility. Additionally, lighting illumination would be directed downward to minimize the spread of the beam, and all exterior lights would be hooded or shielded.

Lighting fixture types, quantities, and locations would be taken into consideration to accommodate on-site needs, the surrounding environment, and City lighting policies. In addition, the Specific Plan indicates the installation of low foot-candle lighting elements across the majority of the project site and (as noted above) lighting installed adjacent to open space areas would be shielded and directed away from those areas to prevent light spillover.

Despite these design features, project implementation would substantially increase the amount of operational lighting on the mesa top in comparison to existing conditions. This introduction of multiple sources of nighttime lighting to the primarily vacant site associated with the proposed development would result in a potentially significant impact related to existing nighttime views and more specifically, potential for light trespass onto adjacent residential properties to the north. As a result of the potentially significant lighting impacts associated with the project, mitigation measure MM AES-2 would be required to reduce impacts to less than significant (Impact AES-2).

Glare

The architectural and environmental design of the project would include potentially reflective surfaces. Glass and rooftop solar panels are the primary sources of potential glare that would be installed on the project site. Regarding glass associated with windows, walls, or other elements of proposed buildings, the Specific Plan includes glass specifications that would minimize potential glare generated by glass elements. For example, the Specific Plan includes specifications that installed glass should be highly transparent with low reflectivity and little to no color tinting. Also, all installed glass would be required to meet California Building Code standards. Installation of low reflectivity glass would minimize opportunities for project buildings to generate daytime glare that would be received by off-site receptors and adversely affect the quality of daytime views. Further, proposed building roofs would be lightly colored “cool roofs” in order to minimize solar heat gain into buildings and minimize the potentially reflective properties of roof finishes.

As indicated in the Specific Plan, solar panels may be installed on proposed buildings to generate on-site electricity for use in project operations. If installed, rooftop solar panels would primarily display flat, horizontal form that would mimic the horizontal form of proposed building roof line. While the precise panel and racking systems to support the rooftop, panels are not yet specified, this analysis assumes that the greatest potential for glare from proposed solar panels to off-site land uses (including residential land uses to the east) would be during late afternoon/evening hours. In the hours

approaching sunset, the sun lowers towards the western horizon and displays an increasingly low angle in the sky. Photovoltaic solar panels would feature a dark surface, however, as well as anti-reflective coating. In addition, these panels in general are designed to be highly absorptive of light striking the panel surfaces, generating electricity rather than reflecting light. With regard to glare and reflectance levels, typical solar panels have a lower index of refraction/reflectivity than common sources of glare in residential and commercial environments; including steel, standard glass, plexiglass, and smooth water (Shields 2010). The glare and reflectance levels of most modules are further reduced with the incorporation of stippled glass "texturing" that allows more light energy to be channeled/transmitted through the glass while weakening the reflected light. With application of anti-reflective coatings and use of modern glass technology, project-proposed rooftop solar panels would display overall low reflectivity. As such, the potential installation of solar panels atop proposed buildings would not create a new source of substantial glare that would adversely affect daytime views in the area. Impacts would be less than significant.

4.1.5 Mitigation Measures

MM AES-1: Enhanced Landscaping Plan. As part of the Design Review permit application, the project applicant shall prepare a detailed Enhanced Landscaping Plan for the southern boundary of the resort. The plan shall be prepared by a qualified landscape architect, as determined by the City of Del Mar, and shall specify all proposed plants for the strip between the structures and the Preserve. No invasive plants shall be included and the palette shall incorporate plants providing both width and height to obscure all of the ground floor structure and portions of the second story, as feasible.

MM AES-2: Lighting Plan and Photometric Study. Prior to the issuance of construction permits, the project applicant shall prepare a detailed Lighting Plan and detailed Photometric Study. The Lighting Plan shall be prepared by a qualified lighting engineer or lighting professional, as determined by the City of Del Mar, and shall specify all proposed lighting fixtures at the project site, including the intensity/characteristics of each fixture in terms of foot-candles and a detailed lighting schedule. Light levels at residential property lines adjacent and north of the project site shall be demonstrated within a Photometric Study to not exceed 0.05 foot-candle. Lighting shall be warm light rather than cool light; approximately 2,700 Kelvin, and shall be subject to review and approval by the City of Del Mar.

4.1.6 Level of Significance After Mitigation

With implementation of Mitigation Measure AES-1, impacts associated with substantial change to existing conditions along the property line between the resort and the Preserve would be reduced to a less than significant level. With implementation of Mitigation Measure AES-2, impacts associated with project lighting and light trespass onto adjacent residential properties would be reduced to a less-than-significant level.



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Source: DUDEK, 2019

HELIX Environmental Planning

Project Setting Photographs Key Map

Figure 4.1-1a



Photo A: Looking southwest from northeastern corner of the Project Site



Photo B: Looking west from Border Avenue to north portion of Project Site and adjacent buildings



Photo C: Looking west from previously disturbed central portion of Project Site



Photo D: Looking east to landscaping on previously disturbed central portion of Project Site

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Source: DUDEK, 2019

HELIX Environmental Planning

Project Setting (1 of 5)

Figure 4.1-1b



Photo E: Looking north from southern portion of Project Site to existing on-site residence, landscaping and paths



Photo F: Looking south from southern portion of Project Site towards Del Mar coastline



Photo G: Looking north from James G. Scripps Bluff Preserve to southern portion of Project Site



Photo H: Looking south from Border Avenue to driveway to central and southern portions of Project Site

Source: DUDEK, 2019

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HELIX Environmental Planning

Project Setting (2 of 5)

Figure 4.1-1c



Photo I: Looking northwest from South Sierra Avenue to two-story residential development and landscaping



Photo J: Looking north from Border Avenue to three-story office development



Photo K: Looking west from South Sierra Avenue to two-story residential development



Photo L: Looking west from Highway 101 sidewalk to three-story hotel and two-story civic development

Source: DUDEK, 2019

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HELIX Environmental Planning

Project Setting (3 of 5)

Figure 4.1-1d



Photo M: Looking southwest from Highway 101 to commercial, residential, and hotel development



Photo N: Looking north from Camino del Mar pedestrian bridge to North Beach and Project Site



Photo O: Looking southwest from Camino del Mar to the Brigantine Restaurant and San Dieguito Lagoon



Photo P: Looking east from James G. Scripps Bluff Preserve to Del Mar Fairgrounds and surrounding area

Source: DUDEK, 2019

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HELIX Environmental Planning

Project Setting (4 of 5)

Figure 4.1-1e



Photo Q: Looking west from Via de la Valle to residential development and Project Site



Photo R: Looking north from River Path to residential development (east of Camino del Mar) and Project Site



Photo S: Looking southwest from West Solana Circle to residential development and Project Site



Photo T: Looking southeast from South Cedros Avenue to variec residential development

Source: DUDEK, 2019

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HELIX Environmental Planning

Project Setting (5 of 5)

Figure 4.1-1f



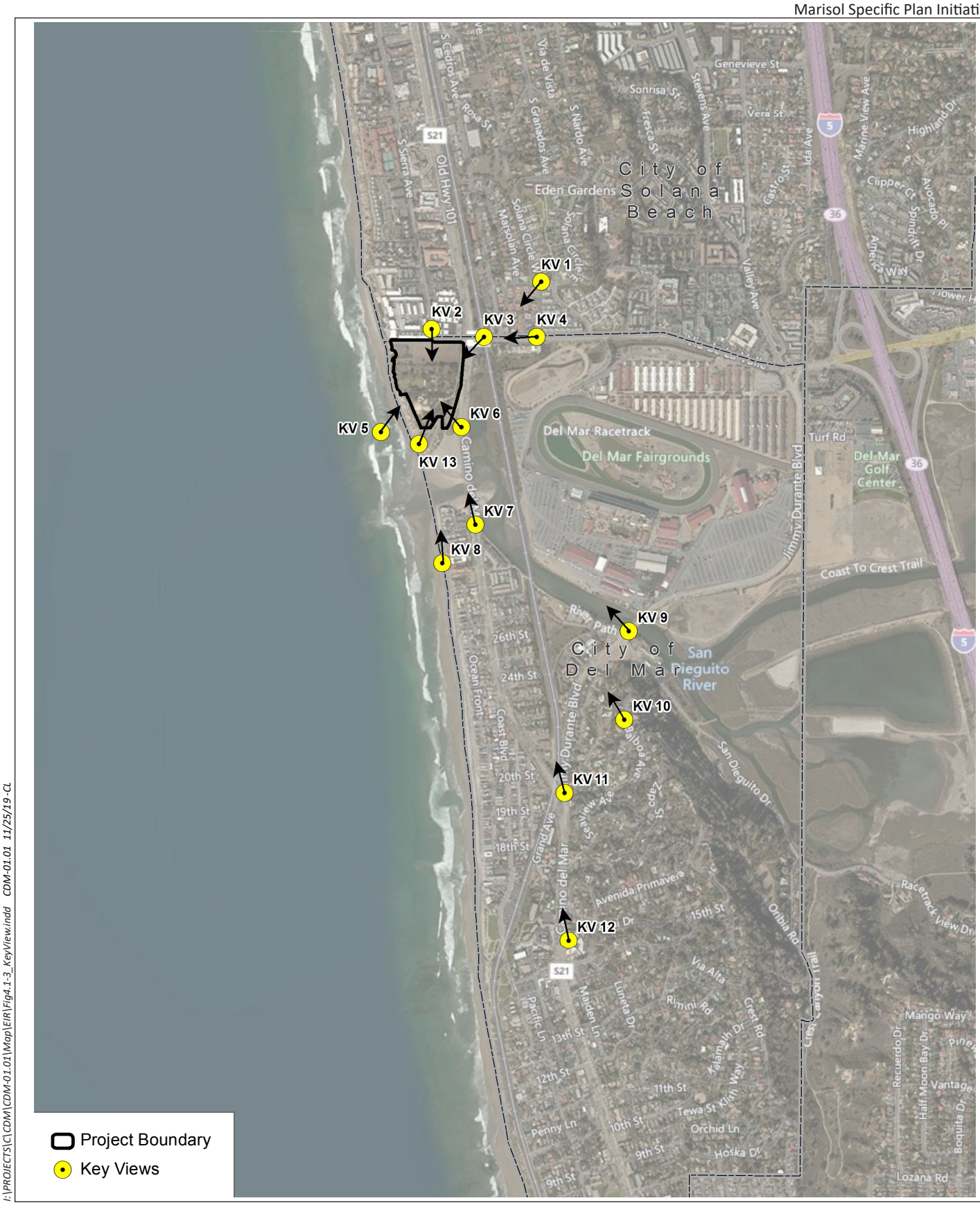
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Source: DUDEK, 2019

HELIX Environmental Planning

Project Viewshed

Figure 4.1-2



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Source: DUDEK, 2019

HELIX Environmental Planning

Key View Locations

Figure 4.1-3



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Source: DUDEK, 2019

HELIX Environmental Planning

Existing Key View 1 - West Solana Circle (City of Solana Beach)

Figure 4.1-4a



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Source: DUDEK, 2019

HELIX Environmental Planning

Proposed Key View 1 - West Solana Circle (City of Solana Beach)

Figure 4.1-4b



I:\PROJECTS\C\CDM\CDM-01.01\Map\EIR\Fig4.1-5a_KeyViewExistingSierraAve.indd CDM-01.01 11/25/19 -CL

Source: DUDEK, 2019

HELIX Environmental Planning

Existing Key View 2 - South Sierra Avenue (City of Solana Beach)

Figure 4.1-5a



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Source: DUDEK, 2019

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Proposed Key View 2 - South Sierra Avenue (City of Solana Beach)

Figure 4.1-5b



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Source: DUDEK, 2019

HELIX Environmental Planning

Existing Key View 3 - Via De La Valle at Highway 101

Figure 4.1-6a



Source: DUDEK, 2019

HELIX Environmental Planning

Proposed Key View 3 - Via De La Valle at Highway 101

Figure 4.1-6b

I:\PROJECTS\C\CDM\CDM-01.01\Map\EIR\Fig4.1-6b_KeyViewProposedViaDeLaValle.indd CDM-01.01 11/25/19 -CL



I:\PROJECTS\C\CDM\CDM-01.01\Map\EIR\Fig4.1-7a_KeyViewExistingSouthCedrosAvenue.indd CDM-01.01 11/25/19 -CL

Source: DUDEK, 2019

HELIX Environmental Planning

Existing Key View 4 - Via De La Valle at South Cedros Avenue

Figure 4.1-7a



I:\PROJECTS\C\CDM\CDM-01.01\Map\EIR\Fig4.1-7b_KeyViewProposedSouthCedrosAvenue.indd CDM-01.01 11/25/19 -RK

Source: DUDEK, 2019

HELIX Environmental Planning

Proposed Key View 4 - Via De La Valle at South Cedros Avenue

Figure 4.1-7b



I:\PROJECTS\C\CDM\CDM-01.01\Map\EIR\Fig4.1-8a_KeyViewExistingNorthBeach.indd CDM-01.01 11/25/19 -CL

Source: DUDEK, 2019

HELIX Environmental Planning

Existing Key View 5 - Del Mar Coastline Northwest of North Beach

Figure 4.1-8a



I:\PROJECTS\C\CDM\CDM-01.01\Map\EIR\Fig4.1-8b_KeyViewProposedNorthBeach.indd CDM-01.01 11/25/19 -CL

Source: DUDEK, 2019

HELIX Environmental Planning

Proposed Key View 5 - Del Mar Coastline Northwest of North Beach

Figure 4.1-8b



Source: DUDEK, 2019

HELIX Environmental Planning

Existing Key View 6 - Camino Del Mar North of Lagoon Bridge

Figure 4.1-9a

I:\PROJECTS\C\CDM\CDM-01.01\Map\EIR\Fig4.1-9a_KeyViewExistingCaminoDelMar.indd CDM-01.01 11/25/19 -CL



I:\PROJECTS\C\CDM\CDM-01.01\Map\EIR\Fig4.1-9b_KeyViewProposedCaminoDelMar.indd CDM-01.01 09/24/19 -RK

Source: DUDEK, 2019

HELIX Environmental Planning

Proposed Key View 6 - Camino Del Mar North of Lagoon Bridge

Figure 4.1-9b



I:\PROJECTS\C\CDM\CDM-01.01\Map\EIR\Fig4.1-10a_KeyViewExistingSouthofLagoonBridge.indd CDM-01.01 11/25/19 -CL

Source: DUDEK, 2019

HELIX Environmental Planning

Existing Key View 7 - Camino Del Mar South of Lagoon Bridge

Figure 4.1-10a



Source: DUDEK, 2019

HELIX Environmental Planning

Proposed Key View 7 - Camino Del Mar South of Lagoon Bridge

Figure 4.1-10b

I:\PROJECTS\C\CDM\CDM-01.01\Map\EIR\Fig4.1-10b_KeyViewProposedSouthofLagoonBridge.indd CDM-01.01 09/24/19 -RK



I:\PROJECTS\C\CDM\CDM-01.01\Map\EIR\Fig4.1-11a_KeyViewExistingDelMarCoastlineSouth.indd CDM-01.01 11/25/19 -CL

Source: DUDEK, 2019

HELIX Environmental Planning

Existing Key View 8 - Del Mar Coastline South of North Beach

Figure 4.1-11a



I:\PROJECTS\C\CDM\CDM-01.01\Map\EIR\Fig4.1-11b_KeyViewProposedDelMarCoastlineSouth.indd CDM-01.01 09/24/19 -RK

Source: DUDEK, 2019

HELIX Environmental Planning

Proposed Key View 8 - Del Mar Coastline South of North Beach

Figure 4.1-11b



Source: DUDEK, 2019

HELIX Environmental Planning

Existing Key View 9-Jimmy Durante Blvd. at San Dieguito River Bridge

Figure 4.1-12a

I:\PROJECTS\C\CDM\CDM-01.01\Map\EIR\Fig4.1-12a_KeyViewExistingJimmyDurante.indd CDM-01.01 11/25/19 -CL



I:\PROJECTS\C\CDM\CDM-01.01\Map\EIR\Fig4.1-12b_KeyViewProposedJimmyDurante.indd CDM-01.01 09/24/19 -RK

Source: DUDEK, 2019

HELIX Environmental Planning

Proposed Key View 9-Jimmy Durante Blvd. at San Dieguito River Bridge

Figure 4.1-12b



I:\PROJECTS\C\CDM\CDM-01.01\Map\EIR\Fig4.1-13a_ExistingBalboaAve.indd CDM-01.01 11/25/19 -CL

Source: DUDEK, 2019

HELIX Environmental Planning

Existing Key View 10 - Balboa Avenue (City of Del Mar)

Figure 4.1-13a



I:\PROJECTS\C\CDM\CDM-01.01\Map\EIR\Fig4.1-13b_KeyViewProposedBalboaAve.indd CDM-01.01 09/24/19 -RK

Source: DUDEK, 2019

HELIX Environmental Planning

Proposed Key View 10 - Balboa Avenue (City of Del Mar)

Figure 4.1-13b



I:\PROJECTS\C\CDM\CDM-01.01\Map\EIR\Fig4.1-14a_KeyViewExistingJimmyDuranteBlvd.indd CDM-01.01 11/25/19 -CL

Source: DUDEK, 2019

HELIX Environmental Planning

Existing Key View 11 - Camino del Mar at Jimmy Durante Boulevard

Figure 4.1-14a



I:\PROJECTS\C\CDM\CDM-01.01\Map\EIR\Fig4.1-14b_KeyViewProposedJimmyDuranteBlvd.indd CDM-01.01 09/24/19 -RK

Source: DUDEK, 2019

HELIX Environmental Planning

Proposed Key View 11 - Camino del Mar at Jimmy Durante Boulevard

Figure 4.1-14b



I:\PROJECTS\C\CDM\CDM-01.01\Map\EIR\Fig4.1-15a_KeyViewExistingDelMarPlaza.indd CDM-01.01 11/25/19 -CL

Source: DUDEK, 2019

HELIX Environmental Planning

Existing Key View 12 - Del Mar Plaza Roof Deck

Figure 4.1-15a



I:\PROJECTS\C\CDM\CDM-01.01\Map\EIR\Fig4.1-15b_KeyViewProposedDelMarPlaza.indd CDM-01.01 09/24/19 -RK

Source: DUDEK, 2019

HELIX Environmental Planning

Proposed Key View 12 - Del Mar Plaza Roof Deck

Figure 4.1-15b



I:\PROJECTS\C\CDM\CDM-01.01\Map\EIR\Fig4.1-16a_KeyViewJamesScrippsBluff.indd CDM-01.01 09/24/19 -RK

Source: DUDEK, 2019

HELIX Environmental Planning

Existing Key View 13 - James Scripps Bluff Preserve

Figure 4.1-16a



I:\PROJECTS\C\CDM\CDM-01.01\Map\EIR\Fig4.1-16b_KeyViewProposedJamesScrippsBluff.indd CDM-01.01 09/24/19 -RK

Source: DUDEK, 2019

HELIX Environmental Planning

Proposed Key View 13 - James Scripps Bluff Preserve

Figure 4.1-16b

4.2 AIR QUALITY

This subsection includes a description of existing air quality conditions, regulatory requirements, and potential impacts on air quality associated with the proposed project. The technical information in this subsection is based on an Air Quality and Greenhouse Gas Emissions Analysis Technical Report, prepared by Dudek in November 2019 (Dudek 2019b). This technical report, including methodologies used and citations and references relied upon, is included as Appendix C to this EIR.

4.2.1 Existing Conditions

The local climate in the San Diego region is characterized as semi-arid with consistently mild, warmer temperatures throughout the year. The average summertime high temperature in the region is approximately 80 degrees Fahrenheit (°F). The average wintertime low temperature is approximately 45°F. Average rainfall in the area is about 10 inches per year, with the majority of precipitation falling between November and early April (WRCC 2016). The project site is located within the San Diego Air Basin (SDAB) and is subject to the San Diego Air Pollution Control District (SDAPCD) guidelines and regulations. The SDAB is one of 15 air basins that geographically divide the State of California. The SDAB comprises the entire San Diego region and covers approximately 4,260 square miles.

The primary factors that determine air quality are the locations of air pollutant sources and the amount of pollutants emitted. Meteorological and topographical conditions, however, are also important. Factors such as wind speed and direction, air temperature gradients and sunlight, and precipitation and humidity interact with physical landscape features to determine the movement and dispersal of air pollutants. The climate of the San Diego region, as in most of Southern California, is influenced by the strength and position of the semi-permanent high-pressure system over the Pacific Ocean, known as the Pacific High. This high-pressure ridge over the West Coast often creates a pattern of late-night and early-morning low clouds, hazy afternoon sunshine, and little temperature variation year-round. The SDAB is characterized as a Mediterranean climate with dry, warm summers and mild, occasionally wet winters. El Niño and La Niña patterns have significant effects on the annual rainfall received in San Diego, where San Diego receives less than normal rainfall during La Niña years and more than normal rainfall during El Niño years. An average of about 10 inches of rain falls each year, mostly between November to early April in coastal San Diego, while the remainder of the year is typically dry (WRCC 2016). The interaction of ocean, land, and the Pacific High maintains clear skies for much of the year and influences the direction of prevailing winds (westerly to northwesterly). The winds tend to blow onshore in the day and offshore at night. Local terrain is often the dominant factor inland, and winds in inland mountainous areas tend to blow through the valleys during the day and down the hills and valleys at night.

The favorable climate of San Diego also works to create air pollution problems. Sinking, or subsiding, air from the Pacific High creates a temperature inversion known as a subsidence inversion, which acts as a "lid" to vertical dispersion of pollutants. Weak summertime pressure gradients further limit horizontal dispersion of pollutants in the mixed layer below the subsidence inversion. Poorly dispersed anthropogenic emissions combined with strong sunshine leads to photochemical reactions that result in the creation of ozone (O_3) at this surface layer. In addition, light winds during the summer further limit ventilation. In the fall months, the SDAB is often impacted by Santa Ana winds, which are the result of a high-pressure system over the Nevada and Utah regions that overcomes the westerly wind pattern and forces hot, dry winds from the east to the Pacific Ocean. The Santa Ana winds are powerful and can blow the SDAB's pollutants out to sea. However, a weak Santa Ana can transport air pollution from the

South Coast Air Basin, located north of the SDAB, and greatly increase O_3 concentrations in the San Diego area.

Under certain conditions, atmospheric oscillation results in the offshore transport of air from the Los Angeles region to San Diego County (County). This often produces high O_3 concentrations, as measured at air pollutant monitoring stations within the County. The transport of air pollutants from Los Angeles to San Diego can also occur within the stable layer of the elevated subsidence inversion, where high levels of O_3 are transported.

Topography in the San Diego region varies greatly, from beaches in the west to mountains and desert in the east; much of the topography in between consists of mesa tops intersected by canyon areas. Along with local meteorology, topography influences the dispersal and movement of pollutants in the SDAB. Mountains to the east prohibit dispersal of pollutants in that direction and help trap pollutants in inversion layers. The topography of the SDAB also drives pollutant levels, and the SDAB is classified as a "transport recipient," whereby pollutants are transported from the SCAB to the north and, when the wind shifts direction, from Tijuana, Mexico, to the south.

Criteria Air Pollutants

Criteria air pollutants are defined as pollutants for which the federal and state governments have established ambient air quality standards, or criteria, for outdoor concentrations to protect public health. The federal and state standards have been set, with an adequate margin of safety, at levels above which concentrations could be harmful to human health and welfare. These standards are designed to protect the most sensitive persons from illness or discomfort. Pollutants of concern include O_3, nitrogen dioxide (NO_2), carbon monoxide (CO), sulfur dioxide (SO_2), particulate matter with an aerodynamic diameter less than or equal to 10 microns (PM_{10}), particulate matter with an aerodynamic diameter less than or equal to 2.5 microns ($PM_{2.5}$), and lead. These pollutants, as well as toxic air contaminants (TACs), are discussed in the following paragraphs. In California, sulfates, vinyl chloride, hydrogen sulfide, and visibility-reducing particles are also regulated as criteria air pollutants.

Ozone. O_3 is a strong-smelling, pale blue, reactive, toxic chemical gas consisting of three oxygen atoms. It is a secondary pollutant formed in the atmosphere by a photochemical process involving the sun's energy and O_3 precursors. These precursors are mainly oxides of nitrogen (NO_X) and volatile organic compounds (VOCs). The maximum effects of precursor emissions on O_3 concentrations usually occur several hours after they are emitted and many miles from the source. Meteorology and terrain play major roles in O_3 formation, and ideal conditions occur during summer and early autumn on days with low wind speeds or stagnant air, warm temperatures, and cloudless skies. Ozone exists in the upper atmosphere (stratospheric ozone) and at the Earth's surface in the troposphere. The O_3 that the U.S. Environmental Protection Agency (USEPA) and the California Air Resources Board (CARB) regulate as a criteria air pollutant is produced close to the ground level, where people live, exercise, and breathe. Ground-level O_3 is a harmful air pollutant that causes numerous adverse health effects and is thus considered "bad" O_3. Stratospheric, or "good," O_3 occurs naturally in the upper atmosphere, where it reduces the amount of ultraviolet light (i.e., solar radiation) entering the Earth's atmosphere. Without the protection of the beneficial stratospheric O_3 layer, plant and animal life would be seriously harmed.

O_3 in the troposphere causes numerous adverse health effects; short-term exposures (lasting for a few hours) to O_3 at levels typically observed in Southern California can result in breathing pattern changes, reduction of breathing capacity, increased susceptibility to infections, inflammation of the lung tissue,

and some immunological changes. These health problems are particularly acute in sensitive receptors such as the sick, the elderly, and young children.

Nitrogen Dioxide. NO_2 is a brownish, highly reactive gas that is present in all urban atmospheres. The major mechanism for the formation of NO_2 in the atmosphere is the oxidation of the primary air pollutant nitric oxide, which is a colorless, odorless gas. NO_X plays a major role, together with VOCs, in the atmospheric reactions that produce O_3. NO_2 is formed from fuel combustion under high temperature or pressure. In addition, NO_2 is an important precursor to acid rain and may affect both terrestrial and aquatic ecosystems. The two major emissions sources are transportation and stationary fuel combustion sources such as electric utility and industrial boilers.

NO_2 can irritate the lungs, cause bronchitis and pneumonia, and lower resistance to respiratory infections.

Carbon Monoxide. CO is a colorless, odorless gas formed by the incomplete combustion of hydrocarbon, or fossil fuels. CO is emitted almost exclusively from motor vehicles, power plants, refineries, industrial boilers, ships, aircraft, and trains. In urban areas, such as the project location, automobile exhaust accounts for the majority of CO emissions. CO is a nonreactive air pollutant that dissipates relatively quickly; therefore, ambient CO concentrations generally follow the spatial and temporal distributions of vehicular traffic. CO concentrations are influenced by local meteorological conditions—primarily wind speed, topography, and atmospheric stability. CO from motor vehicle exhaust can become locally concentrated when surface-based temperature inversions are combined with calm atmospheric conditions, which is a typical situation at dusk in urban areas from November to February. The highest levels of CO typically occur during the colder months of the year, when inversion conditions are more frequent.

In terms of adverse health effects, CO competes with oxygen, often replacing it in the blood, reducing the blood's ability to transport oxygen to vital organs. The results of excess CO exposure can include dizziness, fatigue, and impairment of central nervous system functions.

Sulfur Dioxide. SO_2 is a colorless, pungent gas formed primarily from incomplete combustion of sulfur-containing fossil fuels. The main sources of SO_2 are coal and oil used in power plants and industries; as such, the highest levels of SO_2 are generally found near large industrial complexes. In recent years, SO_2 concentrations have been reduced by the increasingly stringent controls placed on stationary source emissions of SO_2 and limits on the sulfur content of fuels.

SO_2 is an irritant gas that attacks the throat and lungs and can cause acute respiratory symptoms and diminished ventilator function in children. When combined with particulate matter, SO_2 can injure lung tissue and reduce visibility and the level of sunlight. SO_2 can also yellow plant leaves and erode iron and steel.

Particulate Matter. Particulate matter pollution consists of very small liquid and solid particles floating in the air, which can include smoke, soot, dust, salts, acids, and metals. Particulate matter can form when gases emitted from industries and motor vehicles undergo chemical reactions in the atmosphere. $PM_{2.5}$ and PM_{10} represent fractions of particulate matter. Coarse particulate matter (PM_{10}) consists of particulate matter that is 10 microns or less in diameter, which is about 1/7 the diameter of a human hair. Major sources of PM_{10} include crushing or grinding operations; dust stirred up by vehicles traveling on roads; wood-burning stoves and fireplaces; dust from construction, landfills, and agriculture; wildfires and brush/waste burning; industrial sources; windblown dust from open lands; and

atmospheric chemical and photochemical reactions. Fine particulate matter ($PM_{2.5}$) consists of particulate matter that is 2.5 microns or less in diameter, which is roughly 1/28 the diameter of a human hair. $PM_{2.5}$ results from fuel combustion (e.g., from motor vehicles and power generation and industrial facilities), residential fireplaces, and woodstoves. In addition, $PM_{2.5}$ can be formed in the atmosphere from gases such as SO_X, NO_X, and VOCs.

$PM_{2.5}$ and PM_{10} pose a greater health risk than larger-size particles. When inhaled, these tiny particles can penetrate the human respiratory system's natural defenses and damage the respiratory tract. $PM_{2.5}$ and PM_{10} can increase the number and severity of asthma attacks, cause or aggravate bronchitis and other lung diseases, and reduce the body's ability to fight infections. Very small particles of substances such as lead, sulfates, and nitrates can cause lung damage directly or be absorbed into the blood stream, causing damage elsewhere in the body. Additionally, these substances can transport adsorbed gases such as chlorides or ammonium into the lungs, also causing injury. Whereas PM_{10} tends to collect in the upper portion of the respiratory system, $PM_{2.5}$ is so tiny that it can penetrate deeper into the lungs and damage lung tissue. Suspended particulates also damage and discolor surfaces on which they settle and produce haze and reduce regional visibility.

People with influenza, people with chronic respiratory and cardiovascular diseases, and the elderly may suffer worsening illness and premature death as a result of breathing particulate matter. People with bronchitis can expect aggravated symptoms from breathing in particulate matter. Children may experience a decline in lung function due to breathing in PM_{10} and $PM_{2.5}$.

Lead. Lead in the atmosphere occurs as particulate matter. Sources of lead include leaded gasoline; the manufacturing of batteries, paints, ink, ceramics, and ammunition; and secondary lead smelters. Prior to 1978, mobile emissions were the primary source of atmospheric lead. Between 1978 and 1987, the phaseout of leaded gasoline reduced the overall inventory of airborne lead by nearly 95 percent. With the phaseout of leaded gasoline, secondary lead smelters, battery recycling, and manufacturing facilities are becoming lead-emissions sources of greater concern.

Prolonged exposure to atmospheric lead poses a serious threat to human health. Health effects associated with exposure to lead include gastrointestinal disturbances, anemia, kidney disease, and in severe cases, neuromuscular and neurological dysfunction. Of particular concern are low-level lead exposures during infancy and childhood. Such exposures are associated with decrements in neurobehavioral performance, including intelligence quotient performance, psychomotor performance, reaction time, and growth. Children are highly susceptible to the effects of lead.

Volatile Organic Compounds. Hydrocarbons are organic gases that are formed from hydrogen and carbon and sometimes other elements. Hydrocarbons that contribute to formation of O_3 are referred to and regulated as VOCs (also referred to as reactive organic gases). Combustion engine exhaust, oil refineries, and fossil-fueled power plants are the primary sources of hydrocarbons. Other sources include evaporation from petroleum fuels, solvents, dry cleaning solutions, and paint.

The primary health effects of VOCs result from the formation of O_3 and its related health effects. High levels of VOCs in the atmosphere can interfere with oxygen intake by reducing the amount of available oxygen through displacement. Carcinogenic (i.e., cancer-causing) forms of hydrocarbons, such as benzene, are considered toxic air contaminants (TACs). There are no separate health standards for VOCs as a group.

Non-Criteria Air Pollutants

Toxic Air Contaminants. A substance is considered toxic if it has the potential to cause adverse health effects in humans, including increasing the risk of cancer upon exposure, or acute and/or chronic noncancer health effects. A toxic substance released into the air is considered a TAC. TACs are identified by federal and state agencies based on a review of available scientific evidence. In California, TACs are identified through a two-step process that was established in 1983 under the Toxic Air Contaminant Identification and Control Act. This two-step process of risk identification and risk management and reduction was designed to protect residents from the health effects of toxic substances in the air. In addition, the California Air Toxics "Hot Spots" Information and Assessment Act, Assembly Bill (AB) 2588, was enacted by the legislature in 1987 to address public concern over the release of TACs into the atmosphere. The law requires facilities emitting toxic substances to provide local air pollution control districts with information that will allow an assessment of the air toxics problem, identification of air toxics emissions sources, location of resulting hotspots, notification of the public exposed to significant risk, and development of effective strategies to reduce potential risks to the public over five years.

Examples include certain aromatic and chlorinated hydrocarbons, certain metals, and asbestos. TACs are generated by a number of sources, including stationary sources, such as dry cleaners, gas stations, combustion sources, and laboratories; mobile sources, such as automobiles; and area sources, such as landfills. Adverse health effects associated with exposure to TACs may include carcinogenic and noncarcinogenic effects. Noncarcinogenic effects typically affect one or more target organ systems and may be experienced on either short-term (acute) or long-term (chronic) exposure to a given TAC.

Diesel Particulate Matter. Diesel particulate matter (DPM) is part of a complex mixture that makes up diesel exhaust. Diesel exhaust is composed of two phases, gas and particle, both of which contribute to health risks. More than 90 percent of DPM is less than 1 micrometer in diameter (about 1/70th the diameter of a human hair), and thus is a subset of $PM_{2.5}$ (CARB 2016). DPM is typically composed of carbon particles ("soot," also called black carbon, or BC) and numerous organic compounds, including over 40 known cancer-causing organic substances. Examples of these chemicals include polycyclic aromatic hydrocarbons, benzene, formaldehyde, acetaldehyde, acrolein, and 1,3-butadiene. The CARB classified "particulate emissions from diesel-fueled engines" (i.e., DPM; 17 CCR 93000) as a TAC in August 1998. DPM is emitted from a broad range of diesel engines: on-road diesel engines of trucks, buses, and cars and off-road diesel engines including locomotives, marine vessels, and heavy-duty construction equipment, among others. Approximately 70 percent of all airborne cancer risk in California is associated with DPM. To reduce the cancer risk associated with DPM, CARB adopted a diesel risk reduction plan in 2000. Because it is part of $PM_{2.5}$, DPM also contributes to the same non-cancer health effects as $PM_{2.5}$ exposure. These effects include premature death; hospitalizations and emergency department visits for exacerbated chronic heart and lung disease, including asthma, increased respiratory symptoms, and decreased lung function in children. Several studies suggest that exposure to DPM may also facilitate development of new allergies. Those most vulnerable to non-cancer health effects are children whose lungs are still developing and the elderly who often have chronic health problems.

Odorous Compounds. Odors are generally regarded as an annoyance rather than a health hazard. Manifestations of a person's reaction to odors can range from psychological (e.g., irritation, anger, or anxiety) to physiological (e.g., circulatory and respiratory effects, nausea, vomiting, and headache). The ability to detect odors varies considerably among the population and overall is quite subjective. People may have different reactions to the same odor. For instance, an odor that is offensive to one person

may be perfectly acceptable to another (e.g., coffee roaster). An unfamiliar odor is more easily detected and is more likely to cause complaints than a familiar one. Known as odor fatigue, a person can become desensitized to almost any odor, and recognition may only occur with an alteration in the intensity. The occurrence and severity of odor impacts depend on the nature, frequency, and intensity of the source; wind speed and direction; and the sensitivity of receptors.

Local Ambient Air Quality

CARB, air districts, and other agencies monitor ambient air quality at approximately 250 air quality monitoring stations across the state. The local ambient air quality in the project vicinity is monitored by the SDAPCD. Air quality monitoring stations usually measure pollutant concentrations 10 feet above ground level; therefore, air quality is often referred to in terms of ground-level concentrations. The background ambient air quality data from 2016 to 2018 are presented in Table 4.2-1, *Air Quality Monitoring Data*. The Del Mar–Mira Costa College monitoring station, located at 832 Camino Del Mar, is the nearest air quality monitoring station, and is located approximately 1.11 miles south of the project site. Air quality data for O_3 from the Del Mar–Mira Costa College monitoring station are provided in Table 4.2-1. Because NO_2, PM_{10}, and $PM_{2.5}$ are not monitored at the Del Mar–Mira Costa College monitoring station, these measurements were taken from the San Diego–Kearny Villa Road monitoring station, which is the closest monitoring station that measures these pollutants. The data collected at these stations are considered representative of the air quality experienced in the project site. The number of days exceeding the ambient air quality standards are also shown in Table 4.2-1.

Table 4.2-1
AIR QUALITY MONITORING DATA

Pollutant Standards – Monitoring Station	2016	2017	2018
Ozone (O_3) – Del Mar-Mira Costa College			
Maximum concentration 1-hour period (ppm)	0.079	0.075	ND
Maximum concentration 8-hour period (ppm)	0.071	0.061	ND
Days above 1-hour state standard (>0.09 ppm)	1	1	ND
Days above 8-hour state/federal standard (>0.070 ppm)	2/2	1/1	ND
Nitrogen Dioxide (NO_2) – San Diego-Kearny Villa Road			
Maximum 1-hour concentration (ppm)	0.053	0.054	0.045
Days above state 1-hour standard (0.18 ppm)	0	0	0
Days above federal 1-hour standard (0.100 ppm)	0	0	0
Carbon Monoxide (CO) – 11403 Rancho Carmel Drive			
Maximum concentration 1-hour period (ppm)	2.0	1.5	1.9
Maximum concentration 8-hour period (ppm)	1.2	1.4	1.1
Days above 1-hour federal standard (35 ppm)	0	0	0
Days above 8-hour federal standard (9 ppm)	0	0	0
Sulfur Dioxide (SO_2) – El Cajon-Floyd Smith Drive			
Maximum concentration 1-hour period (ppm)	0.006	0.011	0.035
Maximum concentration 24-hour period (ppm)	0.002	0.004	0.004
Days above 1-hour federal standard (0.075 ppm)	0	0	0
Days above 14-hour federal standard (0.14 ppm)	0	0	0
Suspended Particulates (PM_{10}) – San Diego-Kearny Villa Road			
Maximum 24-hour concentration ($\mu g/m^3$)	36.0	46.0	38.0
Days above state standard (>50 $\mu g/m^3$)	0	0	0
Days above federal standard (>150 $\mu g/m^3$)	0	0	0

Table 4.2-1 (cont.)
AIR QUALITY MONITORING DATA

Pollutant Standards – Monitoring Station	2016	2017	2018
Suspended Particulates ($PM_{2.5}$) – San Diego-Kearny Villa Road			
Maximum 24-hour concentration ($\mu g/m^3$)	19.4	27.5	32.2
Days above federal standard (>35 $\mu g/m^3$)	0	0	0

Source: Dudek 2019
ppm = parts per million; $\mu g/m^3$ = micrograms per cubic meter
ND = No Data available

Sensitive Receptors

Some land uses are considered more sensitive to changes in air quality than others, depending on the population groups and the activities involved. People most likely to be affected by air pollution include children, the elderly, athletes, and people with cardiovascular and chronic respiratory diseases. Facilities and structures where these air pollution-sensitive people live or spend considerable amounts of time are known as sensitive receptors. Land uses where air pollution-sensitive individuals are most likely to spend time include schools and schoolyards, parks and playgrounds, daycare centers, nursing homes, hospitals, and residential communities (collectively referred to as sensitive receptors). The nearest existing sensitive receptors are the multi-family residences located adjacent to the project site's northern boundary. Receptors also include future visitors and residents to the project site.

4.2.2 Regulatory Setting

4.2.2.1 Federal and State

Clean Air Act

The federal Clean Air Act, passed in 1970 and last amended in 1990, forms the basis for the national air pollution control effort. The EPA is responsible for implementing most aspects of the Clean Air Act, including setting National Ambient Air Quality Standards (NAAQS) for major air pollutants; setting hazardous air pollutants (HAPs) standards; approving state attainment plans; setting motor vehicle emission standards; issuing stationary source emission standards and permits; and establishing acid rain control measures, stratospheric O_3 protection measures, and enforcement provisions. Under the Clean Air Act, NAAQS are established for the following criteria pollutants: O_3, CO, NO_2, SO_2, PM_{10}, $PM_{2.5}$, and lead.

The NAAQS describe acceptable air quality conditions designed to protect the health and welfare of the citizens of the nation. The NAAQS (other than for O_3, NO_2, SO_2, PM_{10}, $PM_{2.5}$, and those based on annual averages or arithmetic mean) are not to be exceeded more than once per year. NAAQS for O_3, NO_2, SO_2, PM_{10}, and $PM_{2.5}$ are based on statistical calculations over 1- to 3-year periods, depending on the pollutant. The Clean Air Act requires the EPA to reassess the NAAQS at least every five years to determine whether adopted standards are adequate to protect public health based on current scientific evidence. States with areas that exceed the NAAQS must prepare a state implementation plan (SIP) that demonstrates how those areas will attain the standards within mandated time frames.

The 1977 federal Clean Air Act amendments required the EPA to identify National Emission Standards for Hazardous Air Pollutants to protect public health and welfare. HAPs include certain VOCs, pesticides,

herbicides, and radionuclides that present a tangible hazard, based on scientific studies of exposure to humans and other mammals. Under the 1990 Clean Air Act amendments, which expanded the control program for HAPs, 187 substances and chemical families were identified as HAPs.

The federal Clean Air Act delegates the regulation of air pollution control and the enforcement of the NAAQS to the states. In California, the task of air quality management and regulation has been legislatively granted to CARB, with subsidiary responsibilities assigned to air quality management districts and air pollution control districts at the regional and county levels. CARB, which became part of the California Environmental Protection Agency in 1991, is responsible for ensuring implementation of the California Clean Air Act of 1988, responding to the federal Clean Air Act, and regulating emissions from motor vehicles and consumer products.

CARB has established California Ambient Air Quality Standards (CAAQS), which are generally more restrictive than the NAAQS. The CAAQS describe adverse conditions; that is, pollution levels must be below these standards before a basin can attain the standard. Air quality is considered "in attainment" if pollutant levels are continuously below the CAAQS and violate the standards no more than once each year. The CAAQS for O_3, CO, SO_2 (1-hour and 24-hour), NO_2, PM_{10}, and $PM_{2.5}$ and visibility-reducing particles are values not to be exceeded. All others are not to be equaled or exceeded. The NAAQS and CAAQS are presented in Table 4.2-2, *California and National Ambient Air Quality Standards*.

Table 4.2-2
CALIFORNIA AND NATIONAL AMBIENT AIR QUALITY STANDARDS

Pollutant	Averaging Time	California Standards	Federal Standards	
			Primary[1]	Secondary[2]
O_3	1 Hour	0.09 ppm (180 µg/m^3)	–	–
	8 Hour	0.070 ppm (137 µg/m^3)	0.070 ppm (137 µg/m^3)	Same as Primary
PM_{10}	24 Hour	50 µg/m^3	150 µg/m^3	Same as Primary
	AAM	20 µg/m^3	–	Same as Primary
$PM_{2.5}$	24 Hour	–	35 µg/m^3	Same as Primary
	AAM	12 µg/m^3	12.0 µg/m^3	15.0 µg/m^3
CO	1 Hour	20 ppm (23 mg/m^3)	35 ppm (40 mg/m^3)	–
	8 Hour	9.0 ppm (10 mg/m^3)	9 ppm (10 mg/m^3)	–
	8 Hour (Lake Tahoe)	6 ppm (7 mg/m^3)	–	–
NO_2	1 Hour	0.18 ppm (339 µg/m^3)	0.100 ppm (188 µg/m^3)	–
	AAM	0.030 ppm (57 µg/m^3)	0.053 ppm (100 µg/m^3)	Same as Primary
SO_2	1 Hour	0.25 ppm (655 µg/m^3)	0.075 ppm (196 µg/m^3)	–
	3 Hour	–	–	0.5 ppm (1,300 µg/m^3)
	24 Hour	0.04 ppm (105 µg/m^3)	–	–
Pb	30-day Avg.	1.5 µg/m^3	–	–
	Calendar Quarter	–	1.5 µg/m^3	Same as Primary
	Rolling 3-month Avg.	–	0.15 µg/m^3	

Table 4.2-2 (cont.)
CALIFORNIA AND NATIONAL AMBIENT AIR QUALITY STANDARDS

Pollutant	Averaging Time	California Standards	Federal Standards	
			Primary[1]	Secondary[2]
Visibility Reducing Particles	8 Hour	Extinction coefficient of 0.23 per km – visibility ≥ 10 miles (0.07 per km – ≥30 miles for Lake Tahoe)	**No Federal Standards**	
Sulfates	24 Hour	25 µg/m^3		
Hydrogen Sulfide (H_2S)	1 Hour	0.03 ppm (42 µg/m^3)		
Vinyl Chloride	24 Hour	0.01 ppm (26 µg/m^3)		

Source: CARB 2016

[1] National Primary Standards: The levels of air quality necessary, within an adequate margin of safety, to protect the public health.

[2] National Secondary Standards: The levels of air quality necessary to protect the public welfare from any known or anticipated adverse effects of a pollutant.

O_3: ozone; ppm: parts per million; µg/m^3: micrograms per cubic meter; PM_{10}: large particulate matter; AAM: Annual Arithmetic Mean; $PM_{2.5}$: fine particulate matter; CO: carbon monoxide; mg/m^3: milligrams per cubic meter; NO_2: nitrogen dioxide; SO_2: sulfur dioxide; km: kilometer; –: No Standard.

Pursuant to the 1990 Federal Clean Air Act Amendments, the EPA classifies air basins (or portions thereof) as "attainment" or "nonattainment" for each criteria air pollutant, based on whether the NAAQS have been achieved. Generally, if the recorded concentrations of a pollutant are lower than the standard, the area is classified as "attainment" for that pollutant. If an area exceeds the standard, the area is classified as "nonattainment" for that pollutant. As previously discussed, these standards are set by the EPA or CARB for the maximum level of a given air pollutant that can exist in the outdoor air without unacceptable effects on human health or the public welfare. If there is not enough data available to determine whether the standard is exceeded in an area, the area is designated as "unclassified" or "unclassifiable." The designation of "unclassifiable/attainment" means that the area meets the standard or is expected to be meet the standard despite a lack of monitoring data. Areas that achieve the standards after a nonattainment designation are redesignated as maintenance areas and must have approved Maintenance Plans to ensure continued attainment of the standards. The California Clean Air Act, like its federal counterpart, called for the designation of areas as "attainment" or "nonattainment," but based on CAAQS rather than the NAAQS.

Table 4.2-3, *Federal and State Air Quality Designation for the San Diego Air Basin*, summarizes the SDAB's federal and state attainment designations for each of the criteria pollutants. As shown, the SDAB is designated as a nonattainment area for federal and state O_3 standards and state PM_{10} and $PM_{2.5}$ standards. The SDAB is designated as either in attainment or unclassified for the remaining standards.

Table 4.2-3
FEDERAL AND STATE AIR QUALITY DESIGNATION
FOR THE SAN DIEGO AIR BASIN

Criteria Pollutant	Federal Designation	State Designation
O_3 (1-hour)	Attainment	Nonattainment
O_3 (8-hour)	Nonattainment	Nonattainment
CO	Attainment	Attainment
PM_{10}	Unclassified	Nonattainment
$PM_{2.5}$	Attainment	Nonattainment
NO_2	Attainment	Attainment
SO_2	Attainment	Attainment
Lead	Attainment	Attainment
Sulfates	(No federal standard)	Attainment
Hydrogen Sulfide	(No federal standard)	Unclassified
Visibility	(No federal standard)	Unclassified

Source: Dudek 2019

4.2.2.2 Local

San Diego Air Pollution Control District

CARB is responsible for the regulation of mobile emission sources within the state, and local air quality management districts and air pollution control districts are responsible for enforcing standards and regulating stationary sources. The project site is located within the SDAB and is subject to the guidelines and regulations of the SDAPCD. The following rules and regulations apply to all sources in the jurisdiction of SDAPCD, and would apply to the proposed project:

- SDAPCD Regulation IV: Prohibitions; Rule 50: Visible Emissions. Prohibits discharge into the atmosphere from any single source of emissions whatsoever any air contaminant for a period or periods aggregating more than 3 minutes in any period of 60 consecutive minutes that is darker in shade than that designated as Number 1 on the Ringelmann Chart, as published by the United States Bureau of Mines, or of such opacity as to obscure an observer's view to a degree greater than does smoke of a shade designated as Number 1 on the Ringelmann Chart.

- SDAPCD Regulation IV: Prohibitions; Rule 51: Nuisance. Prohibits the discharge, from any source, of such quantities of air contaminants or other materials that cause or have a tendency to cause injury, detriment, nuisance, annoyance to people and/or the public, or damage to any business or property.

- SDAPCD Regulation IV: Prohibitions; Rule 55: Fugitive Dust. Regulates fugitive dust emissions from any commercial construction or demolition activity capable of generating fugitive dust emissions, including active operations, open storage piles, and inactive disturbed areas, as well as track-out and carry-out onto paved roads beyond a project site.

- SDAPCD Regulation IV: Prohibitions; Rule 67.0.1: Architectural Coatings. Requires manufacturers, distributors, and end users of architectural and industrial maintenance coatings to reduce VOC emissions from the use of these coatings, primarily by placing limits on the VOC content of various coating categories.

Federal Attainment Plans

In December 2016, the SDAPCD adopted an update to the Eight-Hour Ozone Attainment Plan for San Diego County. The 2016 Eight-Hour Ozone Attainment Plan for San Diego County indicates that local controls and state programs would allow the region to reach attainment of the federal 8-hour O_3 standard by 2018. In this plan, SDAPCD relies on the Regional Air Quality Strategy (RAQS) to demonstrate how the region will comply with the federal O_3 standard. The RAQS details how the region will manage and reduce O_3 precursors (NO_X and VOCs) by identifying measures and regulations intended to reduce these pollutants. The control measures identified in the RAQS generally focus on stationary sources; however, the emissions inventories and projections in the RAQS address all potential sources, including those under the authority of CARB and the EPA. Incentive programs for reduction of emissions from heavy-duty diesel vehicles, off-road equipment, and school buses are also established in the RAQS.

As documented in the 2016 Eight-Hour Ozone Attainment Plan for San Diego County, the County has a likely chance of obtaining attainment due to the transition to low emission cars, stricter new source review rules, and continuing the requirement of general conformity for military growth and the San Diego International Airport. The County will also continue emission control measures including ongoing implementation of existing regulations in O_3 precursor reduction to stationary and area-wide sources, subsequent inspections of facilities and sources, and the adoption of laws requiring Best Available Retrofit Control Technology for control of emissions.

State Attainment Plans

The SDAPCD and SANDAG are responsible for developing and implementing the clean air plan for attainment and maintenance of the ambient air quality standards in the SDAB. The RAQS for the SDAB was initially adopted in 1991 and is updated on a triennial basis, most recently in 2016. The RAQS outlines SDAPCD's plans and control measures designed to attain the state air quality standards for O_3. The RAQS relies on information from CARB and SANDAG, including mobile and area source emissions, as well as information regarding projected growth in San Diego County and the cities in the County, to forecast future emissions and then determine from that the strategies necessary for the reduction of emissions through regulatory controls. CARB mobile source emission projections and SANDAG growth projections are based on population, vehicle trends, and land use plans developed by San Diego County and the cities in the County as part of the development of their general plans.

In December 2016, the SDAPCD adopted the revised RAQS for the County. Since 2007, the San Diego region reduced daily VOC emissions and NO_X emissions by 3.9 percent and 7.0 percent respectively; the SDAPCD expects to continue reductions through 2035. These reductions were achieved through implementation of six VOC control measures and three NO_X control measures adopted in the SDAPCD's 2009 RAQS. The SDAPCD is also considering additional measures, including three VOC measures and four control measures to reduce 0.3 daily tons of VOC and 1.2 daily tons of NO_X, provided they are found to be feasible region-wide. In addition, SDAPCD has implemented nine incentive-based programs, has worked with SANDAG to implement regional transportation control measures, and has reaffirmed the state emission offset repeal.

In regard to particulate matter emissions reduction efforts, in December 2005, the SDAPCD prepared a report titled "Measures to Reduce Particulate Matter in San Diego County" to address implementation of Senate Bill (SB) 656 in San Diego County (SB 656 required additional controls to reduce ambient concentrations of PM_{10} and $PM_{2.5}$). In the report, SDAPCD evaluated implementation of source-control measures that would reduce particulate matter emissions associated with residential wood combustion;

various construction activities including earthmoving, demolition, and grading; bulk material storage and handling; carryout and track-out removal and cleanup methods; inactive disturbed land; disturbed open areas; unpaved parking lots/staging areas; unpaved roads; and windblown dust.

San Diego Association of Governments

SANDAG is the regional planning agency for San Diego County and serves as a forum for regional issues relating to transportation, the economy, community development, and the environment. SANDAG serves as the federally designated metropolitan planning organization for San Diego County. With respect to air quality planning and other regional issues, SANDAG has prepared *San Diego Forward: The Regional Plan* (Regional Plan) for the San Diego region. The Regional Plan combines the big-picture vision for how our region will grow over the next 35 years with an implementation program to help make that vision a reality. The Regional Plan, including its Sustainable Communities Strategy, is built on an integrated set of public policies, strategies, and investments to maintain, manage, and improve the transportation system so that it meets the diverse needs of the San Diego region through 2050.

In regard to air quality, the Regional Plan sets the policy context in which SANDAG participates in and responds to SDAPCD's air quality plans and builds off the air district's air quality plan processes that are designed to meet health-based criteria pollutant standards in several ways. First, it complements air quality plans by providing guidance and incentives for public agencies to consider best practices that support the technology-based control measures in air quality plans. Second, the Regional Plan emphasizes the need for better coordination of land use and transportation planning, which heavily influences the emissions inventory from the transportation sectors of the economy. This also minimizes land use conflicts, such as residential development near freeways, industrial areas, or other sources of air pollution.

Del Mar Community Plan

The City of Del Mar's Community Plan includes policies related to improving air quality (both directly and indirectly). Applicable components of the Community Plan include the following:

Transportation Element Goal 2, Objective F.

Policy 1: Seek to promote the reduction of vehicle-miles-traveled, thereby reducing congestion and reducing air and water pollution.

Policy 2: Recognize and publicize the relationship between air pollution and water pollution in the deposition onto streets and other surfaces of airborne contaminants, including metals and fine particulate matter (PM_{10}).

Environmental Management Element Goal 1, Objective H.

Policy 12: Encourage reductions and modifications to air pollution generating activities and sources to reduce the deposition of air-borne pollutants and improve urban and stormwater runoff water quality.

4.2.3 Thresholds of Significance

The City of Del Mar relies on the thresholds of significance that are based on Appendix G of the 2019 State CEQA Guidelines. Impacts related to air quality would be significant if implementation of the project would:

a) Conflict with or obstruct the implementation of the applicable air quality plan;

b) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is nonattainment under an applicable federal or state ambient air quality standard;

c) Expose sensitive receptors to substantial pollutant concentrations; or

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

Appendix G of the CEQA Guidelines indicates that, where available, the significance criteria established by the applicable air quality management district or pollution control district may be relied upon to determine whether the project would have a significant impact on air quality.

The City of Del Mar has not adopted numerical thresholds of significance for determining whether air quality impacts are significant. As part of its air quality permitting process, the SDAPCD has established thresholds in Rule 20.2 requiring the preparation of Air Quality Impact Assessments for permitted stationary sources. The SDAPCD sets forth quantitative emission thresholds below which a stationary source would not have a significant impact on ambient air quality. Project-related air quality impacts estimated in this environmental analysis would be considered significant if any of the applicable significance thresholds presented in Table 4.2-4, *San Diego Air Pollution Control District Air Quality Significance Thresholds*, are exceeded. These screening criteria can be used as numeric methods to demonstrate that a project's total emissions would not result in a significant impact to air quality. The evaluation whether the project would conflict with or obstruct implementation of the SDAPCD 2016 RAQS (threshold criterion 1) is based on the potential for the project to conflict with the underlying land use assumptions (i.e., general plan land use designations) in the RAQS.

The SDAPCD Air Quality Significance Thresholds shown in Table 4.2-4 were used to determine significance of project-generated criteria air pollutants; specifically, the project's potential to violate any air quality standard or contribute substantially to an existing or projected air quality violation (as assessed under the threshold criterion 2). The pounds per day threshold for construction and operational emissions are the same, which is applied in this analysis. The emissions-based thresholds for O_3 precursors are intended to serve as a surrogate for an "O_3 significance threshold" (i.e., the potential for adverse O_3 impacts to occur). This approach is used because O_3 is not emitted directly (see the discussion of O_3 and its sources in subsection 4.2.1 above) and the effects of an individual project's emissions of O_3 precursors (VOC and NO_X) on O_3 levels in ambient air cannot be determined through air quality models or other quantitative methods. Emissions below the screening-level thresholds would not cause a significant impact. For nonattainment pollutants, if emissions exceed the thresholds shown in Table 4.2-4, the project could have the potential to result in a cumulatively considerable net increase in these pollutants and thus could have a significant impact on the ambient air quality (as assessed under the threshold criterion 3).

In regard to the analysis of potential impacts to sensitive receptors (threshold criterion 4), the City of Del Mar specifically recommends consideration of sensitive receptors in locations such as day care centers, schools, retirement homes, and hospitals, or medical patients in residential homes close to major roadways or stationary sources, which could be impacted by air pollutants. SDAPCD Rule 51 (Public Nuisance) prohibits emission of any material that causes nuisance to a considerable number of persons or endangers the comfort, health, or safety of any person. Regarding threshold criterion 5, a project that proposes a use that would produce objectionable odors would be deemed to have a significant odor impact if it would affect a considerable number of off-site receptors.

Table 4.2-4
SAN DIEGO AIR POLLUTION CONTROL DISTRICT AIR QUALITY SIGNIFICANCE THRESHOLDS

Pollutant	Total Emissions		
Construction Emissions (Pounds per Day)			
Respirable Particulate Matter (PM_{10})	100		
Fine Particulate Matter ($PM_{2.5}$)	55		
Oxides of Nitrogen (NO_X)	250		
Oxides of Sulfur (SO_X)	250		
Carbon Monoxide (CO)	550		
Volatile Organic Compounds (VOCs)	137		
Operational Emissions			
	Pounds per Hour	**Pounds per Day**	**Tons per Year**
Respirable Particulate Matter (PM_{10})	---	100	15
Fine Particulate Matter ($PM_{2.5}$)	---	55	10
Oxides of Nitrogen (NO_X)	25	250	40
Oxides of Sulfur (SO_X)	25	250	40
Carbon Monoxide (CO)	100	550	100
Lead and Lead Compounds	---	3.2	0.6
Volatile Organic Compounds (VOC)	---	137	13.7
Toxic Air Contaminant Emissions			
Excess Cancer Risk	1 in 1 million 10 in 1 million with T-BACT		
Non-Cancer Hazard	1.0		

Source: Dudek 2019
T-BACT = Toxics-Best Available Control Technology

4.2.4 Impact Analysis

a) Would the project conflict with or obstruct the implementation of the applicable air quality plan?

The SDAPCD and SANDAG are responsible for developing and implementing the clean air plans for attainment and maintenance of the ambient air quality standards in the SDAB—specifically, the SIP and RAQS. The SIP and RAQS rely on information from CARB and SANDAG, including mobile and area source emissions as well as information regarding projected growth in San Diego County as a whole and the cities in the County, to project future emissions and determine the strategies necessary for the reduction of emissions through regulatory controls. CARB mobile source emission projections and SANDAG growth projections are based on population, vehicle trends, and land use plans developed by San Diego County and the cities in the County as part of the development of their general plans.

The RAQS also relies on information from CARB and SANDAG, vehicle trends, and land-use plans developed by the cities and by San Diego County as part of development of their general plans. As such, if a project would entail development that is greater than that anticipated in the local plan and SANDAG's growth projections, the project might be in conflict with the SIP and RAQS and may contribute to a potentially significant cumulative impact on air quality. The project site is zoned R1-14 (Modified Low Density), R1-40 (Very Low Density), and Public Parkland.

The project is located within Subregional Area (SRA) 13 – Del Mar-Mira Mesa. SANDAG's population estimate for SRA 13 in 2012, when the most recent RAQS was adopted, was 160,668 people, and the forecasted population in 2020 (the closest year for which SANDAG has available data to a project buildout of 2023) is 195,024 people. Therefore, SANDAG's projections anticipated approximately 34,356 new residents in SRA 13 over an 8-year period (SANDAG 2013).

The addition of 199 new residents[1] to SRA 13 as a result of the project would be accommodated in the population forecast used to prepare the 2016 RAQS. While the project was not included in the underlying growth estimates for the SDAB used as the basis for the SIP and RAQS update, it would not conflict with or obstruct implementation of the SIP or RAQS because the SANDAG population projections for SRA 13 would accommodate more growth (34,356 new residents) than that associated with the project (199 residents). Furthermore, as detailed in Section 4.2.4(b) below, project generated construction and operational emissions would be less than the applicable thresholds designed to ensure attainment of the state and national ambient air quality standards. Therefore, the project would not conflict with or obstruct implementation of the applicable air quality plan and impacts would be less than significant.

b) Would the project result in a cumulatively considerable net increase of any criteria pollutant for which the project region is nonattainment under an applicable federal or state ambient air quality standard?

Construction

Project construction would result in a temporary, short-term addition of pollutants to the local area resulting from soil disturbance, fugitive dust emissions, and combustion pollutants from on-site construction equipment, as well as from off-site trucks hauling construction materials. Emissions resulting from construction of the project would be temporary because construction activities would occur intermittently over the construction phase, and construction activities and associated emissions would cease following project build-out. Construction emissions can vary substantially from day to day depending on the level of activity, the specific type of operation, and, for dust, prevailing weather conditions. For the purposes of modeling, a worst-case maximum daily emission scenario for project construction activities is analyzed. Fugitive dust (i.e., PM_{10} and $PM_{2.5}$) emissions would primarily result from grading and site preparation activities. NO_X and CO emissions would primarily result from the use of construction equipment and motor vehicles. VOC emissions would primarily result from asphalt and architectural coating off-gassing.

Emissions from the construction phase of the project were estimated using the CalEEMod modeling program. Construction of the project is anticipated to commence in October 2020 and continue over an

[1] The household size of the villas was assumed to be 2.02 persons consistent with the average household size in the City of Del Mar. Each workforce housing unit was assumed to have one resident.

approximately 26-month period. A detailed description of construction subphases as well as other assumptions made for the purposes of modeling is included in Appendix C of this EIR. Construction subphases would overlap in some instances to meet the provided construction schedule. This overlap is accounted for in the construction emissions estimates. Construction of the project would involve approximately 105,000 cubic yards (cy) of cut and 62,000 cy of fill, resulting in 43,000 cy of soil export (PDC 2019).

Construction worker and vendor trip assumptions were assigned to each construction subphase to determine criteria air pollutant emissions from these sources. Construction worker and vendor trips for construction were determined using CalEEMod default worker trip and vendor trip vehicle generation factors. The construction equipment mix was provided by the applicant and represents a reasonably conservative estimate of construction activity. Where project-specific construction equipment information was not available, CalEEMod default equipment mixes were used. For the analysis, it was generally assumed that heavy construction equipment would be operating at the site for approximately eight hours per day, five days per week (22 days per month) during construction.

The construction activities are subject to SDAPCD Rule 55: Fugitive Dust Control. This rule requires actions to restrict visible emissions of fugitive dust beyond the property line. Compliance with Rule 55 would limit fugitive dust (i.e., PM_{10} and $PM_{2.5}$) that may be generated during grading and construction activities. To account for dust control measures in the calculations, it was assumed that the active sites would be watered at least two times daily, resulting in an approximately 55 percent reduction of particulate matter. The project is also subject to SDAPCD Rule 67.0: Architectural Coatings. This rule establishes maximum VOC contents of 50 and 100 grams per liter for flat and non-flat coatings, respectively. CalEEMod default values of 250 grams per liter for residential and non-residential interior coatings and 250 grams per liter for residential and non-residential exterior coatings were therefore replaced with the maximum allowable VOC contents of 50 and 100 grams per liter.

Table 4.2-5, *Maximum Daily Construction Emissions*, provides the results of the construction period analysis of the project. Complete details of the emissions calculations are provided in Appendix C of this EIR. As shown in Table 4.2-5, daily construction emissions would not exceed SDAPCD's significance thresholds for any criteria air pollutant. Therefore, impacts would be less than significant.

Table 4.2-5
MAXIMUM DAILY CONSTRUCTION EMISSIONS

Year	Pollutant Emissions (pounds/day)					
	VOC	**NO_X**	**CO**	**SO_2**	**PM_{10}**	**$PM_{2.5}$**
2020	7.98	106.35	59.90	0.20	12.65	8.35
2021	9.30	87.75	45.80	0.17	15.03	6.09
2022	9.04	22.69	24.68	0.06	3.00	1.43
Maximum Daily Emissions	**9.30**	**106.35**	**59.90**	**0.20**	**15.03**	**8.35**
SDAPCD Thresholds	*137*	*250*	*550*	*250*	*100*	*55*
Significant Impact?	***No***	***No***	***No***	***No***	***No***	***No***

Source: Dudek 2019
Note: Totals may not sum due to rounding.

Operations

Operation of the project would generate VOC, NO_X, CO, SO_X, PM_{10}, and $PM_{2.5}$ emissions from mobile sources, including vehicle trips from future residents and guests; area sources, including the use of consumer products, architectural coatings for repainting, and landscape maintenance equipment; and energy sources, including combustion of fuels used for space and water heating and cooking appliances. Operation, pollutant emissions associated with long-term operations were quantified using CalEEMod. Project-generated mobile source emissions were estimated in CalEEMod based on project-specific trip rates. CalEEMod default values were used to estimate emissions from the project area and energy sources.

Table 4.2-6, *Maximum Daily Operational Emissions*, presents the maximum daily area, energy, and mobile source emissions associated with operation of the project. The values shown are the maximum summer or winter daily emissions results from CalEEMod. Details of the emission calculations are provided in Appendix C. As shown in Table 4.2-6, daily operational emissions would not exceed the significance thresholds for VOC, NO_X, CO, SO_X, PM_{10}, or $PM_{2.5}$. As such, the project's operational impacts on air quality would be less than significant.

Table 4.2-6
MAXIMUM DAILY OPERATIONAL EMISSIONS

Emission Source	Pollutant Emissions (pounds per day)					
	VOC	**NO_X**	**CO**	**SO_2**	**PM_{10}**	**$PM_{2.5}$**
Area	8.92	3.02	10.09	0.02	0.29	0.29
Energy	0.52	4.59	2.69	0.03	0.36	0.36
Reduction from Solar Hot Water Systems[a]	(0.05)	()	(2.77)	(0.02)	(0.25)	(0.25)
Mobile	5.11	9.53	29.94	0.11	9.99	2.72
Total Daily Emissions	**11.91**	**16.71**	**42.36**	**0.16**	**10.61**	**3.34**
Screening-Level Thresholds	*137*	*250*	*550*	*250*	*100*	*55*
Significant Impact?	***No***	***No***	***No***	***No***	***No***	***No***

Source: Dudek 2019
Note: Total is the sum of the unrounded values.
a. The project would result in the generation of 16,000 therms per year for hot water demand and would offset natural gas emissions.

In analyzing cumulative impacts from the project, the analysis must specifically evaluate a project's contribution to the cumulative increase in pollutants for which the SDAB is designated as nonattainment for the CAAQS and NAAQS.

The SDAB has been designated as a federal nonattainment area for O_3 and a state nonattainment area for O_3, PM_{10}, and $PM_{2.5}$. PM_{10} and $PM_{2.5}$ emissions associated with construction generally result in near-field impacts. The nonattainment status is the result of cumulative emissions from all sources of these air pollutants and their precursors within the SDAB. As discussed previously, the project-generated emissions of VOC, NO_X, CO, SO_X, PM_{10}, or $PM_{2.5}$ would be below the significance thresholds for both construction and operational activities. As such, the project would result in less than significant impacts to air quality relative to construction and operational emissions. Based on the considerations described above, cumulative impacts would be less than significant.

c) Would the project expose sensitive receptors to substantial pollutant concentrations?

Air quality varies as a direct function of the amount of pollutants emitted into the atmosphere, the size and topography of the air basin, and the prevailing meteorological conditions. Air quality problems arise when the rate of pollutant emissions exceeds the rate of dispersion. Reduced visibility, eye irritation, and adverse health impacts upon those persons termed "sensitive receptors" are the most serious hazards of existing air quality conditions in the area.

Toxic Air Contaminants

In addition to impacts from criteria pollutants, project impacts may include emissions of pollutants identified by the state and federal government as TACs or HAPs. State law has established the framework for California's TAC identification and control program, which is generally more stringent than the federal program and aimed at TACs that are a problem in California. The greatest potential for TAC emissions during construction would be diesel particulate emissions from heavy equipment operations and heavy-duty trucks and the associated health impacts to sensitive receptors. The following measures are required by state law to reduce DPM emissions:

- Fleet owners of mobile construction equipment are subject to the CARB Regulation for In-use Off-road Diesel Vehicles (13 CCR 2449), the purpose of which is to reduce DPM and criteria pollutant emissions from in-use (existing) off-road diesel-fueled vehicles.

- All commercial diesel vehicles are subject to Title 13, Section 2485 of the California Code of Regulations, limiting engine idling time. Idling of heavy-duty diesel construction equipment and trucks during loading and unloading shall be limited to five minutes; electric auxiliary power units should be used whenever possible.

Health effects from carcinogenic air toxics are usually described in terms of cancer risk. The SDAPCD recommends an incremental cancer risk threshold of 10 in a million (SDAPCD 2015b). "Incremental cancer risk" is the net increased likelihood that a person continuously exposed to concentrations of TACs resulting from a project over a 9-, 30-, and 70-year exposure period will contract cancer based on the use of standard Office of Environmental Health Hazard Assessment risk-assessment methodology. The project would not require the extensive operation of heavy-duty construction equipment, which is subject to a CARB Airborne Toxics Control Measure for in-use diesel construction equipment to reduce diesel particulate emissions and would not involve extensive use of diesel trucks, which are also subject to a CARB Airborne Toxics Control Measure.

As shown in Table 4.2-5, maximum daily particulate matter (i.e., PM_{10} or $PM_{2.5}$) emissions generated by construction equipment operation and haul-truck trips during construction (exhaust particulate matter, or DPM), combined with fugitive dust generated by equipment operation and vehicle travel, would be well below the SDAPCD significance thresholds. Moreover, total construction of the project would last approximately 26 months, after which project-related TAC emissions would cease. Thus, the project would not result in a long-term source of TAC emissions. No residual TAC emissions and corresponding cancer risk are anticipated after construction, and no long-term sources of TAC emissions are anticipated during operation of the project. Therefore, impacts related to the exposure of sensitive receptors to project-related TAC emissions would be less than significant.

Additionally, CARB has published the Air Quality and Land Use Handbook: A Community Health Perspective (CARB 2005), which identifies certain types of facilities or sources that may emit substantial quantities of TACs and therefore could conflict with sensitive land uses.

The project would neither include any of the land uses identified by the CARB as potentially resulting in substantial quantities of TAC emissions, nor expose visitors, residents, and employees of the project to TAC emissions from such sources. Impacts would be less than significant.

Carbon Monoxide

Mobile-source impacts, including those related to CO, occur essentially on two scales of motion. Regionally, project-related construction travel would add to regional trip generation and increase the vehicle miles traveled (VMT) within the local airshed and the SDAB. Locally, construction traffic would be added to the roadway system in the vicinity of the project site. Although the SDAB is currently an attainment area for CO, there is a potential for the formation of microscale CO "hotspots" to occur immediately around points of congested traffic. Hotspots can form if such traffic occurs during periods of poor atmospheric ventilation, is composed of a large number of vehicles cold-started and operating at pollution-inefficient speeds, and/or is operating on roadways already crowded with non-project traffic. Typically, high CO concentrations are associated with urban roadways or intersections operating at an unacceptable level of service (LOS). Projects contributing to adverse traffic impacts may result in the formation of CO hotspots. Because of continued improvement in vehicular emissions at a rate faster than the rate of vehicle growth and/or congestion, the potential for CO hotspots in the SDAB is steadily decreasing.

To verify that the project would not cause or contribute to a violation of the CO standards, a screening evaluation of the potential for CO hotspots was conducted. The California Department of Transportation (Caltrans) and the University of California, Davis, Institute of Transportation Studies Transportation Project-Level Carbon Monoxide Protocol (Caltrans 2010) was followed. CO hotspots are typically evaluated when (1) the LOS of an intersection or roadway decreases to LOS E or worse, (2) signalization and/or channelization is added to an intersection, and (3) sensitive receptors such as residences, schools, and hospitals are located in the vicinity of the affected intersection or roadway segment.

The Transportation Impact Analysis prepared for the project (LLG 2019) analyzed Existing, Near-Term, and Horizon Year 2035 conditions at 19 intersections near the project site. The results of the LOS assessment show that under Horizon Year 2035, 5 of the 19 study intersections are forecasted to operate at unacceptable LOS (LOS E or worse) during the peak hours. As shown in Appendix C, the five key study intersections according to the criteria above are:

- Camino del Mar (Highway 101)/Via de la Valle (Border Avenue) (LOS B in AM and E in PM);
- Via de la Valle/South Cedros Ave (LOS F in AM and PM);
- Via de la Valle/Jimmy Durante Blvd (LOS E in AM and PM);
- Camino Del Mar/27th Street (LOS C in AM and E in PM); and
- Camino Del Mar/Coast Blvd (LOS C in AM and F in PM).

The remaining key intersections currently operate at an acceptable LOS during the AM and PM peak hours. For Horizon Year 2035, the peak-hour intersection volumes were compared to the San Diego County peak-hour volume screening thresholds of 3,000 peak-hour trips for project-related impacts and 2,000 peak-hour trips for cumulatively considerable impacts (County of San Diego 2007). Three intersections were found to exceed the screening level thresholds; (1) Camino del Mar (Highway 101)/Via de la Valle (Border Avenue) (LOS E in PM); (2) Via de la Valle/South Cedros Avenue (LOS F in AM and PM); (3) Via de la Valle/Jimmy Durante Blvd (LOS E in AM and PM). All three intersections were evaluated in the Horizon scenario for CO hotspots. For each intersection, the highest volume (AM or PM) was used in the analysis as the worst-case scenario. The potential impact of the project on local CO levels was assessed at these intersections with the Caltrans CL4 interface based on the California LINE Source Dispersion Model (CALINE4), which allows microscale CO concentrations to be estimated along each roadway corridor or near intersections (Caltrans 1998a).

The emissions factor represents the weighted average emissions rate of the local San Diego County vehicle fleet expressed in grams per mile per vehicle. Consistent with the traffic scenario, emissions factors for 2035 were used for the three intersections. Emissions factors were predicted by EMFAC2014 based on a 5-mile-per-hour average speed for all of the intersections for approach and departure segments. The hourly traffic volume anticipated to travel on each link, in units of vehicles per hour, was based on information provided by the traffic consultant and modeling assumptions are outlined in Appendix C.

Four receptor locations were modeled at each intersection to determine CO ambient concentrations. A receptor was assumed on the sidewalk at each corner of the modeled intersections, to represent the future possibility of extended outdoor exposure. CO concentrations were modeled at these locations to assess the maximum potential CO exposure that could occur in and 2035. Since the cumulative traffic volumes in 2035 would be greater than 2023, if no impact is found in 2035, it can be assumed there would also be no near-term impact. A receptor height of 5.9 feet (1.8 meters) was used in accordance with Caltrans recommendations for all receptor locations (Caltrans 1998b).

The SCAQMD guidance recommends using the highest 1-hour measurement in the last 3 years as the projected future 1-hour CO background concentration for the analysis. A CO concentration of 2.0 parts per million (ppm) by volume was recorded in 2016 for the 11403 Rancho Carmel Drive monitoring station in San Diego and was assumed in the CALINE4 model for 2035. Data from 2014 was chosen as reflected the highest background concentration of the three most recent years for which data is available. To estimate an 8-hour average CO concentration, a persistence factor of 0.70, as calculated based on SCAQMD guidance (SCAQMD 1993), was applied to the output values of predicted concentrations in ppm at each of the receptor locations. The results of the model are shown in Table 4.2-7, *CO Hotspot Modeling Results*.

As shown in Table 4.2-7, the maximum CO concentration predicted for the 1-hour averaging period at the studied intersections would be 2.8 ppm, which is below the 1-hour CO CAAQS of 20 ppm. The maximum predicted 8-hour CO concentration of 2.0 ppm at the studied intersections would be below the 8-hour CO CAAQS of 9.0 ppm. Neither the 1-hour nor 8-hour CAAQS would be equaled or exceeded at any of the intersections studied. Accordingly, the project would not cause or contribute to violations of the CAAQS and would not result in exposure of sensitive receptors to localized high concentrations of CO. As such, impacts to sensitive receptors with regard to potential CO hotspots resulting from the project's contribution to cumulative traffic-related air quality impacts would be less than significant.

Table 4.2-7
CO HOTSPOT MODELING RESULTS

Intersection	Maximum 1-hour Concentration	Maximum 8-hour Concentration
Camino del Mar (Highway 101)/Via de la Valle (Border Avenue)	2.8	2.0
Via de la Valle/South Cedros Avenue	2.7	1.9
Via de la Valle/Jimmy Durante Boulevard	2.8	2.0

Source: Dudek 2019

Other Criteria Air Pollutants

VOCs and NO_X are precursors to O_3, for which the SDAB is designated as nonattainment with respect to the NAAQS and CAAQS. The health effects associated with O_3 are generally associated with reduced lung function. The contribution of VOCs and NO_X to regional ambient O_3 concentrations is the result of complex photochemistry. The increases in O_3 concentrations in the SDAB due to O_3 precursor emissions tend to be found downwind from the source location as a result of the time needed for the photochemical reactions to occur. However, the potential for exacerbating excessive O_3 concentrations would also depend on the time of year that the VOC emissions would occur because exceedances of the O_3 ambient air quality standards tend to occur between April and October when solar radiation is highest. The holistic effect of a single project's emissions of O_3 precursors is speculative due to the lack of quantitative methods to assess this impact. Nonetheless, the VOC and NO_X emissions associated with project construction and operations could minimally contribute to regional O_3 concentrations and the associated health impacts. Due to the minimal contribution of construction and operational activities, health impacts would be considered less than significant.

Regarding NO_2, construction of the project would not contribute to exceedances of the NAAQS and CAAQS for NO_2. NO_2 and NO_X health impacts are associated with respiratory irritation, which may be experienced by nearby receptors during the periods of heaviest use of off-road construction equipment. Construction of the project would not result in stationary emission sources that would create substantial, localized NO_X impacts. As shown in Table 4.2-1, the existing NO_2 concentrations in the area are well below the NAAQS and CAAQS standards. Thus, it is not expected the project's operational NO_X emissions would result in exceedances of the NO_2 standards or contribute to the associated health effects. Therefore, health impacts associated with NO_2 and NO_X would be considered less than significant.

As described above, CO tends to be a localized impact associated with congested intersections. The associated potential for CO hotspots was discussed previously and determined to be a less-than-significant impact. Thus, the project's CO emissions would not contribute to significant health effects associated with this pollutant.

Construction of the project would not exceed thresholds for PM_{10} or $PM_{2.5}$ and would not contribute to exceedances of the NAAQS and CAAQS for particulate matter. Due to the minimal contribution of particulate matter during construction and operation, health impacts would be considered less than significant. In summary, construction and operation of the project would not result in exceedances of the SDAPCD's significance thresholds for any criteria air pollutant; thus, health impacts associated with criteria air pollutants would be considered less than significant.

d) Would the project result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?

Odors would be generated from vehicles and/or equipment exhaust emissions during construction of the project. Odors produced during construction would be attributable to concentrations of unburned hydrocarbons from tailpipes of construction equipment and architectural coatings. Such odors are temporary and generally occur at magnitudes that would not affect substantial numbers of people. Therefore, impacts associated with odors during construction would be considered less than significant.

Land uses and industrial operations associated with odor complaints include agricultural uses, wastewater treatment plants, food processing plants, chemical plants, composting, refineries, landfills, dairies, and fiberglass molding. The project involves workforce housing and recreational uses and would not result in the creation of a land use that is commonly associated with odors. Therefore, project operations would result in an odor impact that is less than significant.

4.2.5 Mitigation Measures

Impacts related to air quality would be less than significant; therefore, no mitigation measures are required.

4.2.6 Level of Significance After Mitigation

No mitigation measures are required, and impacts would be less than significant.

4.3 BIOLOGICAL RESOURCES

This subsection includes a description of existing conditions, regulatory requirements, and potential impacts and mitigation measures associated with the proposed project related to biological resources. This section is based on a Biological Resources Technical Report for the proposed project, which was prepared by Dudek in November 2019 and is included as Appendix D of this EIR (Dudek 2019c). Existing biological resources were evaluated within 15.81 acres and were not evaluated within the remaining 1.64 acres of the 17.45-acre project site as they comprise the nearly vertical sea cliff and beach areas in the western extent of the project site (approximately 0.97 acre) , which would not be developed or utilized during construction in association with the proposed project, and an 0.67-acre parcel east of Camino del Mar with in the Lagoon, where project actions could be limited to restoration activities. As such, 15.81 acres was evaluated based on areas of anticipated impacts to biological resources. In addition, a tree inventory was conducted by Rappoport Development Consulting Services LLC (2017) and mapped a total of 164 trees, including 79 Monterey cypress (*Hesperocyparis macrocarpa*) and 12 Torrey pine (*Pinus torreyana* ssp. *torreyana*) trees within the 15.81 acres of the project site.

4.3.1 Existing Conditions

To establish existing biological conditions, a literature review was completed to review which special-status[1] plants and wildlife may exist at the site, followed by a site visit to map and assess vegetation quality to support special-status plants or wildlife (as well as to map non-special-status species), and to determine if focused wildlife surveys were necessary. The literature review involved researching the United States Fish and Wildlife Service (USFWS) National Wetlands Inventory, USFWS Critical Habitat and Occurrence Data, California Natural Diversity Database (CNDDB), and California Native Plant Society (CNPS) Inventory of Rare, Threatened, and Endangered Plants of California, which indicated there is a potential for up to 34 special-status plant species and 46 special-status wildlife species to be located within the project site. A total of 84 plant species (including 37 native species and 47 non-native species) and 25 wildlife species were observed or assumed to be present based on signs of existence observed during the site visit. Of these, two special-status plant species were observed and no special-status wildlife species were observed. A total of 79 Monterey cypress (*Hesperocyparis macrocarpa*) and 12 Torrey pine (*Pinus torreyana* ssp. *torreyana*) trees were observed and concluded to have been planted as they were not identified during the literature review and were not expected to occur naturally. Due to the level of disturbance at the site, naturally occurring special-status plant and wildlife species are either not expected to occur or would have a low potential to occur. Two individuals of California box-thorn (*Lycium californicum*) were observed in the southern coastal bluff scrub; however, while the species is limited in distribution, its vulnerability or susceptibility to threat is low and not considered a special status species. Additional details about observed plant and wildlife species are included below.

4.3.1.1 Vegetation Communities and Land Cover Types

One vegetation community and five non-natural or non-vegetated land cover types occur within the project site, including one native vegetation community (southern coastal bluff scrub), three non-natural

[1] For the purpose of this analysis, special status species are defined as endangered, rare, or threatened species and include (1) endangered or threatened species recognized in the context of the California Endangered Species Act and the federal Endangered Species Act; (2) plant species with a California Rare Plant Ranking; (3) California Species of Special Concern, as designated by the CDFW; (4) mammals and birds that are fully protected species, as described in the California Fish and Game Code, Sections 4700 and 3511; and (5) Birds of Conservation Concern, as designated by the USFWS.

land cover types (ornamental, disturbed habitat, and urban/developed), and two non-vegetated land cover types (beach and cliff). Vegetation communities consist of groups of plant species that support wildlife species and are identified to better determine if there is the potential for wildlife species to nest or forage in them. There is 0.66 acre of native vegetation communities within the project site, consisting of southern coastal bluff scrub. This vegetation community and the land cover types within the project site are shown in Table 4.3-1, *Existing Vegetation Communities and Land Cover Types*, and depicted on Figure 4.3-1, *Existing Vegetation Communities and Plant Species*. As shown in Figure 4.3-1, there are approximately 49 Monterey cypress and 12 Torrey pines located within the project site. A further description of each of the existing vegetation community and plant species within the project site is included below.

Table 4.3-1
EXISTING VEGETATION COMMUNITIES AND LAND COVER TYPES

Vegetation Community/Land Cover Type	Acres
Native Vegetation Communities	
Southern coastal bluff scrub	0.66
Subtotal	0.66
Non-Natural Land Covers	
Ornamental	4.15
Disturbed Habitat	9.18
Urban/Developed	1.79
Subtotal	15.12
Non-Vegetated Land Covers	
Beach	0.02
Cliff	0.02
Subtotal	0.04
TOTAL	**15.81**[1]

[1] Totals do not sum due to rounding.

Southern Coastal Bluff Scrub

Southern coastal bluff scrub is a native vegetation community composed of a variety of shrubs, herbaceous perennials, and annuals, and is ranked by the CDFW as a G1S1.1, which indicates that globally and within California, this community is critically imperiled and considered rare (CDFW 2018; Faber-Langendoen et al. 2012; Holland 1986). Most plants within this vegetation community are woody and/or succulent. This community is characteristically found in areas exposed to moisture-laden winds with high salt content. The soils are usually rocky and poorly developed. Typical plant species in this habitat include saltbush (*Atriplex* spp.), island false bindweed (*Calystegia macrostegia*), coast Indian paintbrush (*Castilleja affinis*), Orcutt's spineflower (*Chorizanthe orcuttiana*), giant coreopsis (*Leptosyne gigantea*), sea dahlia (*Leptosyne maritima*), dudleya (*Dudleya* ssp.), California brittle bush (*Encelia californica*), seaside fleabane (*Erigeron glaucus*), seaside woolly sunflower (*Eriophyllum staechadifolium*), cliff desert dandelion (*Malacothrix saxatilis*), Cucamonga manroot (*Marah macrocarpa*), coast prickly pear (*Opuntia littoralis*), and lemonadeberry (*Rhus integrifolia*).

The occurrence of southern coastal bluff scrub is limited to the southeastern extent of the project boundary along steep slopes above North Beach near Camino del Mar. The dominant species in the southern coastal bluff scrub vegetation community vary, but in general, southern coastal bluff scrub is dominated by California brittle bush, California buckwheat (*Eriogonum fasciculatum*), bladderpod spiderflower (*Peritoma arborea*), and quailbush (*Atriplex lentiformis*), and also contains species such as

coastal cholla (*Cylindropuntia prolifera*), strawberry cactus (*Mammillaria dioica*), coast prickly pear, and fingertips (*Dudleya edulis*). The southern coastal bluff scrub is fairly disturbed and contains non-native species such as slenderleaf ice plant (*Mesembryanthemum nodiflorum*), ice plant (*Carpobrotus edulis*), coppery mesemb (*Malephora crocea*), common ice plant (*Mesembryanthemum crystallinum*), and Perez's sea lavender (*Limonium perezii*).

Ornamental

Ornamental land covers are not considered sensitive vegetation communities by CDFW and include areas where non-native ornamentals and landscaping have been installed. Ornamental plantings typically function to maintain aesthetics, provide visual screening, or provide erosion control. The majority of the ornamental landscaping is associated with the existing on-site residence. There is also some ornamental landscaping that remains on the parcels where residences previously existed. Monterey cypress and Torrey pine are present in some of the areas mapped as ornamental. Other ornamental species include Norfolk Island pine (*Araucaria heterophylla*), Rusty leaf fig (*Ficus rubiginosa*), Myoporum (*Myoporum laetum*), Cajeput tree (*Melaleuca leucadendra*), New Zealand Christmas tree (*Metrosideros excelsa*), Canary Island date palm (*Phoenix canariensis*), Aleppo pine (*Pinus halepensis*), Italian stone pine (*Pinus pinea*), Brazilian pepper tree (*Schinus terebinthifolius*), and Washington fan palm (*Washingtonia robusta*).

Disturbed Habitat

Disturbed habitats are areas that have been physically disturbed and no longer recognizable as a native or naturalized vegetation association. If vegetation is present, it is characterized by predominantly non-native species introduced and established through human action. These areas are not typically artificially irrigated.

Within the project site, disturbed habitat is fairly prevalent because two of the parcels were previously residential sites. The area of disturbed habitat appears to be regularly maintained due to a lack of vegetation. Areas that do contain vegetation consist of ice plant mats containing species such as slenderleaf ice plant, ice plant, coppery mesemb, and common ice plant and other non-native species such as crowndaisy (*Glebionis coronaria*), nettleleaf goosefoot (*Chenopodium murale*), Mexican tea (*Dysphania ambrosioides*), tree tobacco (*Nicotiana glauca*), greenspot nightshade (*Solanum douglasii*), Canadian horseweed (*Erigeron canadensis*), and New Zealand spinach (*Tetragonia tetragonioides*). Disturbed lands are either devoid of vegetation or dominated by a collection of non-native species and are not considered a sensitive vegetation community by CDFW.

Urban/Developed

The urban/developed land cover type refers to areas that have been constructed upon or disturbed so severely that vegetation is no longer supported. Developed land includes areas with permanent or semi-permanent structures, pavement or hardscape, and areas with a large amount of debris or other materials. Urban/developed land in the project site includes the existing residence and a decomposed granite driveway and turnaround. The urban/developed land cover type typically does not support any vegetation or is a landscaped area and is not considered a sensitive vegetation community by CDFW.

Beach

The beach land cover type refers to the sandy shore between the ocean and cliff, which is located in the southeastern corner of the project site. The beach land cover type does not support vegetation and is not considered a sensitive vegetation community by CDFW.

Cliff

The cliff land cover type refers to the steep rock face areas that support minimal vegetation. The City of Del Mar's Land Use Plan, an approved LCP, requires a 40-foot setback from the edge of the coastal bluff in order to preserve coastal bluffs (City 1993). The cliff land cover type is located in the western-central portion of the project site, typically does not support vegetation, and is not considered a sensitive vegetation community by CDFW.

4.3.1.2 Wildlife Species

No special-status wildlife species were observed; the project site generally supports habitat for animal species commonly occurring in urban areas. A total of 25 wildlife species, including 2 reptile species, 22 bird species, and 1 mammal, were observed or assumed to be present in the project site based on signs such as sight, calls, tracks, and scat. Although suitable habitat for coastal California gnatcatcher (*Polioptila californica californica*) is present within the vegetated bluffs within and adjacent to the project site, no coastal California gnatcatcher was observed during focused surveys. No other special-status wildlife species was observed or is expected to be present on site due to a lack of suitable habitat.

4.3.1.3 Jurisdictional Waters and Wetlands

A formal jurisdictional delineation was not conducted; however, an assessment of the site determined that no features within the 15.81 acres on the coastal terrace of the project site could be considered jurisdictional by the Army Corps of Engineers (ACOE), California Department of Fish and Wildlife (CDFW), or Regional Water Quality Control Board (RWQCB) exist on site. The 0.67-acre portion of the project site east of Camino del Mar and a drainage near Camino del Mar south of the Lagoon that occurs near the potential water pipeline Option 1 may both be jurisdictional due to its proximity to the Lagoon.

4.3.1.4 Wildlife Corridors

Wildlife corridors are features that connect isolated patches of habitat or natural open space and allow for the movement, migration, and dispersal of wildlife. Wildlife corridors contribute to population viability by assuring continual exchange of genes between populations, providing access to adjacent habitat areas for foraging and mating, and providing routes for recolonization of habitat after local extirpation or ecological catastrophes (e.g., fires).

The project site is located adjacent to the San Dieguito River outlet, which functions as a wildlife corridor from the San Dieguito River and associated Lagoon to the Pacific Ocean. The San Dieguito River and Lagoon are mapped in the Final Multiple Species Conservation Plan (MSCP) as a Biological Core Area, which is defined as an area generally supporting a high concentration of sensitive biological resources which, if lost or fragmented, could not be replaced or mitigated elsewhere (County of San Diego 1998). The project site itself, however, is separated from the San Dieguito River and Lagoon by Camino del Mar and is disturbed with existing structures and ornamental plantings. The portion of the project site that contains native vegetation, consisting of southern coastal bluff scrub, is located along the northern side

of North Beach (along the eastern project boundary), which is a highly utilized beach that allows for off-leash dog use. The disturbed nature of the site, existing development, and highly urbanized surroundings would likely deter wildlife from using the site for movement between areas of habitat, and the site does not function as a wildlife corridor.

4.3.2 Regulatory Setting

4.3.2.1 Federal

Endangered Species Act

Administered by the USFWS, the federal Endangered Species Act (ESA) provides the legal framework for the listing and protection of species (and their habitats) that are identified as being endangered or threatened with extinction. Actions that jeopardize endangered or threatened species and the habitats upon which they rely are considered a "take" under the ESA. Section 9(a) of the ESA defines take as "to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or attempt to engage in any such conduct." "Harm" and "harass" are further defined in federal regulations and case law to include actions that adversely impair or disrupt a listed species' behavioral patterns.

The USFWS identifies critical habitat for endangered and threatened species. Critical habitat is defined as areas of land that are considered necessary for endangered or threatened species to recover. The ultimate goal is to restore healthy populations of listed species within their native habitat so they can be removed from the list of threatened or endangered species. The project site does not contain critical habitat (USFWS 2018).

Migratory Bird Treaty Act (MBTA)

The Migratory Bird Treaty Act (MBTA) prohibits the take of any migratory bird or any part, nest, or eggs of any such bird. Under the MBTA, "take" is defined as pursuing, hunting, shooting, capturing, collecting, or killing, or attempting to do so (16 U.S.C. 703 et seq.). Additionally, Executive Order 13186, "Responsibilities of Federal Agencies to Protect Migratory Birds," requires that any project with federal involvement address impacts of federal actions on migratory birds with the purpose of promoting conservation of migratory bird populations (66 Federal Register [FR] 3853–3856). The order requires federal agencies to work with the USFWS to develop a memorandum of understanding. USFWS reviews actions that might affect these species.

4.3.2.2 State

California Endangered Species Act

The California ESA is similar to the federal ESA in that it contains a process for listing of species and regulating potential impacts to listed species. California ESA Section 2081 authorizes the CDFW to enter into a memorandum of agreement for the take of listed species for scientific, educational, or management purposes.

Native Plant Protection Act

The Native Plant Protection Act (NPPA) enacted a process by which plants are listed as rare or endangered. The NPPA regulates collection, transport, and commerce in listed plants. The California ESA

follows the NPPA and covers both plants and animals designated as endangered or threatened with extinction. Plants listed as rare under NPPA were also designated rare under the California ESA.

4.3.2.3 Local

Multiple Species Conservation Plan

Several conservation planning efforts are currently in progress in San Diego County with the long-term goal of establishing a regional habitat reserve system that would protect native habitat lands and their associated biota. The ultimate goals of these plans are the establishment of biological reserve areas in conformance with the California Natural Community Conservation Planning Act, and to contribute to the preserve system already established by the approved MSCP in southwestern San Diego County (County of San Diego 1998). The City of Del Mar is listed as a jurisdictional entity within the boundaries of the Final MSCP for the County of San Diego (1998), and in the process of developing an MSCP Subarea Plan, although no draft has been circulated to the public.

Tree Removal Ordinance

DMMC Section 23.50, *Trees*, includes regulations for removing protected trees and required noticing of adjacent property owners, considering if there are any potential hazardous conditions or diseases related to the existing tree to be removed, and finally, considering an appropriate replacement ratio for the tree or trees. Protected trees, as defined by the DMMC Section 23.50, include Monterey cypress; Torrey Pine; trees of any species located on property within the Central Commercial, Open Space Overlay Zones of the City of Del Mar, within a public right-of-way, or on public or Del Mar-owned property; and any tree planted as a result of required mitigation for the removal of another protected tree. A Tree Removal Permit, as recommended by the Design Review Board to the Del Mar City Council for final action, is required to cut down, remove, destroy, or move a protected tree.

4.3.3 Thresholds of Significance

The City of Del Mar relies on the thresholds of significance that are based on Appendix G of the 2019 State CEQA Guidelines. Impacts to biological resources would be significant if implementation of the project would:

a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as 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) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, and regulations or by the California Department of Fish and Game or U.S. Fish and Wildlife Service;

c) Have a substantial adverse effect on state or federally protected wetlands (including, but not limited to marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means;

d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursey sites;

e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance; or

f) Conflict with the provisions of an adopted Habitat Conservation Plan (HCP), Natural Community Conservation Plan (NCCP), or other approved local, regional, or State habitat conservation plan.

4.3.4 Impact Analysis

a) Would the project have a substantial adverse effect, either directly or through habitat modifications, on any species identified as 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?

Special-Status Plant Species

Direct Impacts

Two special-status plant species, Monterey cypress and Torrey pine, were identified within the project site. Implementation of the project would result in the removal of Monterey cypress trees and Torrey pines. Some healthy trees would be preserved in place or relocated. The project site; however, is outside of the known natural range of Monterey cypress, and, according to the MSCP, the only naturally occurring population of Torrey pines occurs at Torrey Pines State Preserve. It can therefore be assumed that both the Monterey cypress trees and the Torrey pines found on site were planted for landscaping purposes and are not naturally occurring. As a result, direct impacts to these two tree species as it relates to impacts regulated on plant and animal species at the state and federal levels would be less than significant. See the discussion below for threshold (e), which evaluates potential impacts associated with tree removal on-site. Further, installation of either water pipeline, generally within Camino del Mar or Via de la Valle, would occur primarily within developed roadways or disturbed areas, and are not anticipated to result in direct impacts to special-status plant species. For natural areas near the water pipeline alignment, including a drainage ditch parallel to Camino del Mar, south of the Lagoon, jack and bore installation methods would be used to avoid potential impacts to biological resources.

Indirect Impacts

There are no special-status plant species in the habitat directly adjacent to the project. Therefore, indirect impacts to special-status plant species during construction (including construction of either water pipeline option) and operation of the project are not anticipated.

Special-Status Animal Species

Direct Impacts

No special-status animal species were observed during the site surveys are no special-status animals are expected to occur on site; therefore, direct impacts to special-status animal species are not anticipated. However, due to the presence of vegetation, the potential for the presence of migratory birds on site

exists. Direct impacts could occur if active nests or the young of nesting bird species are impacted during grading or other construction activities (Impact BIO-1). Such impacts would be potentially significant and mitigation measure MM BIO-1 would be required. Similar to the conclusion for potential impacts on special-status plant species associated with installation of a water pipeline along Camino del Mar or Via de la Valle, construction would occur primarily within developed roadways or disturbed areas and are not anticipated to result in direct impacts to special-status animal species. For natural areas near the water pipeline alignment, including a drainage ditch parallel to Camino del Mar, south of the Lagoon, jack and bore installation methods would be used to avoid potential impacts to biological resources.

Indirect Impacts

No special-status wildlife species are expected to occur in the project site; however, it is located near the Lagoon, which has the potential to support special-status wildlife species. Such special-status wildlife may be indirectly impacted during construction of the project through the generation of fugitive dust; changes in hydrology resulting from construction, including sedimentation and erosion; the release of chemical pollutants; and accidental clearing, trampling, or grading outside designated construction zones. Operation of the project may indirectly affect wildlife through hydromodification (erosion and sedimentation); the release of pollutants; increased invasive plant species that may degrade habitat; and trampling of vegetation and soil compaction by humans or pets. Special-status wildlife may also be indirectly affected during both construction and operation from noise and lighting, which can disrupt normal activities and subject wildlife to higher predation risks.

Compliance with the DMMC would reduce potential indirect impacts from construction and operation of the project. Applicable regulations include water quality controls during construction, drainage plans during operation, a polluted runoff control plan, stormwater management and discharge controls, and construction noise restrictions. Other applicable existing regulations include the implementation of dust control measures and the preparation of a SWPPP; however, impacts would remain potentially significant (Impact BIO-2a). Mitigation measures MM BIO-1 and MM BIO-2a through MM BIO-2g would be required.

b) Would the project have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, and regulations or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?

Direct Permanent and Temporary Impacts

The proposed project would involve the construction and operation of a visitor-serving development directly impacting a total of 14.79 acres permanently, as shown on Figure 4.3-2, *Biological Limits of Disturbance*. Direct, permanent vegetation impacts include impacts to 14.52 acres of beach, ornamental, disturbed habitat, and urban/developed land covers, none of which is considered special status under CEQA. Therefore, impacts to 14.52 acres of these land covers would not be considered a significant environmental impact. Approximately 0.27 acre of southern coastal bluff scrub associated with the project site would be permanently impacted by the proposed public access stairway, public restrooms, interpretive signage, and pathway lighting for hotel and public visitor services (Impact BIO-3a). This direct impact is considered significant and mitigation measure MM BIO-3a would be required. As stated previously, installation of a water pipeline to provide water services to the project site would primarily occur either along Camino del Mar or Via de la Valle within developed or disturbed areas and no permanent or temporary impacts are anticipated. For natural areas near the water pipeline alignment, including a drainage ditch parallel to Camino del Mar, jack and bore installation methods would be used.

Additionally, as shown in Figure 3-6, the Initiative identifies that bluff top restoration planting could occur at the non-contiguous 0.67-acre parcel located east of Camino del Mar, just south of the Brigantine restaurant and near the Lagoon. This parcel, due to its adjacency to the Lagoon, is assumed to be jurisdictional and has the potential to contain sensitive plants and animals. If restoration activities were to occur within this parcel, potentially significant direct impacts to sensitive plants and animals and jurisdictional areas would occur (Impact BIO-3b), and mitigation measure MM BIO-3b would be required.

Indirect Impacts

Southern coastal bluff scrub beyond but adjacent to the project site may be indirectly impacted during construction and operation of the project in a manner similar to that of the special-status wildlife species (aside from impacts associated with noise and lighting), discussed above. Due to the proposed bluff setbacks established for the project site (which are further discussed in Subsection 4.5, *Geology and Soils*), indirect impacts on southern coastal bluff scrub would be minimized; however, impacts would remain potentially significant (Impact BIO-3c) and mitigation measures MM BIO-2a through MM BIO-2g would be required.

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

Direct Impacts

There are no jurisdictional waters as defined by Section 404 of the Clean Water Act in the 15.81 acres of project site where resort development is identified and no direct impacts on wetlands would occur. As discussed above under threshold b), bluff top restoration planting could occur at the non-contiguous 0.67-acre parcel located east of Camino del Mar, which may contain state or federally protected wetlands. If restoration activities were to occur within this 0.67-acre parcel, potentially significant direct impacts to protected wetlands could occur and mitigation measure MM BIO-3b would be required to reduce impacts to less than significant. While there is a drainage ditch near the railroad right-of-way that would be crossed to install the Option 1 water pipeline, construction would utilize jack-and-bore methods to avoid direct impacts to this drainage and would avoid potential impacts to jurisdictional wetlands.

Indirect Impacts

Potential indirect impacts to off-site jurisdictional waters could occur if construction or operation of the project results in the release of sediments or pollutants into the adjacent Pacific Ocean or San Dieguito River and associated Lagoon. Compliance with existing regulations, specifically water quality controls during construction, drainage plans during operation, a polluted runoff control plan, stormwater management and discharge controls, and implementation of a SWPPP, would reduce indirect impacts to off-site federally protected wetlands to less than significant. Compliance with these regulations are included in subsection 4.7 of this EIR and would avoid potentially significant indirect impacts to federally protected wetlands in the Lagoon.

d) Would the project 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 nursey sites?

Direct Impacts

The project site is located adjacent to the San Dieguito River outlet, which functions as a wildlife corridor from the San Dieguito River and associated Lagoon to the Pacific Ocean. The project site itself, however, is separated from the San Dieguito River and Lagoon area by Camino del Mar and is disturbed with existing structures and several acres of ornamental plantings. The disturbed nature of the site, existing development, and highly urbanized surroundings would likely deter wildlife from using the site for movement between areas of habitat, and therefore it does not function as a wildlife corridor. Thus, the project would not directly affect a wildlife corridor and impacts would be less than significant.

Indirect Impacts

Operation of the project may indirectly interfere with wildlife movement within the San Dieguito River outlet though the use of development-related lighting. Therefore, impacts would be potentially significant (Impact BIO-2b) and implementation of mitigation measure MM BIO-2b and MM BIO-2g that are concerned with construction and operational lighting, respectively, would be required.

e) Would the project conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?

Implementation of the project would result in the removal of protected trees, including Monterey cypress trees and Torrey pines. As the Monterey cypress and Torrey Pine are considered a significant visual resource in the City of Del Mar, their removal site is considered a potentially significant direct impact (Impact BIO-4). A Tree Removal Permit, as recommended by the Del Mar Design Review Board and determined by the Del Mar City Council, would be required and is included as mitigation measure MM BIO-4. Upon decision of the Del Mar City Council, the project applicant would either be required to replant the Monterey cypress or Torrey pines on site or pay a fee to the City of Del Mar's Tree Mitigation Fund in accordance with the DMMC Section 23.50. Through implementation of the Tree Removal Permit, impacts would be reduced to less than significant.

f) Would the project conflict with the provisions of an adopted Habitat Conservation Plan (HCP), Natural Community Conservation Plan (NCCP), or other approved local, regional, or State habitat conservation plan?

The project site is located within the City of Del Mar, which is listed as a jurisdictional entity within the boundaries of the MSCP for the County of San Diego (1998). The City is in the process of developing an MSCP Subarea Plan, but no draft has been circulated to the public.

Although the project would result in direct impacts to southern coastal bluff scrub, which is considered a sensitive vegetation community, it would be restored per mitigation measure MM BIO-3. Potential indirect impacts to plant or wildlife species covered under the MSCP would be minimized through compliance with existing regulations. As such, the project would not conflict with any currently adopted MSCP.

Additionally, because the project is located in the coastal zone as defined by the CCC, compliance with the California Coastal Act would be demonstrated through consistency with the City of Del Mar's LCP as amended by the project (City 1993). Chapter 6 of the Initiative provides a discussion of the project's consistency with the City of Del Mar's LCP as amended. Specifically, the LCP Implementing Ordinances address appropriate collection and conveyance of runoff directly into publicly owned discharge and

drainage systems, minimizing disturbance of natural landforms and habitat through clustered development, and submittal of erosion and sedimentation plans. Therefore, the proposed project would not conflict with the provisions of an adopted habitat conservation plan, natural community conservation plan, or other approved local, regional, or state habitat conservation plan, and no impacts would occur.

4.3.5 Mitigation Measures

MM BIO-1 **Nesting Bird Surveys**. Construction shall be phased to avoid the migratory bird nesting season (typically February 15 through September 1) to the extent feasible. If construction must occur during the migratory bird nesting season, a focused avian nesting survey shall be performed at the project site within 300 feet of the proposed construction and by a qualified biologist no more than 72 hours prior to the start of construction. If an active bird nest is found, the nest shall be flagged and mapped on the construction plans along with an appropriate buffer, which will be determined by the biologist based on the biology of the species. The nest and buffer area shall be avoided until the nest is vacated and the juveniles have fledged or the nest is otherwise no longer active. The nest and buffer area shall be demarcated in the field with flagging and stakes or construction fencing. Construction shall be permitted in areas outside of the nest and buffer area. If nesting birds are present on site, a biological monitor shall be present daily during construction activities while the nest(s) is active to ensure that no effects to nesting birds occur.

MM BIO-2a **Demarcation of Bluff Scrub**. Prior to the issuance of construction permits, the project applicant shall provide evidence to the satisfaction of the City of Del Mar that the locations of southern coastal bluff scrub outside of the approved limits of disturbance shall be avoided and marked with temporary fencing or other appropriate markers clearly visible to construction personnel. No construction access, parking, or storage of equipment or materials will be permitted within 20 feet of such marked areas.

MM BIO-2b **Construction Nighttime Lighting.** Construction within 50 feet of the adjacent Preserve shall be prohibited between sunset and sunrise, and all construction-related lighting shall be turned off during that period. The boundaries of the Preserve shall be shown on construction documents and verified by the City of Del Mar prior to the commencement of any construction activities.

MM BIO-2c **Contractor Education Program.** Prior to the issuance of construction permits, the project applicant shall provide evidence to the satisfaction of the City of Del Mar that a contractor education program has been prepared and approved by the City of Del Mar and implemented to apprise all construction personnel and subcontractors of environmental restrictions. The applicant and contractor shall establish a protocol for communicating problems or potential construction changes that may affect biological resources. Workers shall be made aware of protected habitat adjacent to the project site. The sensitivity of the habitat to human activities and the roles and authority of monitoring biologists shall be discussed.

MM BIO-2d **Equipment Restrictions.** Prior to the issuance of construction permits, staging and storage areas for spoils, equipment, materials, fuels, lubricants, and solvents shall be

identified within a designated impact area that shall be marked on an exhibit for the review and approval of the City of Del Mar. Stationary equipment, such as motors, pumps, generators, compressors, and welders located adjacent to southern coastal bluff scrub shall be positioned over drip-pans or other containment. Before refueling and lubrication, vehicles and other equipment shall be moved away from the southern coastal bluff scrub.

MM BIO-2e **Restrictions on Use of Invasive Species.** Prior to the issuance of construction permits, a list of landscape plants to be used shall be reviewed and approved by the City of Del Mar and shall not include invasive plant species, as identified by the most recent version of the California Invasive Plant Inventory for the region, as published by the California Invasive Plant Council. Landscape plans shall include a plant palette composed of native or non-native, non-invasive species that do not require high irrigation rates.

MM BIO-2f **Signage and Fencing.** Trail fencing shall be installed to prevent unmanaged access to the adjacent Preserve. Signage shall be included near access points that identify sensitive habitats and the importance of staying on designated trails/paths.

MM BIO-2g **Operational Nighttime Lighting.** To reduce long-term nighttime lighting effects, shielded low-sodium, low-wattage lighting on proposed building and accent lighting shall be used to cut glare and light scatter, and to direct light away from sensitive biological resources.

MM BIO-3a **Restoration of Bluff Scrub**. Prior to the issuance of construction permits, a detailed southern coastal bluff scrub restoration plan to provide mitigation for the identified 0.27 acre of impact shall be submitted to and subject to the approval of the City of Del Mar. Restoration can include enhancement of existing southern coastal bluff scrub or creation of southern coastal bluff scrub in areas where the community is not present. The detailed southern coastal bluff scrub restoration plan shall specify, at a minimum, the following: (1) the location of the restoration site; (2) site preparation, including soils preparation and irrigation installation; (3) the quantity (seed or nursery stock) and species of plants to be planted (species are to be native to the region and consist of southern coastal bluff scrub species); (4) methods for the removal of non-native plants; (5) a schedule and action plan to maintain and monitor the restoration area; (6) a list of criteria to measure the success of the restoration site (e.g., percent cover and richness of native species, percent survivorship, establishment of self-sustaining native of plantings, maximum allowable percent of non-native species); (7) measures to exclude unauthorized entry into the restoration areas; and (8) contingency measures in the event that restoration efforts are not successful. At least 0.27 acre of southern coastal bluff scrub restoration must be successful to mitigate for the proposed impacts to southern coastal bluff scrub and to meet the success criteria of the restoration plan.

MM BIO-3b **Restoration Plan.** If restoration activities occur on the project parcel located east of Camino del Mar, the project applicant shall prepare and implement a restoration plan to demonstrate that significant impacts to sensitive species and jurisdictional areas would not occur. The Restoration Plan shall be submitted to the City of Del Mar and the appropriate regulating agencies for review and approval prior to implementation. The Restoration Plan shall include native plant species consistent with surrounding habitat.

MM BIO-4 **Tree Removal Permit.** The project proponent shall comply with the requirements of DMMC Section 23.50, *Trees*. Prior to the issuance of construction permits, the project proponent shall submit a Tree Removal Permit application to the City of Del Mar with the appropriate processing fee according to the DMMC Section 23.50.080. A Tree Removal Permit, as recommended by the Design Review Board and approved by the Del Mar City Council, would be required to cut down, remove, destroy, or move a protected tree. The project applicant shall be required to comply with the requirements of the Tree Removal Permit, which would include replanting of the protected trees on site or payment of a fee to the City of Del Mar's Tree Mitigation Fund in accordance with DMMC Sections 23.50.080(C-10), 23.50.030(D)(2), and 23.50.090(A)(2).

4.3.6 Level of Significance After Mitigation

With implementation of the proposed mitigation measures MM BIO-1 through MM BIO-4, potential impacts to biological resources would be reduced to less than significant. No significant and unavoidable impacts to biological resources would occur.

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Source: Dudek 2019

HELIX Environmental Planning

Existing Vegetation Communities and Plant Species

Figure 4.3-1



Source: Dudek 2019

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HELIX Environmental Planning

Biological Limits of Disturbance

Figure 4.3-2

4.4 CULTURAL AND TRIBAL CULTURAL RESOURCES

This subsection includes a description of existing conditions, regulatory requirements, and potential impacts on cultural resources associated with the proposed project, which includes an analysis of historic and archaeological (prehistoric) resources, as well as tribal cultural resources. The technical information in this subsection is based on a Cultural Resources Survey Report, prepared by Dudek in November 2019 (Dudek 2019d). The Cultural Resources Survey Report included a survey of the privately-owned 16.55 acres of the project site in 2017 by Dudek cultural staff. This technical report, including methodologies used and citations and references relied upon, are included as Appendix E to this EIR.

4.4.1 Existing Conditions

The project site is mostly undeveloped; however, recent use (i.e., 20th century) of the site has been primarily residential with some agricultural uses. Records of residential development of the site dates back to the 1930s; however, most of the previous development has been removed with the exception of an existing single-story residence and associated structures, as well as remains from previous residential uses. Existing residential development includes a 5,800-sf single-family residence, garage, guest house, pool and pool house, and an associated driveway along the eastern project boundary that connects the residence to just west of the intersection of Camino Del Mar/Highway 101 and Via De La Valle. Based on a review of aerial photography for the site, the house was constructed in 1980.

Previous residential use of the site included a residential complex referred to as Tippett Hall, which was comprised of a two-story, approximately 9,492-sf residence with a basement, swimming pool and pool house, changing rooms, a gazebo, and a grotto. The residential complex was demolished in 2017; however, some remains associated with the residential complex are present, such as remnants of the grotto. The grotto included a small patio area and a fireplace along the coastal bluffs on the western edge of the project site overlooking the Pacific Ocean.

The South Coast Information Center (SCIC), which retains cultural resource records for the region, has a of record of 20 cultural resources within one mile of the project site, with two prehistoric habitation sites (identified as CA-SDI-7979 and CA-SDI-10940) documented within the project site. A pedestrian survey and an extended phase 1 subsurface survey were conducted as part of the preparation of the Cultural Resources Survey Report, which involved observations of cultural material and artifacts on the ground associated with previously recorded sites CA-SDI-7979 and CA-SDI-10940 and subsurface examinations at CA-SDI-10940. Observations included marine shell, lithic (stone) artifacts, and midden sediments (organic evidence of prehistoric habitation). In addition to the two defined habitation sites, a low-density scatter of artifacts, which has been redistributed from past landscaping and construction activities, is present across much of the project site; some of the artifacts were observed mixed within imported fill materials. Site CA-SDI-192 was identified outside of the project site but within the vicinity of the project, south of the Lagoon. There is little information about site CA-SDI-192; however, the site record contains a sketch map showing its location identified as “San Dieguito Village.”

Site CA-SDI-7979 consists of a prehistoric habitation site that was initially recorded in 1980 after residential development had already begun. An archaeological data recovery program was prepared and implemented in 1996 for site CA-SDI-7979, which involved the excavation of 66 square meters, or an approximately four percent sample of the subsurface deposit at the site. The results of the data recovery program included the collection of 1,558 prehistoric artifacts, including flaked-stone, lithic

tools, ground-stone and percussion tools and fragments, marine invertebrate shell remains, and mammal (non-human) bone. Upon conclusion of the data recovery program, no future testing or data recovery was recommended, but subsequent Native American and archaeological monitoring was recommended for future development activities.

Site CA-SDI-10940 was recorded in 1929 by Malcom Rogers as a large habitation site. Site CA-SDI-10940 was subsequently investigated in 1963 and 1974 and is referred to as the "Del Mar Man Site." During the late 1970s and early 1980s, bone dating procedures dated a skull from the site at over 48,000 years old; however, more modern technology estimates the skull is approximately 5,000 years old. Roger's excavation notes from the 1920s are unclear; however, it is estimated that 32 excavations were dug at site CA-SDI-10940. In 1995, additional testing of site CA-SDI-10940 indicated that portions of the site were still intact and mostly undisturbed, partly due to previous capping of the site with sterile dirt. As a result, a data recovery program was recommended prior to future project or permit approvals as well as future Native American and archaeological monitoring. The extended phase I subsurface survey in 2017 confirmed the identification of an intact archaeological deposit within the project site, variably contained between 20 and 60 centimeters (cm) below the surface.

4.4.1.1 Cultural Resources Overview

Prehistoric Period

Evidence for human occupation in the San Diego region dates back to approximately 10,000 years ago and is categorized into three timeframes within the prehistoric period, including the Paleoindian, Archaic, and Late Prehistoric. These periods are further described below.

a) Paleoindian Period

The earliest well-documented sites in the San Diego area belong to the San Dieguito Tradition, which dates to over 9,000 years ago and had an emphasis on big game hunting and coastal resources. The C.W. Harris Site (CA-SDI-149/316/4935B), located along the San Dieguito River, provides the basis upon which San Dieguito Tradition is defined. One of the earliest dated archaeological resources in coastal Southern California (excluding the Channel Islands) is associated with site CA-SDI-4669/W-12, (the Uni House site) in La Jolla. A human burial from CA-SDI-4669 was radiocarbon dated to 9,590–9,920 years before present (BP) with a 95.4 percent probability. The burial is part of a larger site complex that contained more than 29 human burials associated with an assemblage that fits the Archaic profile (i.e., large amounts of ground stone, battered cobbles, and expedient flake tools).

b) Archaic Period

While there has been debate about whether Paleoindian and Archaic periods might represent the same people using different environments and subsistence techniques, or whether they are separate cultural patterns, a shift towards a more generalized economy and an increased emphasis on seed resources, small game, and shellfish was introduced in the Archaic Period. The local cultural manifestations of the Archaic period, dating from circa 8600 BP to circa 1,300 BP are called the La Jollan complex along the coast and the Pauma complex inland. Sites dating to the Archaic Period are numerous along the coast, near-coastal valleys, and around estuaries and are defined by processing tools, including millingstones, handstones, battered cobbles, heavy crude scrapers, incipient flake-based tools, and cobble-core reduction. These occur in all environments across the San Diego region, with little variability in tool

composition. The Archaic Period tool assemblage also includes terrestrial and marine mammal remains, flexed burials, doughnut stones, discoidals, stone balls, biface points, beads, and bone tools.

c) Late Prehistoric Period

The Late Prehistoric period (1500 BP to AD 1769) is characterized by higher population densities and intensification of social, political, and technological systems. New tool technologies occur at the onset of the Late Prehistoric Period, including bow and arrow technology and ceramics. After the bow is adopted, small arrow points appear in large quantity and already low amounts of formal flake tools are replaced by increasing amounts of expedient flake tools. Similarly, shaped milling stones and handstones decrease in proportion relative to expedient, unshaped ground stone tools.

The Late Prehistoric period is represented by the San Luis Rey complex in northern San Diego County and the Cuyamaca complex in the southern portion of the county. Late Prehistoric artifactual material is characterized by Tizon Brownware pottery, various cobble-based tools (e.g., scrapers, choppers, and hammerstones), arrow shaft straighteners, pendants, manos and metates, and mortars and pestles. Subsistence is thought to be focused on the utilization of acorns and grass seeds, with small game serving as a primary protein resource and big game as a secondary resource. Fish and shellfish were also secondary resources, except immediately adjacent to the coast, where they assumed primary importance. The settlement system is characterized by seasonal villages where people used a central-based collecting subsistence strategy.

Ethnohistoric

Based on ethnographic data, including the areas defined for the Hokan-based Yuman-speaking peoples (Kumeyaay) and the Takic-speaking peoples (Luiseño) at the time of contact, it is now generally accepted that the Cuyamaca complex is associated with the Kumeyaay and the San Luis Rey complex with the Luiseño. The name Luiseño derives from Mission San Luis Rey de Francia and has been used to refer to the Indian people associated with that mission, while the Kumeyaay people are also known as Ipai, Tipai, or Diegueño (named for Mission San Diego de Alcala). Agua Hedionda Creek is often described as the division between the territories of the Luiseño and the Kumeyaay people, although various archaeologists and ethnographers use slightly different boundaries. Traditional stories and songs of the native people also describe the extent of traditional use areas.

The Kumeyaay generally lived in smaller family subgroups that would inhabit two or more locations over the course of the year. While less common, there is sufficient evidence that there were also permanently occupied villages, and that some members may have remained at these locations throughout the year. The coastal Kumeyaay exchanged a number of local goods, such as seafood, coastal plants, and various types of shell for items including acorns, agave, mesquite beans, gourds, and other more interior plants of use.

Historic Period

While Juan Rodriguez Cabrillo visited San Diego briefly in 1542, the beginning of the historic period in the San Diego area is generally given as 1769. In that year, a Spanish expedition headed by Gaspar de Portolá and Junípero Serra established the Royal Presidio of San Diego. Portolá then traveled north from San Diego seeking suitable locations to establish military presidios and religious missions in order to extend the Spanish Empire into Alta California. Initially, both a mission and a military presidio were located on Presidio Hill overlooking the San Diego River. A small pueblo, now known as Old Town San

Diego, developed below the presidio. The Mission San Diego de Alcalá was constructed in its current location five years later. The missions and presidios stood, literally and figuratively, as symbols of Spanish colonialism, importing new systems of labor, demographics, settlement, and economies to the area. Cattle ranching, animal husbandry, and agriculture were the main pursuits of the missions.

Although Mexico gained its independence from Spain in 1821, Spanish patterns of culture and influence remained for a time. The missions continued to operate as they had in the past, and laws governing the distribution of land were also retained in the 1820s. Following secularization of the missions in 1834, large ranchos were granted to prominent and well-connected individuals, ushering in the Rancho Era, with the society making a transition from one dominated by the church and the military to a more civilian population, with people living on ranchos or in pueblos. With the numerous new ranchos in private hands, cattle ranching expanded and prevailed over agricultural activities.

Mexico's separation from the Spanish and the secularization of the California missions caused further disruptions to native populations in western San Diego County. Some former mission neophytes were absorbed into the work forces on the ranchos, while others drifted toward the urban centers at San Diego and Los Angeles or moved to the eastern portions of the county where they were able to join still largely autonomous native communities.

American governance began in 1848, when Mexico signed the Treaty of Guadalupe Hidalgo, ceding California to the United States at the conclusion of the Mexican–American War. A great influx of settlers to California and the San Diego region occurred during the American Period, resulting from several factors, including the discovery of gold, the end of the Civil War, the availability of free land through passage of the Homestead Act, and later, the importance of San Diego County as an agricultural area supported by roads, irrigation systems, and connecting railways. The increase in American and European populations quickly overwhelmed many of the Spanish and Mexican cultural traditions, and greatly increased the rate of population decline among Native American communities.

Development during the following decades was fitful, undergoing cycles of boom and bust. The 1880s saw "boom and bust" cycles that brought thousands of people to the area of San Diego County. By the end of the decade, many had left, although some remained to form the foundations of small communities based on dry farming, orchards, dairies, and livestock ranching. The influence of military development, beginning in 1916 and 1917 during World War I, and the need to fight a two-ocean war during World War II, resulted in substantial development in infrastructure and industry to support the military and accommodate soldiers, sailors, and defense industry workers.

4.4.2 Regulatory Setting

4.4.2.1 State

Public Resources Code

Section 5097–5097.6 of the California Public Resources Code identifies that the unauthorized disturbance or removal of archaeological, historical, or paleontological resources located on public lands is a misdemeanor. It prohibits the knowing destruction of objects of antiquity without a permit (expressed permission) on public lands, and it provides for criminal sanctions.

This section was amended in 1987 to require consultation with the Native American Heritage Commission (NAHC) whenever Native American graves are found. Violations for taking or possessing

remains or artifacts are felonies. California Public Resources Code Section 5097.5 states that "no person shall knowingly and willfully excavate upon, or remove, destroy, injure, or deface, any historic or prehistoric ruins, burial grounds, archaeological or vertebrate paleontological site, including fossilized footprints, inscriptions made by human agency, rock art, or any other archaeological, paleontological or historic feature situated on public lands, except with the express permission of the public agency having jurisdiction over the lands."

Health and Safety Code

California law protects Native American burials, skeletal remains, and associated grave goods, regardless of their antiquity, and provides for the sensitive treatment and disposition of those remains. California Health and Safety Code Section 7050.5 requires that if human remains are discovered in any place other than a dedicated cemetery, no further disturbance or excavation of the site or nearby area reasonably suspected to contain human remains shall occur until the county coroner has examined the remains (Section 7050.5b). If the coroner determines or has reason to believe the remains are those of a Native American, the coroner must contact the NAHC within 24 hours (Section 7050.5c). The NAHC will notify the Most Likely Descendant. With the permission of the landowner, the Most Likely Descendant may inspect the site of discovery. The inspection must be completed within 24 hours of notification of the Most Likely Descendant by the NAHC. The Most Likely Descendant may recommend means of treating or disposing of, with appropriate dignity, the human remains and items associated with Native Americans.

California Register of Historic Resources

The California Register of Historical Resources (CRHR) is used in the consideration of historical resources relative to significance. The CRHR includes California State Historical Landmarks, eligible Points of Historical Interest, and resources listed, or formally determined eligible for listing, in the National Register of Historic Places. Properties of local significance that have been designated under a local preservation ordinance (local landmarks or landmark districts), or that have been identified in a local historical resources inventory, may be eligible for listing in the CRHR and are presumed to be significant resources for purposes of CEQA, unless a preponderance of evidence indicates otherwise.

Generally, a resource shall be considered by the lead agency to be "historically significant" if the resource is at least 50 years of age and meets the criteria for listing in the CRHR (California Public Resources Code, Section 5024.1; 14 CCR 4852), consisting of the following:

1. It is associated with events that have made a significant contribution to the broad patterns of local or regional history, or the cultural heritage of California or the United States.

2. It is associated with the lives of persons important to local, California, or national history.

3. It embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of a master, or possesses high artistic values.

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

Native American Cultural Sites

The Native American Historic Resources Protection Act (Public Resources Code section 5097, et seq.) addresses the disposition of Native American burials in archaeological sites and protects such remains from disturbance, vandalism, or inadvertent destruction; establishes procedures to be implemented if Native American skeletal remains are discovered during construction of a project; and establishes the NAHC to resolve disputes regarding the disposition of such remains. In addition, the Native American Historic Resource Protection Act makes it a misdemeanor punishable by up to one year in jail to deface or destroy an Indian historic or cultural site that is listed or may be eligible for listing in the CRHR.

Native American Graves Protection and Repatriation Act

The California Native American Graves Protection and Repatriation Act (California Repatriation Act), enacted in 2001, requires all state agencies and museums that receive state funding and that have possession or control over collections of human remains or cultural items, as defined, to complete an inventory and summary of these remains and items on or before January 1, 2003, with certain exceptions. The California Repatriation Act also provides a process for the identification and repatriation of these items to the appropriate tribes.

Coastal Act

The California Coastal Act, in part, authorizes the CCC to review permit applications for development within the coastal zone and, where necessary, to require reasonable mitigation measures to offset effects of that development. Permits for development are issued with "special conditions" to ensure implementation of these mitigation measures.

Section 30244 of the Act, "Archaeological or Paleontological Resources," states that:

> Where development would adversely impact archaeological or paleontological resources as identified by the State Historic Preservation Officer, reasonable mitigation measures shall be required.

Senate Bill 18

The Local and Tribal Intergovernmental Consultation process, commonly known as Senate Bill (SB) 18 was signed into law in September of 2004 and took effect on March 1, 2005. SB 18 established responsibilities for local governments to contact, provide notice to, refer plans to, and consult with California Native American Tribes. The purpose of this consultation process is to protect the identity of the cultural place and to develop appropriate and dignified treatment of the cultural place in any subsequent project. The consultation is required whenever a general plan, specific plan, or open space designation is proposed for adoption or to be amended. As part of the application process, California Native American Tribes must be given the opportunity to consult with the applicant of the project and with the lead agency for the purpose of preserving, mitigating impacts to, and identifying cultural places located on project land.

Assembly Bill 52

California Assembly Bill (AB) 52, which took effect July 1, 2015, establishes a consultation process between California Native American Tribes and lead agencies in order to address tribal concerns

regarding project impacts and mitigation to "tribal cultural resources" (TCR). Public Resources Code Section 21074(a) defines TCRs and states that a project that has the potential to cause a substantial adverse change to a TCR is a project that may have an adverse effect on the environment. A TCR is defined as a site, feature, place, cultural landscape, sacred place, and object with cultural value to a California Native American tribe that is either listed or eligible for listing in the CRHR or a local register of historical resources, or determined by a lead agency to be a TCR.

4.4.2.2 Local

Del Mar Community Plan

The project site is located in the coastal plains of San Diego County in Del Mar. While their specific locations are not identified due to the potential for vandalism, the following general areas are identified in the City of Del Mar's Community Plan as culturally-important sites within the City: (1) the north bluff area west of Camino Del Mar (which includes the project site); (2) near Turf Road and Via de la Valle; (3) the north slopes of the Del Mar hills above Jimmy Durante Boulevard; (4) the northeast slopes of the Del Mar hills above San Dieguito Drive; (5) the Torrey Pines Terrace area; and (6) the Del Mar Canyon area. As such, the proposed project is located within a culturally-important area. The City of Del Mar's Community Plan establishes goals, objectives, and policies to ensure that natural resources within the City are managed wisely. Objective K under Goal 1 of the Community Plan specifically addresses cultural resources.

Goal 1. Establish without delay a comprehensive program to preserve and acquire permanent open space sufficient to meet the long-range needs of the community, preserve and enhance natural resources and protect areas and people susceptible to seismic and flooding hazards.

Objective K. Require development in areas of archeological significance to be reviewed by the City of Del Mar to [e]nsure that such uses do not result in a permanent destruction of any archeological sites or cultural information.

Del Mar Municipal Code

Chapter 30.58 of the Del Mar Municipal Code designates an Historic Preservation Overlay Zone to protect the architectural and historic integrity of historically-important properties within the City. Historical significance is defined by the Municipal Code to mean any structure and/or use of a property that:

- Possesses a unique architectural style typifying a period of California or Del Mar history;
- Is listed on a state or federal register of historic places;
- Marks or represents a specific historic event; or
- Typifies the historic character of a specific area of the City.

4.4.3 Thresholds of Significance

The City of Del Mar relies on the thresholds of significance that are based on Appendix G of the 2019 State CEQA Guidelines. Impacts related to cultural resources, including tribal cultural resources would be significant if implementation of the project would:

A. Cause a substantial adverse change in the significance of a historical resource pursuant to the Guidelines Section 15064.5;

B. Cause a substantial adverse change in the significance of an archaeological resource pursuant to the Guidelines Section 15064.5;

C. Disturb any human remains, including those interred outside of formal cemeteries; or

D. Cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code Section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:

    a. Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code Section 5020.1(k), or

    b. A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resources Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.

4.4.4 Impact Analysis

a) Would the project cause a substantial adverse change in the significance of a historical resource pursuant to the Guidelines Section 15064.5?

The project site is mostly vacant, with the exception of an existing single-family residence and the remains of a demolished residential complex (Tippett Hall). The existing single-family residence and garage, guest house, pool and pool house, and an associated driveway would be demolished and removed from the project site to accommodate the proposed resort development. Historic resources eligible for listing in the CRHR are usually at least 50 years of age unless it can be demonstrated that sufficient time has passed to understand the resource's historical importance or there is a local designation that identifies a structure as historically significant or important. As the existing single-family residence constructed in 1980, it is less than 40 years in age and does not meet the general CRHR definition of an historical resource. The residence also is not within the City of Del Mar's Historic Preservation Overlay Zone, which the City uses to identify and preserve historic properties and is not locally known or considered to be an historical resource. As a result, removal of the existing single-family residence to accommodate the proposed project would not result in a significant environmental impact and no mitigation measures would be necessary.

The former residential complex near the center of the project site, which dates back to around 1937, included two separate homes, a pool and pool house, and other ancillary buildings, including a grotto patio area. As noted in the Geotechnical Report for the project (see Appendix F), the residential complex was removed from the site by October 2017. The demolition of the former residential complex was evaluated in a Mitigated Negative Declaration (SCH #: 2015031020) in 2015 as part of the Estates at Del Mar Project and was determined to not constitute a significant historical resource. Specifically, the residential complex was noted to be in an advanced state of decay, was not representative of trends in California history, did not typify the historical character of the City, and was not within the City of Del

Mar's Historic Preservation Overlay Zone. While remnants of the grotto patio area are still present along the top of the coastal bluffs along the western project boundary, the associated residential complex has been removed and the remaining elements of Tippett Hall do not constitute a significant historical resource. A majority of the former residential complex site would be developed with the proposed resort uses; however, development would not occur within 40 feet of the coastal bluffs and the remaining grotto patio area and fireplace along the coastal bluffs would not be removed. As a result, overall development of a resort on the project site would not result in a significant impact to historical resources and no mitigation measures would be necessary.

b) Would the project cause a substantial adverse change in the significance of an archaeological resource pursuant to the Guidelines Section 15064.5?

Pursuant to State CEQA Guidelines Section 15064.5, a substantial adverse change in the significance of an archaeological site would occur if approval of a project, including construction and/or operation, would result in the demolition or material impairment of an archaeological resource. Recorded prehistoric archaeological sites CA-SDI-7979 and CA-SDI-10940 occur within the project site and have been evaluated and found to be eligible for listing in the CRHR for their association with events that have made a significant contribution to the broad patterns of the cultural heritage of California and have yielded, or may be likely to yield, information important in prehistory.

A data recovery program was completed in 1996 for site CA-SDI-7979, in which 66 square-meters, or an approximately four percent sample, of the subsurface deposit at the site was excavated. During the field visit in 2017 by Dudek, cultural artifacts and materials were observed at site CA-SDI-7979. Site CA-SDI-10940 represents a prehistoric maritime focus that has been lost to development that has occurred along the California shoreline. As discussed in Subsection 3.4, *Construction and Phasing*, of this EIR, the proposed project would involve site preparation and disturbance. The precise locations of sites CA-SDI-7979 and CA-SDI-10940 are confidential; however, the proposed project grading and excavation could result in the demolition or impairment of site CA-SDI-10940, which is considered to be intact and mostly undisturbed, and site CA-SDI-7979, which has been disturbed by the previous data recovery efforts. The data recovery efforts that occurred in 1996 associated with CA-SDI-7979 were determined to be sufficient to mitigate significant impacts to CA-SDI-7979 to a less than significant level, and outside of monitoring, no further cultural work was identified as necessary at CA-SDI-7979. As a result, impacts to site CA-SDI-10940 is potentially significant and mitigation measures MM CUL-1a through MM CUL-1c would be required to reduce impacts to less than significant (Impact CUL-1). While no significant impacts are anticipated to result regarding site CA-SDI-7979, archaeological monitoring would still be required for ground disturbing activities at CA-SDI-7979 in the event that inadvertent discovery of significant subsurface cultural material is encountered. This monitoring would occur as a part of MM CUL-1b and CUL-1c. Additionally, off-site improvements associated with a new water pipeline, generally within Camino del Mar or Via de la Valle, would occur in a sensitive archaeological area due to the proximity to known archaeological sites, and could result in potentially significant impacts to archaeological resources (Impact CUL-2). These impacts associated with the water pipeline would similarly be mitigated to less than significant with implementation of MM CUL-1b and -1c.

c) Would the project disturb any human remains, including those interred outside of formal cemeteries?

Significant impacts will occur if the project has the potential to disturb any human remains, including those interred outside of formal cemeteries. Human remains were collected from CA-SDI-10940 during archaeological investigations at the site by Rogers in 1929; however, a review of subsequent cultural

resources studies at the project site did not reveal any other discoveries of human remains. While the probability of finding additional human remains during project construction is unknown, the potential exists for additional discoveries of human bone. As such, development of the subject property has the potential to result in significant impacts to human remains. Archaeological and Native American monitoring per mitigation measures MM CUL-1b and MM CUL-1c would therefore be performed in order to identify potential human remains within the project site (Impact CUL-3).

Per Health and Safety Code Section 7050.5 and Public Resources Code Sections 5097.98 and 5097.993, construction activities will be halted in the event of a human remains discovery until the coroner is contacted. If the remains are determined to be of Native American origin, the Most Likely Descendant, as identified by the NAHC, shall be contacted in order to determine proper treatment and disposition of the remains. The California Native American Graves Protection and Repatriation Act (2001) require any remains or associated cultural items be treated with dignity and, as necessary, be repatriated.

d) Cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code Section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:

a. Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code Section 5020.1(k), or

b. A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resources Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.

Tribal coordination was initiated in June 2017 by Dudek by contacting the NAHC when a Sacred Lands File request was submitted. The response from the NAHC included a letter stating that there was no indication of presence of Native American traditional places within the project area; however, a list was provided of Native American tribes and individuals and organizations that might have knowledge of cultural resources within or near the project site. Letters were then sent to the tribal representatives to request information, opinions, or concerns relating to the proposed project, and included reference maps and a summary of the NAHC Sacred Lands File Search and SCIC search results. Responses were received through July 2017 from four organizations, including the Viejas Tribal Government, Mesa Grande Band of Mission Indians, San Pasqual Economic Development Agency, and the Pauma Band of Luiseño Indians. Their responses generally requested to be informed of future cultural studies, ground disturbances, and/or monitoring activities at the project site. The Viejas Tribal Government specifically requested that a Kumeyaay cultural monitor be present during ground disturbance.

In September 2017, the City sent out letters notifying 22 tribal organizations of the proposed project in accordance with AB 52 and Section 20180.3.1 of CEQA, and included information on the project location and description, and indicated the negative results of the NAHC Sacred Lands File request. To date, no requests for consultation have been received by the City. Due to the presence of archaeological resources on the project site, which may include tribal cultural resources, impacts are considered to be potentially significant (Impact CUL-4). Native American monitoring would be required for the data recovery and monitoring programs, as detailed in mitigation measures MM CUL-1a through MM CUL-1c.

As a result, impacts related to a substantial adverse change in the significance of a tribal cultural resource would be less than significant with the incorporation or mitigation measure MM CUL-1a and MM CUL-1c.

4.4.5 Mitigation Measures

MM CUL-1a: Data Recovery Program. A Data Recovery Program shall be implemented for site CA-SDI-10940 prior to any ground-disturbing activity that would cause the direct impact to the site, taking into account finalized construction plans and other concerns in order to better define impacted areas.

The data recovery program shall be based on a written research design and data recovery plan that shall be prepared prior to data recovery. The research design and data recovery plan shall make provisions for adequately recovering the scientifically consequential information from the archaeological resource and provide protocols for the subsequent cataloguing, analysis, identification, dating, and interpretation of the findings. All data recovery shall include a Kumeyaay Native American monitor. Any recovered cultural material shall be identified, mapped, and catalogued as required by standard professional archaeological practices. At the completion of data recovery for CA-SDI-10940, a report shall be completed and submitted to the City describing the methods and results of the data recovery program. Recovered cultural material shall be curated with accompanying catalog and data recovery report to current professional repository standards.

MM CUL-1b: Archaeological Resources Monitoring and Treatment Plan. Prior to the start of any ground-disturbing activity, an Archaeological Resources Monitoring and Treatment Plan (ARMTP) shall be prepared by a qualified archaeologist, subject to review and approval by the City. The ARMTP shall outline the monitoring program procedures and include recovery and subsequent treatment for the discovery of any archaeological or historical remains and associated data uncovered by ground-disturbing activities. The ARMTP shall provide procedures for the cataloguing, analyses, and curation of any recovered cultural material.

MM CUL-1c: Archaeological and Native American Monitoring Program. Prior to the start of any ground-disturbing activity, a qualified archaeological Principal Investigator shall be retained by the applicant. A qualified archaeologist and a Kumeyaay Native American representative shall attend the pre-construction meeting with the contractors to explain the requirements of the monitoring program and actions to be taken in the event of a cultural resources discovery, as outlined in the ARMTP. A qualified archaeological monitor and a Kumeyaay Native American monitor shall be on site during all grading, trenching, and other ground-disturbing activities, including brush clearance and grubbing, unless otherwise agreed upon by the archaeological Principal Investigator, the Native American representative, and City staff.

In the event that subsurface deposits are accidently discovered or unearthed during ground-disturbing activities, earthmoving activities shall cease in the immediate area (not less than 50 feet from the discovery) until the archaeological Principal Investigator has identified and evaluated the nature and significance of the find and treatment measures implemented, as required, per the ARMTP.

Recovered artifactual materials shall be cataloged, analyzed, and curated per the protocols in the ARMTP. Recovered cultural material shall be curated with accompanying catalog to current professional repository standards. A final summary report shall be completed that describes the methods and results

of the archaeological monitoring program, documents compliance, and signifies completion of the monitoring program.

4.4.6 Level of Significance After Mitigation

With implementation of the proposed mitigation measures MM-CUL-1a through MM-CUL-1c, potential impacts to archaeological resources, human remains, and tribal cultural resources would be reduced to less than significant. No significant and unavoidable impacts to cultural and tribal cultural resources would occur.

4.5 GEOLOGY AND SOILS

This subsection includes a description of existing conditions within the vicinity of the proposed project, regulatory requirements, and potential project impacts related to geology and soils. The technical information in this subsection is based on a Geotechnical Investigation prepared by Geocon Incorporated in September 2019 (Geocon 2019). The investigation includes a review of grading plans prepared by Project Design Consultants, geologic mapping and record structural measurements of the bluff face along the perimeter of the site, the results of surficial and subsurface explorations at the project site (including several borings, exploratory trenches, and soil sampling), and slope stability analyses. The Geotechnical Investigation also includes several appendices, including a site-specific bluff retreat analysis by Mr. Michael Hart and a third-party review by Dr. Benjamin Benumof in 2019 related to historical bluff top erosion rates, stability, and sea level rise. Another third party review was conducted by Environmental Science Associates (ESA) and the results are also incorporated into the appendices of the Geotechnical Investigation. This technical investigation, including its appendices, methodologies used, and citations and references relied upon, is included as Appendix F to this EIR.

4.5.1 Existing Conditions

The 17.45-acre project site includes a coastal terrace surrounded by coastal bluffs along the Pacific Ocean in Del Mar. Elevations on the project site range from near sea level at the base of the coastal bluffs on the west portion of the site to 93 feet amsl in the northern portion of the project site. Elevations on the coastal terrace in the center of the project site are relatively flat and are about 65 to 80 feet amsl. Groundwater at the project site was encountered at eight ground surface borings taken on the coastal terrace, approximately 70 to 90 feet below the ground surface.

4.5.1.1 Soils

A total of 21 geotechnical borings and 22 exploratory trenches were performed on the coastal terrace at depths between 85.5 and 100.5 feet and 5 to 12 feet, respectively. The results indicated that the area is underlain by topsoil and undocumented fill, followed by geologic deposits from the Pleistocene age, including marine and non-marine sediments. Specifically, these include the Bay Point Formation (referred to as Old Paralic Deposits in the Geotechnical Investigation), underlain by Torrey Sandstone and Delmar Formation. The project site is located primarily on topsoil and undocumented fill from previous development; however, below the topsoil and undocumented fill is Torrey Sandstone underlain by Delmar formation for most of the project site, except in some areas along the bluff face where the Bay Point Formation was encountered.

These soils are considered to be non-expansive. Each of these deposits is further described below:

- **Topsoil/Undocumented Fill**. Topsoil was encountered across the majority of the coastal terrace and varied in thickness between 2.5 and 6 feet. Topsoil is characterized as loose, dry to damp, medium to dark brown, silty, fine sand. Trenching during the site investigation discovered organic material, including roots and vegetation, as well as backfill associated with a network of irrigation pipes and shallow utility lines. Undocumented fill also included building foundations, a swimming pool, septic systems, and other structures related to previous residential development.

- **Bay Point Formation**. The coastal plain of San Diego County is characterized by a "stair-step" sequence of elevated marine terraces (uplifted sea floors). The Bay Point Formation is generally considered to include marine and non-marine sedimentary deposits (primarily light-brown, fine-grained sandstones) on the lower terraces (i.e., from near sea level to elevations of approximately 200 feet). The Bay Point Formation also includes Pleistocene non-marine valley-fill deposits exposed along the margins of coastal valleys (e.g., San Luis Rey Valley and San Dieguito Valley). Bay Point Formation is present underneath most of the project site and consists predominately of slightly to moderately cemented, medium-dense to dense, orange to reddish brown, silty, fine to medium sand. The upper portions of this deposit contain thin horizontal bands of reddish-brown translocated clay films as observed when borings were collected for the Geotechnical Report prepared for the project (Appendix F). The Bay Point Formation was also observed within the bluff face at the project site.

- **Torrey Sandstone**. Torrey Sandstone was observed underlying the Bay Point Formation throughout the majority of the project site and consisted of dense to very dense, light brown, silty, fine to medium sandstone with varying degrees of cementation. Based on the Geotechnical Report prepared for the project, Torrey Sandstone is located in the bluff face and is expected to decrease in thickness at the southern part of the project site. Some exposure along the beach was noted on the western project boundary, which was indicated to be well-cemented, and forms a robust and resistant face along the base of the sea cliff.

- **Delmar Formation**. The Delmar Formation consists of cemented, very dense, damp to moist, yellowish brown to grayish green, silty, fine to medium sandstone with some interbeds of dark grey siltstone and claystone observed along the bluff face. This formation is overlain by Torrey Sandstone, and is presumably underlain by Cretaceous sedimentary rocks and pre-Cenozoic crystalline basement rocks that were deposited in a lagoonal/estuarine setting and preserve marsh flat and tidal channel paleoenvironments. The Delmar Formation is late-early to early-middle Eocene in age, approximately 49 to 50 million years ago. Similar to the Torrey Sandstone, the Delmar Formation forms a robust and resistant face at the base of the seaward cliff face.

4.5.1.2 Geologic Hazards

a) Faulting

There are eight known active faults within 50 miles of the project site, including the Newport-Inglewood, Rose Canyon, Coronado Bank, Palos Verdes Connected, Elsinore, Earthquake Valley, Palos Verdes, and San Joaquin faults. The nearest active faults to the project site include the Newport-Inglewood Fault and the Rose Canyon Fault Zone, both of which are located approximately two miles west of the project site. The project site is not located on any known active or potentially active fault traces as defined by the California Geological Survey and is not located within an Alquist-Priolo Earthquake Fault Zone, which is a state designation for areas with potential safety concerns related to earthquake faults. There are several inactive minor faults within the Torrey Sandstone and Delmar Formation in the bluff face that are generally striking north to northeast and are steeply dipping with some vertical offsets to the east.

b) Liquefaction

Liquefaction is a phenomenon where loose, saturated, and relatively cohesionless soil deposits lose strength during strong ground motions. Primary factors controlling the development of liquefaction include intensity and duration of ground accelerations, characteristics of the subsurface soil, in situ

stress conditions, and depth to groundwater. The potential for liquefaction occurring at the project site is considered low due to the relatively dense nature of the underlying materials, remedial grading recommended, and lack of permanent near-surface groundwater.

c) Bluff Stability

Bluff stability is an important concern at the project site and along the greater shoreline within coastal San Diego County where topples, block falls, circular slope failure, and slope erosion occurs in areas with low intact rock strength and low cohesive strength. Shallow rotational failures have occurred in the Bay Point Formation and shallow topple-type movements have occurred in the Torrey Sandstone and Delmar Formation. These movements are relatively shallow and are not considered indicative of deep-seated landsliding. The majority of the erosion of the bluff face appears to be occurring within the Bay Point Formation due to weakly-cemented sands that make up the formation and the uncontrolled flow of water over the bluff top on the western edge of the project site. Failure of the Torrey Sandstone and Delmar Formation is triggered by wave vibration and the high strength of these formations has resulted in the robust and westward protruding profile that is exposed at the base of the cliff.

The project site is primarily located on a coastal terrace. Coastal terraces are generally flat-lying areas behind a bluff top. As further explained in the Geotechnical Investigation, the coastal bluff at the western and eastern edges of project site is comprised of the upper bluff, which begins below the coastal terrace once slopes reach 20 degrees, and the sea cliff, which includes areas along the side of the coastal bluff with slopes between 80 and 90 degrees. Beyond the sea cliff is the shore platform, which is another term for the beach, which is estimated to be between 500 and 900 feet long with a one to two percent grade, resulting in an elevation change between 5 and 18 feet (USACE 2012). The Delmar Formation and Torrey Sandstone are located along the lower 30 feet of the sea cliff, both of which are described in the Geotechnical Investigation as having a robust and resistant face, followed by 30 to 50 feet of Bay Point Formation that is less resistant to erosion, which includes the upper bluff. It should be noted that the lower part of the upper bluff has witnessed a slower rate of erosion than the rest of the upper bluff, likely due to site runoff from a mix of rainfall and landscaping irrigation from previous and existing residential development on the coastal terrace that has flowed in a westerly direction and has resulted in bowl-shaped areas of erosion.

Bluff stability is dependent upon general rock strength and its orientation and continuity, as well as unique local conditions, such as groundwater seepages, drainage, weathering, and fatigue. To determine how close development should occur near the edge of a coastal bluff, an appropriate setback is determined by an engineering computation based on site-specific conditions that identifies a factor of safety (FOS) value. To illustrate what an FOS means, a setback limit with an FOS of 1.0 indicates the limit nearest to the edge of a coastal bluff where failure resulting from the weight of the anticipated development is imminent. As such, an FOS of less than one is statistically impossible as that would indicate an area where bluff failure has already occurred. The City of Del Mar LCP LUP (as amended October 2018) establishes a minimum FOS of 1.5 against landsliding for the economic life of a structure associated with new development.

Historical data and imagery, and previously published studies that are pertinent to the project site were reviewed to identify the historic and current edge of the coastal bluff along the western edge of the project site dating back to 1932. These studies and data were also used to determine the average rate of bluff failure that has occurred historically at the site. These sources are summarized below.

- **Gazebo Foundation Review**. The foundation of a gazebo is depicted about 10 feet from the edge of upper bluff in the 1953 aerial photo and in 2016, two feet of the foundation appears over the edge of the upper bluff, which indicates that the bluff has retreated approximately 12 feet between 1953 and 2016 (an average of about 0.19 feet/year, or 2.28 inches/year).

- **Western Bluff Edge Review**. The Bluff Retreat Analysis is contained in Appendix D of the Geotechnical Investigation (which is Appendix F of this EIR) and utilized historic retreat rates from 30 measurements along the western edge of the coastal terrace at the project site (see Figure 17 in Appendix D of the Geotechnical Investigation). Three key pieces of the best-available information were relied upon to identify general bluff erosion rates along the western boundary of the project site, including a 1953 aerial photo, a 1986 map of the Bluff Overlay Zone (which followed the edge of the bluff edge at that time), and a 2016 aerial photo. As bluff retreat and erosion is not uniform, 30 points at the bluff edge were identified at 50-foot intervals along the entire western edge of the coastal bluff. In measuring the distance of bluff retreat between 1953 and 2016, the 30 points were averaged and a bluff retreat of approximately 10.5 feet over 63 years was calculated (an average of 0.16 feet/year or 1.92 inches/year). For the years between 1986 and 2016, bluff retreat equaled about 4.29 feet (an average of 0.13 feet/year or 1.56 inches/year). This review also indicated that near the gazebo, bluff retreat averaged about 0.19 feet/year, or 2.28 inches/year.

- **Benumof and Griggs Study**. This study was published in 1999 and reported bluff retreat throughout the San Diego County coastline (including the project site) over a 62-year period between 1932 and 1994 (Benumof, B.T. and Griggs, G. 1999). Their results indicated bluff retreat in Solana Beach and Encinitas of about 16.7 feet and 15.5 feet over 63 years, respectively (an average of 0.27 and 0.25 feet/year, respectively, or 3.24 and 3.00 inches/year).

- **Young and Ashford Study**. This study was published in 2006 and reported bluff retreat over a 10-year period in Solana Beach, north of the project site. Their results noted that a 10-year period is too brief to make long-term projections; however, their results indicated a retreat of 4.2 feet over 10 years (an average of 0.42 feet/year or about 5.04 inches/year).

- **444 Neptune Avenue**. A recent project on a coastal bluff in Encinitas underlain by a well-cemented upper bluff and Torrey Sandstone sea cliff was evaluated with respect to bluff stability. The results of this study determined a long-term erosion rate of 0.13 feet/year, which is less than what has been estimated at the project site due to the well-cemented upper bluff, which is not present at the 444 Neptune Avenue location.

- **2019 Orthophotograph**. An aerial flight was conducted in February 2019 to produce an aerial image that has been geometrically corrected to accurately represent the Earth's surface. The orthophotograph of the project site is accurate within six inches. Stereo-pairs of 1932 aerial photographs of the site were obtained to expand the period of study from 1932 to 2019 (a period of 87 years). The historic aerial photographs from 1932 and 1953, along with the 2019 orthophotograph, were used to measure the difference in bluff top positions at 20-foot intervals along the bluff top along the western edge of the project site. In the northern portion of the site, no erosion rate was measured between 1932 and 1953 because of extensive grading at the top of the bluff prior to 1953.

During the study of erosion rates, it was determined that sites to the north and south possess relatively less competent Del Mar Formation and Torrey Sandstone, meaning the formations had different lithology (i.e., physical characteristics) as compared to the project site. Specifically, surrounding areas have coastal bluffs with less strength, more fracturing and/or adverse geologic features and landslides, and differing surface topography. The lower rock strength, and in some instances, the presence of adverse geologic features at areas further north or south of the project result in higher erosion rates as compared to erosion rates expected at the project site. For this reason, a site-specific study to evaluate bluff top recession was performed for the project site.

Several methods were used to calculate a site-specific historic erosion rate at the project site. Historic retreat rates were determined using 30 measurement points along the coastal bluff top and a circular gazebo foundation that was located on the site from 1953 through 2016 (a 63-year period). This evaluation yielded a historic retreat rate of 0.16 feet/year using 30 site-specific transects and 0.19 feet/year using the gazebo location. A third-party review of this analysis by a recognized expert in geological matters and bluff retreat found that bluff retreat rates identified were slightly less but reasonably consistent with the results of the expert's research.

Site-specific bluff erosion was calculated based on 20- and 30-foot elevation contours between 1953 and 2016. The 30-foot elevation contour roughly coincides with the contact between the Terrace materials and Eocene deposits below it, and the 20-foot contour is within the Eocene deposits. The combination of bluff top, 20-foot contours, and 30-foot contours provides a representative range of bluff face and bluff top positions for comparison. The calculated erosion rates for the 20- and 30-foot elevation contours is 0.18 feet/year and 0.17 feet/year respectively.

Georeferencing was conducted to aligned points in common (usually manmade) between the 2019 orthophotograph and the historic aerial photographs for accurate comparison and measurement of the difference in bluff edge location in the photographs. The accuracy of bluff edge determination for the 2019 orthophotograph is six inches, while the accuracy of the bluff edge location on the 1953 aerial photograph is estimated to be plus or minus three feet (or 36 inches). Comparing bluff top positions from the 1932, 1953, and 2019 photographs, average retreat rates and the location of measurements of bluff recession were recorded at 20-foot intervals along the length of the bluff top. The calculation of the bluff recession rate from 1932 to 2019 utilizing the geo-referenced aerial photographs is 0.17 feet/year. The recession rate for the period of 1932 to 1953 is 0.44 feet/year, and the calculated recession rate for the 1953 to 2019 time period is 0.08 feet/year rate. The calculated recession rate for the 21-year period between 1932 and 1952 is over five times the rate calculated for the 1953 to 2019 time period. The explanation for this anomaly is less accurate georeferencing on the 1932 photos, which have fewer points in common with the 1953 aerial photograph and the 2019 orthophotograph. Although the recession rates from the 1932 to 1953 period (0.44 feet/year) are considered unrepresentative of the long-term erosion history of the project site, due to fewer common reference points for georeferencing and a shorter time period analyzed (21 years from 1932-1953) as compared to the entire 87 year time-period (1932-2019) analyzed, the bluff top recession rate for the project design of 0.17 feet/year includes the higher recession rates from the 1932 to 1953 period.

d) Sea Level Rise

Sea level rise models are regional in nature, contain low accuracy erosion rates, and are not necessarily intended for use in site-specific analysis. Based on these factors, the Geotechnical Investigation selected the Simple Equation method for calculating the effects of sea level rise on the future rate of bluff retreat

at the project site. It should be noted that the Simple Equation method is more appropriate for soft cliff shorelines (unlike the hard rock coastal bluffs at the project site).

The Simple Equation is expressed as: $R_2 = R_1(S_2/S_1)^{1/2}$, where R_2 is the future rate of bluff retreat, R_1 is the historical retreat rate, and S_2/S_1 is the ratio of future (anticipated) sea level rise rate to historical sea level rise rate. This method is recognized as a conservative estimate of future bluff retreat by the CCC in the San Diego area. The equation is intended for evaluation of soft bluff retreat, which is a conservative assumption considering the lithified (e.g., firmed or hardened) nature of the lower bluffs at the project site. For the purposes of the Simple Equation method, the historical sea level rise analysis analyzes the 1932 to 2019 time period, providing a multi-decadal analysis. Historical sea level data from Scripps Pier in La Jolla was used to establish historical sea level rise for the same period. Detailed calculations for the Simple Equation are provided in the Geotechnical Investigation (refer to Figure 26 of the Geotechnical Investigation). Bluff retreat was analyzed based on three scenarios: (1) the low risk aversion scenario with a 17 percent probability of exceedance; (2) the medium-high risk aversion scenario with a 0.5 percent probability of exceedance for projected seal level rise per the Ocean Protection Council (OPC) 2018 under a high emission scenario; and (3) the extreme risk aversion H++ scenario. Table 4.5-1, *Estimated Bluff Retreat and Setback Considering Sea Level Rise (75 Years)*, identifies the 75-year bluff retreat calculated by the Simple Equation for each of the three scenarios described above.

Table 4.5-1
ESTIMATED BLUFF RETREAT AND SETBACK CONSIDERING SEA LEVEL RISE (75 YEARS)

Scenario	Historical Sea Level Rise Rate (ft/yr) S_1	Historical Bluff Retreat Rate (ft/yr) R_1	Future Estimated Sea Level Rise Rate (ft/yr) S_2	Future Bluff Retreat Rate (ft/yr) R_2	Mean Annual Bluff Retreat Rate, 2019-2100 (ft/yr)	75-Year Bluff Retreat (ft)
Low Risk Aversion – 17 percent probability of exceedance (high emissions)	0.007	0.17	0.055	0.48	0.325	24
Medium-High Risk Aversion – 0.5 percent probability of exceedance (high emissions)	0.007	0.17	0.124	0.72	0.445	33
Extreme Risk – H++ Scenario (single scenario, no associated probability)	0.007	0.17	0.177	0.85	0.512	38

Source: Geocon Incorporated 2019
Notes: ft/yr = feet per year; ft = feet

The 0.5 percent probability of exceedance scenario was determined as the appropriate scenario for all primary resort structures associated with the project. The likelihood that sea-level rise would meet or exceed this value is low, and as such, this scenario provides a precautionary approach, as recommended by the OPC and CCC's sea level rise documents. A precautionary approach should be used when project components are less adaptive and more vulnerable, such as the resort buildings proposed at the project site. Using the medium-high risk aversion scenario to calculate bluff top setback range would support structural stability for 75 years without the reliance of new bluff or shoreline protection measures. Based on the Simple Equation method, with a 0.5 percent probability of exceedance sea level rise under

a high emission scenario (medium-high risk aversion), the future rate of bluff retreat at the project site equates to 33 total feet of retreat in a 75-year period. Then, adding this estimated retreat to the 1.5 FOS setback line for slope stability results in a total setback from the top of the bluff ranging from 43 to 95 feet, which is the recommended setback criteria for primary structures at the project site.

4.5.1.3 Paleontological Resources Overview

The project site is underlain by geologic deposits from the Pleistocene age, including marine and non-marine sediments. Specifically, these include the Bay Point Formation, underlain by Torrey Sandstone and Delmar Formation for most of the project site. Marine beach deposits from the late Holocene period are present at the base of the cliffs and along the western and southeastern property boundaries and have a low potential to contain important paleontological information (PaleoSolutions 2017). Topsoil and undocumented fill deposits present on the surface are also not expected to contain important paleontological information; however, the underlying Bay Point Formation, Torrey Sandstone, and the Delmar Formation have a moderate to high potential to contain important paleontological remains, as further described below.

Bay Point Formation

The coastal plain of San Diego County is characterized by a "stair-step" sequence of elevated marine terraces (uplifted sea floors) and their associated marine and non-marine sedimentary covers. Generally speaking, these marine terraces and their sedimentary deposits show a direct correlation between elevation and geologic age (i.e., the lowest terraces are the youngest and the highest terraces are the oldest). The Bay Point Formation is generally considered to include marine and non-marine sedimentary deposits (primarily light-brown, fine-grained, sandstones) on the lower terraces (i.e., from near sea level to elevations of approximately 200 feet). The Bay Point Formation also includes Pleistocene non-marine valley-fill deposits exposed along the margins of coastal valleys (e.g., San Luis Rey Valley and San Dieguito Valley).

Bay Point Formation is present throughout the project site and consists predominately of slightly to moderately cemented, medium-dense to dense, orange to reddish brown, silty, fine to medium sand. The upper portions of this deposit contain thin horizontal bands of reddish-brown translocated clay films as observed when borings were collected for the Geotechnical Report prepared for the project (Appendix F). The Bay Point Formation was also observed within the bluff face at the project site.

The Bay Point Formation has produced large and diverse assemblages of well-preserved marine invertebrate fossils, primarily mollusks. Remains of fossil marine vertebrates (i.e., sharks, rays, and bony fishes) have also been recovered from this rock unit along the coast and inland to elevation of about 300 feet. Recorded collecting sites in the Bay Point Formation include natural exposures (e.g., sea cliffs) and construction-related excavations. The Bay Point Formation has also produced significant assemblages of Pleistocene land mammals from valley-fill deposits. Recovered vertebrate fossils include ground sloth, dire wolf, horse, tapir, camel, deer, mastodon, and mammoth.

The nearest recorded paleontological resource to the project site is in southern Solana Beach, and includes a site in marine terrace deposits in the sea cliffs and several sites in estuarine valley-fill deposits in cut slopes adjacent to the Flower Hill shopping center. The former locality has produced well-preserved fossils of intertidal to subtidal exposed sandy shore mollusks. The latter localities produced well-preserved fossils of intertidal to subtidal estuarine, warm water mollusks. As a result of the

potential for fossils to be present in the Bay Point Formation, as well as the paleontological guidelines developed by the County of San Diego, Bay Point Formation is assigned a high paleontological resource sensitivity rating.

Torrey Sandstone

Torrey Sandstone consists primarily of yellowish-white, coarse-grained, locally cross-bedded arkosic sandstones. The type area for this rock unit is the seacliffs at Torrey Pines State Reserve (approximately 3.5 miles south of the project site). Portions of the Torrey Sandstone were deposited in an ancient nearshore marine environment, and other parts of the deposit formed within a barrier island/protected lagoon setting. The Torrey Sandstone gradationally overlies the Delmar Formation. Based on its stratigraphic position, the formation is considered to be early-middle Eocene in age, approximately 48 to 49 million years ago.

Torrey Sandstone was observed underlying the Bay Point Formation throughout the majority of the project site and consisted of dense to very dense, light brown, silty, fine to medium sandstone with varying degrees of cementation. Based on the Geotechnical Report prepared for the project, Torrey Sandstone is located in the bluff face and is expected to decrease in thickness at the southern part of the project site. Some exposure along the beach was noted on the western project boundary, which was noted to be well-cemented, and forms a robust and resistant face along the base of the sea cliff.

Torrey Sandstone has produced important remains of fossil plants and marine invertebrates. The plant remains (mostly leaves) are especially significant. Many are from taxa related to species that today live in brackish-water marsh and/or riparian woodland environments in subtropical and tropical regions of Southeast Asia and in the southeastern United States. Their occurrence in the Torrey Sandstone suggests that the Eocene climate in this area was warmer (20° Celsius mean annual temperature) and wetter (120 to 150 cm annual rainfall) than the modern climate. Invertebrate fossils known from Torrey Sandstone primarily consist of nearshore marine taxa (e.g., clams, oysters, snails, and barnacles). Vertebrate fossil remains are rare and include the teeth of crocodiles, sharks, and rays. As a result of the potential for fossils to be present in Torrey Sandstone, as well as the paleontological guidelines developed by the County of San Diego, Torrey Sandstone is assigned a moderate paleontological resource sensitivity rating.

Delmar Formation

The Delmar Formation consists of cemented, very dense, damp to moist, yellowish brown to grayish green, silty, fine to medium sandstone with some interbeds of dark grey siltstone and claystone observed along the bluff face. This formation is overlain by the Torrey Sandstone, and is presumably underlain by Cretaceous sedimentary rocks and pre-Cenozoic crystalline basement rocks that were deposited in a lagoonal/estuarine setting and preserve marsh flat and tidal channel paleoenvironments. The Delmar Formation is late-early to early-middle Eocene in age, approximately 49 to 50 million years ago. Similar to the Torrey Sandstone, the Delmar Formation forms a robust and resistant face at the base of the seaward cliff face. A prominent cemented marine fossil bed was observed within the Delmar Formation along the beach at the southern portion of the site.

Fossils from the Delmar Formation consist of well-preserved to poorly preserved remains of estuarine invertebrates (e.g., clams, oysters, and snails) and estuarine vertebrates (e.g., sharks and rays). An important locality at Swami's Point in Encinitas (approximately 6 miles north) has yielded well-preserved

skull remains of aquatic reptiles (e.g., crocodile) and terrestrial mammals (e.g., tillodont and early rhinoceros) (Dudek 2007). As a result of the potential for fossils to be present in the Delmar Formation, as well as the paleontological guidelines developed by the County of San Diego, a high paleontological resource sensitivity rating is assigned to the Delmar Formation.

4.5.2 Regulatory Setting

Federal

U.S. Geological Survey Landslide Hazard Program

The U.S. Geological Survey created the Landslide Hazard Program in the mid-1970s. The program's primary objective is to reduce long-term losses from landslide hazards by improving understanding of the causes of ground failure and suggesting mitigation strategies. The federal government takes the lead role in funding and conducting this research, but the reduction of losses due to geologic hazards is primarily a state and local responsibility. In San Diego County, plans and programs designed for the protection of life and property are coordinated by the Unified San Diego County Emergency Services Organization.

National Flood Insurance Act

The National Flood Insurance Act (1968) established the National Flood Insurance Program, which is based on the minimal requirements for floodplain management and is designed to minimize flood damage within Special Flood Hazard Areas. The Federal Emergency Management Agency (FEMA) is the agency that administrates the National Flood Insurance Program of which the City is a participant. FEMA also issues Flood Insurance Rate Maps that identify which land areas are subject to flooding and establishes design standards for flood protection. These maps provide flood information and identify flood hazard zones. Special Flood Hazard Areas are defined as areas that have a one percent chance of flooding within a given year, which is also referred to as the 100-year flood. Flood Insurance Rate Maps were developed to identify areas of flood hazards within a community.

State

Public Resources Code

Section 5097–5097.6 of the California Public Resources Code identifies that the unauthorized disturbance or removal of archaeological, historical, or paleontological resources located on public lands is a misdemeanor. It prohibits the knowing destruction of objects of antiquity without a permit (expressed permission) on public lands, and it provides for criminal sanctions.

This section was amended in 1987 to require consultation with the Native American Heritage Commission (NAHC) whenever Native American graves are found. Violations for taking or possessing remains or artifacts are felonies. California Public Resources Code Section 5097.5 states that "no person shall knowingly and willfully excavate upon, or remove, destroy, injure, or deface, any historic or prehistoric ruins, burial grounds, archaeological or vertebrate paleontological site, including fossilized footprints, inscriptions made by human agency, rock art, or any other archaeological, paleontological or historic feature situated on public lands, except with the express permission of the public agency having jurisdiction over the lands."

California Coastal Act

Section 30253 of the California Coastal Act requires that new development (1) minimize risks to life and property in areas of high geologic, flood, and fire hazard; and (2) assures stability and structural integrity, and neither creates nor contributes significantly to erosion, geologic instability, or destruction of the site or surrounding area or in any way requires the construction of protective devices that would substantially alter landforms along bluffs and cliffs. The CCC indicates that an appropriate setback from a coastal bluff is at the point where a FOS of 1.5 can be demonstrated; however, the CCC notes that it is more difficult to determine for overhanging or notched coastal bluffs, or bluffs undermined by sea caves, which is the case for the proposed project site (CCC 2003). The Coastal Act is implemented by the City of Del Mar's certified Local Coastal Program, which applies to all proposed development in Del Mar.

The California Coastal Act, in part, authorizes the CCC to review permit applications for development within the coastal zone and, where necessary, to require reasonable mitigation measures to offset effects of that development. Permits for development are issued with "special conditions" to ensure implementation of these mitigation measures.

Section 30244 of the Act, "Archaeological or Paleontological Resources," states that:

Where development would adversely impact archaeological or paleontological resources as identified by the State Historic Preservation Officer, reasonable mitigation measures shall be required.

California Seismic Hazards Mapping Act

The Seismic Hazards Mapping Act (CCR Code, Sections 2690–2699.6) addresses earthquake hazards from non-surface fault rupture, including liquefaction, landslides, strong ground shaking, and other earthquake and geologic hazards. The Seismic Hazards Mapping Act also specifies that the lead agency for a project may withhold project permits until geologic or soils investigations are conducted for specific areas and mitigation measures are incorporated into plans to reduce hazards associated with seismicity and unstable soils.

California Building Code/California Residential Code

The 2016 California Building Code (CBC) is based on the 2015 International Building Code (IBC), which is a model building code developed by the International Code Council that sets rules specifying the minimum acceptable level of safety for building construction in the United States. The CBC is part of the California Code of Regulations (CCR), Title 24 Part 2. The California Residential Code (CRC) is part of the CCR, Title 24 Part 2.5. The CBC is updated periodically. The current version of the CBC was published on July 1, 2016 and became effective on January 1, 2017. The CBC and CRC contain seismic safety standards outlining design and construction requirements. Development projects must show compliance with the CBC and/or CRC through the development review process. Building permits are submitted and reviewed for compliance prior to obtaining construction and building permits. The CBC includes estimates for maximum earthquake magnitudes and peak ground acceleration, soil classifications and expansion potential, seismic design categories and lateral pressure, and grading and surface drainage.

Local

San Diego County Multi-Jurisdictional Hazard Mitigation Plan

The 2017 San Diego County Multi-Jurisdictional Hazard Mitigation Plan (HAZMIT; County of San Diego 2017) was prepared to comply with the Disaster Mitigation Act of 2000 to increase disaster planning funding. The HAZMIT includes a regional-level risk assessment and jurisdictional-level mitigation goals, objectives, and actions for each participating jurisdiction, including the City of Del Mar. The HAZMIT is intended to educate the public, help serve as a decision-making tool, supplement and enhance local policies regarding disaster planning, and improve multi-jurisdiction coordination. Topics that relate to geology and soils in the HAZMIT include earthquakes/liquefaction, rain-induced landslides, and erosion, which is profiled in the HAZMIT together with coastal storm and tsunami hazards. The HAZMIT identifies coastal storm/erosion, landslide, and earthquake as three of the top-five hazards in the City due to the potential loss of life, injuries, and damage to property, as well as the significance for disruption of services. The HAZMIT identifies goals for hazard mitigation, including "reducing the possibility of damage and losses to existing assets, particularly people, critical facilities/infrastructure, and County-owned facilities due to …earthquakes and liquefaction, coastal storm/erosion/tsunami, and landslides, among others." Various actions are outlined in the HAZMIT to assist the City in reaching this goal, including the City of Del Mar's priority action #2 to "protect existing assets with the highest relative vulnerability to the effects of geological hazards."

San Diego County Guidelines for Determining Significance of Paleontological Resources

The City relies on the County's guidelines for determining significance of paleontological resources. Per County Guidelines, paleontological sensitivity is defined as follows:

- **High**. Geologic formations known to contain paleontological localities with rare, well preserved, critical fossil materials for stratigraphic or paleoenvironmental interpretation, and fossils providing important information about the paleoclimatic, paleobiological and/or evolutionary history (phylogeny) of animal and plant groups. In general, formations with high resource potential are considered to have the highest potential to produce unique invertebrate fossil assemblages or unique vertebrate fossil remains and are, therefore, highly sensitive.

- **Moderate**. Moderate resource potential and moderate sensitivity are assigned to geologic formations known to contain paleontological localities. These geologic formations are judged to have a strong, but often unproven, potential for producing unique fossil remains.

- **Low**. Low resource potential and low sensitivity are assigned to geologic formations that, based on their relatively young age and/or high-energy depositional history, are judged unlikely to produce unique fossil remains. Low resource potential formations rarely produce fossil remains of scientific significance and are considered to have low sensitivity. However, when fossils are found in these formations, they are often very significant additions to our geologic understanding of the area.

- **Marginal**. Marginal resource potential and marginal sensitivity are assigned to geologic formations that are composed either of volcaniclastic (derived from volcanic sources) or metasedimentary rocks, but that nevertheless have a limited probability for producing fossils from certain formations at localized outcrops. Volcaniclastic rock can contain organisms that were fossilized by being covered by ash, dust, mud, or other debris from volcanoes. Sedimentary

rocks that have been metamorphosed by heat and/or pressure caused by volcanoes or plutons are called metasedimentary. If the sedimentary rocks had paleontological resources within them, those resources may have survived the metamorphism and still be identifiable within the metasedimentary rock, but since the probability of this occurring is so limited, these formations are considered marginally sensitive.

- **No Potential**. No resource potential is assigned to geologic formations that are composed entirely of volcanic or plutonic igneous rock, such as basalt or granite, and therefore do not have any potential for producing fossil remains. These formations have no paleontological resource potential and are not sensitive.

City of Del Mar Local Coastal Program

The project site is subject to the City of Del Mar's certified Local Coastal Program LUP policies that address coastal bluff erosion, landsliding hazards, and shoreline protection. In addition, the project site is subject to compliance with applicable overlay zones in the LCP, including the BSC Overlay Zone, the Coastal Bluff Overlay Zone, and the Beach Overlay Zone.

The purpose of the BSC Overlay Zone is to protect the health, safety, and general welfare, and to control the development of properties within the zone to preserve the scenic sandstone bluffs and related canyons and steep slopes that characterize the area. The BSC Overlay Zone is also intended to protect downstream resources from the adverse impacts of erosion and sedimentation.

The purpose of the Coastal Bluff Overlay Zone is to prohibit principal structures, accessory structures, facilities or improvements within 40 feet of the top edge of a coastal bluff. Some exceptions to the 40-foot rule include essential public improvements providing coastal access, protecting natural resources, and providing for public safety, such as walkways leading to approved public beach access facilities, open fences for safety or resource protection, public seating benches, lighting standards, and signage. City review for exceptions within the 40-foot bluff setback is the responsibility of the City Planning Commission.

Lastly, the Beach Overlay Zone was established to implement the City of Del Mar's Beach Preservation Initiative that was passed by the Del Mar voters in 1988 to regulate the uses of the City of Del Mar's beach areas, a distinct and valuable natural resource, for the benefit of present and future generations. The regulations are intended to protect public access to and along the shoreline, while promoting public safety, health and welfare, and providing for the protection of private property. The Beach Overlay Zone regulations establish the City of Del Mar's rules for shoreline protective structures.

City of Del Mar Uniform Codes for Construction Building Code

The City of Del Mar's Uniform Codes for Construction Building Code (DMMC, Chapter 23.12) is intended to regulate the construction of applicable facilities and encompasses and formally adopts) associated elements of the CBC.

As detailed in the DMMC Chapter 23.12, Uniform Codes for Construction:

> All erection, construction, enlargement, alteration, repair, moving, removal, conversion, demolition, occupancy, equipment, use, height, area and maintenance of buildings and structures within the City of Del Mar shall be in conformance with the 2013 California Building

Code and the adopted Appendix Chapters, published by the California Building Standards Commission, as well as Title 24 of the CCR.

Chapter 23.32 of the DMMC contains requirements associated with obtaining a grading/excavation permit. Except as otherwise provided, the City issues all excavation and grading permits, and performs related inspections when the grading/excavation permit application conforms to the provisions of the DMMC.

City of Del Mar Grading Ordinance

The City of Del Mar's Grading Ordinance (DMMC, Chapter 23.32) establishes minimum requirements for grading associated with projects. The Grading Ordinance is intended to facilitate appropriate planning, design, and construction of projects in Del Mar while ensuring compatibility with associated physical conditions, environmental resources, and legal/regulatory requirements. The Grading Ordinance requires that a grading permit be obtained prior to grading, including the clearing and grubbing of vegetation. A grading permit is required for all earthwork performed within the City, unless all of the following conditions are met:

1. Excavations or fills are less than 5 feet in depth at the deepest locations.

2. The total quality of excavations or fills is less than 200 cubic yards.

3. Fill is being placed on a surface having an existing slope not steeper than 5 horizontal to 1 vertical.

4. No modifications will be made to the existing drainage patterns.

A Land Conservation Permit is also required by the DMMC for all projects that involve excavations or fills in excess of 18 inches in depth or greater than 25 cubic yards in volume, when such graded areas are not replaced by a structure.

A number of items related to geology and soils are required before a grading permit is issued to demonstrate that the grading work will be carried out in substantial compliance with all City codes and standards and the requirements of the City of Del Mar's Landscape Manual. As detailed in the application for a grading permit, the following items are required:

- A geotechnical investigation;

- An erosion control plan approved by the City for construction that occurs between November 1 and April 15, and must be submitted and approved prior to initiating work;

- Elevations, dimensions, locations, extent, and slopes of all proposed grading shown by contours or other means; and

- The quantity of excavation and fill involved.

City of Del Mar Land Conservation Ordinance

The proposed project site is subject to compliance with Chapter 23.22, Land Conservation Ordinance, which regulates soil disturbances of existing or natural terrain and vegetation and does not create soil erosion, silting of lower slopes, slide damage, flooding problems, or severe cutting or scarring (Ordinance 434).

City of Del Mar Municipal Code

The City of Del Mar Municipal Code 30.55.090, Subsection B includes the following requirements for projects containing coastal bluffs:

"All applications for projects involving new construction on properties containing coastal bluffs shall be accompanied by a geotechnical report addressing: 1) existing conditions; 2) the suitability of the site for the proposed construction; and 3) the potential of the proposed development to affect bluff stability over a 70-year life span of the project; 4) the potential future need for shoreline protection during an expected 70-year life span of the project; 5) an analysis of bluff retreat and coastal stability for the project site, according to accepted professional standards; 6) an analysis of the potential effects on bluff stability of rising sea levels, using latest scientific information; 7) an analysis of the potential effects of past and projected El Niño events on bluff stability; and 8) an analysis of whether the affected section of coastline is under a process of retreat. The report shall also include recommended mitigation measures as they relate to avoidance of risks and preservation of fragile bluff systems. In the event that a submitted report recommends a coastal bluff top setback of a greater distance than otherwise minimally required in this Chapter [40 feet], the greater distance shall be provided. In addition, for new development, the applicant shall acknowledge a waiver of all rights to future protective devices for the new development through recordation of a deed restriction as a condition of permit approval."

4.5.3 Thresholds of Significance

The City of Del Mar relies on the thresholds of significance that are based on Appendix G of the 2019 State CEQA Guidelines. Impacts related to geology and soils would be significant if implementation of the project would:

a) Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving 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 based on other substantial evidence of as known fault. Refer to Division of Mines and Geology Special Publication 42;

b) Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving strong seismic ground shaking;

c) Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving seismic-related ground failure, including liquefaction;

d) Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving landslides;

e) Result in substantial soil erosion or the loss of topsoil;

f) 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) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property;

h) 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; or

i) Directly or indirectly destroy a unique paleontological resource or site or unique geological feature

4.5.4 Impact Analysis

a) Would the project directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving 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 based on other substantial evidence of as known fault. Refer to Division of Mines and Geology Special Publication 42?

b) Would the project directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving strong seismic ground shaking?

c) Would the project directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving seismic-related ground failure, including liquefaction?

No active or potentially active faults are known to traverse the project site and it is not located within an Alquist-Priolo Earthquake Fault Zone or within another documented Earthquake Fault Zone. Two relatively small faults are located in the sea cliff on the eastern part of the project site. These faults were concluded to be inactive and minor and are not anticipated to break the Bay Point Formation (Old Paralic Deposits). There are, however, numerous faults within southern California, including eight faults within a 50-mile radius of the project site. An earthquake event associated with the Newport-Inglewood Fault, which has the greatest potential for ground acceleration at the project site, could result in seismic ground shaking at the project site at an estimated factor of up to 0.50 peak ground acceleration. While peak ground acceleration is useful for comparing fault activity in a region, the frequency and duration of motion and the soils underlying the project site are more important. As stated previously, the Torrey Sandstone and Delmar Formation underlying the project site are dense and well-cemented and are not expected to expose people or structures to the risk of loss, injury, or death involving seismic ground shaking. Further, development would be required to comply with the 2016 CBC, which includes building design standards to address earthquakes. Building permits would be reviewed by the City prior to permit issuance and structures would be inspected by the City prior to occupancy to review the design and as-built conditions in compliance with the 2016 CBC, including that earthquake standards were adhered to. Seismic ground shaking resulting in a tsunami or seiche is not anticipated on the coastal terrace due to its height about 65 to 80 feet amsl; however, the low-lying areas near or at sea level in the southern portion of the project site, such as the new bluff access stairway and facilities, could be affected by a tsunami or seiche. The proposed public access stairway, public restrooms, and related facilities would mostly replace existing similar facilities and would not increase the exposure of people to potential

seismically induced tsunamis or seiches. No impact associated with the low-lying eastern portion of the Lazier property in the Lagoon would occur because no improvements are proposed in this area. Lastly, because the project site has a low potential for liquefaction, no seismic-related ground failure impacts are anticipated. Impacts related to the rupture of an earthquake fault, strong seismic ground shaking, and seismic-related ground failure, including liquefaction, would be less than significant.

d) Would the project directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving landslides?

e) Would the project result in substantial soil erosion or the loss of topsoil?

f) Would the project 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?

Construction

The project site is located on a coastal terrace with no hillsides above it and the project would not have the potential to expose people or structures to adverse effects involving landslides. Regarding potential temporary impacts associated with soil erosion and collapse, the proposed project would involve grading activities on approximately 14.86 acres involving 105,000 cy of cut and 62,000 cy of fill, for a net export of 43,000 cy of soil to prepare the site for development. As discussed in more detail in subsection 4.7, *Hydrology and Water Quality*, construction activities would be required to implement BMPs to control erosion and sedimentation in compliance with the NPDES/SWPPP process. This would involve compliance with seasonal grading restrictions and site preparation requirements prior to and during the rainy season, as well as site perimeter controls to prevent sediment transport. The BMPs that would be required during project construction would reduce potential impacts related to soil erosion to less than significant.

Operation

Operational impacts associated with future development at the project site as they relate to soil erosion and the potential collapse of a geologic unit or soil that is unstable are focused on an evaluation of the speed and likelihood for the coastal bluff to erode, fail, or retreat, and the potential to result in the exposure of people or structures to adverse effects, including the risk of loss, injury, or death. As discussed in Subsection 4.7, *Hydrology and Water Quality*, the proposed project would involve the implementation of a storm drain beneath Camino del Mar that would divert most of the project-related runoff to the Lagoon on the east side of the roadway. As stated under the existing conditions discussion of this subsection, water runoff is the primary cause of bluff erosion within the project site. The diversion of runoff away from the bluff face would therefore reduce bluff erosion at the site.

As mentioned in the existing conditions discussion (subsection 4.5.1, above), the standard for evaluating an adequate setback for development near a coastal bluff to address slope stability involves determining the point at which a FOS of 1.5 can be demonstrated. To demarcate a FOS of 1.5 at the project site, 25 cross-sections along the western edge of the project site were established based on the results of the 21 geotechnical borings and 22 exploratory trenches. A computer model using a program called "SLOPE/W (2018)" was utilized to determine a precise setback at each cross-section that demonstrated an FOS of at least 1.5. From here, a line was drawn parallel to the bluff edge that demarcated a FOS of 1.5. Because there are hanging or notched coastal bluffs and bluffs undermined by sea caves on site,

which increase bluff failure risks, an additional distance greater than the FOS of 1.5 setback was considered. As also discussed in subsection 4.5.1 above, an additional distance of 33 feet was determined based on considerations of historic/observed and future bluff failure rate of 0.17 feet/year, a "medium-high risk aversion" sea level rise scenario, and a 75-year lifespan for the proposed resort development. The resulting setback distance for primary structures associated with future development was determined to range between 43 and 95 feet, as shown on Figure 4.5-1, *Bluff Setback Exhibit*. As shown, development of resort buildings (also referred to in the geotechnical report as "primary structures") between this line and the coastal bluff are not proposed or anticipated. In addition to primary structures, the proposed resort development would include public access trails (e.g., the loop trail and bluff top trail network), pools, hardscape, landscaping, benches, and other types of soft adaptive development. In order for the public access trails to connect with the Preserve, new trails would be located within the 43- to 95-foot setback range. Fences, windscreens and benches would also be located within the 43- to 95-foot setback range; however, they would not occur within 10 feet from the edge of the existing coastal bluff. Further, they would be constructed using lightweight materials without the use of grading or continuous foundation components.

Based on the conceptual designs for the project, the resort buildings would not be subject to collapse over the life of the project when considering historic and projected bluff retreat rates and sea level rise. The locations of the loop trail, bluff top trail network, fencing, windscreen, and benches would be potentially subjected to future bluff collapse during the lifespan of the resort and impacts are considered to be potentially significant (Impact GEO-1). Mitigation measure GEO-1 would be required and would reduce impacts to less than significant.

g) Would the project be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property?

As stated under the existing conditions discussion of this subsection, the proposed project site is not located on expansive soils and soils under the project site are considered to be non-expansive, per the 2016 CBC. Impacts would be less than significant.

h) Would the project 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 proposed project site would be connected to the City of Del Mar's sanitary sewer system and would not use septic tanks or other alternative wastewater disposal systems. Therefore, no impacts to soils supporting the use of septic tanks or other wastewater disposal systems would occur.

i) Would the project directly or indirectly destroy a unique paleontological resource or site or unique geological feature?

The project site is underlain by Bay Point Formation, Torrey Sandstone, and the Delmar Formation, which have a moderate to high potential to contain important paleontological remains. Direct impacts to paleontological resources could occur when earthwork activities (e.g., grading) cut into sensitive paleontological areas, thereby directly damaging the resource, or exposing paleontological resources to potential indirect impacts (e.g., surficial erosion, uncontrolled specimen collection). The proposed project would result in grading and excavation up to 35 feet deep at the project site, and materials within the Bay Point Formation would be encountered. The Torrey Sandstone and Delmar Formation are not expected to be encountered at the project site (Geocon 2019). For the proposed water pipeline

alignment options, the depth of trenching has not been determined and could vary, depending on the required placement necessary to avoid conflicts with existing underground utilities. For the portions of the pipeline in either option that would be constructed within road right-of-ways, it is expected that most or all of the construction would occur within the existing fill material for the road; therefore, construction of water pipelines within the road right-of-way is expected to have a low potential to result in impacts to paleontological resources. For the Option 2 water pipeline, the portion of the alignment that is located outside of the road right-of-way near the terminus of 28th Street and crossing the railroad tracks is located in an area that contains a small layer of fill underlain by at least 180 feet of alluvium (Ninyo & Moore 2013), which does not contain moderate or high sensitivity for paleontological resources. Remaining portions of the Option 2 water pipeline alignment outside of the road right-of-way may also be located in areas of low, marginal, or no potential for paleontological sensitivity; however, the underlying formations are unknown at this time. A number of recorded paleontological sites have been recorded in the area, including sites within the Delmar Formation along Jimmy Durante Boulevard, and in the Bay Point Formation, within a mile of the off-roadway portions of the Option 2 water pipeline alignment. As such, potential impacts to paleontological resources associated with excavations within high or moderate sensitivity formations (if present) may occur as a result of pipeline placement, resulting in a potentially significant impact. Direct and indirect impacts to paleontological resources associated with excavations of the Bay Point Formation at the project site, the excavation of moderate to high sensitivity formations (if present) along the Option 2 water pipeline alignment outside of the existing road right-of-way, and excavation for areas of pipeline construction within the road right-of-way that would occur outside of existing fill materials are considered to be potentially significant and mitigation measures MM GEO-2a and -2b would be required to reduce impacts to less than significant (Impact GEO-2).

4.5.5 Mitigation Measures

MM GEO-1: Bluff Erosion. All new trails, fences, windscreens, and benches shall be set back a minimum of 10 feet from the top edge of a coastal bluff. All such improvements, when providing less than the identified coastal bluff-top setback of an FOS 1.5 plus 33 feet, shall be constructed above-grade using lightweight materials and without the use of grading and/or continuous foundation components. Development plans for such improvements, as well as improvements located outside and adjacent to the coastal bluff top setback, shall demonstrate Adaptive Design strategies to allow and ensure future relocation of the public amenities to the east over time, as needed due to erosion and bluff failure. Said Adaptive Design strategies shall be subject to review and approval of the Del Mar City Council during the required discretionary design review of such development.

MM GEO-2a: Paleontological Resources Monitoring and Treatment Plan. Prior to the start of any ground-disturbing activity, a Paleontological Resources Monitoring and Treatment Plan (PRMTP) shall be prepared by a qualified paleontologist, subject to review and approval by the City of Del Mar. The PRMTP shall address construction monitoring procedures and provide treatment measures for paleontological resources discoveries, including the development of protocols for handling fossils discovered during construction, likely including temporary diversion of construction equipment so that the fossils could be recovered, identified, and prepared for dating, interpreting, and preserving at an established, permanent, accredited research facility.

MM GEO-2b: Paleontological Monitoring Program. Prior to the start of any ground-disturbing activity, a qualified paleontologist shall attend the pre-construction meeting to consult with the grading and excavation contractors concerning excavation schedules, paleontological field techniques, and safety

issues. A paleontological monitor shall be on site on a full-time basis during the original cutting of previously undisturbed deposits of high paleontological resource potential (Bay Point Formation and Delmar Formation) to inspect exposures for contained fossils. Grading activities in previously undisturbed deposits of moderate paleontological resource potential (Torrey Sandstone) shall be monitored on a part-time basis.

In the event that paleontological resources are discovered or unearthed during project subsurface activities, all earthmoving activities within radius of not less than 50 feet from the discovery shall be temporarily suspended or redirected until a certified paleontologist has recovered, identified, and/or evaluated the nature and significance of the find, in compliance with CEQA Guidelines 15064.5(f). After the find has been appropriately mitigated, work in the area may resume.

Any fossil remains collected during monitoring and salvage shall be cleaned, repaired, sorted, and cataloged as part of the monitoring program. Prepared fossils, along with copies of all pertinent field notes, photos, and maps, shall be deposited in a scientific institution with permanent paleontological collections such as the San Diego Natural History Museum. Donation of the fossils shall be accompanied by financial support for preparation, curation, and initial specimen storage, if this work has not already been completed. A final summary report shall be completed that outlines the results of the paleontological monitoring program. This report shall include discussions of the methods used, stratigraphic section(s) exposed, fossils collected, and significance of recovered fossils.

4.5.6 Level of Significance After Mitigation

With implementation of the proposed mitigation measures MM GEO-1 and GEO-2a and -2b potential impacts to geology and soils would be reduced to less than significant. No significant and unavoidable impacts to geology and soils would occur.

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RECOMMENDED SETBACK



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Source: Dudek 2019

HELIX Environmental Planning

Bluff Setback Exhibit

Figure 4.5-1

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4.6 GREENHOUSE GAS EMISSIONS

This subsection includes a description of existing conditions, regulatory requirements, and potential impacts on greenhouse gas (GHG) emissions associated with the proposed project. The technical information in this subsection is based on an Air Quality and Greenhouse Gas Emissions Technical Report, prepared by Dudek in November 2019 (Dudek 2019b). This technical report, including methodologies used and citations and references relied upon, is included as Appendix C to this EIR.

4.6.1 Existing Conditions

4.6.1.1 Climate Change Overview

Climate change refers to significant change in measures of climate—such as temperature, precipitation, or wind patterns—lasting for an extended period of time (decades or longer). The Earth's temperature depends on the balance between energy entering and leaving the planet's system. Many factors, both natural and human, can cause changes in Earth's energy balance, including variations in the sun's energy reaching Earth, changes in the reflectivity of Earth's atmosphere and surface, and changes in the greenhouse effect, which affects the amount of heat retained by Earth's atmosphere.

The greenhouse effect is the trapping and build-up of heat in the atmosphere (troposphere) near the Earth's surface. The greenhouse effect traps heat in the troposphere through a threefold process as follows: short-wave radiation emitted by the Sun is absorbed by the Earth; the Earth emits a portion of this energy in the form of long-wave radiation; and GHGs in the upper atmosphere absorb this long-wave radiation and emit it into space and toward the Earth. The greenhouse effect is a natural process that contributes to regulating the Earth's temperature and creates a pleasant, livable environment on the Earth. Human activities that emit additional GHGs to the atmosphere increase the amount of infrared radiation that gets absorbed before escaping into space, thus enhancing the greenhouse effect and causing the Earth's surface temperature to rise.

The scientific record of the Earth's climate shows that the climate system varies naturally over a wide range of time scales and that in general, climate changes prior to the Industrial Revolution in the 1700s can be explained by natural causes, such as changes in solar energy, volcanic eruptions, and natural changes in GHG concentrations. Recent climate changes, in particular the warming observed over the past century, however, cannot be explained by natural causes alone. Rather, it is extremely likely that human activities have been the dominant cause of warming since the mid-twentieth century and is the most significant driver of observed climate change. Human influence on the climate system is evident from the increasing GHG concentrations in the atmosphere, positive radiative forcing, observed warming, and improved understanding of the climate system. The atmospheric concentrations of GHGs have increased unprecedented levels, primarily from fossil fuel emissions. Continued emissions of GHGs will cause further warming and changes in all components of the climate system.

4.6.1.2 Greenhouse Gases

A GHG is any gas that absorbs infrared radiation in the atmosphere; in other words, GHGs trap heat in the atmosphere. As defined in California Health and Safety Code Section 38505(g) for purposes of administering many of the state's primary GHG emissions reduction programs, GHGs include carbon

dioxide (CO_2), methane (CH_4), nitrous oxide (N_2O), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), sulfur hexafluoride (SF_6), and nitrogen trifluoride (see also CEQA Guidelines Section 15364.5).[1] Some GHGs, such as CO_2, CH_4, and N_2O, occur naturally and are emitted into the atmosphere through natural processes and human activities. Of these gases, CO_2 and CH_4 are emitted in the greatest quantities from human activities. Manufactured GHGs, which have a much greater heat-absorption potential than CO_2, include fluorinated gases (i.e., HFCs, PFCs, and SF_6), which are associated with certain industrial products and processes. The following paragraphs provide a summary of the most common GHGs and their sources.[2]

Carbon Dioxide. CO_2 is a naturally occurring gas and a by-product of human activities. It is the principal anthropogenic GHG that affects the Earth's radiative balance. Natural sources of CO_2 include respiration of bacteria, plants, animals, and fungus; evaporation from oceans; volcanic outgassing; and decomposition of dead organic matter. Human activities that generate CO_2 include changes in land use and the combustion of fuels such as coal, oil, natural gas, and wood.

Methane. CH_4 is produced through both natural and human activities. CH_4 is a flammable gas and is the main component of natural gas. Sources of CH_4 include anaerobic (without oxygen) decomposition of waste in landfills, flooded rice fields, animal digestion, decomposition of animal wastes, production and distribution of natural gas and petroleum, coal production, and incomplete fossil fuel combustion.

Nitrous Oxide. N_2O is produced through natural and human activities, mainly through agricultural activities and natural biological processes, although fuel burning and other processes also create N_2O. Sources of N_2O include soil cultivation practices (microbial processes in soil and water), especially the use of commercial and organic fertilizers, manure management, industrial processes (e.g., nitric acid production, nylon production, and fossil-fuel-fired power plants), vehicle emissions, and using N_2O as a propellant (e.g., in rockets, racecars, and aerosol sprays).

Fluorinated Gases. Fluorinated gases (also referred to as F-gases) are synthetic, powerful GHGs emitted from many industrial processes. Fluorinated gases are commonly used as substitutes for stratospheric ozone-depleting substances (e.g., chlorofluorocarbons, HFCs, and halons). The most prevalent fluorinated gases include the following:

- **Hydrofluorocarbons**: HFCs are compounds containing only hydrogen, fluorine, and carbon atoms. HFCs are synthetic chemicals used as alternatives to ozone-depleting substances in serving many industrial, commercial, and personal needs. HFCs are emitted as by-products of industrial processes and are used in manufacturing.

- **Perfluorocarbons**: PFCs are a group of human-made chemicals composed of carbon and fluorine only. These chemicals were introduced as alternatives, with HFCs, to ozone-depleting substances. The two main sources of PFCs are primary aluminum production and semiconductor manufacturing. Since PFCs have stable molecular structures and do not break down through the

[1] Climate forcing substances include GHGs and other substances such as black carbon and aerosols. This discussion focuses on the seven GHGs identified in the California Health and Safety Code 38505 as impacts associated with other climate forcing substances are not evaluated herein.

[2] The descriptions of GHGs are summarized from the Intergovernmental Panel on Climate Change (IPCC) Second Assessment Report (1995), IPCC Fourth Assessment Report (2007), CARB's "Glossary of Terms Used in GHG Inventories" (2015a), and EPA's "Glossary of Climate Change Terms" (2016b).

chemical processes in the lower atmosphere, these chemicals have long lifetimes, ranging between 10,000 and 50,000 years.

- **Sulfur Hexafluoride**: SF_6 is a colorless gas that is soluble in alcohol and ether and slightly soluble in water. SF_6 is used for insulation in electric power transmission and distribution equipment, semiconductor manufacturing, the magnesium industry, and as a tracer gas for leak detection.

- **Nitrogen Trifluoride**: Nitrogen trifluoride is used in the manufacture of a variety of electronics, including semiconductors and flat panel displays.

4.6.1.3 Global Warming Potential

Gases in the atmosphere can contribute to climate change both directly and indirectly. Direct effects occur when the gas itself absorbs radiation. Indirect radiative forcing occurs when chemical transformations of the substance produce other GHGs, when a gas influences the atmospheric lifetimes of other gases, and/or when a gas affects atmospheric processes that alter the radiative balance of the Earth (e.g., affect cloud formation or albedo[3]).

The IPCC developed the global warming potential (GWP) concept to compare the ability of each GHG to trap heat in the atmosphere relative to another gas. The GWP of a GHG is defined as the ratio of the time-integrated radiative forcing from the instantaneous release of one kilogram of a trace substance relative to that of one kilogram of a reference gas. The reference gas used is CO_2; therefore, GWP-weighted emissions are measured in metric tons (MTs) of CO_2 equivalent (MT CO_2e).

The current version of the CalEEMod, version 2016.3.2, used in this analysis assumes that the GWP for CH_4 is 25 (so emissions of one MT of CH_4 are equivalent to emissions of 25 MT of CO_2), and the GWP for N_2O is 298, based on the IPCC Fourth Assessment Report (IPCC 2007). The GWP values identified in CalEEMod were applied to the project.

4.6.1.4 Sources of Greenhouse Gas Emissions

Per the 2019 U.S. Environmental Protection Agency (USEPA) Inventory of U.S. GHG Emissions and Sinks: 1990–2017, total U.S. GHG emissions were approximately 6,457 million metric tons (MMT) CO_2e in 2017 (USEPA 2017b). The primary GHG emitted by human activities in the United States was CO_2, which represented approximately 81.6 percent of total GHG emissions (6,457 MMT CO_2e). The largest source of CO_2, and of overall GHG emissions, was fossil-fuel combustion, which accounted for approximately 93.2 percent of CO_2 emissions in 2017 (4,912.0 MMT CO_2e).

Relative to the 1990 emissions level, gross U.S. GHG emissions in 2017 are 1.3 percent higher; however, the gross emissions are down from a high of 15.7 percent above the 1990 level that occurred in 2007. GHG emissions decreased from 2016 to 2017 by 0.5 percent (35.5 MMT CO_2e) and, overall, net emissions in 2017 were 13 percent below 2005 levels (USEPA 2017b).

According to California's 2000–2017 GHG emissions inventory (2019 edition), California emitted 424.09 MMT CO2e in 2017, including emissions resulting from out-of-state electrical generation (CARB 2019). The sources of GHG emissions in California include transportation, industrial uses, electric power

[3] Albedo is a measure of how much light that hits a surface is reflected without being absorbed.

production from both in-state and out-of-state sources, commercial and residential uses, agriculture, high global-warming potential substances, and recycling and waste. The California GHG emission source categories and their relative contributions in 2017 are presented in Table 4.6-1, *GHG Emissions Sources in California.*

Table 4.6-1
GHG EMISSIONS SOURCES IN CALIFORNIA

Source Category	Annual GHG Emissions (MMT CO_2e)	Percent of Total
Transportation	169.86	40
Industrial	89.40	21
Electricity Generation [a]	62.39	15
Residential and Commercial	41.14	10
Agriculture	32.42	8
High global-warming potential substances	19.99	5
Recycling and waste	8.89	2
TOTAL	424.09	100

Source: CARB 2019
Notes: Emissions reflect the 2017 GHG inventory.
MMT CO_2e = million metric tons of carbon dioxide equivalent per year
[a] Includes emissions associated with imported electricity, which accounts for 23.94 MMT CO_2e annually.

During the 2000 to 2017 period, per capita GHG emissions in California have dropped from a peak of 14.1 MT per person in 2001 to 10.7 MT per person in 2017, representing a 24 percent decrease. In addition, total GHG emissions in 2017 were approximately 5 MMT CO2e less than 2016 emissions.

In 2012, which was the baseline inventory year for the CAP, the city-wide GHG emissions were 55,855 MT CO2e. The transportation sector accounted for 54 percent of emissions, which represents the majority of emissions. The Residential sector contributed approximately 21 percent, producing 11,518 MT CO2e. The Commercial, Industrial, and Lighting Energy sector contributed about 15 percent of the City of Del Mar's emissions, producing 8,243 MTCO2e. Waste and Water sectors contributed 6 percent and 3 percent of emissions, respectively, and the remaining Wastewater sector accounted for less than 1 percent of total emissions (City 2016a).

4.6.2 Regulatory Setting

4.6.2.1 Federal

Massachusetts v. USEPA

In Massachusetts v. USEPA (April 2007), the U.S. Supreme Court directed the USEPA administrator to determine whether GHG emissions from new motor vehicles cause or contribute to air pollution that may reasonably be anticipated to endanger public health or welfare, or whether the science is too uncertain to make a reasoned decision. In December 2009, the administrator signed a final rule with the following two distinct findings regarding GHGs under Section 202(a) of the federal Clean Air Act:

- The Administrator found that elevated concentrations of GHGs—CO_2, CH_4, N_2O, HFCs, PFCs, and SF_6—in the atmosphere threaten the public health and welfare of current and future generations. This is the "endangerment finding."

- The Administrator further found the combined emissions of GHGs—CO_2, CH_4, N_2O, and HFCs—from new motor vehicles and new motor vehicle engines contribute to the GHG air pollution that endangers public health and welfare. This is the "cause or contribute finding."

These two findings were necessary to establish the foundation for regulation of GHGs from new motor vehicles as air pollutants under the Clean Air Act.

Energy Independence and Security Act of 2007

The Energy Independence and Security Act of 2007, among other key items, includes the following requirements, which are intended to aid in the reduction of national GHG emissions (USEPA 2007):

- Increase the supply of alternative fuel sources by setting a mandatory Renewable Fuel Standard requiring fuel producers to use at least 36 billion gallons of biofuel in 2022.

- Set a target of 35 miles per gallon for the combined fleet of cars and light trucks by model year 2020. The Act directs the National Highway Traffic Safety Administration (NHTSA) to establish a fuel economy program for medium- and heavy-duty trucks and create a separate fuel economy standard for work trucks.

- Prescribe or revise standards affecting regional efficiency for heating and cooling products, and procedures for new or amended standards, energy conservation, energy-efficiency labeling for consumer electronic products, residential boiler efficiency, electric motor efficiency, and home appliances.

Federal Vehicle Standards

In response to the U.S. Supreme Court ruling discussed above, the Bush Administration issued Executive Order (EO) 13432 in 2007 directing the USEPA, the Department of Transportation, and the Department of Energy to establish regulations that reduce GHG emissions from motor vehicles, non-road vehicles, and non-road engines by 2008. In 2009, the NHTSA issued a final rule regulating fuel efficiency and GHG emissions from cars and light-duty trucks for model year 2011; in 2010, the USEPA and NHTSA issued a final rule regulating cars and light-duty trucks for model years 2012–2016.

In 2010, President Barack Obama issued a memorandum directing the Department of Transportation, Department of Energy, USEPA, and NHTSA to establish additional standards regarding fuel efficiency and GHG reduction, clean fuels, and advanced vehicle infrastructure. In response to this directive, USEPA and NHTSA proposed stringent, coordinated federal GHG and fuel economy standards for model years 2017–2025 light-duty vehicles. The proposed standards were projected to achieve 163 grams per mile of CO_2 in model year 2025, on an average industry fleet-wide basis, which is equivalent to 54.5 miles per gallon if this level were achieved solely through fuel efficiency. The final rule was adopted in 2012 for model years 2017–2021. On January 12, 2017, the USEPA finalized its decision to maintain the current GHG emissions standards for model years 2022–2025 cars and light trucks (USEPA 2017a).

In addition to the regulations applicable to cars and light-duty trucks described above, in 2011, the USEPA and NHTSA announced fuel economy and GHG standards for medium- and heavy-duty trucks for model years 2014–2018. The standards for CO_2 emissions and fuel consumption are tailored to three main vehicle categories: combination tractors, heavy-duty pickup trucks and vans, and vocational

vehicles. According to the USEPA, this regulatory program will reduce GHG emissions and fuel consumption for the affected vehicles by 6 percent to 23 percent over the 2010 baselines.

In August 2016, the USEPA and NHTSA announced the adoption of the phase two program related to the fuel economy and GHG standards for medium- and heavy-duty trucks. The phase two program will apply to vehicles with model year 2018 through 2027 for certain trailers, and model years 2021 through 2027 for semi-trucks, large pickup trucks, vans, and all types and sizes of buses and work trucks. The final standards are expected to lower CO_2 emissions by approximately 1.1 billion MT and reduce oil consumption by up to 2 billion barrels over the lifetime of the vehicles sold under the program (USEPA and NHTSA 2016).

In August 2018, USEPA and NHTSA proposed to amend certain fuel economy and GHG standards for passenger cars and light trucks and establish new standards for model years 2021 through 2026. Compared to maintaining the post-2020 standards now in place, the 2018 proposal would increase U.S. fuel consumption by about half a million barrels per day (2 to 3 percent of total daily consumption, according to the Energy Information Administration) and would impact the global climate by 3/1000th of one degree Celsius by 2100 (USEPA and NHTSA 2018). California and other states have stated their intent to challenge federal actions that would delay or eliminate GHG reduction measures and have committed to cooperating with other countries to implement global climate change initiatives. Thus, the timing and consequences of the 2018 federal proposal are speculative at this time.

Executive Office Climate Action Plan

In June 2013, President Obama issued a national Climate Action Plan that consisted of a wide variety of executive actions and had three pillars: (1) cut carbon in America, (2) prepare the U.S. for impacts of climate change, and (3) lead international efforts to combat global climate change and prepare for its impacts (Executive Office of the President [EOP] 2013). The national Climate Action Plan outlines 75 goals within the three main pillars. The Center for Climate and Energy Solutions' (C2ES) one-year review of progress in implementation of the national Climate Action Plan found that the administration made at least some progress on most of the national Climate Action Plan's 75 goals, and many of the specific tasks outlined had been completed (C2ES 2014). Notable areas of progress included steps to limit carbon pollution from power plants; improve energy efficiency; reduce CH_4 and HFC emissions; help communities and industry become more resilient to climate change impacts; and end U.S. lending for coal-fired power plants overseas.

United Nations Framework Convention on Climate Change Pledge

On March 31, 2015, the State Department submitted the U.S. target to cut net GHG emissions to the United Nations Framework Convention on Climate Change. The submission, referred to as an Intended Nationally Determined Contribution, is a formal statement of the U.S. target, announced in China in 2015, to reduce U.S. emissions by 26 to 28 percent below 2005 levels by 2025, and to make best efforts to reduce by 28 percent (C2ES 2016). The target reflects a planning process that examined opportunities under existing regulatory authorities to reduce emissions in 2025 of all GHGs from all sources in every economic sector. Several U.S. laws, as well as existing and proposed regulations thereunder, are relevant to the implementation of the U.S. target, including the Clean Air Act (42 U.S.C. 7401 et seq.), the Energy Policy Act (42 U.S.C. 13201 et seq.), and the Energy Independence and Security Act (42 U.S.C. 17001 et seq.).

Clean Power Plan and New Source Performance Standards for Electric Generating Units

On October 23, 2015, USEPA published a final rule (effective December 22, 2015) establishing the Carbon Pollution Emission Guidelines for Existing Stationary Sources: Electric Utility Generating Units (80 FR 64510–64660), also known as the Clean Power Plan. These guidelines prescribe how states must develop plans to reduce GHG emissions from existing fossil-fuel-fired electric generating units. The guidelines establish CO_2 emission performance rates representing the best system of emission reduction for two subcategories of existing fossil-fuel-fired electric generating units: (1) fossil-fuel-fired electric utility steam-generating units, and (2) stationary combustion turbines. Concurrently, the USEPA published a final rule (effective October 23, 2015) establishing Standards of Performance for Greenhouse Gas Emissions from New, Modified, and Reconstructed Stationary Sources: Electric Utility Generating Units (80 FR 64661–65120). The rule prescribes CO_2 emission standards for newly constructed, modified, and reconstructed affected fossil-fuel-fired electric utility generating units. The U.S. Supreme Court stayed implementation of the Clean Power Plan pending resolution of several lawsuits.

4.6.2.2 State

The statewide GHG emissions regulatory framework is summarized below by category: state climate change targets; building energy, renewable energy and energy procurement; mobile sources; solid waste; water; and other state regulations and goals. The following text describes Executive Orders (EOs), Assembly bills (AB), Senate bills (SB), and other regulations and plans that would directly or indirectly reduce GHG emissions.

State Climate Change Targets

The State has taken a number of actions to address climate change. These include EOs, legislation, and CARB plans and requirements. These are summarized below.

EO S-3-05

EO S-3-05 (June 2005) established California's GHG emissions reduction targets and laid out responsibilities among the State agencies for implementing the EO and for reporting on progress toward the targets. This EO established the following targets:

- Reduce GHG emissions to year 2000 levels by 2010
- Reduce GHG emission to year 1990 levels by 2020
- Reduce GHG emission to 80 percent below year 1990 levels by 2050

EO S-3-05 also directed the California Environmental Protection Agency to report biannually on progress made toward meeting the GHG targets and the impacts to California due to global warming, including impacts to water supply, public health, agriculture, the coastline, and forestry. The Climate Action Team (CAT) was formed, which subsequently issued reports from 2006 to 2010 (CAT 2016).

AB 32

To further the goals established in EO S-3-05, the Legislature enacted AB 32 (Núñez and Pavley). The bill is referred to as the California Global Warming Solutions Act of 2006 (September 27, 2006). AB 32 provided initial direction on creating a comprehensive multiyear program to limit California's GHG emissions at 1990 levels by 2020 and initiate the transformations required to achieve the state's long-range climate objectives.

SB 32 and AB 197

SB 32 and AB 197 (enacted in 2016) are companion bills. SB 32 codified the 2030 emissions reduction goal of EO B-30-15 by requiring CARB to ensure that statewide GHG emissions are reduced to 40 percent below 1990 levels by 2030. AB 197 established the Joint Legislative Committee on Climate Change Policies, consisting of at least three members of the Senate and three members of the Assembly, in order to provide ongoing oversight over implementation of the state's climate policies. AB 197 also added two members of the Legislature to the Board as nonvoting members; requires CARB to make available and update (at least annually via its website) emissions data for GHGs, criteria air pollutants, and TACs from reporting facilities; and requires CARB to identify specific information for GHG emissions reduction measures when updating the scoping plan.

CARB's Climate Change Scoping Plan

One specific requirement of AB 32 is for CARB to prepare a "scoping plan" for achieving the maximum technologically feasible and cost-effective GHG emission reductions by 2020 (Health and Safety Code, Section 38561(a)), and to update the plan at least once every five years. In 2008, CARB approved the first scoping plan. The *Climate Change Scoping Plan: A Framework for Change* (Scoping Plan) included a mix of recommended strategies that combined direct regulations, market-based approaches, voluntary measures, policies, and other emission reduction programs calculated to meet the 2020 statewide GHG emission limit and initiate the transformations needed to achieve the state's long-range climate objectives. The key elements of the Scoping Plan include the following (CARB 2008):

1. Expanding and strengthening existing energy efficiency programs as well as building and appliance standards;

2. Achieving a statewide energy mix of 33 percent;

3. Developing a California cap-and-trade program that links with other Western Climate Initiative partner programs to create a regional market system and caps sources contributing 85 percent of California's GHG emissions;

4. Establishing targets for transportation-related GHG emissions for regions throughout California, and pursuing policies and incentives to achieve those targets;

5. Adopting and implementing measures pursuant to existing state laws and policies, including California's clean car standards, good movement measures, and the Low Carbon Fuel Standard (17 California Code of Regulations [CCR] 95480 et seq.);

6. Creating targeted fees, including a public goods charge on water use, fees on high-GWP gases, and a fee to fund administrative costs of the State of California's long-term commitment to AB 32 implementation.

The Scoping Plan also identified local governments as essential partners in achieving California's goals to reduce GHG emissions because they have broad influence and, in some cases, exclusive authority over activities that contribute to significant direct and indirect GHG emissions through their planning and permitting processes, local ordinances, outreach and education efforts, and municipal operations. Specifically, the Scoping Plan encouraged local governments to adopt a reduction goal for municipal operations and for community emissions to reduce GHGs by approximately 15 percent from then (2008) levels by 2020. Many local governments developed community-scale local GHG reduction plans based on this Scoping Plan recommendation.

In 2014, CARB approved the first update to the Scoping Plan. The *First Update to the Climate Change Scoping Plan: Building on the Framework* (First Update) defined the state's GHG emission reduction priorities for the next five years and laid the groundwork to start the transition to the post-2020 goals set forth in EOs S-3-05 and B-16-2012. The First Update concluded that California is on track to meet the 2020 target but recommended a 2030 mid-term GHG reduction target be established to ensure a continuum of action to reduce emissions. The First Update recommended a mix of technologies in key economic sectors to reduce emissions through 2050 including: energy demand reduction through efficiency and activity changes; large-scale electrification of on-road vehicles, buildings, and industrial machinery; decarbonizing electricity and fuel supplies; and the rapid market penetration of efficient and clean energy technologies. As part of the First Update, CARB recalculated the state's 1990 emissions level, using more recent global warming potentials identified by the IPCC, from 427 MMT CO_2e to 431 MMT CO_2e (CARB 2014).

In 2015, as directed by EO B-30-15, CARB began working on an update to the Scoping Plan to incorporate the 2030 target of 40 percent below 1990 levels by 2030 to keep California on its trajectory toward meeting or exceeding the long-term goal of reducing GHG emissions to 80 percent below 1990 levels by 2050 as set forth in S-3-05. The Governor called on California to pursue a new and ambitious set of strategies, in line with the five climate change pillars from his inaugural address, to reduce GHG emissions and prepare for the unavoidable impacts of climate change. In the summer of 2016, the Legislature affirmed the importance of addressing climate change through passage of SB 32 (Pavley, Chapter 249, Statutes of 2016).

In December 2017, CARB adopted the *2017 Climate Change Scoping Plan Update* (2030 Scoping Plan) for public review and comment (CARB 2017). The 2030 Scoping Plan builds on the successful framework established in the initial Scoping Plan and First Update, while identifying new, technologically feasible, and cost-effective strategies that will serve as the framework to achieve the 2030 GHG target and define the state's climate change priorities to 2030 and beyond. The strategies' "known commitments" include implementing renewable energy and energy efficiency (including the mandates of SB 350), increased stringency of the Low Carbon Fuel Standard, measures identified in the Mobile Source and Freight Strategies, measures identified in the proposed Short- Lived Climate Pollutant Reduction Strategy, and increased stringency of SB 375 targets. To fill the gap in additional reductions needed to achieve the 2030 target, it recommends continuing the Cap-and-Trade Program and a measure to reduce GHGs from refineries by 20 percent.

For local governments, the 2030 Scoping Plan replaced the initial Scoping Plan's 15 percent reduction goal with a recommendation to aim for a community-wide goal of no more than six MT CO_2e per capita by 2030 and no more than two MT CO_2e per capita by 2050, which are consistent with the state's long-term goals. These goals are also consistent with the Global Climate Leadership Memorandum of Understanding (Under 2 MOU) and the Paris Agreement, which are developed around the scientifically based levels necessary to limit global warming below two degrees Celsius. The 2030 Scoping Plan recognized the benefits of local government GHG planning (e.g., through climate action plans [CAPs]) and provide more information regarding tools CARB is working on to support those efforts. It also recognizes the CEQA streamlining provisions for project level review where there is a legally adequate CAP.

The 2030 Scoping Plan recommends strategies for implementation at the statewide level to meet the goals of AB 32, SB 32, and EO S-3-05, and establishes an overall framework for the measures that will be adopted to reduce California's GHG emissions. A project is considered consistent with the statutes and EOs if it meets the general policies in reducing GHG emissions in order to facilitate the achievement of the state's goals and does not impede attainment of those goals. As discussed in several cases, a given project need not be in perfect conformity with every planning policy or goal to be consistent. Rather, a project would consistent if it furthers the objectives and does not obstruct their attainment.

CARB's Regulations for the Mandatory Reporting of GHG Emissions

California Air Resources Board's (CARB) Regulation for the Mandatory Reporting of Greenhouse Gas Emissions (17 CCR 95100–95157) incorporated by reference certain requirements that the USEPA promulgated in its Final Rule on Mandatory Reporting of Greenhouse Gases (Title 40, Code of Federal Regulations [CFR], Part 98). In general, entities subject to the Mandatory Reporting Regulation that emit over 10,000 MT CO_2e per year are required to report annual GHGs through the California Electronic GHG Reporting Tool. Certain sectors, such as refineries and cement plants, are required to report regardless of emission levels. Entities that emit more than the 25,000 MT CO_2e per year threshold are required to have their GHG emission report verified by a CARB-accredited third-party verifier.

EO B-18-12

EO B-18-12 (April 2012) directed state agencies, departments, and other entities under the governor's executive authority to take action to reduce entity-wide GHG emissions by at least 10 percent by 2015 and 20 percent by 2020, as measured against a 2010 baseline. EO B-18-12 also established goals for existing state buildings for reducing grid-based energy purchases and water use.

EO B-30-15

EO B-30-15 (April 2015) identified an interim GHG reduction target in support of targets previously identified under S-3-05 and AB 32. EO B-30-15 set an interim target goal of reducing GHG emissions to 40 percent below 1990 levels by 2030 to keep California on its trajectory toward meeting or exceeding the long-term goal of reducing GHG emissions to 80 percent below 1990 levels by 2050 as set forth in S-3-05. To facilitate achieving this goal, EO B-30-15 called for CARB to update the 2014 Scoping Plan to express the 2030 target in terms of MMT CO_2e. The EO also called for state agencies to continue to develop and implement GHG emission reduction programs in support of the reduction targets.

SB 605 and SB 1383

SB 605 (2014) requires CARB to complete a comprehensive strategy to reduce emissions of short-lived climate pollutants in the state; and SB 1383 (2016) requires CARB to approve and implement that strategy by January 1, 2018. SB 1383 also establishes specific targets for the reduction of short-lived climate pollutants (40 percent below 2013 levels by 2030 for CH_4 and HFCs, and 50 percent below 2013 levels by 2030 for anthropogenic black carbon). Additionally, SB 1383 provides direction for reductions from dairy and livestock operations and landfills. Accordingly, and as mentioned above, CARB adopted its Short-Lived Climate Pollutant Reduction Strategy in March 2017; it establishes a framework for the statewide reduction of emissions of black carbon, CH_4, and fluorinated gases.

EO B-55-18

EO B-55-18 (September 2018) establishes a statewide policy for the state to achieve carbon neutrality as soon as possible (no later than 2045), and achieve and maintain net negative emissions thereafter. The goal is an addition to the existing statewide targets of reducing the state's GHG emissions. CARB will work with relevant state agencies to ensure that future Scoping Plans identify and recommend measures to achieve the carbon neutrality goal.

Building Energy

Title 24, Part 6

Title 24 of the California Code of Regulations was established in 1978 and serves to enhance and regulate California's building standards. While not initially promulgated to reduce GHG emissions, Part 6 of Title 24 specifically established Building Energy Efficiency Standards that are designed to ensure new and existing buildings in California achieve energy efficiency and preserve outdoor and indoor environmental quality. These energy efficiency standards are reviewed every few years by the Building Standards Commission and the California Energy Commission (CEC) and revised as necessary (California Public Resources Code [PRC], Section 25402[b][1]). The regulations receive input from members of industry, as well as the public, with the goal of "reducing of wasteful, uneconomic, inefficient, or unnecessary consumption of energy" (California Public Resources Code, Section 25402). These regulations are carefully scrutinized and analyzed for technological and economic feasibility (California Public Resources Code, Section 25402(d)), as well as for cost effectiveness (California Public Resources Code, Sections 25402(b)(2) and (b)(3)). As a result, these standards save energy, increase electricity supply reliability, increase indoor comfort, avoid the need to construct new power plants, and help preserve the environment.

The current Title 24 standards are the 2016 Title 24 building energy efficiency standards, which became effective January 1, 2017. The updated standards will further reduce energy use and associated GHG emissions compared to previous standards, such as the 2013 Title 24 standards.

In general, single-family homes built to the 2016 standards are anticipated to use about 28 percent less energy for lighting, heating, cooling, ventilation, and water heating than those built to the 2013 standards; nonresidential buildings built to the 2016 standards will use an estimated 5 percent less energy than those built to the 2013 standards (CEC 2015a; CEC 2015b).

Title 24, Part 11

In addition to the CEC's efforts, in 2008, the California Building Standards Commission adopted the nation's first green building standards. The California Green Building Standards Code (Part 11 of Title 24), commonly referred to as CALGreen, establishes minimum mandatory standards as well as voluntary standards pertaining to the planning and design of sustainable site development, energy efficiency (in excess of the California Energy Code requirements), water conservation, material conservation, and interior air quality. The CALGreen standards took effect in January 2011 and instituted mandatory minimum environmental performance standards for all ground-up, new construction of commercial, low-rise residential and state-owned buildings and schools, and hospitals. The CALGreen 2016 standards became effective January 1, 2017. The mandatory standards require the following (24 CCR Part 11):

- Mandatory reduction in indoor waste use through compliance with specified flow rates for plumbing fixtures and fittings;
- Mandatory reduction in outdoor water use through compliance with a local water efficient landscaping ordinance or the California Department of Water Resources' Model Water Efficient Landscape Ordinance;
- 65 percent of construction and demolition waste be diverted from landfills;
- Mandatory inspections of energy systems to ensure optimal working efficiency;
- Inclusion of electric charging stations or designated spaces capable of supporting future charging stations;
- Low-pollutant emitting exterior and interior finish materials, such as paints, carpets, vinyl flooring, and particle boards.

The CALGreen standards also include voluntary efficiency measures that are provided at two separate tiers and implemented at the discretion of local agencies and applicants. CALGreen's Tier 1 standards, which have been adopted by the City of Del Mar, call for a 15 percent improvement in energy requirements, stricter water conservation, 65 percent diversion of construction and demolition waste, 10 percent recycled content in building materials, 20 percent permeable paving, 20 percent cement reduction, and cool/solar-reflective roofs. CALGreen's more rigorous Tier 2 standards call for a 30 percent improvement in energy requirements, stricter water conservation, 80 percent diversion of construction and demolition waste, 15 percent recycled content in building materials, 30 percent permeable paving, 25 percent cement reduction, and cool/solar-reflective roofs.

The California Public Utilities Commission (CPUC), CEC, and CARB also have a shared, established goal of achieving zero net energy (ZNE) performance for new construction in California. The key policy timelines include: (1) all new residential construction in California will be ZNE by 2020, and (2) all new commercial construction in California will be ZNE by 2030. The CPUC approved amendments to the voluntary measures of the CAlGREEN standards in December 2018. The 2019 CALGreen standards will become effective January 1, 2020. As with the 2019 Title 24 standards, the 2019 CALGreen standards focus on building energy efficiency.

Title 20

Title 20 of the CCR requires manufacturers of appliances to meet state and federal standards for energy and water efficiency. The CEC certifies an appliance based on a manufacturer's demonstration that the appliance meets the standards. New appliances regulated under Title 20 include: refrigerators, refrigerator-freezers, and freezers; room air conditioners and room air-conditioning heat pumps; central air conditioners; spot air conditioners; vented gas space heaters; gas pool heaters; plumbing fittings and plumbing fixtures; fluorescent lamp ballasts; lamps; emergency lighting; traffic signal modules; dishwashers; clothes washers and dryers; cooking products; electric motors; low voltage dry-type distribution transformers; power supplies; televisions and consumer audio and video equipment; and battery charger systems. Title 20 presents protocols for testing each type of appliance covered under the regulations, and appliances must meet the standards for energy performance, energy design, water performance, and water design. Title 20 contains three types of standards for appliances: (1) federal and state standards for federally regulated appliances, (2) state standards for federally regulated appliances, and (3) state standards for non-federally regulated appliances.

Renewable Energy and Energy Procurement

SB 1078

SB 1078 (Sher; September 2002) established the Renewable Portfolio Standard program, which required an annual increase in renewable generation by the utilities equivalent to at least one percent of sales, with an aggregate goal of 20 percent by 2017. This goal was subsequently accelerated, requiring utilities to obtain 20 percent of their power from renewable sources by 2010 (see EO S-14-08 and S-21-09).

SB 1368

SB 1368 (September 2006), required the CEC to develop and adopt regulations for GHG emission performance standards for the long-term procurement of electricity by local publicly owned utilities. These standards must be consistent with the standards adopted by the CPUC.

AB 1109

Enacted in 2007, AB 1109 required the CEC to adopt minimum energy efficiency standards for general-purpose lighting, with the goal of reducing electricity consumption 50 percent for indoor residential lighting and 25 percent for indoor commercial lighting.

EO S-14-08

EO S-14-08 (November 2008) focused on the contribution of renewable energy sources to meet the electrical needs of California while reducing the GHG emissions from the electrical sector. This EO required that all retail suppliers of electricity in California serve 33 percent of their load with renewable energy by 2020. Furthermore, the EO directed state agencies to take appropriate actions to facilitate reaching this target. The California Natural Resources Agency (CNRA), through collaboration with the CEC and California Department of Fish and Wildlife (formerly the California Department of Fish and Game), was directed to lead this effort.

EO S-21-09 and SB X1-2

EO S-21-09 (September 2009) directed CARB to adopt a regulation consistent with the goal of EO S-14-08 by July 31, 2010. CARB was further directed to work with the CPUC and CEC to ensure that the regulation builds upon the Renewable Portfolio Standard program and was applicable to investor-owned utilities, publicly owned utilities, direct access providers, and community choice providers. Under this order, CARB was to give the highest priority to those renewable resources that provide the greatest environmental benefits with the least environmental costs and impacts on public health and can be developed the most quickly in support of reliable, efficient, cost-effective electricity system operations. On September 23, 2010, CARB initially approved regulations to implement a Renewable Electricity Standard. However, this regulation was not finalized because of subsequent legislation (SB X1-2, Simitian, statutes of 2011) signed by Governor Brown in April 2011.

SB X1-2 expanded the Renewable Portfolio Standard by establishing a renewable energy target of 20 percent of the total electricity sold to retail customers in California per year by December 31, 2013, and 33 percent by December 31, 2020, and in subsequent years. Under the bill, a renewable electrical generation facility is one that uses biomass, solar thermal, photovoltaic, wind, geothermal, fuel cells using renewable fuels, small hydroelectric generation (i.e., 30 megawatts or less), digester gas, municipal solid waste conversion, landfill gas, ocean wave, ocean thermal, or tidal current, and that meets other specified requirements with respect to its location. SB X1-2 applies to all electricity retailers in the state including publicly owned utilities, investor-owned utilities, electricity service providers, and community choice aggregators.

SB 350

SB 350 (October 2015) further expanded the Renewable Portfolio Standard by establishing a goal of 50 percent of the total electricity sold to retail customers in California per year by December 31, 2030. In addition, SB 350 included the goal to double the energy efficiency savings in electricity and natural gas final end uses (e.g., heating, cooling, lighting, or class of energy uses on which an energy-efficiency program is focused) of retail customers through energy conservation and efficiency. The bill also requires the CPUC, in consultation with the CEC, to establish efficiency targets for electrical and gas corporations consistent with this goal.

SB 100

SB 100 (2018) increased the standards set forth in SB 350, establishing that 44 percent of the total electricity sold to retail customers in California per year by December 31, 2024, 52 percent by December 31, 2027, and 60 percent by December 31, 2030, be secured from qualifying renewable energy sources. SB 100 states that it is the policy of the state that eligible renewable energy resources and zero-carbon resources supply 100 percent of the retail sales of electricity to California. This bill requires that the achievement of 100 percent zero-carbon electricity resources do not increase the carbon emissions elsewhere in the western grid and that the achievement not be achieved through resource shuffling.

Mobile Sources

AB 1493

AB 1493 was enacted in a response to the transportation sector accounting for more than half of California's CO_2 emissions. AB 1493 required CARB to set GHG emission standards for passenger vehicles, light-duty trucks, and other vehicles determined by the state board to be vehicles that are primarily used for noncommercial personal transportation in the state. The bill required that CARB set GHG emission standards for motor vehicles manufactured in 2009 and all subsequent model years. CARB adopted the standards in September 2004. The near-term (2009–2012) standards were projected to result in a reduction of about 22 percent in GHG emissions compared to the emissions from the 2002 fleet, while the mid-term (2013–2016) standards were projected to result in a reduction of about 30 percent.

Heavy Duty Truck and Bus Regulation

CARB adopted the final Heavy Duty Truck and Bus Regulation, Title 13, Division 3, Chapter 1, Section 2025, on December 11, 2008 to reduce particulate matter and NO_X emissions from heavy-duty diesel vehicles. The rule requires that particulate matter filters be applied to newer heavy-duty trucks and buses by January 1, 2012, with older vehicles required to comply by January 1, 2015. The rule will require nearly all diesel trucks and buses to be compliant with the 2010 model year engine requirement by January 1, 2023. CARB also adopted an Airborne Toxic Control Measure to limit idling of diesel-fueled commercial vehicles on December 12, 2013. This rule requires diesel-fueled vehicles with gross vehicle weights greater than 10,000 pounds to idle no more than five minutes at any location (13 CCR 2485).

EO S-1-07

EO S-1-07 (January 2007, implementing regulation adopted in April 2009) sets a declining Low Carbon Fuel Standard for GHG emissions measured in CO_2e grams per unit of fuel energy sold in California. The target of the Low Carbon Fuel Standard is to reduce the carbon intensity of California passenger vehicle fuels by at least 10 percent by 2020 (17 CCR 95480 et seq.). The carbon intensity measures the amount of GHG emissions in the lifecycle of a fuel—including extraction/feedstock production, processing, transportation, and final consumption—per unit of energy delivered.

SB 375

SB 375 (Steinberg; September 2008) addresses GHG emissions associated with the transportation sector through regional transportation and sustainability plans. SB 375 requires CARB to adopt regional GHG reduction targets for the automobile and light-truck sector for 2020 and 2035 and to update those targets every eight years. SB 375 requires the state's 18 regional metropolitan planning organizations (MPOs) to prepare a Sustainable Communities Strategy (SCS) as part of their Regional Transportation Plan (RTP) that will achieve the GHG reduction targets set by CARB. If an MPO is unable to devise an SCS to achieve the GHG reduction target, the MPO must prepare an Alternative Planning Strategy demonstrating how the GHG reduction target would be achieved through alternative development patterns, infrastructure, or additional transportation measures or policies.

Pursuant to Government Code, Section 65080(b)(2)(K), an SCS does not: (i) regulate the use of land; (ii) supersede the land use authority of cities and counties; or (iii) require that a city's or county's land use policies and regulations, including those in a general plan, be consistent with it. Nonetheless, SB 375

makes regional and local planning agencies responsible for developing those strategies as part of the federally required metropolitan transportation planning process and the state-mandated housing element process.

In 2010, CARB adopted the SB 375 targets for the regional MPOs. SANDAG has targets of a 7 percent reduction in emissions per capita by 2020, and a 13 percent reduction by 2035. In October 2015, SANDAG adopted San Diego Forward: The Regional Plan. Like the 2050 RTP/SCS, this planning document meets CARB's 2020 and 2035 reduction targets for the region (SANDAG 2015). In December 2015, CARB, by resolution, accepted SANDAG's GHG emissions quantification analysis and determination that, if implemented, the SCS would achieve CARB's 2020 and 2035 GHG emissions reduction targets for the region.

Advanced Clean Cars Program and Zero-Emissions Vehicle Program

The Advanced Clean Cars program (January 2012) is a new emissions-control program for model years 2015 through 2025. The program combines the control of smog- and soot-causing pollutants and GHG emissions into a single coordinated package. The package includes elements to reduce smog-forming pollution and GHG emissions, promote clean cars, and provide the fuels for clean cars (CARB 2012). To improve air quality, CARB has implemented new emission standards to reduce smog-forming emissions beginning with 2015 model year vehicles. It is estimated that in 2025, cars will emit 75 percent less smog-forming pollution than the average new car sold today. To reduce GHG emissions, CARB, in conjunction with the USEPA and the NHTSA, adopted new GHG standards for model year 2017 to 2025 vehicles; the new standards are estimated to reduce GHG emissions by 34 percent in 2025. The Zero Emission Vehicle program will act as the focused technology of the Advanced Clean Cars program by requiring manufacturers to produce increasing numbers of Zero Emission Vehicles and plug-in hybrid electric vehicles in the 2018 to 2025 model years.

EO B-16-12

EO B-16-12 (March 2012) required that state entities under the governor's direction and control support and facilitate the rapid commercialization of Zero Emission Vehicles. It ordered CARB, CEC, CPUC, and other relevant agencies to work with the Plug-in Electric Vehicle Collaborative and the California Fuel Cell Partnership to establish benchmarks to help achieve established goals by 2015, 2020, and 2025. On a statewide basis, EO B-16-12 established a target reduction of GHG emissions from the transportation sector equaling 80 percent less than 1990 levels by 2050. This directive did not apply to vehicles that have special performance requirements necessary for the protection of the public safety and welfare.

AB 1236

AB 1236 (Chiu; October 2015) required a city, county, or city and county to approve an application for the installation of electric vehicle charging stations, as defined, through the issuance of specified permits unless the city or county makes specified written findings based upon substantial evidence in the record that the proposed installation would have a specific, adverse impact upon the public health or safety, and there is no feasible method to satisfactorily mitigate or avoid the specific, adverse impact. The bill provided for appeal of that decision to the planning commission, as specified. The bill provided that the implementation of consistent statewide standards to achieve the timely and cost-effective installation of electric vehicle charging stations is a matter of statewide concern. The bill required electric vehicle charging stations to meet specified standards. The bill required a city, county, or city and county with a population of 200,000 or more residents to adopt an ordinance, by September 30, 2016, that created an

expedited and streamlined permitting process for electric vehicle charging stations, as specified. The bill also required a city, county, or city and county with a population of less than 200,000 residents to adopt this ordinance by September 30, 2017.

Water

EO B-29-15

In response to the ongoing drought in California, EO B-29-15 (April 2015) set a goal of achieving a statewide reduction in potable urban water usage of 25 percent relative to water use in 2013. The term of the EO extended through February 28, 2016, although many of the directives have become permanent water-efficiency standards and requirements. The EO includes specific directives that set strict limits on water usage in the state. In response to EO B- 29-15, the California Department of Water Resources has modified and adopted a revised version of the Model Water Efficient Landscape Ordinance that, among other changes, significantly increases the requirements for landscape water use efficiency and broadens its applicability to include new development projects with smaller landscape areas.

EO B-37-16

Issued May 2016, EO B-37-16 directs the State Water Resources Control Board (SWRCB) to adjust emergency water conservation regulations through the end of January 2017 to reflect differing water supply conditions across the state. The SWRCB must also develop a proposal to achieve a mandatory reduction of potable urban water usage that builds off the mandatory 25 percent reduction called for in EO B-29-15. The SWRCB and Department of Water Resources will develop new, permanent water use targets that build upon the existing state law requirements that the state achieve 20 percent reduction in urban water usage by 2020. EO B-37-16 also specifies that the SWRCB will permanently prohibit water-wasting practices such as hosing off sidewalks, driveways, and other hardscapes; washing automobiles with hoses not equipped with a shut-off nozzle; using non-recirculated water in a fountain or other decorative water feature; watering lawns in a manner that causes runoff, or within 48 hours after measurable precipitation; and irrigating ornamental turf on public street medians.

EO B-40-17

EO B-40-17 (April 2017) lifted the drought emergency in all California counties except Fresno, Kings, Tulare, and Tuolumne. It also rescinds EO B-29-15, but expressly states that EO B-37-16 remains in effect and directs the SWRCB to continue development of permanent prohibitions on wasteful water use.

Solid Waste

AB 939 and AB 341

In 1989, AB 939, known as the Integrated Waste Management Act (California PRC, Sections 40000 et seq.), was passed because of the increase in waste stream and the decrease in landfill capacity. The statute established the California Integrated Waste Management Board, which oversees a disposal reporting system. AB 939 mandated a reduction of waste being disposed where jurisdictions were required to meet diversion goals of all solid waste through source reduction, recycling, and composting activities of 25 percent by 1995 and 50 percent by the year 2000.

AB 341 (Chapter 476, Statutes of 2011 [Chesbro]) amended the California Integrated Waste Management Act of 1989 to include a provision declaring that it is the policy goal of the state that not less than 75 percent of solid waste generated be source-reduced, recycled, or composted by the year 2020, and annually thereafter. In addition, AB 341 required the California Department of Resources Recycling and Recovery (CalRecycle) to develop strategies to achieve the state's policy goal. CalRecycle conducted several general stakeholder workshops and several focused workshops; in August 2015, it published a discussion document titled AB 341 Report to the Legislature, which identifies five priority strategies that CalRecycle believes would assist the state in reaching the 75 percent goal by 2020, legislative and regulatory recommendations, and an evaluation of program effectiveness (CalRecycle 2017).

Other State Actions

SB 97

SB 97 (Dutton) (August 2007) directed the Governor's Office of Planning and Research to develop guidelines under CEQA for the mitigation of GHG emissions. In 2008, the Governor's Office of Planning and Research issued a technical advisory as interim guidance regarding the analysis of GHG emissions in CEQA documents. The advisory indicated that the lead agency should identify and estimate a project's GHG emissions, including those associated with vehicular traffic, energy consumption, water usage, and construction activities (OPR 2008). The advisory further recommended that the lead agency determine significance of the impacts and impose all mitigation measures necessary to reduce GHG emissions to a level that is less than significant. The CNRA adopted the CEQA Guidelines amendments in December 2009, which became effective in March 2010.

Under the amended Guidelines, a lead agency has the discretion to determine whether to use a quantitative or qualitative analysis or apply performance standards to determine the significance of GHG emissions resulting from a particular project (14 CCR 15064.4(a)). The Guidelines require a lead agency to consider the extent to which the project complies with regulations or requirements adopted to implement a statewide, regional, or local plan for the reduction or mitigation of GHG emissions (14 CCR 15064.4(b)). The Guidelines also allow a lead agency to consider feasible means of mitigating the significant effects of GHG emissions, including reductions in emissions through the implementation of project features or off-site measures. The adopted amendments do not establish a GHG emission threshold, instead allowing a Lead Agency to develop, adopt, and apply its own thresholds of significance or those developed by other agencies or experts. The CNRA also acknowledges that a lead agency may consider compliance with regulations or requirements implementing AB 32 in determining the significance of a project's GHG emissions (CNRA 2009a).

With respect to GHG emissions, the CEQA Guidelines state in Section 15064.4(a) that lead agencies should "make a good faith effort, to the extent possible on scientific and factual data, to describe, calculate or estimate" GHG emissions. The CEQA Guidelines note that an agency may identify emissions by either selecting a "model or methodology" to quantify the emissions or by relying on "qualitative analysis or other performance-based standards" (14 CCR 15064.4(a)). Section 15064.4(b) states that the lead agency should consider the following when assessing the significance of impacts from GHG emissions on the environment: (1) the extent a project may increase or reduce GHG emissions as compared to the existing environmental setting; (2) whether the project emissions exceed a threshold of significance that the lead agency determines applies to the project; and (3) the extent to which the

project complies with regulations or requirements adopted to implement a statewide, regional, or local plan for the reduction or mitigation of GHG emissions (14 CCR 15064.4[b]).

EO S-13-08

EO S-13-08 (November 2008) was intended to hasten California's response to the impacts of global climate change, particularly sea level rise. It directed state agencies to take specified actions to assess and plan for such impacts. It directed the CNRA, in cooperation with the California Department of Water Resources, CEC, California's coastal management agencies, and the Ocean Protection Council, to request that the National Academy of Sciences prepare a Sea Level Rise Assessment Report by December 1, 2010. The Ocean Protection Council, California Department of Water Resources, and CEC, in cooperation with other state agencies, were required to conduct a public workshop to gather information relevant to the Sea Level Rise Assessment Report. The Business, Transportation, and Housing Agency was ordered to assess within 90 days of issuance of the EO the vulnerability of the state's transportation systems to sea level rise. The Governor's Office of Planning and Research and the CNRA are required to provide land use planning guidance related to sea level rise and other climate change impacts. The EO also required the other state agencies to develop adaptation strategies by June 9, 2009, to respond to the impacts of global climate change that are predicted to occur over the next 50 to 100 years. A discussion draft adaptation strategies report was released in August 2009, and the final *2009 California Climate Adaptation Strategy* report was issued in December 2009 (CNRA 2009b). An update to the 2009 report, *Safeguarding California: Reducing Climate Risk*, was issued in July 2014 (CNRA 2014). To assess the state's vulnerability, the report summarized key climate change impacts to the state for the following areas: agriculture, biodiversity and habitat, emergency management, energy, forestry, ocean and coastal ecosystems and resources, public health, transportation, and water.

4.6.2.3 Local

San Diego Air Pollution Control District

The SDAPCD does not have established GHG rules, regulations, or policies.

2050 Regional Transportation Plan

SANDAG prepared San Diego Forward: The Regional Plan, which has united two of SANDAG's major planning efforts into one with the update of the RTP/SCS and an update of the Regional Comprehensive Plan that was adopted in 2004. The updated RTP/SCS was adopted by the SANDAG Board of Directors on October 9, 2015.

City of Del Mar Climate Action Plan

On June 6, 2016, the City adopted its CAP to reduce GHG emissions within the City in order to meet the State's goal as recommended in the AB 32 Scoping Plan of reducing GHG emissions to 1990 levels by 2020 (City 2016a). It should be noted, however, that the City of Del Mar's CAP is not a certified GHG reduction plan and has not undergone CEQA review. The CAP states that it is an "aspirational document" and is not considered part of the Del Mar Community Plan or part of a regulatory program; therefore, information provided herein is provided for informational purposes. Reduction measures included in the CAP will undergo environmental review prior to implementation as necessary. However, the City of Del Mar has adopted CALGreen's Tier 1 standards, which apply to all commercial projects and call for a 15 percent improvement in energy requirements, stricter water conservation, 65 percent diversion of

construction and demolition waste, 10 percent recycled content in building materials, 20 percent permeable paving, 20 percent cement reduction, and cool/solar-reflective roofs.

The CAP provides an update to the City of Del Mar's 2005 GHG inventory and provides GHG inventory projections for business-as-usual and "adjusted" 2020 and 2035, which includes reductions from federal and state regulatory measures. In 2012, Del Mar's communitywide GHG emissions totaled 55,855 MT CO_2e. In order to meet the state's long-term goals, the City would have to reduce its GHG emissions by 15 percent in 2020 to 47,477 MT CO_2e and 50 percent by 2035 to 27,928 MT CO_2e. As indicated in the CAP, the City of Del Mar's business-as-usual GHG emissions would be 54,822 MT CO_2e in 2020 and 55,314 MT CO_2e in 2035. With reductions, the City is projected to emit 46,028 MT CO_2e in 2020 and 43,048 MT CO_2e in 2035. Thus, the City would need to reduce 15,120 MT CO_2e emissions below the adjusted business-as-usual scenario in 2035 to meet the state-aligned target.

Reduction measures included in the CAP detail how the City can meet the GHG emissions target through implementation of goals, measures, and strategies. Each goal contains one or more proposed policies, programs, or projects indicating the City of Del Mar's commitment toward meeting the goal. The GHG reduction potentials by 2020 and 2035 are identified for each goal. Goals are further divided into one or more discrete strategies that the City may take in achieving the goal. Strategies may be added or removed over time, depending on their relevancy, funding availability, and whether the strategies are successful in supporting measures as they are monitored over time. Each measure includes co-benefits that cover areas such as energy efficiency, water conservation, improved air quality, renewable energy, and transportation.

4.6.3 Thresholds of Significance

The City has adopted threshold criteria that are based on Appendix G of the State CEQA Guidelines. Impacts related to GHGs would be significant if implementation of the project would:

a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment; or

b) Conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing emissions of greenhouse gases.

Neither the State of California nor the SDAPCD has adopted emission-based thresholds of significance for GHG emissions under CEQA.

For purposes of GHG significance criterion 1 from Appendix G, the project's GHG emissions are assessed by evaluating the project's consistency with the Del Mar CAP, as well as the project's potential to exceed a City-specific efficiency metric threshold (i.e., service population threshold) for 2022. The efficiency metric threshold developed for the purposes of this GHG emissions analysis is discussed below in detail.

For purposes of GHG significance criterion 2 from Appendix G, the project is assessed based on its potential to conflict with the Del Mar CAP, SANDAG's Regional Plan, and CARB's Scoping Plan, including the Final 2030 Scoping Plan. The project's potential to conflict with the SANDAG Regional Plan and CARB's Scoping Plan goals and measures are analyzed as part of the consistency analysis.

4.6.3.1 City-Specific Efficiency Metric

The Del Mar CAP is not a qualified CAP under CEQA Section 15183.5 and does not include project-level screening or significance threshold. The CAP does include community-wide emissions levels for the years 2020 and 2035 consistent with state goals, and therefore, an efficiency metric can be calculated to interpolate a per service population per year GHG levels consistent with the CAP for the years between the two benchmarks.

An efficiency metric is calculated by dividing the allowable GHG emissions inventory in a selected calendar year by the service population (residents plus employees), which then leads to the identification of a quantity of emissions that can be permitted on a per service population basis without significantly impacting the environment. This approach is appropriate for the project because it measures the project's emissions on a per service population basis to determine its overall GHG efficiency relative to regulatory GHG reduction goals, as opposed to applying a relatively arbitrary threshold limit that may not be well substantiated. Under the efficiency metric, the project's GHG emissions are evaluated herein relative to the emissions level in the project's build-out year and the build-out year's associated efficiency metric. To that end, an efficiency metric was calculated based on the 2023 emissions level (year of project build-out) and the project's service population (sum of number of employees and the number of estimated hotel guests provided by the project).

As there are no emissions, employment, or population data specific to the project's build-out year (2023), an efficiency metric was generated for year 2023 by interpolating the efficiency metrics for years 2020 and 2035. As illustrated below, the CAP's emission reduction targets for 2020 and 2035 were used to calculate a linear trend line and emissions targets for each interim year. To develop a service population, SANDAG Series 13 Regional Growth Forecast was used to estimate employment, consistent with the residential population projections in the CAP. A linear trend was then calculated for population in the interim years. Finally, a per service population per year emissions level was generated by dividing the interpolated emissions by the corresponding forecasted service population.

To assess consistency with state goals, an efficiency metric was calculated using the 2030 Scoping Plan. To generate the statewide consistency threshold, the 2020 baseline interpolated to the project's build-out year, using the 5.2 percent rate of average annual decline identified by CARB as necessary to achievement of SB 32's 2030 reduction target (40 percent below 1990 levels) and EO S-3-05's 2050 reduction target (80 percent below 1990 levels) (CARB 2015).

The efficiency metric for 2020, 2035, and the interpolation for 2023 are illustrated below in Table 4.6-2, *2020 and 2035 Calculated Efficiency Metric*. If the project achieves the 2023 efficiency metric, the project would not interfere with the State of California's ability to achieve the mid-term and long-term GHG reduction targets per SB 32 and EO S-3-05.

Table 4.6-2
2020 AND 2035 CALCULATED EFFICIENCY METRIC

	City of Del Mar Population	Employment	Service Population	Emissions (MT CO_2e)	Efficiency Metric (MT/SP/yr)
2020 Efficiency Metric	4,399	4,542	8,941	47,477	5.31
2035 Efficiency Metric – City of Del Mar CAP	4,672	4,704	9,376	27,928	2.98
2035 Efficiency Metric – CARB Annual Reduction	4,672	4,704	9,376	21,311	2.27

Source: Dudek 2019
CAP = Climate Action Plan; CARB = California Air Resources Board; CO¬2e = carbon dioxide equivalent; MT = metric ton; SP = service population; yr = year.

As shown in Table 4.6-2, the 2035 emissions from the CAP are higher than that calculated using the CARB's Scoping Plan emissions trajectory. The calculated efficiency metric for 2023 using both CARB's Scoping Plan and the CAP are shown in Table 4.6-3, *2023 Interpolated Efficiency Metric*.

Table 4.6-3
2023 INTERPOLATED EFFICIENCY METRIC

	2020 Efficiency Metric (MT/SP/yr)	2035 Efficiency Metric (MT/SP/yr)	2023 Efficiency Metric (MT/SP/yr)
Efficiency Metric – City of Del Mar CAP	5.31	2.98	4.83
Efficiency Metric – CARB Annual Reduction	5.31	2.27	4.48

Source: Dudek 2019
CARB = California Air Resources Board; CAP = Climate Action Plan; MT = metric ton; SP = service population; yr = year

As shown in Table 4.6-3, the calculated efficiency metric for 2023 based on the CARB Scoping Plan projected emissions trajectory was 4.48 MT per service population per year. In contrast, when using the same 2020 efficiency metric but using the CAP emissions projection for 2035, the efficiency metric is 4.83 MT per service population per year. The CARB based efficiency metric is thus a more conservative significance threshold and is used further in this report.

Again, this 2023 efficiency metric reflects the trajectory planned in the State of California's Scoping Plan. If the project achieves the 2023 efficiency metric, it would not interfere with attainment of the 2030 and 2050 statewide emission reduction targets, and therefore not interfere with the state's and the City of Del Mar's ability to achieve the mid-term and long-term GHG reduction targets in the Del Mar CAP.

4.6.4 Impact Analysis

a) Would the project generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?

Construction

Construction of the project would result in GHG emissions primarily associated with the use of off-road construction equipment, on-road hauling and vendor (material delivery) trucks, and worker vehicles. GHG emissions from construction were estimated using CalEEMod Version 2016.3.2. It is assumed that

construction of the project would commence in October 2020 and would last approximately 26 months, ending in November 2022. Construction is assumed to include the following phases:

- Site Preparation: 1 month (October 2020)
- Grading: 2 months (November 2020 – December 2021)
- Building Construction: 20 months (January 2021 – September 2022)
- Paving: 2 months (October 2022 – November 2022)
- Architectural Coatings: 18 months[4] (May 2021 – November 2022)

For the analysis, it was conservatively assumed that heavy construction equipment would be operating at the site for approximately eight hours per day, five days per week (22 days per month), during project construction. A detailed list of construction equipment can be found in Appendix C.

Construction worker estimates and vendor truck trips by construction phase were based on CalEEMod default values. Table 4.6-4, *Estimated Annual Construction GHG Emissions*, presents construction emissions for the project in years 2020, 2021, and 2022 from on-site and off-site emission sources. As shown in Table 4.6-4, the estimated total GHG emissions during construction would be approximately 1,712 MT CO_2e.

Table 4.6-4
ESTIMATED ANNUAL CONSTRUCTION GHG EMISSIONS (MT/YEAR)

Year	CO_2	CH_4	N_2O	CO_2e
2020	410.74	0.09	0.00	412.87
2021	738.32	0.10	0.00	740.89
2022	556.07	0.08	0.00	558.04
			TOTAL	1,711.81

Source: Dudek 2019
See Appendix C for complete results.
CO_2 = carbon dioxide; CH_4 = methane; N_2O = nitrous oxide; CO_2e = carbon dioxide equivalent.

Site preparation would involve the removal of existing on-site vegetation and would therefore result in the loss of sequestered carbon. The loss of sequestered carbon is estimated based on the carbon content for each vegetation land use type (MT CO_2 per acre) and the acreage of the vegetation land use type removed. The project would permanently impact 0.27 acre of scrubland and 4.15 acres of ornamental vegetation. The project would also permanently impact 9.18 acres of disturbed habitat and 1.79 acres of developed land, both of which do not have carbon value per CalEEMod. The loss of sequestered carbon associated with the project's land use change is presented in Table 4.6-5, *Vegetation Removal – Estimated Loss of Sequestered Carbon.*

[4] Architectural coating would occur intermittently during building construction and paving.

Table 4.6-5
VEGETATION REMOVAL – ESTIMATED LOSS OF SEQUESTERED CARBON

Project Vegetation Land Use	Vegetation Land Use Category	Vegetation Land Use Category Subtype	Permanent Impact Acreage (acres)	Biogenic CO_2 Emissions (MT CO_2/acre)	Sequestered CO_2 (MT CO_2)
Southern coastal bluff scrub	Forest Land	Scrub	0.27	14.3	3.86
Ornamental	Grassland	Grassland	4.15	4.3	17.85
Disturbed Habitat	Others	Others	9.18	0.0	0.00
Urban/Developed	Others	Others	1.79	0.0	0.00
				TOTAL	21.71

Source: Dudek 2019
See Appendix C for complete results.
CO_2 = carbon dioxide; CH_4 = methane; N_2O = nitrous oxide; CO_2e = carbon dioxide equivalent.

Site preparation would also involve the removal of existing on-site trees, which would result in a loss of CO_2 sequestration. The 53 trees that would be removed from the project site were assumed to have completed the active growth cycle, which is assumed to be 20 years. The loss of sequestered carbon from tree removal is presented in Table 4.6-6, *Removed Trees – Estimated Loss of Sequestered Carbon*.

Table 4.6-6
REMOVED TREES – ESTIMATED LOSS OF SEQUESTERED CARBON

Project Tree Category/Species	Tree Category	Growing Period (years)	Number of Trees	Tree CO_2 Sequestration Factor (MT CO_2/tree/year)	Gain of Sequestered CO_2 (MT CO_2)
Various	Miscellaneous	20	53	0.0354	37.52
				TOTAL	37.57

Source: Dudek 2019
See Appendix C for complete results.
CO_2 = carbon dioxide; CH_4 = methane; N_2O = nitrous oxide; CO_2e = carbon dioxide equivalent.

The combined emissions for the construction period plus the total loss of carbon due to vegetation and tree removal is estimated to be 1,771 MT CO_2e. The South Coast Air Quality Management District (SCAQMD) *Draft Guidance Document – Interim CEQA Greenhouse Gas (GHG) Significance Threshold* recommends that "construction emissions be amortized over a 30-year project lifetime, so that GHG reduction measures address construction GHG emissions as part of the operational GHG reduction strategies." Accordingly, the combined construction and release of sequestered carbon when amortized over 30 years is approximately 59 MT CO_2e per year.

Operations

Operation of the project would result in GHG emissions from area sources, energy sources, mobile sources, solid waste, and water supply and wastewater treatment. GHG emissions from operation were estimated using CalEEMod Version 2016.3.2.

Area Sources

Area sources include operation of gasoline-powered landscape maintenance equipment that produces minimal GHG emissions. Consumer product use and architectural coatings result in VOC emissions, which are analyzed in air quality analysis only, and result in little to no GHG emissions.

Energy Sources

The project's energy use, including electricity and natural gas, would result in GHG emissions. The project would include a 360-kilowatt photovoltaic system that would produce an estimated 10 percent of project-wide demand. The project would also include a solar hot water system that would produce 60 percent of project-wide hot water demand, including pool heating.

Mobile Sources

Mobile sources of GHGs during operation of the project would include motor vehicles used by visitors, residents, and employees traveling to and from the site. Motor vehicles may be fueled with gasoline, diesel, or alternative fuels. Implementation of required emissions standards (such as the corporate fuel economy standards) and fleet turnover (replacement of older vehicles with newer ones) will gradually reduce emissions from the project's motor vehicles. The effectiveness of fuel economy improvements was evaluated using the CalEEMod emission factors for motor vehicles in 2023 to the extent it was captured in EMFAC2014.

Solid Waste

The project would generate solid waste and would therefore result in GHG emissions associated with landfill gas production. Under AB 341, the State of California required jurisdictions to achieve a 75 percent diversion rate by 2020. The Del Mar CAP aims to exceed a waste diversion rate of 80 percent by 2020 and 90 percent by 2035. The CAP does not include specific measures that the project would be required to implement. While AB 341 aims for a statewide 75 percent diversion rate by 2020, project compliance with the 50 percent diversion rate, consistent with the solid waste diversion requirements of AB 939, Integrated Waste Management Act, has been included in the GHG assessment.

Water and Wastewater

Supply, conveyance, treatment, and distribution of water for the project would require the use of electricity and would thus result in indirect GHG emissions. Similarly, wastewater generated by the project would require the use of electricity for conveyance and treatment. To reduce water use and wastewater generation, the project would install low-flow faucets, toilets, and showers, as well as water-efficient irrigation and landscaping.

Total Operational Emissions

The estimated operational (year 2023) project-generated GHG emissions from area sources, energy usage, mobile sources, solid waste generation, and waste usage and wastewater generation are shown in Table 4.6-7, *Estimated Annual Operational GHG Emissions*. As shown in Table 4.6-7, estimated annual project-generated GHG emissions would be approximately 3,010 MT CO_2e per year as a result of project operations. Estimated annual project-generated operational emissions in year 2023 plus the amortized project construction emissions would be approximately 3,070 MT CO_2e per year.

Table 4.6-7
ESTIMATED ANNUAL OPERATIONAL GHG EMISSIONS (MT/YEAR)

Emission Source	CO_2	CH_4	N_2O	CO_2e
Area	139.93	0.01	0.01	140.78
Energy	1,407.42	0.05	0.02	1,415.62
Reduction from Photovoltaics	(206.80)	(0.01)	(0.01)	(207.65)
Mobile	1,585.63	0.08	0.00	1,587.62
Solid Waste	9.43	0.56	0.00	23.37
Water Supply and Wastewater	46.79	0.02	0.01	50.71
TOTAL	2,982.40	0.70	(0.03)	3,010.45
			Amortized Construction Emissions	59.03
			Operation Plus Amortized Construction Total	3,070.44

Source: Dudek 2019
See Appendix C for complete results.
These emissions reflect CalEEMod "mitigated" output and operational year 2023.
CO_2 = carbon dioxide; CH_4 = methane; N_2O = nitrous oxide; CO_2e = carbon dioxide equivalent.

Operation of the project would result in carbon sequestration from the planting and growth of 77 new trees on site. The amount of sequestered carbon resulting from the planting and growth of these trees is estimated based on the sequestration rate for the tree species, the number of new trees, and their growth period. Table 4.6-8, *Planted Trees – Estimated Gain of Sequestered Carbon*, presents the estimated gain in sequestered CO_2 from the planted trees. As shown in Table 4.6-8, the amount of carbon sequestered as a result of planting 77 trees would be approximately 55 MT CO_2, or 2 MT CO_2 annually (assuming a 30-year project lifetime).

Table 4.6-8
PLANTED TREES – ESTIMATED GAIN OF SEQUESTERED CARBON

Project Tree Category/Species	Tree Category	Growing Period (years)	Number of Trees	Tree CO_2 Sequestration Factor (MT CO_2/tree/year)	Gain of Sequestered CO_2 (MT CO_2)
Various	Miscellaneous	20	77	0.0354	54.52
				TOTAL	54.52

Source: Dudek 2019
See Appendix C for complete results.
CO_2 = carbon dioxide; CH_4 = methane; N_2O = nitrous oxide; CO_2e = carbon dioxide equivalent.

The project would entail 353 employees, 146 full-time residents of the villas, 8 residents of the single-family housing units, 45 residents of the affordable housing, and 135 hotel guests. Therefore, the service population of the project would be 687 people. Estimated GHG emissions of 3,068 MT CO_2e per year divided by a service population of 687 persons is 4.47 MT CO_2e per service population per year. As such, annual operational GHG emissions with amortized construction emissions would not exceed the statewide service population threshold of 4.48 MT CO_2e per service population per year. Therefore, the project's GHG contribution would not be cumulatively considerable and is less than significant.

b) Would the project conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing emissions of greenhouse gases?

Del Mar Climate Action Plan

As previously discussed, the Del Mar CAP is not a qualified CAP; therefore, analysis of consistency is provided for informational purposes only. The Del Mar CAP is a long-range plan to reduce GHG emissions from citywide activities and prepare the City for the effects of climate change. The City is committed to reducing its GHG emissions by 15 percent below 2012 levels by 2020 and 50 percent below 2012 levels by 2035, consistent with AB 32 and the State's GHG emission reduction goals. In order to reduce citywide GHG emissions, the CAP identifies a series of reduction measures and strategies, which will guide the City in several key focus areas (e.g., energy and buildings, water and waste, transportation, and urban tree planting). Table 4.6-9, *Project Consistency with the City of Del Mar CAP,* presents the project's consistency with the CAP. Additionally, the project's GHG emissions of 4.47 MT CO_2e per service population per year are less than the CAP efficiency threshold, and thus demonstrates compliance with the CAP. Measures outlined within the CAP would not be directly applicable to the project and are intended for the City to implement. As such, the project would not conflict with the Del Mar CAP.

Table 4.6-9
PROJECT CONSISTENCY WITH THE CITY OF DEL MAR CAP

Project Compliance	CAP Measure
Goal 1: Residential Photovoltaics	**Consistent**: The project would install a photovoltaic system on the villas that would produce 678,000 kilowatt-hours (kWh) annually. This represents 94 percent of the villas' energy demand.
Goal 2: Non-Residential Photovoltaics	**Consistent**: The project would install a photovoltaic system on the hotel that would produce 339,000 kWh annually. This represents 28 percent of the hotel's energy demand.
Goal 3: Residential Efficiency Retrofits—Single-Family Homes	**Not Applicable**: The project would not include the retrofit of existing buildings.
Goal 4: Residential Efficiency Retrofits—Multifamily Homes	**Not Applicable**: The project would not include the retrofit of existing buildings.
Goal 5: Non-Residential Efficiency Retrofits	**Not Applicable**: The project would not include the retrofit of existing buildings.
Goal 6: Residential Solar Hot Water Heater Installation	**Consistent**: The project would install a solar hot water system to serve the domestic hot water and pool heating. The systems would produce a combined 16,000 therms.
Goal 7: Renewable Energy Supply	**Consistent**: The project would be served by SDG&E, which as of 2017 had a 44 percent renewable energy content value (SDG&E 2016). Additionally, 45 percent of the project's electricity demand would be offset by photovoltaic systems. This would meet the City of Del Mar's goal of procuring 50 percent of renewable energy supply by 2020.
Goal 8: Reduce Residential Indoor Water Consumption in Remodeled Single-Family Homes	**Not Applicable**: The project would not include the redevelopment of single-family homes.

Table 4.6-9 (cont.)
PROJECT CONSISTENCY WITH THE CITY OF DEL MAR CAP

Project Compliance	CAP Measure
Goal 9: Reduce Outdoor Water Consumption	**Consistent**: The project would be consistent with the City of Del Mar's Water Efficient Landscape Ordinance; this would be verified by establishing a maximum water allotment and estimated water use. The irrigation controller would receive localized real-time evapotranspiration data that can adjust daily application of water through run-time adjustments. The controller would be specified with flow- sensing equipment that monitors flow rates to terminate irrigation as a result of high or low flow situations. Flow alarms would be communicated to the facility maintenance manager via email or cell phone alert. A rain sensor would also be installed to terminate irrigation during wet weather.
Goal 10: Pool Cover Program	**Consistent**: The project's pools would be covered after hours in order to save energy and water.
Goal 11: Divert Waste from Landfills and Capture Emissions	**Consistent**: The project would comply with all applicable local and state regulations. Additionally, the project would adopt a "Waste Management Policy" which would implement a waste stream monitoring program and identify proper disposal strategies.
Goal 12: Capture Emissions from Wastewater Treatment	**Not Applicable**: The project would not include a wastewater treatment plant.
Goal 13: Increase Mass Transit Ridership	**Consistent**: The project's transportation demand management measures include: providing a free shuttle from the Solana Beach coaster station, providing employees with Compass Card which would provide them free access to the Coaster and local Breeze buses.
Goal 14: Adopt a Bicycle Strategy	**Consistent**: The project would provide short-term and long-term bicycle parking spaces consisting of convenient and secure, permanently anchored bicycle racks. The project would also host a bike-share program.
Goal 15: Pedestrian Mobility Plan	**Consistent**: The project would improve the pedestrian crossings at Via de la Valle and Camino Del Mar.
Goal 16: Increase the Percentage of VMT Being Driven by Electric and Alternative Fuel Vehicles	**Consistent**: The project would provide one percent of the parking spaces with electric vehicle charging equipment. The project would designate six percent of total parking as 'EV Capable'. Additionally, each residential unit would be outfitted with an electrical vehicle-charging unit.
Goal 17: Increase Number of Preferential Parking Spaces for Clean Vehicles	**Consistent**: The project would be consistent with the 2016 California Green Building Code Section 5.106.5.2 "Designated Parking For Clean Air Vehicles." The project would designate eight percent of total parking as designated for low- emitting, or fuel-efficient and carpool/van pool vehicles.
Goal 18: Install Roundabouts	**Not Applicable**: The project does not include road reconfiguration.
Goal 19: Increase Percentage of Population with Alternate Work Schedules	**Consistent**: The project would include a variety of employees with alternate work schedules, including housekeeping, customer service, and restaurant employees.

Table 4.6-9 (cont.)
PROJECT CONSISTENCY WITH THE CITY OF DEL MAR CAP

Project Compliance	CAP Measure
Goal 20: Increase Telecommuting	**Not Applicable**: The project does not include employees with job duties suitable for telecommuting.
Goal 21: Increase Van Pooling	**Consistent**: The project's transportation demand management measures include providing preferential parking for vanpools and maintaining commute transportation information on display. Additionally, the project would provide a visitor shuttle into downtown Del Mar.
Goal 22: Implement Urban Tree Planting Program	**Consistent**: A total of 77 trees would be planted on the project site.

Source: Dudek 2019

SANDAG's San Diego Forward: The Regional Plan

The proposed project would be developed to support the policy objectives of both the RTP and SCS under SANDAG's Regional Plan. For example, the project would include a shuttle to the nearby COASTER commuter train station, provide employees with free transit passes, and include a bike share program. The project would also generate energy on-site for electricity and hot water, which would offset a portion of energy consumption and power community facilities. Table 4.6-10, *Project Consistency with San Diego Forward: The Regional Plan,* illustrates the project's consistency with applicable goals and policies of San Diego Forward: The Regional Plan.

Table 4.6-10
SAN DIEGO FORWARD: THE REGIONAL PLAN CONSISTENCY ANALYSIS

Category	Policy Objective or Strategy	Consistency Analysis
The Regional Plan – Policy Objectives		
Mobility Choices	Provide safe, secure, healthy, affordable, and convenient travel choices between the places where people live, work, and play.	**Consistent**. The project would provide all employees with a Compass Card, which would provide them free access to the Coaster and local Breeze buses. Additionally, the project would provide a shuttle from the Solana Beach Coaster Station and provide a bike share program.
Mobility Choices	Take advantage of new technologies to make the transportation system more efficient and environmentally friendly.	**Not applicable**. The project would not impair the ability of SANDAG to implement new technologies within the transportation system within the region.
Habitat and Open Space Preservation	Focus growth in areas that are already urbanized, allowing the region to set aside and restore more open space in our less developed areas.	**Consistent**. The project would be built in an urbanized area near downtown Solana Beach and Del Mar. The project would preserve access to the coastline and north bluff preserve.

Table 4.6-10 (cont.)
SAN DIEGO FORWARD: THE REGIONAL PLAN CONSISTENCY ANALYSIS

Category	Policy Objective or Strategy	Consistency Analysis
Habitat and Open Space Preservation	Protect and restore our region's urban canyons, coastlines, beaches, and water resources.	**Consistent**. The project would enhance public access to open space and the coastline. The project would utilize low impact development to prevent run off into the ocean from storm water and irrigation.
Regional Economic Prosperity	Invest in transportation projects that provide access for all communities to a variety of jobs with competitive wages.	**Not Applicable**. The project would not impair the ability of SANDAG to invest in transportation projects available to all members of the community.
Regional Economic Prosperity	Build infrastructure that makes the movement of freight in our community more efficient and environmentally friendly.	**Not Applicable**. The project does not propose regional freight movement, nor would it impair SANDAG's ability to preserve and expand options for regional freight movement.
Partnerships/Collaboration	Collaborate with Native American tribes, Mexico, military bases, neighboring counties, infrastructure providers, the private sector, and local communities to design a transportation system that connects to the mega-region and national network and works for everyone and fosters a high quality of life for all.	**Not Applicable**. The project would not impair the ability of SANDAG to provide transportation choices to better connect the San Diego region with Mexico, neighboring counties, and tribal nations.
Partnerships/Collaboration	As we plan for our region, recognize the vital economic, environmental, cultural, and community linkages between the San Diego region and Baja California.	**Not Applicable**. The project would not impair the ability of SANDAG to provide transportation choices to better connect the San Diego region with Mexico.
Healthy and Complete Communities	Create great places for everyone to live, work, and play.	**Consistent.** The project would provide coastal access, a loop trail around the project site to the North Bluff Preserve, a low-cost visitors' inn, and work force housing.
Healthy and Complete Communities	Connect communities through a variety of transportation choices that promote healthy lifestyles, including walking and biking.	**Consistent.** The project would improve pedestrian crossing at Via de la Valle and Camino del Mar. The project would also include a bike share program.
Environmental Stewardship	Make transportation investments that result in cleaner air, environmental protection, conservation, efficiency, and sustainable living.	**Consistent**. The project would improve pedestrian crossing at Via de la Valle and Camino del Mar. The project would also include a bike share program. Additionally, the project would provide all employees with a Compass Card, which would provide them free access to the Coaster and local Breeze buses. The project would provide a shuttle from the Solana Beach Coaster Station.

Table 4.6-10 (cont.)
SAN DIEGO FORWARD: THE REGIONAL PLAN CONSISTENCY ANALYSIS

Category	Policy Objective or Strategy	Consistency Analysis
Environmental Stewardship	Support energy programs that promote sustainability.	**Consistent**. The project would include on-site renewable energy production through a solar photovoltaic rooftop and solar hot water system.
Sustainable Communities Strategy (SCS) – Strategies		
Strategy #1	Focus housing and job growth in urbanized areas where there is existing and planned transportation infrastructure, including transit.	**Consistent**. The project would be located near developed urban and employment centers and would provide a shuttle to the Solana Beach Coaster Station.
Strategy #2	Protect the environment and help ensure the success of smart growth land use policies by preserving sensitive habitat, open space, cultural resources, and farmland.	**Consistent**. The project would not involve any development within the Preserve.
Strategy #3	Invest in a transportation network that gives people transportation choices and reduces GHG emissions.	**Not Applicable**. The project would not impair SANDAG's ability to invest in transportation network choices that reduce GHG emissions.
Strategy #4	Address the housing needs of all economic segments of the population.	**Consistent**. The project would involve the development of 22 affordable workforce residential units.
Strategy #5	Implement the Regional Plan through incentives and collaboration.	**Not Applicable**. The project would not impair the ability of SANDAG to implement the RTP through incentives and collaborations.

Source: Dudek 2019

Executive Order EO S-3-05 and SB 32

Implementation of the project would not impede the attainment of the GHG reduction goals for 2030 or 2050 identified in EO S-3-05 and SB 32. As discussed in Subsection 4.6.2.2, EO S-3-05 establishes the following goals: GHG emissions should be reduced to 2000 levels by 2010, to 1990 levels by 2020, and to 80 percent below 1990 levels by 2050. SB 32 establishes a statewide GHG emissions reduction target whereby CARB, in adopting rules and regulations to achieve the maximum technologically feasible and cost-effective GHG emissions reductions, shall ensure that statewide GHG emissions are reduced to at least 40 percent below 1990 levels by December 31, 2030. While there are no established protocols or thresholds of significance for that future year analysis, CARB forecasts that compliance with the current Scoping Plan puts the state on a trajectory of meeting these long-term GHG goals. As previously discussed, the project would not exceed the 2023 interpolated service population threshold, which is consistent with the City of Del Mar's 2030 reduction targets and SB 32. Therefore, the project would not interfere with the above-described GHG reduction goals set forth in EO S-3-05 and SB 32. Overall, the project would not conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing GHG emissions, and impacts would therefore be less than significant.

4.6.5 Mitigation Measures

As detailed above, the project would not conflict with the Del Mar CAP, would be developed to support the policy objectives of both the RTP and SCS under SANDAG's Regional Plan, and would not impede the attainment of the GHG reduction goals for 2030 or 2050 identified in EO S-3-05 and SB 32. Therefore, impacts related to GHG emissions would be less than significant and no mitigation measures are required.

4.6.6 Level of Significance After Mitigation

No mitigation measures are required, and impacts would be less than significant.

4.7 HYDROLOGY AND WATER QUALITY

This subsection includes a description of existing conditions, regulatory requirements, and potential impacts on hydrology and water quality associated with the proposed project.

4.7.1 Existing Conditions

Watershed and Drainage Conditions

The project site is within the San Dieguito Hydrologic Unit (HU), which is 1 of 11 major drainage areas identified in the 1994 (as amended) RWQCB Water Quality Control Plan for the San Diego Basin (Basin Plan). The San Dieguito HU is a triangular area of approximately 350 square miles and extends generally from Santa Ysabel on the east to Solana Beach/Del Mar along the coast. The HU is divided into hydrologic areas (HAs) and hydrologic subareas (HSAs) based on local drainage characteristics. The project site is located in the Rancho Santa Fe HSA (905.11) of the Solana Beach HA (see Figure 4.7-1, *Local Hydrologic Designations*). Surface drainage in the San Dieguito HU occurs through a number of small to moderate size streams, with the San Dieguito River comprising the principal drainage course in the Solana Beach HA. An average of between 9 and 13 inches of rain falls each year along coastal San Diego, mostly between November to early April, while the remainder of the year is typically dry (Dudek 2019b).

The project site is located adjacent to the Pacific Ocean and immediately north of the Lagoon at the western terminus of the San Dieguito River and North Beach. The San Dieguito River is one of the largest rivers in San Diego County and flows about 56 miles from its headwaters at Vulcan Mountain, north of Julian, to Lake Hodges Reservoir where it is impeded by a dam. Runoff below the dam, and intermittent overflow of the dam spillway, flows along the San Dieguito River, and discharges to the Pacific Ocean at the mouth of the Lagoon.

Flows on the site drain directly over the coastal bluff to the Pacific Ocean to the west and south and to the existing storm water infrastructure along the western edge of Camino Del Mar. Drainage along Camino Del Mar is intercepted by an existing 21-foot curb inlet that drains to an existing 24-inch diameter storm drain that discharges to North Beach , south of the project site, where flows ultimately enter the Pacific Ocean .Due to site topography, drainage does not flow north of the project site. The project site is located within the Coastal Zone; Bluff, Slope, and Canyon (BSC) Overlay Zone and a Water Quality Sensitive Area (WQSA; City 2018b). WQSAs include Environmentally Sensitive Areas such as water bodies designated with the rare, threatened, or endangered species (RARE) beneficial use by the Basin Plan and water bodies designated as impaired in the Clean Water Act (CWA) Section 303(d) list (City 2018b). These designations apply to the project site, as described below under the *Water Quality* heading. Specific policies related to development in the Coastal Zone and the BSC Overlay Zone are discussed below in Subsection 4.7.2, *Regulatory Framework*.

Flooding, Inundation, and Sea Level Rise

Flooding

The Federal Emergency Management Agency (FEMA) is involved in identifying and mapping flood-prone areas for jurisdictions that participate in the National Flood Insurance Program (NFIP). As shown on Figure 4.7-2, *FEMA Flood Zones*, the majority of the project site is located about 65 to 80 feet amsl and is

not within a floodplain or floodway. The North Beach area at the base of the coastal bluffs is subject to inundation by 100- and 500-year flood events with additional hazards due to storm-induced velocity wave action. The project site includes one single-family residence with ancillary structures, driveways, and landscaped areas. Existing impervious area within the project site is estimated at about 63,000 sf, or 1.45 acres, which comprises about nine percent of the 16.55 acres under private ownership, not including the 0.67 acre east of Camino del Mar. Under current conditions at the project site, the 100-year rainfall event would be expected to result in 2.3 inches of rain over a six-hour period and up to 4.0 inches over a 24-hour period.

Inundation

As discussed above, the project site is located near the western terminus of the San Dieguito River and is located downstream from the Lake Hodges Reservoir. Figure 4.7-3, *Lake Hodges Reservoir Inundation Area*, shows the areas in the project vicinity where inundation may occur during failure of the reservoir. As shown, inundation areas associated with Lake Hodges include areas along North Beach and some areas in the Lagoon and do not reach the coastal terrace above the bluffs.

Sea Level Rise

The City of Del Mar prepared a Coastal Hazards, Vulnerability, and Risk Assessment in July 2016 and Addendum in 2018 that evaluate potential sea level rise risks in Del Mar, including coastal flooding and damage, increased frequency and intensity of storms, beach and bluff erosion, and San Dieguito River flooding. With future climate change and sea level rise, the City of Del Mar's current vulnerabilities are projected to increase in both frequency and intensity, resulting in increased damage risk to most of the City of Del Mar, unless adaptation measures are pursued. As illustrated in Figure 40.1 in the Risk Assessment, the project site is located adjacent to areas designated as within an "Extreme River Flooding" zone; however, the proposed resort development would occur on the top of a coastal terrace, above areas designated as "Extreme River Flooding." The term "extreme" is used to refer to extensive flooding and damage that presently has a low (i.e., one percent) chance of occurrence, but is projected to increase in frequency in the future. Roads and bridges, including Camino del Mar, Jimmy Durante Boulevard and bridge, the east ends of North Beach District streets, and San Dieguito Drive, are projected to be highly vulnerable by about 2070.

According to the City of Del Mar's Adopted Sea Level Rise Adaptation Plan (October 2018), adaptation options to address sea level rise issues near the project site include measures to address San Dieguito River flooding as well as bluff and beach erosion. The adaptation measures for reducing the risk due to flooding of the San Dieguito River include channel dredging, reservoir management, levees with partial retreat, raising structures, and removing structures. Dredging of the river channel bed near its current elevation would maintain the river flood risk near the current risk level. Assuming the dredged material is primarily sand, the dredged material could be placed on the beach to provide nourishment as a beach adaptation measure. Reservoir management involves utilizing the connection between Lake Hodges Reservoir (which controls 87 percent of the flows from the San Dieguito River watershed) to the Olivenhain Reservoir. This connection allows water to be pumped back and forth the between the two reservoirs. While the primary purpose of this connection is to improve water storage, the connection could also provide improved flood management. This type of reservoir management could partially offset the increase in the future frequency of river flooding.

Beach nourishment and sand retention are identified as high priority short-to-medium term adaptation measures that would reduce the risk of wave run-up and erosion of the bluff toe. However, due to the

Specific Plan location along a short stretch of beach between the City of Del Mar's northern limit and the Lagoon river mouth, additional coordination with the City of Solana Beach would be necessary if beach nourishment were to be implemented as an adaptation measure to reduce the risk of projected sea level rise, beach erosion, and bluff erosion. Best Management Practices (BMPs) outlined in the Sea Level Rise Adaptation Plan include managing surface drainage to control erosion and failure due to drainage, investigating irrigation methods on coastal terrace development, limiting pedestrian access and constructing stairways to concentrate pedestrian access along bluff areas, and revegetating and restoring bluff vegetation on existing pathways.

Groundwater

The project site does not overlay a mapped groundwater basin; however, groundwater/seepage or wet conditions were observed about 70 to 90 feet below the existing ground surface. The mapped areal extent of the Lower San Dieguito Groundwater Basin is located south of the project site and has a surface area of 5.6 square miles and an estimated storage capacity of 52,000 to 63,000 acre-feet (DWR 2004, SANDAG 2007). Water-bearing geologic formations in the groundwater basin consist of unconsolidated alluvium that has been transported and deposited by the San Dieguito River. Groundwater recharge largely occurs due to percolation of water from flows in the San Dieguito River, although there is also some percolation of precipitation on the valley floor (DWR 2004). Groundwater flows in the basin generally move in a westerly direction towards the Pacific Ocean.

Water Quality

Beneficial Uses and Water Quality Objectives

The Basin Plan (RWQCB 1994) establishes beneficial uses and water quality objectives for surface and groundwater resources. Beneficial uses are defined in the Basin Plan as "the uses of water necessary for the survival or well-being of man, plus plants and wildlife." Identified existing and potential beneficial uses for applicable receiving waters downstream from the project site are summarized below for the San Dieguito Watershed Management Area (WMA) and the Pacific Ocean.

Identified beneficial uses for inland surface water of the San Dieguito WMA include agriculture; biological habitats of special significance; cold freshwater habitat; contact water recreation; industrial process supply; industrial service supply; municipal and domestic supply; non-contact water recreation; rare, threatened, or endangered species; warm freshwater habitat; and wildlife habitat. Identified beneficial uses for coastal waters of the Pacific Ocean include industrial service supply; navigation; contact recreation; non-contact recreation; commercial and sport fishing; preservation of biological habitats of special significance; wildlife habitat; rare, threatened, or endangered species; marine habitat; aquaculture; migration of aquatic organisms; reproduction and/or early development; and shellfish harvesting. Existing beneficial uses for the applicable groundwater basin, which is associated with Solana Beach HA 905.10, are identified in the Basin Plan as municipal and domestic supply, agriculture, and industrial service supply, and no potential beneficial uses are listed.

Water quality objectives are identified in the Basin Plan as "the limits or levels of water quality constituents or characteristics which are established for the reasonable protection of beneficial uses or the prevention of nuisance within a specific area." Individual objectives may include both qualitative standards and quantitative criteria for identified constituents. Identified water quality objectives for surface and groundwater in the Solana Beach HA are summarized below in Table 4.7-1, *Water Quality Objectives for the Solana Beach Hydrologic Area (905.1)*.

Table 4.7-1
WATER QUALITY OBJECTIVES
FOR THE SOLANA BEACH HYDROLOGIC AREA (905.1)[1]

SURFACE WATER												
Constituent (mg/l or as noted)												
TDS	**Cl**	**SO_4**	**%Na**	**N&P**	**Fe**	**Mn**	**MBAS**	**Boron**	**Odor**	**Turbidity (NTU)**	**Color Units**	**Fluoride**
500	250	250	60	--[2]	0.3	0.05	0.5	0.75	None	20	20	1.0
GROUNDWATER												
Constituent (mg/l or as noted)												
TDS	**Cl**	**SO_4**	**%Na**	**NO_3**	**Fe**	**Mn**	**MBAS**	**Boron**	**Odor**	**Turbidity (NTU)**	**Color Units**	**Fluoride**
1,500[3]	500[3]	500[3]	60	45[3]	0.85[3]	0.15[3]	0.5	0.75[3]	None	5	15	1.0

Source: RWQCB 1994
Cl = chlorine; SO_4 = sulfate; %Na = percent sodium; N&P = nitrogen and phosphorous compound concentrations (nutrients); Fe = iron; Mn = Manganese; MBAS = methylene blue-activated substances, NTU = Nephelometric Turbidity Units
[1] Objectives not to be exceed more than 10 percent of the time during any one-year period.
[2] Shall be maintained below levels which stimulate algae and emergent plant growth.
[3] Detailed salt balance studies recommended.

Escherichia coli (E. coli) and enterococci bacteria are considered indicator bacteria for water quality because these bacteria are part of the intestinal biota of warm-blooded animals and their presence in surface waters indicates the potential existence of pathogens of fecal origin in surface waters. Water quality objectives for E. coli and enterococci vary with the beneficial uses of the water. In waters designated with a shellfish harvesting or commercial and sport fishing beneficial use, the median total coliform concentration throughout the water column for any 30-day period shall not exceed 70 organisms per 100 milliliter (ml), nor shall more than 10 percent of the samples collected during any 30-day period exceed 230 organisms per 100 ml for a five-tube decimal dilution test or 330 organisms per 100 ml when a three-tube decimal dilution test is used (RWQCB 1994). Identified water quality objectives for waters with a REC-1 beneficial use are listed below in Table 4.7-2, *USEPA Bacteriological Criteria for Water Contact Recreation*.

Table 4.7-2
USEPA BACTERIOLOGICAL CRITERIA FOR WATER CONTACT RECREATION[1,2]
(in colonies per 100 milliliter)

	Freshwater		Saltwater
	Enterococci	**E. coli**	**Enterococci**
Steady State			
All Areas	33	126	35
Maximum			
Designated Beach	61	235	104
Moderately or Lightly Used Area	108	406	276
Infrequently Used Area	151	576	500

Source: RWQCB 1994
[1] The criteria were published in the Federal Register, Vol. 51, No. 45/Friday, March 7, 1986/8012-8016. The criteria are based on: Cabelli, V. J. 1983. Health Effects Criteria for Marine Recreational Waters. U.S. Environmental Protection Agency, EPA 600/1-80-031, Cincinnati, Ohio.
Dufour, A. P. 1984. Health Effects Criteria for Fresh Recreational Waters. U.S. Environmental Protection Agency, EPA 600/1-84-004, Cincinnati, Ohio.
[2] The EPA criteria apply to water contact recreation only. The criteria provide for a level of protection based on the frequency of usage of a given water contact recreation area. The criteria may be employed in special studies within this Region to differentiate between pollution sources or to supplement the current coliform objectives for water contact recreation.

Clean Water Act Section 303(d) Impaired Water Bodies and Total Maximum Daily Loads

The State Water Resources Control Board (SWRCB) and Regional Water Quality Control Boards (RWQCBs) produce bi-annual qualitative assessments of statewide and regional water quality conditions. These assessments are focused on CWA Section 303(d) impaired water listings and scheduling for assignment of Total Maximum Daily Load (TMDL) requirements. States are required to identify and document any and all polluted surface water bodies, with the resulting documentation referred to as the Clean Water Act Section 303(d) List of Water Quality Limited Segments, or more commonly the 303(d) list. This list of water bodies identifies the associated pollutants and TMDLs, along with pollutant sources and projected TMDL implementation schedules/status. A TMDL establishes the maximum amount of an impairing substance or stressor that a water body can assimilate and still meet water quality standards. Additionally, TMDLs allocate that load among pollution contributors. TMDLs are quantitative tools for implementing state water quality standards, based on the relationship between pollution sources and water quality conditions.

The most current (2014/2016) approved 303(d) list identifies the Pacific Ocean Shoreline at the San Dieguito Lagoon Mouth as an impaired water body downstream from the project site (SWRCB 2016). The Pacific Ocean shoreline at the Lagoon mouth is impaired for indicator bacteria over an assessment area of 0.03 mile. A TMDL was adopted for this area on February 10, 2010, pursuant to RWQCB Resolution R9-2010-0001. Wet and dry weather TMDLs for indicator bacteria are required to be achieved within 10 years of the February 10, 2010 Basin Plan amendment date, with wet weather TMDLs potentially subject to a maximum 10-year extension (and no potential extension available for dry weather TMDLs).

Surface Water Quality Monitoring Data

Surface water within the project site is limited to intermittent runoff from storm events, including flows from on- and off-site sources as previously described. A summary of typical pollutants and related sources for urban storm water runoff is provided in Table 4.7-3, *Summary of Typical Pollutant Sources for Urban Storm Water Runoff* and Table 4.7-4*, Typical Loadings for Selected Pollutants in Runoff from Various Land Uses*. Based on the predominantly low-density residential nature of the project watershed, on-site surface water quality is expected to be generally moderate.

Pertinent quantitative water quality data were downloaded from the California Environmental Data Exchange Network (available from http://ceden.waterboards.ca.gov) from the Southern California Coastal Water Research (SCCWR) Project Beach Watch Program for the San Dieguito River Beach (referred to as North Beach within this EIR). The SCCWR Project is a collaboration with California coastal county health departments to collect and disseminate beach water quality data. Monthly Beach Watch data for indicator bacteria within the surf zone of North Beach (Station EH-380) is available from April 1999 to December 2013. Data show that while 1999 indicator bacteria levels were very high, Enterococci levels have been on the decline, and since mid-2002 the bacteriological levels have generally been under the USEPA threshold of 104 MPN/100 for a designated beach.

Table 4.7-3
SUMMARY OF TYPICAL POLLUTANT SOURCES
FOR URBAN STORM WATER RUNOFF

Pollutants	Pollutant Sources
Sediment and Trash/Debris	Streets, landscaping, driveways, parking areas, rooftops, construction activities, atmospheric deposition, drainage channel erosion
Pesticides and Herbicides	Landscaping, roadsides, utility rights-of-way, soil wash-off
Organic Compounds	Landscaping, streets, parking areas, animal wastes, recreation areas
Oxygen Demanding Substances	Landscaping, animal wastes, leaky sanitary sewer lines, recreation areas
Heavy Metals	Automobiles, bridges, atmospheric deposition, industrial areas, soil erosion, corroding metal surfaces, combustion processes
Oil and Grease/Hydrocarbons	Roads, driveways, parking lots, vehicle maintenance areas, gas stations, illicit dumping to storm drains
Bacteria and Viruses	Landscaping, roads, leaky sanitary sewer lines, sanitary sewer cross-connections, animal wastes, recreation areas
Nutrients (Nitrogen and Phosphorus)	Rooftops, landscaping, atmospheric deposition, automobile exhaust, soil erosion, animal wastes, detergents, recreation areas

Source: USEPA 1999

Table 4.7-4
TYPICAL LOADINGS FOR SELECTED POLLUTANTS IN RUNOFF
FROM VARIOUS LAND USES
(lbs/acre/year)

Land Use	TSS	TP	TKN	NH_3 - N	NO_2 + NO_3 - N	BOD	COD	Pb	Zn	Cu
Commercial	1000	1.5	6.7	1.9	3.1	62	420	2.7	2.1	0.4
Parking Lot	400	0.7	5.1	2	2.9	47	270	0.8	0.8	0.04
High Density Residential	420	1	4.2	0.8	2	27	170	0.8	0.7	0.03
Medium Density Residential	190	0.5	2.5	0.5	1.4	13	72	0.2	0.2	0.14
Low Density Residential	10	0.04	0.03	0.02	0.1	N/A	N/A	0.01	0.04	0.01
Freeway	880	0.9	7.9	1.5	4.2	N/A	N/A	4.5	2.1	0.37
Industrial	860	1.3	3.8	0.2	1.3	N/A	N/A	2.4	7.3	0.5
Park	3	0.03	1.5	N/A	0.3	N/A	2	0	N/A	N/A
Construction	6000	80	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Source: USEPA 1999
N/A = Not available; insufficient data to characterize; TSS = Total Suspended Solids; TP = Total Phosphorus;
TKN = Total Kjeldahl Nitrogen; NH_3 – N = Ammonia - Nitrogen; NO_2 + NO_3 – N = Nitrite + Nitrate - Nitrogen;
BOD = Biochemical Oxygen Demand; COD = Chemical Oxygen Demand; Pb = Lead; Zn = Zinc; Cu = Copper

4.7.2 Regulatory Setting

The project is subject to a number of regulatory requirements associated with federal, state, and local laws and guidelines, as summarized below.

Federal Standards

Clean Water Act/National Pollutant Discharge Elimination System Requirements

The project is subject to applicable elements of the CWA, including the National Pollutant Discharge Elimination System (NPDES) permit program. Specific NPDES requirements associated with the project include conformance with the following: (1) General Permit for Storm Water Discharges Associated with Construction and Land Disturbance Activities (Construction General Permit, NPDES No. CAS000002, SWRCB Order 2009-0009-DWQ; as amended by Order Nos. 2010-0014-DWQ and 2012-0006-DWQ); and (2) Waste Discharge Requirements for Municipal Separate Storm Sewer Systems Permit (MS4 Permit, NPDES No. CAS 0109266, Order No. R9-2013-0001, as amended by Order Nos. R9-2015-0001 and R9-2015-0100). In California, USEPA has delegated authority for implementing NPDES requirements to the SWRCB, with these permits therefore described below under state standards (and related City of Del Mar requirements discussed under local standards).

State Standards

NPDES Construction General Permit

Construction activities exceeding one acre (or meeting other applicable criteria) are subject to pertinent requirements under the Construction General Permit. This permit was issued by the SWRCB, pursuant to authority delegated by the USEPA, as previously noted. Specific conformance requirements include implementing a Storm Water Pollution Prevention Plan (SWPPP), an associated Construction Site Monitoring Program (CSMP), employee training, and minimum BMPs, as well as a Rain Event Action Plan (REAP) for applicable projects (e.g., those in Risk Categories 2 or 3). Under the Construction General Permit, project sites are designated as Risk Level 1 through 3 based on site-specific criteria (e.g., sediment erosion and receiving water risk), with Risk Level 3 sites requiring the most stringent controls. Based on the site-specific risk level designation, the SWPPP and related plans/efforts identify detailed measures to prevent and control the off-site discharge of pollutants in storm water runoff. Depending on the risk level, these may include efforts such as minimizing/stabilizing disturbed areas, mandatory use of technology-based action levels, effluent and receiving water monitoring/reporting, and advanced treatment systems (ATS). Specific pollution control measures require the use of best available technology economically achievable (BAT) and/or best conventional pollutant control technology (BCT) levels of treatment, with these requirements implemented through applicable BMPs. While site-specific measures vary with conditions such as risk level, proposed grading, and slope/soil characteristics, detailed guidance for construction-related BMPs is provided in the permit and related City of Del Mar standards (as outlined below), as well as additional sources including the *EPA National Menu of Best Management Practices for Storm Water Phase II – Construction* (USEPA 2016), and *Storm Water Best Management Practices Handbooks* (California Stormwater Quality Association [CASQA] 2009). Specific requirements for the project under this permit would be determined during SWPPP development, after completion of project plans and application submittal to the SWRCB.

NPDES MS4 Permit

The MS4 Permit implements a regional strategy for water quality and related concerns and mandates a watershed-based approach that often encompasses multiple jurisdictions. The overall permit goals include: (1) providing a consistent set of requirements for all co-permittees; and (2) allowing the co-permittees to focus their efforts and resources on achieving identified goals and improving water quality, rather than just completing individual actions (which may not adequately reflect identified

goals). Under this approach, the co-permittees are tasked with prioritizing their individual water quality concerns, as well as providing implementation strategies and schedules to address those priorities. MS4 Permit conformance entails considerations such as receiving water limitations (e.g., Basin Plan criteria as outlined below), waste load allocations (WLAs), and numeric water quality based effluent limitations (WQBELs). Specific efforts to provide permit conformance and reduce runoff and pollutant discharges to the maximum extent practicable (MEP) involve methods such as: (1) using jurisdictional planning efforts (e.g., discretionary general plan approvals) to provide water quality protection; (2) requiring coordination between individual jurisdictions to provide watershed-based water quality protection; (3) implementing appropriate BMPs, including low-impact design (LID) measures, to avoid, minimize, and/or mitigate effects such as increased erosion and off-site sediment transport (sedimentation), hydromodification[1] and the discharge of pollutants in urban runoff; and (4) using appropriate monitoring/assessment, reporting, and enforcement efforts to ensure proper implementation, documentation, and (as appropriate) modification of permit requirements. The City of Del Mar is a copermittee of the regional MS4 Permit and has implemented a number of regulations to ensure conformance with these requirements, as outlined below under local standards.

Porter-Cologne Water Quality Control Act

The Porter-Cologne Water Quality Control Act established the principal legal and regulatory framework for water quality control in California. This Act is embodied in the California Water Code, which authorizes the SWRCB to implement the provisions of the federal CWA as previously described.

The State of California is divided into nine regions governed by RWQCBs, which implement and enforce provisions of the California Water Code and the CWA under the oversight of the SWRCB. The City of Del Mar is located within the purview of the San Diego RWQCB (Region 9). The Porter-Cologne Act also provides for the development and periodic review of basin plans that designate beneficial uses for surface waters, groundwater basins and coastal waters, and establish water quality objectives for applicable waters as outlined below.

Water Quality Control Plan for the San Diego Basin

The Basin Plan is implemented pursuant to the Porter-Cologne Act (California Water Code, Division 7), which is the primary water quality control law for the State of California. As previously described under Beneficial Uses and Water Quality Objectives in Section 4.7.1, the Basin Plan includes a number of beneficial use designations and water quality objectives that provide direction and requirements related to water quality concerns and are used as part of the CWA Section 303(d) and TMDL process.

Local Standards

City of Del Mar Local Coastal Program Land Use Plan

The City of Del Mar's LCP is composed of the certified Land Use Plan (LUP) and Implementing Ordinances, including associated maps and exhibits, which have been certified by the CCC as being consistent with and meeting the requirements of the Coastal Act. The LCP LUP was certified by the

[1] Hydromodification is generally defined in the Municipal Permit as the change in natural watershed hydrologic processes and runoff characteristics (interception, infiltration and overland/groundwater flow) caused by urbanization or other land use changes that result in increased stream flows and sediment transport.

Coastal Commission in March 1993 and the Implementing Ordinances were certified in September 2001. The LCP includes policies for development within the BSC Overlay Zone (City Municipal Code Chapter 30.52) and within the Coastal Bluff Overlay Zone (City Municipal Code Chapter 30.55), which would be applicable to the proposed project. Amendments to the LCP and LUP were approved by the Del Mar City Council in October 2018 to clarify the City of Del Mar's desired adaptation approach for long-term resiliency. The LCP Amendments are currently in review with the CCC. The following LCP policies are applicable to this chapter of the EIR:

- Projects located within the Bluff, Slope and Canyon Overlay Zone shall be conditioned to ensure that runoff from constructed impervious surfaces shall be discharged directly into publicly-owned discharge and drainage systems;

- Proposed development within the Coastal Bluff Overlay Zone shall be sited and designed to avoid impacts from erosion hazards over the economic life of the development (minimum 75 years);

- A minimum 40-foot setback shall be provided between proposed development (including supporting structures and foundations) and a coastal bluff edge;

- No grading shall be allowed within 40 feet of the coastal bluff edge, except as necessary to control surface runoff. Grading or construction activities (on the face of the coastal bluff) shall only be permitted if approved as part of a Shoreline Protection Permit or Setback Seawall Permit;

- At-grade accessory structures that do not require foundations (such as fences, windscreens, and benches) may be set back a minimum of ten feet from a coastal bluff edge if constructed using lightweight materials and without the use of grading and/or continuous foundation components;

- All drainage from the impervious surfaces of the site shall be collected and appropriately discharged in a manner that will not contribute to further erosion of the coastal bluff or vulnerable slope. Drainage shall be conveyed away from any coastal bluff face, and where available, into existing developed storm drain systems capable of handling the drainage without adverse impacts to coastal bluffs. The responsibility for maintenance of drainage and erosion control facilities shall rest with the applicant unless such responsibility is assumed by another agency or party found acceptable by the Planning Director.

- Development shall not result in an increase in peak runoff from the site over the greatest discharge expected during a 10-year, 6-hour frequency storm. Runoff shall be accomplished by a variety of measures including, but not limited to, temporary and/or permanent on-site catchment basins, detention basins, siltation traps, energy dissipaters, and the installation of landscape material.

- All permits shall be subject to the submittal of a polluted runoff control plan;

- New development shall implement structural BMPs (e.g., silt traps, catch basins, oil/grit separators) and non-structural BMPs (e.g., street sweeping and cleaning program, low-maintenance landscape and pesticide management plan, solid waste management and public

education program) to minimize the discharge of pollutants from urban runoff into surface water drainage and maintain post-development peak runoff rate and average volume at levels that are similar to pre-development levels, as determined in the approved polluted runoff control plan;

- Projects involving grading shall be subject to the submittal of an erosion and sedimentation control plan which shall be subject to review and approval by the City of Del Mar Engineer;

- All erosion control measures shall be subject to detailed maintenance arrangements to ensure continued and effective erosion control;

- Cut and fill grading shall be designed to either limit runoff to a level which will be equal to or less than the natural flow expected prior to grading or construction activities, or to direct any increased flows to improved drainage facilities and/or natural drainage courses of adequate design and capacity to handle all discharge and anticipated flows; and

- For projects involving a total of more than 25 cubic yards of cut and/or fill grading operations, no grading shall occur November 15th to March 31st of any year.

City of Del Mar Stormwater Management and Discharge Control Ordinance

The purpose of the City of Del Mar's Stormwater Management and Discharge Control Ordinance (City Municipal Code Chapter 11.30) is to protect water resources and improve water quality by requiring management practices that would reduce the adverse effects of polluted runoff discharges to waters of the State. The following applicable requirements are contained in the ordinance:

- Prohibition of unauthorized non-stormwater discharges to the stormwater conveyance system;

- Minimum requirements for stormwater management, including source control requirements, to prevent and reduce pollution;

- Requirements for development project low impact site design, source controls, and pollution controls to reduce stormwater pollution and erosion;

- Requirements for the management of stormwater flows from development projects, both to prevent erosion and to protect and enhance existing water-dependent habitats; and

- Standards for the use of off-site facilities for stormwater management to supplement on-site practices at new development sites.

City of Del Mar BMP Design Manual

The City of Del Mar's BMP Design Manual (City 2016b) addresses updated on-site post-construction stormwater requirements for Standard Projects and Priority Development Projects (PDPs), and provides updated procedures for planning, preliminary design, selection, and design of permanent stormwater BMPs based on the performance standards presented in the MS4 Permit. The manual provides guidelines for preparation and review of SWMPs for to both private and public projects.

City of Del Mar Jurisdictional Runoff Management Plan

The MS4 Permit requires local jurisdictions to develop a Jurisdictional Runoff Management Plan (JRMP) to prioritize their individual water quality concerns and provides specific implementation strategies and schedules to address those priorities. The City of Del Mar's JRMP (2015) contains strategies, standards, and protocols aimed at preserving and improving water quality conditions in the San Dieguito and Los Peñasquitos WMAs, including where each watershed outlets to the Pacific Ocean. The JRMP designates the highest priority water quality condition for the San Dieguito WMA as indicator bacteria levels at beaches near the San Dieguito Lagoon mouth (City 2015).

4.7.3 Thresholds of Significance

The City of Del Mar relies on the thresholds of significance that are based on Appendix G of the 2019 State CEQA Guidelines. Impacts related to hydrology and water quality would be significant if implementation of the project would:

a) Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality;

b) Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin;

c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:

   i) result in substantial erosion or siltation on or off site;

   ii) substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site;

   iii) create or contribute runoff water which would exceed the capacity of existing or planned storm water drainage systems or provide substantial additional sources of polluted runoff; or

   iv) Impede or redirect flood flows.

d) In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation;

e) Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan.

4.7.4 Impact Analysis

a) Would the project violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?

Potential water quality impacts related to the proposed project are associated with both short-term construction activities and long-term operation and maintenance, as further discussed below.

Construction

Potential water quality impacts related to construction within the project site include erosion/sedimentation from clearing and grading, excavation, and stockpiling of construction-related soils and materials, the use and storage of construction-related hazardous materials (e.g., fuels, etc.), and generation of debris from demolition activities. Since project construction would result in the disturbance of approximately 13.35 acres, compliance with short-term construction stormwater requirements would be achieved by obtaining coverage under the NPDES General Permit for Discharges of Stormwater Associated with Construction Activity (Construction General Permit Order 2009-0009-DWQ, as amended), which requires the development and implementation of a SWPPP during construction.

Erosion/Sedimentation

Sediment that is washed off site into surface waters can smother aquatic organisms, alter the substrate and habitat, and alter the drainage course. Additionally, increased turbidity associated with erosion and sedimentation can degrade water quality by transporting pollutants, such as hydrocarbons, that adhere to sediment particles. These potential impacts would be addressed through conformance with requirements under the NPDES Construction General Permit, as well as City of Del Mar policies and regulations described above in Subsection 4.7.2, *Regulatory Framework*. While BMPs would be determined during the NPDES/SWPPP process, they would likely include standard industry measures and guidelines such as the following:

- Compliance with seasonal grading restrictions during the rainy season for applicable locations/conditions.

- Preparation and implementation of a CSMP to ensure appropriate monitoring, testing, BMP effectiveness, and conformance with applicable discharge requirements.

- Preparation and implementation of a REAP, if applicable (i.e., depending on risk level), to ensure that active construction areas/activities have adequate erosion and sediment controls in place within 48 hours of the onset of any likely precipitation event (i.e., 50 percent or greater probability of producing precipitation, per National Oceanic and Atmospheric Administration projections).

- Preservation of existing vegetation, where feasible, and use of phased grading schedules to limit the area subject to erosion at any given time.

- Proper management of storm water and non-storm water flows to minimize runoff.

- Use of erosion control/stabilizing measures such as geotextiles, mulching, mats, plastic sheets/tarps, fiber rolls, soil binders, compost blankets, soil roughening and/or temporary hydroseeding (or other plantings) established prior to October 1 in appropriate areas (e.g., disturbed areas and graded slopes).

- Use of sediment controls to protect the construction site perimeter and prevent off-site sediment transport, including measures such as temporary inlet filters, silt fence, fiber rolls, silt dikes, biofilter bags, gravel bag berms, compost bags/berms, temporary sediment basins, check dams, street sweeping/vacuuming, ATS (if applicable based on risk assessment), energy

dissipators, stabilized construction access points/sediment stockpiles, and properly fitted covers for sediment transport vehicles.

- Storage of BMP materials in applicable on-site areas to provide "standby" capacity adequate to provide complete protection of exposed areas and prevent off-site sediment transport.
- Provision of full erosion control for disturbed areas and material stockpiles not scheduled for additional activity for 14 or more consecutive calendar days.
- Provision of appropriate training, including emergency preparedness training, for the personnel responsible for BMP installation and maintenance.
- Use of solid waste management efforts such as proper containment and disposal of construction trash and debris.
- Compliance with local dust control requirements, potentially including measures such as regular watering, use of chemical palliatives, limiting construction vehicle/equipment speeds and restricting/precluding construction operations during periods of high wind speeds.
- Installation of permanent landscaping (if applicable), with emphasis on native and/or drought-tolerant varieties, as soon as feasible during or after construction.
- Hydroseeding on graded areas and slopes to reduce or eliminate sediment discharge.
- Implementation of appropriate monitoring and maintenance efforts (e.g., prior to and after storm events) to ensure proper BMP function and efficiency.
- Implementation of sampling/analysis, monitoring/reporting and post-construction management programs per NPDES requirements.
- Implementation of additional BMPs as necessary to ensure adequate erosion and sediment control (e.g., enhanced treatment and more detailed monitoring/reporting).

Hazardous Materials

Project construction would involve the on-site use and/or storage of hazardous materials such as fuels, lubricants, solvents, concrete, paint, and portable septic system wastes. The accidental discharge of such materials during project construction could potentially result in significant impacts if such materials reach downstream receiving waters, particularly materials such as septic system wastes that could increase bacteria levels at beaches near the San Dieguito Lagoon mouth. The City of Del Mar's requirements for storm water management and discharge control and the required SWPPP would prescribe project-specific detailed measures to avoid or minimize potential impacts related to the use and potential discharge of construction-related hazardous materials. These measures would likely include standard industry measures and guidelines such as the following:

- Minimization of the amount of hazardous materials on site and restrict storage/use locations to areas at least 50 feet from storm drains and surface waters.

- Use of raised (e.g., on pallets), covered, and/or enclosed storage facilities for all hazardous materials, and maintain accurate and up-to-date written inventories and labels.

- Use of berms, ditches, and/or impervious liners (or other applicable methods) in hazardous material storage and vehicle/equipment maintenance and fueling areas, to provide a containment volume of 1.5 times the volume of stored/used materials and prevent discharge in the event of a spill.

- Placement of warning signs in areas of hazardous material use or storage, and along drainages and storm drains (or other appropriate locations), to avoid inadvertent disposal.

- Proper maintenance of all construction equipment and vehicles.

- Restriction of paving operations during wet weather and use of appropriate sediment control devices downstream of paving activities.

- Proper containment and disposal of wastes and/or slurry from sources including concrete, dry wall, and paint, by using methods such as properly designed and contained washout areas/facilities.

- Provision of training for applicable employees in the proper use, handling, and disposal of hazardous materials, as well as appropriate action to take in the event of a spill.

- Storage of absorbent and clean-up materials in readily accessible on-site locations.

- Proper location and maintenance of portable wastewater facilities.

- Use of recycled or less hazardous materials wherever feasible.

- Posting of regulatory agency telephone numbers and a summary guide of clean-up procedures in a conspicuous on-site location.

- Regular monitoring and maintenance of hazardous material use/storage facilities and operations to ensure proper working order.

Demolition Debris

Demolition activities could generate variable amounts of construction debris, potentially including concrete, asphalt, glass, metal, drywall, paint, insulation, fabric, and wood. The introduction of demolition-related particulates or other pollutants into local drainages or storm drain systems could potentially result in water quality impacts. Project construction would be subject to a number of regulatory controls related to demolition, including NPDES/SWPPP requirements as previously described. While specific BMPs would be determined on a project-specific basis during the regulatory process, they would likely include the following types of standard measures (with BMPs generated during the SWPPP process taking priority over the more general types of standard measures listed below).

- Recycle appropriate (i.e., non-hazardous) construction debris for on- or off-site use whenever feasible.

- Provide proper on-site debris containment (e.g., in watertight dumpsters) and regular off-site disposal at an authorized facility.

- Use dust-control measures such as watering to reduce particulate generation for pertinent locations/activities (e.g., concrete removal).

- Use appropriate erosion prevention and sediment control measures downstream of all demolition activities.

Disposal of Extracted Groundwater

Groundwater conditions within the project site were evaluated by drilling seven exploratory borings to determine the depth of groundwater beneath the ground surface. Shallow groundwater is not expected to be encountered during project construction due to the depth of groundwater/seepage encountered between 70 and 90 feet below the existing ground surface (see Appendix F).

Operation

Peak flows would be accommodated by existing and proposed drainage infrastructure and future BMPs, including the existing curb inlet and storm drain pipes along Camino del Mar and a proposed 12-inch diameter storm drain beneath Camino del Mar that would divert most of the project-related runoff from North Beach to the Lagoon. Drainage improvements associated with future development within the project site would be required to be implemented to address 100-year peak flow attenuation, as well as source control, site design, and flow control BMPs so that increases in runoff would receive water quality treatment in accordance with water quality standards and waste discharge requirements.

The proposed project would result in an increase in hardscape and impervious surfaces compared to existing conditions, which are mostly undeveloped, and would increase the amount of runoff from the project site. The types of BMPs that would be required for future physical development within the project area pursuant to the Specific Plan are described below.

Source Control BMPs

Source control BMPs are intended to avoid or minimize the introduction of pollutants into storm drains and natural drainages by reducing on-site pollutant generation and off-site pollutant transport. Specific source control BMPs based on requirements in the City of Del Mar BMP Design Manual would be identified in a future SWMP that would be required prior to issuance of future City of Del Mar entitlement approvals. BMPs would include efforts such as storm drain stenciling or signage and protection of outdoor material and/or trash storage areas from rainfall, run-on, runoff, or wind dispersal. Source control BMPs would protect long-term water quality within and downstream from the project site by avoiding or minimizing pollutant generation and exposure to storm flows at the source.

Site Design BMPs

Site design BMPs are intended to avoid, minimize, and/or control post-development runoff, erosion potential, and pollutant generation through LID practices by maintaining or restoring the natural hydrologic regime. The LID process employs design practices and techniques to effectively capture, filter, store, evaporate, detain, and infiltrate runoff close to its source. Specific site design BMPs based on requirements in the City of Del Mar BMP Design Manual would be required as part of the project

SWMP. These strategies/measures would include efforts to minimize impervious area, minimize soil compaction, disperse impervious areas (e.g., by diverting runoff from roofs and sidewalks into landscaping prior to interception by catch basins), and use native and/or drought-tolerant landscaping. The future site design BMPs would help reduce long-term urban pollutant generation by minimizing runoff rates and amounts, retaining permeable areas, increasing on-site filtering, and reducing erosion/sedimentation potential.

Structural BMPs

The project involves new development in excess of 10,450 sf or more of impervious surfaces and would be considered by the City of Del Mar as a PDP. It would, therefore, be subject to additional requirements (i.e., pollutant control and hydromodification management requirements), as determined by the City of Del Mar during consideration of future discretionary approvals. All PDPs must implement structural BMPs for storm water pollutant control (see Chapter 5 of the City of Del Mar BMP Design Manual [2016]). PDP structural BMPs must be verified by the local jurisdiction at the completion of construction. This may include requiring the project owner or project owner's representative and engineer of record to certify construction of the structural BMPs (see Section 1.12 of the City of Del Mar BMP Design Manual [2016]). PDP structural BMPs must be maintained into perpetuity, and the local jurisdiction must confirm the maintenance (see Section 7 of the City of Del Mar BMP Design Manual [2016]).

Post-construction BMP Monitoring/Maintenance Schedules and Responsibilities

Identified BMPs, such as the biofiltration basins and signs/stencils, would require ongoing monitoring and maintenance. Pursuant to requirements in the City of Del Mar BMP Design Manual and the NPDES Municipal Permit, the Applicant would be required to provide documentation of maintenance for the structural post-construction BMPs on the project site to support the City of Del Mar's reporting requirements to the RWQCB. Additionally, as outlined in Chapter 7 of the City BMP Design Manual (2016), property owners are required to grant an easement to the City of Del Mar to allow for routine inspections to ensure BMPs are working properly.

Hydromodification

Future development within the project site would be subject to hydromodification management requirements. Therefore, a hydromodification management plan (HMP) would be required as part of subsequent entitlement applications to confirm that the proposed drainage system would have sufficient capacity to accommodate site drainage under developed conditions and would meet the requirements of the MS4 Permit.

Conclusion

Based on the mandatory regulatory requirements, including construction and post-construction BMPs, related maintenance efforts, and required conformance with City of Del Mar storm water standards and associated requirements (including the HMP requirements, the NPDES Construction General Permit, and the MS4 Permit), potential water quality impacts related to short-term construction and long-term operation and maintenance of the proposed project would be less than significant and no mitigation is required.

b) Would the project substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?

e) Would the project conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?

The project does not involve the use of groundwater resources and the resort would connect to the City of Del Mar municipal water supply system, which does not use groundwater as a source of potable water. Additionally, groundwater is not expected to be encountered during construction activities to construct the proposed parking garage as the ground surface borings during geotechnical investigations did not encounter groundwater/seepage or wet conditions until 70 to 90 feet below the ground surface (Geocon 2019).

While future development within the project site would result in an increase of impervious surfaces, groundwater recharge is not expected to be significantly affected. As described in Subsection 4.7.1, recharge of the nearby groundwater basin typically occurs from percolation of flows within the San Dieguito River, upstream from the project site. Additionally, infiltration of water into soils on the coastal terrace most likely would not affect aquifer volumes because of the proximity to the Pacific Ocean and the general groundwater flow in a westward direction. As such, future development within the project site would not significantly change groundwater quantities, result in substantial losses to groundwater recharge capability, or conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan. Impacts would be less than significant.

c) Would the project substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:

- ***i. result in substantial erosion or siltation on or off site;***
- ***ii. substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site;***
- ***iii. create or contribute runoff water which would exceed the capacity of existing or planned storm water drainage systems or provide substantial additional sources of polluted runoff; or***
- ***iv. Impede or redirect flood flows.***

Existing drainage that flows over the existing coastal bluff and into the Pacific Ocean has contributed to the existing erosion of the western- and southern-facing coastal bluffs. Future development would be required to include drainage improvements at the site, some of which are shown conceptually on Figure 3-12. As shown, drainage improvements would re-direct drainage away from the coastal bluff and into existing and proposed storm water improvements along Camino del Mar. While project implementation would alter drainage patterns, it would not include the alteration of a stream or river, nor would it increase erosion, siltation, or flooding conditions because drainage would be conveyed through storm drains beneath the project site and would not freely drain across the project site. Accordingly, potential impacts from project implementation related to drainage alteration would be less than significant and no mitigation measures are required.

d) In flood hazard, tsunami, or seiche zones, would the project risk release of pollutants due to project inundation?

The proposed project would primarily be located on the top of a coastal terrace, which range between about 65 and 80 feet amsl and is not located within a 100-year flood hazard area. The proposed lifeguard structure, public restrooms, a new access path, and a stairway are also not within a 100-year flood hazard area. Future flooding in the area would still flow to the Pacific Ocean and future development within the project site would not result in significant impacts related to placement of structures within a flood hazard area. While a portion of the Lazier property in the Lagoon is located in a 100-year flood hazard area and dam inundation area for Lake Hodges (see Figure 4.7-3), none of the resort uses or related structures would be placed within these areas as they would be located on a coastal terrace at least 65 feet amsl. As a result, flooding-related impacts, including a risk of releasing pollutants, would be less than significant.

Tsunamis (commonly referred to as tidal waves) are sea waves generated by sources such as underwater earthquakes or volcanic eruptions and can generate impacts related to inundation in coastal zones. While the project site is located adjacent to the Pacific Ocean, the majority is at an elevation of between approximately 65 and 80 feet amsl. The project site is not located within a mapped tsunami inundation area (California Emergency Management Agency 2009) and is not considered at risk of inundation by tsunami. The project site is located on the top of a bluff coastal terrace with no hillsides above it. As a result, impacts related to inundation by tsunami and an associated risk of releasing pollutants would be less than significant.

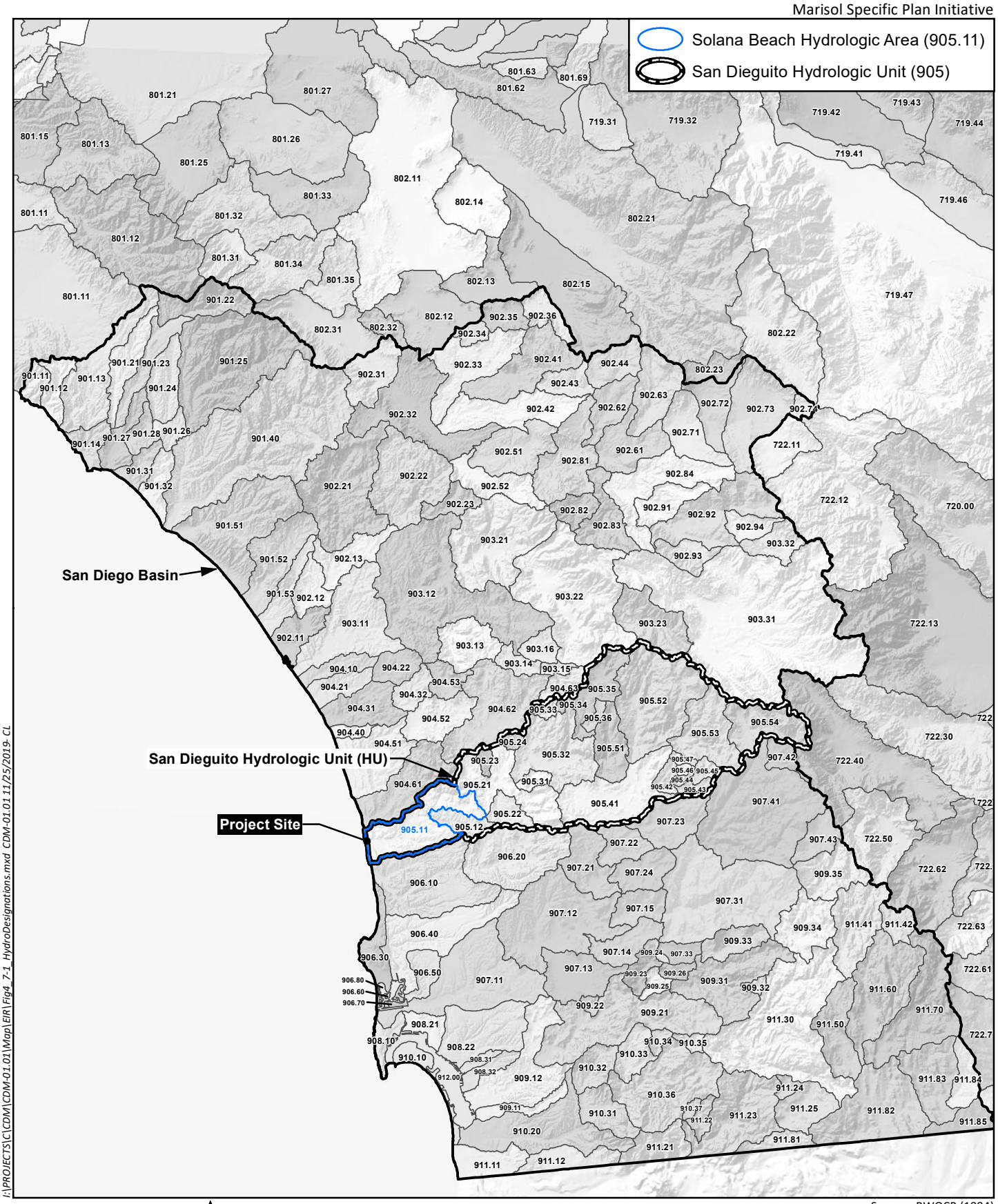
Seiches are defined as wave-like oscillatory movements in enclosed or semi-enclosed bodies of water, such as lakes or reservoirs, and are most typically associated with seismic activity. The potential for seiche-related hazards in the project site is considered low because it is not near an enclosed or semi-enclosed body of water, including Lake Hodges, which is about 10 miles northeast of the project site. Impacts associated with seiches and an associated release of pollutants would be less than significant.

4.7.5 Mitigation Measures

Impacts related to hydrology and water quality would be less than significant and no mitigation measures are required.

4.7.6 Level of Significance After Mitigation

No mitigation measures are required and impacts would be less than significant.



Source: RWQCB (1994)

HELIX Environmental Planning

Local Hydrologic Designations

Figure 4.7-1



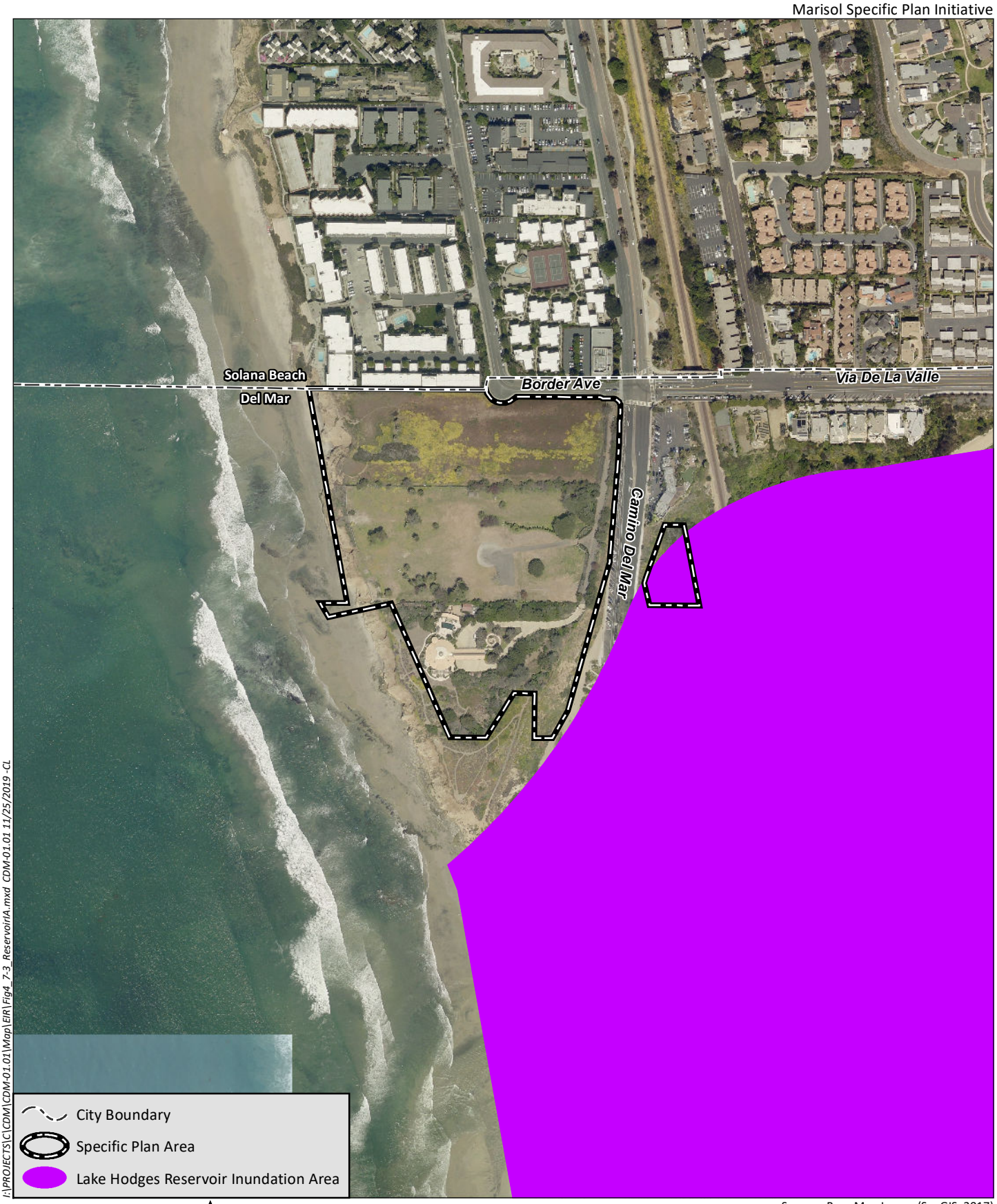
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Source: Base Map Layers (SanGIS, 2017)

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FEMA Flood Zones

Figure 4.7-2



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Source: Base Map Layers (SanGIS, 2017)

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Lake Hodges Reservoir Inundation Area

Figure 4.7-3

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4.8 LAND USE AND PLANNING

This subsection of the EIR includes a description of existing conditions, regulatory requirements, and potential impacts on land use associated with the proposed project. A summary of the project's consistency with applicable plans is included in this subsection and is based on Section 6 of the Specific Plan, *Land Use Consistency*, which details the Specific Plan's consistency with the City of Del Mar Community Plan, the California Coastal Act, the City of Del Mar Local Coastal Program (including the Implementing Ordinances and the Land Use Plan), and the City of Del Mar Climate Action Plan.

4.8.1 Existing Conditions

4.8.1.1 Project Site

The 17.45-acre project site consists of a large and mostly undeveloped private coastal terrace directly adjacent to and 65 to 80 feet above the Pacific Ocean. It comprises 16.55 acres of privately owned residential property and about 0.90 acre of public property. The privately owned portions of the project site are currently inaccessible to the public and are mostly disturbed due to past agricultural uses and residential development dating back to the early 20th century. There is one remaining single-family residence and associated guest house, pool, and pool house near the center of the project site. A driveway extends from the residence along the eastern property boundary and connects to Border Avenue just west of the intersection of Highway 101 (Camino del Mar) and Via De La Valle (Border Avenue). Also, a portion of one of the residential properties includes an area east of Camino del Mar within the San Dieguito Lagoon that is part of a protected area, to which access is restricted. The publicly owned areas include a coastal viewing access easement along the northern boundary of the project site and portions of the Camino del Mar right-of-way. Detailed parcel information is provided in Table 2-1, *Existing Site Configuration, Zoning, and Ownership*. The project site is currently zoned as R1-14 (Modified Low Density) and R1-40 (Very Low Density) within the privately owned parcels and coastal viewing access easement.

As the majority of project site is located on a coastal terrace within privately owned areas that are access-restricted, connections through the site are and have historically been unavailable since the site was subdivided and made private in the latter part of the 19th century. However, private areas in the northern part of the project site along Border Avenue are occasionally used for public/special event parking.

4.8.1.2 Surrounding Development

The project site is located in the northwestern portion of the City of Del Mar and is located adjacent to the City of Solana Beach to the north, the Pacific Ocean to the west, North Beach to the south, and commercial development, the Lagoon, and the State Fairgrounds to the east. Sidewalks line the northern and eastern project boundary along Border Avenue and Camino del Mar, respectively, and provide pedestrian and bicycle connections to North Beach and Solana Beach. Similarly, areas along the coast in North Beach, west and south of the project site, provide northerly pedestrian connections to beaches in Solana Beach. The site is somewhat separated from the rest of the City of Del Mar due to changes in elevation from the project site to areas to the west, south, and east, which reach 93 feet amsl and drop to sea level at North Beach; the location of the access-restricted Lagoon to the south and east of the project site; and the fact that most of the project site is privately owned and fenced. East-west and north-south connections around the site are also limited to the roadways of Via de la Valle

(Border Avenue) and Camino del Mar (Highway 101), respectively, and connections are otherwise precluded by topography or other impassable natural features. Specifically, east-west connections around the site are limited to along the Border Avenue roadway due to the location of the project site between the Pacific Ocean to the west and the Lagoon to the south and southeast. Similarly, the elevations of the project site and the Lagoon between the project site and the rest of the City limit north-south connections to within the Camino del Mar roadway, which includes a bridge that spans the Lagoon.

Areas further north in the City of Solana Beach (which begins north of the project site north of Border Avenue) are at similar elevations to the project area and are connected via South Sierra Avenue, which travels in a north-south direction, connecting the project site and the City of Solana Beach. As a result, residential and commercial areas of Solana Beach are closer to the project site and more accessible to residents in the City of Solana Beach compared to residences and commercial areas in the City of Del Mar. These areas just north of the project site in the City of Solana Beach consist of a mix of two- and three-story commercial and multi-family residential development on either side of South Sierra Avenue, including the Del Mar Beach Club, which is immediately adjacent and north of the project site. Multi-family residential development continues northward into the City of Solana Beach, west of Highway 101 in an area locally known as The Bluffs. This area is west of Highway 101 and mostly zoned as "High Residential (HR)" with a density of 13 to 20 dwelling units per acre (City of Solana Beach 2007). Single-family residential development in Solana Beach is located starting about one quarter-mile northeast of the project site and continues east of Highway 101.

Directly east of the project site and across Camino del Mar at the intersection with Via de la Valle is the Brigantine Restaurant, which is set-back from the intersection by a surface parking lot. Further east are the railroad tracks, which travel north to south and span the Lagoon, followed by land managed by the 22nd DAA, which operates the Del Mar Fairgrounds, its nearby equestrian facility (Horsepark), and the Del Mar Golf Center on behalf of the State of California. The Del Mar Fairgrounds, including its parking lots, is approximately 340 acres. The State Fairgrounds and Horsepark (which is in a separate location from the Del Mar Fairgrounds, approximately two miles east of the project site) accommodate approximately 350 events each year, including weddings, receptions, equestrian and other animal shows, concerts, craft shows, home shows, and other social and consumer events. Events and activities on the Del Mar Fairgrounds are sponsored by either the 22nd DAA, or companies and groups that rent or lease the facilities from them (Del Mar Fairgrounds 2018).

The area south of the project site includes North Beach and the confluence of the Lagoon and Pacific Ocean. This area consists of sandy beaches on either side of the mouth of the Lagoon. Further south of the Lagoon (about 700 feet) is a single-family residential area locally known as the Beach Colony. The Beach Colony generally includes the area west of the railroad track from 17th Street north to the Lagoon. The Beach Colony is separated from the project site by the Lagoon; however, sidewalks along Camino del Mar, including a bridge over the Lagoon, provide a connection to the project site. Pedestrians or bicyclists accessing the site from the Beach Colony or areas south of the site would use Camino del Mar and would climb approximately 65 feet in elevation to reach Border Avenue at the project site's northern boundary. The elevation change is minimal between Beach Colony and North Beach, with most of the elevation change occurring between North Beach and Border Avenue. There is no access to the project site from the south via the pedestrian path at the Preserve or from the east or west due to the drastic changes in elevation along the sides of the coastal bluff.

4.8.2 Regulatory Setting

4.8.2.1 Federal

Coastal Zone Management Act

The Coastal Zone Management Act of 1972 (CZMA; 16 U.S.C. 1451, et seq.) is the primary federal law enacted to preserve and protect coastal resources. The CZMA sets up a program under which coastal states are encouraged to develop coastal management programs. States with an approved coastal management plan are able to review federal permits and activities to determine whether they are consistent with the state's management plan. California has developed a coastal zone management program and has enacted its own law, the California Coastal Act, to protect the coastline. The California Coastal Act is described in further detail in Subsection *4.8.2.2*, below.

4.8.2.2 State and Regional

California Government Code, Section 65450 et seq.

California Government Code (Sections 65450–65457) governs the content and consistency of specific plans with the adopted general plan of the jurisdiction within which they are located. Specific plans are required to include text and a diagram(s) that include the following in detail: (1) the distribution, location, and extent of the uses of land, including open space, within the area covered by the plan; (2) the proposed distribution, location, and extent and intensity of major components of public and private transportation, sewage, water, drainage, solid waste disposal, energy, and other essential facilities proposed to be located within the area covered by the plan and needed to support the land uses described in the plan; (3) standards and criteria by which development will proceed and standards for the conservation, development, and utilization of natural resources, where applicable; and (4) a program of implementation measures including regulations, programs, public works projects, and financing measures necessary to carry out the above-mentioned details. In addition, a specific plan shall include a statement of the relationship of the specific plan to the general plan.

California Coastal Act

The California Coastal Act specifies California's coastal zone management program for purposes of complying with the Federal CZMA. The policies within Chapter 3 of the California Coastal Act include the protection and expansion of public access and recreation; the protection, enhancement, and restoration of environmentally sensitive areas; the protection of agricultural lands; the protection of scenic beauty; and the protection of property and life from coastal hazards. The CCC is responsible for implementation and oversight under the California Coastal Act. The California Coastal Act delegates power to local governments to enact their own LCPs. LCPs determine the short- and long-term use of coastal resources in their jurisdiction consistent with the California Coastal Act goals.

Senate Bill 375

SB 375, also known as the Sustainable Communities and Climate Protection Act of 2008, established Greenhouse Gas (GHG) emissions requirements for passenger vehicles and requires the California Air Resources Board (CARB) to set regional emissions reduction targets to meet the requirements. The emissions reduction targets must be met by each of the state's 18 metropolitan planning organizations for their respective region through the development of what is referred to as a sustainable communities

strategy (SCS), which focuses on the integration of transportation, land use, and housing policies to achieve the emissions reduction targets for their region. The San Diego Association of Governments (SANDAG) is the metropolitan planning organization for San Diego County. The SCS, adopted by SANDAG as part of the San Diego Forward: The Regional Plan (discussed below), demonstrates how development patterns and transportation networks, policies, and programs can work together to achieve GHG reduction targets for cars and light trucks in compliance with SB 375.

California Code of Regulations, Title 24, Noise Insulation Standards

The pertinent California noise regulations are contained in the California Code of Regulations. Title 24, Noise Insulation Standards, establishes the acceptable interior environmental noise level for multi-family dwellings at 45 dB CNEL. This may be extended by local legislative action to include single-family dwellings.

San Diego Forward: The Regional Plan

San Diego Forward: The Regional Plan (SANDAG 2015) is an update of the Regional Comprehensive Plan (RCP) for the San Diego Region and the 2050 Regional Transportation Plan/Sustainable Communities Strategy (2050 RTP/SCS) combined into one document. The Regional Plan provides a blueprint for San Diego's regional transportation system in order to effectively serve existing and projected workers and residents within the San Diego region. In addition to the RTP, the Regional Plan includes the SCS. The SCS aims to create sustainable, mixed-use communities conducive to public transit, walking, and biking by focusing future growth in the previously developed, western portion of the region along the major existing transit and transportation corridors. As described above, the purpose of the SCS is to help the San Diego region meet the GHG emissions reductions set by CARB pursuant to SB 375. The Regional Plan has a horizon year of 2050, and projects regional growth and the construction of transportation projects over this time period.

Regional Air Quality Strategy

The San Diego Air Pollution Control District (SDAPCD) and SANDAG are responsible for developing and implementing the clean air plan for attainment and maintenance of the ambient air quality standards in the SDAB. The San Diego County Regional Air Quality Strategy RAQS was updated most recently in 2016. The RAQS outlines SDAPCD's plans and control measures designed to attain the state air quality standards for ozone. The SDAPCD has also developed the air basin's input to the state implementation plan (SIP), which is required under the federal CAA for areas that are out of attainment of air quality standards. The SIP, approved by the United States Environmental Protection Agency (USEPA) in 1996, includes the SDAPCD's plans and control measures for attaining the ozone national standard.

The RAQS relies on information from CARB and SANDAG, including mobile and area source emissions, as well as information regarding projected growth in the County, to project future emissions and then determine from that the strategies necessary for the reduction of emissions through regulatory controls. The SIP relies on the same information from SANDAG to develop emission inventories and emission reduction strategies that are included in the attainment demonstration for the air basin. The SIP also includes rules and regulations that have been adopted by the SDAPCD to control emissions from stationary sources. These SIP-approved rules may be used as a guideline to determine whether a project's emissions would have the potential to conflict with the SIP and thereby hinder attainment of the national air quality standard for ozone.

Water Quality Control Plan for the San Diego Basin

The Regional Water Quality Control Board (RWQCB) adopted the Basin Plan in 1994 (updated in 2016) that recognizes and reflects regional differences in existing water quality, the beneficial uses of the region's ground and surface waters, and local water quality conditions and problems (RWQCB 1994). The Basin Plan is designed to preserve and enhance water quality and protect the beneficial uses of all regional waters.

4.8.2.3 Local

Del Mar is a coastal charter city. New development in the City of Del Mar is guided by the Community Plan, which serves as the City of Del Mar's General Plan as required by state law (California Government Code Section 65300), and by the Local Coastal Program (LCP). The City of Del Mar adopted the Community Plan in 1976 and updated the plan in 1985 and 2019. It provides citywide and area-specific goals and policies, which are implemented by the LCP and the regulations of the DMMC. The LCP is a compilation of goals, policies, and regulations to ensure that all land use and development activities in the City of Del Mar will be in conformance with the policies of the California Coastal Act, as amended. City of Del Mar plans, policies, and regulations that apply to the project site and surrounding area, including coastal resources are further discussed in the following sections.

Del Mar Community Plan

The Community Plan contains the community goals and policies designed to shape the long-term development of the City of Del Mar, as well as protect its environmental, social, cultural, and economic resources. The Del Mar Community Plan is comprised of the following ten elements required by State law: (1) Conservation; (2) Seismic Safety; (3) Open Space; (4) Safety; (5) Circulation; (6) Scenic Highways; (7) Noise; (8) Recreation; (9) Land Use; and (10) Housing. The ten elements within the Community Plan are generally grouped into three principal sections (Environmental Management, Transportation, and Community Development) and two stand alone elements for Recreation and Housing.

The Environmental Management section generally includes the Conservation, Open Space, and Safety Element policies. The section identifies, evaluates, and makes recommendations addressing the preservation of natural resources, the protection of areas and people susceptible to seismic and flooding hazards, and the preservation and enhancement of open space within the community. In 2019, the Safety Element was updated to meet State Law requirements related to climate change and sea level rise planning. The Transportation section generally includes the Circulation Element policies. The section evaluates and makes recommendations regarding design and improvements to various modes of transportation within and around the community, public coastal access, scenic highways, and noise. The City goals for transportation noise sources are published in the noise portion of the Transportation section (March 1976, revised 2002). This noise portion of the Transportation section identifies 65 CNEL as the maximum noise level compatible with residential land uses. Further, the Transportation section contains an objective to reduce the level of noise created by major transportation routes in the community, with an associated policy to encourage sound reduction techniques in new buildings within the 65 dBA boundaries adjacent to Camino del Mar and the railroad right-of-way. The Community Development section, updated in 1985, generally includes the Land Use Element policies. The section addresses land use, housing, and community character. The Recreation Element, adopted under separate cover in 1985, provides the goals, objectives, and policies guiding acquisition and development of parks and recreational facilities, as well as specific recommendations and programs for the

recreational resources within the City. A separate Housing Element was adopted by the Del Mar City Council on May 20, 2013 and certified by the California Department of Housing and Community Development on June 6, 2013. The Housing Element sets forth the City of Del Mar's goals, policies, and programs to address the City of Del Mar's housing needs from 2013 through 2021 (City 2013). The goals and policies relevant to the proposed project are included in the land use consistency discussion provided in Chapter 6 of the Specific Plan.

City of Del Mar Municipal Code and Zoning Ordinance

The Del Mar Municipal Code (DMMC) includes regulations to guide activities, including development, in the City. The DMMC consists of 17 titles, including regulations regarding health and sanitation, public utility and infrastructure requirements, building/construction, and zoning. The Zoning Ordinance (DMMC Title 30) reflects the policies and land use designations adopted by the City of Del Mar in the Del Mar Community Plan and serves as the primary implementation tool of the Community Plan. The Zoning Ordinance provides regulations to ensure orderly development of an appropriate and complete mix of land uses.

Whereas the Community Plan is a policy document and sets forth direction for development decisions, the Zoning Ordinance is a regulatory document that establishes specific standards for the use and development of all properties in the City of Del Mar. The Zoning Ordinance regulates development intensity using a variety of methods, including development standards (i.e., density, minimum lot dimensions, building heights and setbacks, floor area ratios, and maximum lot coverage), allowable primary and accessory uses within each zone, and building design standards. All development is subject to design review by the Design Review Board pursuant to the provisions of the Design Review Ordinance (DMMC Chapter 23.08) and Zoning Code. The existing zoning designations for the proposed project site include R1-40 (Very Low Density Residential) and R1-14 (Modified Low Density Residential).

Local Coastal Program

All properties within the City of Del Mar are located within the California Coastal Zone as defined in the California Coastal Act and are accordingly subject to the provisions of the certified Del Mar LCP. The LCP is composed of the certified Land Use Plan (LUP) and Implementing Ordinances, including associated maps and exhibits, which have been certified by the CCC as being consistent with and meeting the requirements of the Coastal Act. The LCP LUP was certified by the CCC in March 1993 and the Implementing Ordinances were certified in September 2001. This provided the City permit authority over coastal development within the City (City 1993; 2001).

The LCP is a compilation of the goals, policies, and recommendations adopted by the Del Mar City Council to guide future development as identified in the Community Plan; various policy reports; and the San Dieguito Lagoon Enhancement Program; as well as the implementing code regulations. The LCP addresses shoreline resources, hazards, and development policies and regulations, including the beach, coastal bluffs, runoff and erosion control, flood hazard areas, and coastal access.

Land use designations in the LCP LUP are identical to the designations adopted by the City of Del Mar's Community Plan and the zoning designations in the DMMC. The Implementing Ordinances consist of the following chapters of the Zoning Ordinance (Title 30 of the DMMC):

- Floodway Zone (Chapter 30.29)
- Beach Overlay Zone (Chapter 30.50)
- Setback Seawall Permits (Chapter 30.51)
- Shoreline Protection Permits (Chapter 30.50)
- Bluff, Slope and Canyon Overlay Zone (BSC-OZ) (Chapter 30.52)
- Lagoon Overlay Zone (Chapter 30.53)
- Coastal Bluff Overlay Zone (Chapter 30.55)
- Floodplain Overlay Zone (Chapter 30.56)
- Public Access (Chapter 30.61)
- Coastal Development Permits (Chapter 30.75)
- Parking (Chapter 30.80)

Compliance with the Zoning Ordinance constitutes compliance with the LCP. Development within the project site is subject to approval of a Coastal Development Permit (CDP) pursuant to DMMC Chapter 30.75. The project site is located between the ocean and the first public road and contains sensitive habitat or topography; thus, it is located in the CCC's appeal jurisdiction. This means that the City of Del Mar is the issuing authority for the permit and that an interested person or party could appeal the City of Del Mar's action on the CDP to the CCC.

Citizen Participation Program

The City of Del Mar instituted a Citizen Participation Program (CPP) within its Design Review Regulations (DMMC Chapter 23.08) in December 2010, and revised in November 2016, to ensure that applicants for projects requiring the receipt of a Design Review Permit conduct efforts to notify potentially affected parties of proposed developments early in the design phase of a project. The CPP is also intended to give the applicants and their agents the opportunity to understand and respond to concerns raised about the project's potential impacts on the community. The CPP is not intended to produce complete consensus on all applications, but to facilitate dialogue among applicants and neighbors early in the development review process. Completion of the CPP is not a prejudgment, commitment, or guarantee that an application for Design Review Permit will be approved with or without conditions. The requirement to implement a CPP applies to applications for Design Review Permits that involve one or more of the following:

1. Any new detached structure that would contain more than 500 square feet of bulk floor, as bulk floor area is measured pursuant to the DMMC;

2. Any addition of a second-story element to a one-story structure; or

3. Any project that, in the determination of the Planning Director, working in consultation with the Chairperson of the Design Review Board, holds the potential to cause adverse impacts on the surrounding neighborhood and therefore, warrants the implementation of a CPP.

When implementing a CPP, the applicant (or agent) must:

1. Hold two meetings with neighbors and interested parties prior to submittal of any Design Review Permit applications. The meetings shall consist of an *Introductory Meeting* to receive initial feedback and identify areas of potential concern from attendees, and a *Project Proposal Meeting*, which involves providing specific items (conceptual architectural plans, a photographic exhibit, 3-D modeling images of new buildings or proposed additions, and story poles) to help facilitate understanding of the project and development review processing.

2. Provide notice for CPP meetings. Notice for all CPP meetings shall be provided by the City to the owners and current residents of all properties within 300 feet of the potential project site. Notices must contain the purpose of the meeting; the project description; encouragement of recipients to participate; the date, time, and location of the meeting; and the property owner's name, mailing address, email address, and telephone number. Notices are required to contain the most recent preliminary project information, shall be mailed no less than 28 calendar days prior to the meeting date, and shall be posted on the potential development site and the City of Del Mar's website at least 28 days prior to a required CPP meeting. The DMMC contains specific parameters regarding meeting date/times, attendance, and individual meetings for those who are unable to attend required meetings.

Del Mar Climate Action Plan

The City of Del Mar's CAP provides a roadmap for the City of Del Mar to reduce GHG emissions and prepare for the effects of climate change (City 2016a). The CAP provides a "baseline" GHG emission inventory for 2012 and sets targets for reducing GHG emissions by 2020 and 2035. The CAP identifies reduction measures and strategies to meet the targets, formulates a long-range plan for implementation, and discusses ways the City of Del Mar needs to adapt to the effects of climate change already occurring or anticipated to occur, such as sea level rise and water supply shortages. The City is committed to reducing its GHG emissions by 15 percent below 2012 levels by 2020 and 50 percent below 2012 levels by 2035, consistent with AB 32 and the State's GHG emission reduction goals. Additional details regarding the City of Del Mar's CAP are provided in Subsection 4.6, *Greenhouse Gas Emissions*. As noted therein, the City of Del Mar's CAP is not a qualified GHG reduction plan and has not undergone CEQA review; thus, it is not considered part of the City of Del Mar's Community Plan or part of a regulatory program but serves as an "aspiration document" to guide future activities and development in Del Mar.

Sea Level Rise Adaptation Plan

The City of Del Mar adopted a Sea Level Rise Adaptation Plan (Adaptation Plan) in May 2018, which is intended to address coastal risks related to sea level rise that were identified in the Del Mar Coastal Hazards, Vulnerability, and Risk Assessment, prepared in 2016 with an Addendum in 2018, as accepted by the City Council in October 2018. Predictions used in the Adaptation Plan included low, mid, and high levels of sea level rise, which ranged from 2 to 12 inches in 2030, 5 to 24 inches in 2050, 8 to 38 inches in 2070, and 17 to 66 inches in 2100. Coastal areas in the City of Del Mar are currently estimated to have a 10 percent chance of flooding and damage similar to the winter storms that occurred in 2016 and a 1 percent chance of flooding and damage similar to the winter storms in 1983. Risk potential increases to 50 percent for impacts similar to the 2016 and 1983 storms once sea level rise exceeds 12 inches and 38 inches, respectively. Risk potential increases to 100 percent for impacts similar to the 2016 and 1983

storms once sea level rise exceeds 24 inches and 66 inches, respectively. As a result, the Adaptation Plan indicates that 2016- and 1983-like storms would have a 50 percent chance of occurring in any given year as soon as 2030 and prior to 2100. There is no certainty as to whether 2016- or 1983-like storms would occur on a yearly basis (100 percent) through 2100.

Adaption measures are typically categorized within the following three categories: (1) protection, such as seawalls, revetments, groins, and breakwaters; (2) accommodation, or designing/retrofitting development for sea level rise; and (3) retreat, including relocating existing development and restricting future development through minimum setback requirements. The Adaptation Plan identifies the City of Del Mar's favored adaptation approach, which is comprised of many subcomponents designed to work together. The Adaptation Plan evaluated planned retreat as a strategy for Del Mar in accordance with State guidance and concluded that planned retreat is not feasible and not as effective as the favored strategies and is not part of Del Mar's favored adaptation approach. Specific chapters of the Adaptation Plan are devoted to adaptation strategies for key areas in the City, including bluff and beach areas. Adaptation strategies for the bluff and beach areas include:

- Implement beach nourishment and sand retention to reduce wave runup onto and erosion of the bluff toe and prevent sand transport away from the beach;
- Implement BMPs (e.g., management of surface and subsurface drainage) to reduce bluff erosion, control surface runoff, and avoid concentrated flow down the bluffs;
- Revegetate/restore bluff vegetation on existing pathways and install new vertical crossings and pathways (e.g., stairways) to replace beach access via bluff-side pathways;
- Relocate the Los Angeles San Diego San Luis Obispo (LOSSAN) railroad track from the southern bluffs to an inland tunnel or other location to reduce risk of bluff erosion; and
- Protect, accommodate, or relocate vulnerable public buildings, utilities, and other infrastructure to reduce risk.

Multiple Species Conservation Plan

The MSCP is a comprehensive habitat-conservation planning program for southwestern San Diego County, prepared in conformance with the California Natural Community Conservation Planning Act (County of San Diego 1998). A primary goal of the MSCP is to establish a regional biological reserve system to protect native habitat and open space and protect biodiversity. The City of Del Mar is listed as a jurisdictional entity within the boundaries of the Final MSCP for the County of San Diego (1998). The City of Del Mar is in the process of developing an MSCP Subarea Plan, although no draft has been circulated to the public.

4.8.3 Thresholds of Significance

The City of Del Mar relies on the thresholds of significance that are based on Appendix G of the 2019 State CEQA Guidelines. A significant impact related to land use and planning would occur if the proposed project would:

a. Physically divide an established community; or

b. Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect.

4.8.4 Impact Analysis

a) Would the project physically divide an established community?

The physical division of an established community generally refers to activities that could isolate one part of a neighborhood from other areas that were previously accessible, making it more difficult for individuals to access services and public amenities, and disrupting existing and historic connections through an area. Such projects typically include construction of major roadways or other linear facilities, removal of bridges, or vacation of existing roadways; however, they can include a large development if it is situated between two areas that are currently or have historically been connected by roadways, bike paths, or pedestrian trails.

As stated earlier, access through the site is unavailable as it consists primarily of private property and access around the site is limited to adjacent roadways. The proposed project would result in the removal of on-site residential structures, grading and site preparation to construct a resort development, and the improvement of the site with resort development, including approximately 27 parking spaces that would be available to the public, and recreational benefits and improvements that would also be accessible by the public. As there is no public access through the project site currently, the future development of a resort would not restrict or impact existing connections in the area, which would continue to be provided along adjacent roadways around the project site. Future development of a resort would; however, include a paved public amenity trail around the perimeter of the privately-owned portions of the project site that would be accessible to the public and would create a north-south connection through the site that currently does not exist (see Figure 3-4 for a depiction of the proposed paved public amenity trail). As a result, the project would provide new connections between sidewalks along South Sierra Avenue in Solana Beach, to the proposed multi-purpose pedestrian loop path through the site, and eventually to the proposed bluff access stairway in the southeastern portion of the project site that would connect to North Beach. Benches with panoramic views of the coast and beaches would be established along the perimeter of the resort and would provide new public opportunities to enjoy coastal views. Also, the proposed paved public amenity trail would create a new pedestrian connection between the City of Del Mar and Solana Beach. No services in the area would be bisected and no businesses or other public amenities would be displaced. As a result, future development of the project would provide connections between Solana Beach and the City of Del Mar, as well as public parking opportunities. As a result, impacts related to physical divisions of an established community would not occur.

b) Would the project cause significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?

The evaluation of the proposed project as it relates to applicable planning and regulatory documents identified in Subsection 4.8.2 of this EIR is included below and represents a summary of the detailed consistency discussions contained in Specific Plan Chapter 6. From a land use and planning perspective, future development relies on two separate types of approvals, including an Initiative to be considered

by the voters of the City of Del Mar in March 2020, and the entitlement approvals to be considered by the City of Del Mar if the Initiative is successful.

The voters of the City of Del Mar will decide whether to approve the Specific Plan, which is comprised of the proposed amendments to the Del Mar Community Plan, Zoning Code, and LCP. The Specific Plan would replace the existing low density residential land use and zoning designations within the project area with a "Specific Plan" designation. This approval would change the rules for development within the private portions of the area pursuant to Chapters 3 and 4 of the Specific Plan to allow for resort development instead of low density residential development. Chapters 3 and 4 of the Specific Plan include land use regulations specifying the allowable temporary and permanent uses, as well as development standards and guidelines related to density, setbacks and buffers, building heights, floor area ratios, lot coverage, circulation and access, parking, open space, lighting, signage, and fencing within the private 16.55 acres of the 17.45-acre project area. Allowable uses that are proposed in the Specific Plan include hotel guest rooms, resort villas, restaurants and entertainment facilities open between 6:00 a.m. and 2:00 a.m., ancillary commercial retail uses, community space for community activities, special event space, special event gardens, lower-cost shared visitor-serving accommodations, affordable housing units, other uses consistent with the intent of purpose of the Specific Plan, and accessory uses and structures.

Proposed entitlement approvals that would be considered by the City upon application submittal if the Initiative is successful include a Coastal Development Permit, Subdivision Maps (tentative and final), Design Review Permit, Land Conservation Permit, Tree Removal Permit, Development Agreement, and Irrevocable Offers of Dedication (for the paved public amenity trail and parcel remnant east of Camino del Mar). The entitlement approvals would allow physical improvements and development within the project area, as shown in conceptual form on Figure 3-2 of this EIR, and as described in Chapter 3 of the Specific Plan. Chapter 3 of the Specific Plan includes the land use plan for the project, indicating generally what would be developed and where; public services and facilities plan; circulation and access plan; and development standards and allowable uses for the project.

A distinction is made between the Initiative and entitlement approvals because it is possible that the voters of the City of Del Mar could approve the Initiative, but the ultimate development within the project area may not be what is described in Chapter 3 of the Specific Plan or illustrated on Figure 3-2 of this EIR. In other words, the details of Chapter 3 of the Specific Plan may be modified in the future prior to physical development within the project area. In this case, subsequent environmental review of a new site plan may be required for future entitlement approvals that vary from the specific details identified in Chapter 3, but a legislative action by the City of Del Mar would not be required unless an amendment to the Specific Plan is also requested.

Consistency with Del Mar Community Plan, Municipal Code and Zoning Ordinance

A discussion of the Specific Plan Initiative's consistency with the Del Mar Community Plan is provided as Chapter 6 of the Specific Plan. As summarized therein, the Specific Plan incorporates land use designations, comprehensive development and design standards, and City review processes so that future development within the Specific Plan would comply with the applicable goals, objectives, and policies of each element of Community Plan. Chapter 3, *Land Use Plan and Development Standards*, of the Specific Plan contains the land use plan and development standards. Chapter 4, *Design Guidelines*, of the Specific Plan establishes the design guidelines to regulate land uses and development of the project

site. The development standards and design guidelines implement the vision and objectives of the Specific Plan while carrying out the goals and policies of the Del Mar Community Plan.

The Specific Plan Initiative would result in potential land use plan consistency impacts to on-site noise sensitive locations. On-site exterior noise levels from traffic and rail noise would result in potential consistency issues with the Del Mar Community Plan's established maximum noise level (65 CNEL). On-site interior noise levels within habitable rooms from traffic noise would result in potential consistency issues with the interior noise level standard of 45 dB CNEL.

On-Site Exterior Noise Levels from Traffic and Rail Noise

On-site noise-sensitive locations would be exposed to noise associated with area traffic and rail noise from the nearby rail line (which is located as close as approximately 280 feet east of the project site). Noise-sensitive uses associated with the project include habitable rooms for visitors and residents as well as outdoor recreation and relaxation areas. Potential traffic noise impacts to on-site noise-sensitive locations were assessed using the FHWA's TNM Version 2.5 (FHWA 2004). Potential on-site noise effects from the adjacent rail line were assessed using the Federal Rail Administration (FRA) CREATE rail noise model (spreadsheet by Harris, Miller, Miller and Hansen, 2006). The input parameters for the rail noise model impacts analysis were based upon the assumptions used for the analysis of the planned San Dieguito River Bridge Replacement, Double Track, and Del Mar Fairgrounds Special Events Platform Environmental Assessment (SANDAG 2014). Year 2030 (the worst-case) passenger and freight train operations were assessed for the project, in which a total of 71 daytime (7 a.m. to 10 p.m.) and 19 nighttime (10 p.m. to 7 a.m.) passenger rail operations per day would occur, and a total of 11 nighttime freight rail operations would occur. The other rail noise modeling parameters (as part of the input/output model spreadsheets) are included in the project Noise Analysis Technical Report (Dudek 2019e) provided in EIR Appendix G. A total of 32 receptors were modeled at the exterior walls of the resort guest rooms and at outdoor use areas exposed to rail and traffic noise (see Figure 4.8-1, *On-Site Noise Modeling Locations*). Table 4.8-1, *On-Site Future Plus Project Traffic Plus Rail Noise Levels (CNEL*), depicts modeled noise levels at the receivers at various floor levels.

Table 4.8-1
ON-SITE FUTURE PLUS PROJECT TRAFFIC PLUS RAIL NOISE LEVELS (CNEL)

Modeled Receiver and Proposed Land Use	Floor Level		
	1st Level	2nd Level	3rd Level
M3 – Low Cost Visitor Serving	**63**	**64**	N/A
M4– Low Cost Visitor Serving	**66**	**67**	N/A
M5– Low Cost Visitor Serving	**65**	**66**	N/A
M6 – Affordable Housing	**65**	**66**	N/A
M7– Affordable Housing	**63**	**65**	N/A
M8– Affordable Housing	**64**	**65**	N/A
M9 - Ballroom	**64**	**64**	N/A
M10 – Event/Meeting	**62**	**64**	**64**
M11 – Suite	60	**61**	**62**
M12 – Specialty Restaurant	60	**61**	**61**
M13 – Reception/Lobby	60	**61**	**61**
M14– Reception/Lobby	59	60	N/A
M15 – Bar/Lounge	59	60	N/A
M16 – Open Area	57	N/A	N/A

Table 4.8-1 (cont.)
ON-SITE FUTURE PLUS PROJECT TRAFFIC PLUS RAIL NOISE LEVELS (CNEL)

Modeled Receiver and Proposed Land Use	Floor Level		
	1st Level	2nd Level	3rd Level
M17 – Hotel Pool	57	N/A	N/A
M18 – Open Area	35	N/A	N/A
M19 - Villa	49	51	N/A
M20 – Villa Pool	38	N/A	N/A
M21 – Villa	51	51	52
M22 – Villa Pool	40	N/A	N/A
M23 - Villa	53	55	57
M24 – Villa Pool	45	N/A	N/A
M25 – Villa Pool	38	N/A	N/A
M26– Villa Pool	30	N/A	N/A
M27– Villa Pool	36	N/A	N/A
M28– Villa Pool	39	N/A	N/A
M29– Villa Pool	41	N/A	N/A
M30– Villa Pool	32	N/A	N/A
M31– Villa	57	58	59
M32– Villa	55	57	57
M33– Villa Pool	47	N/A	N/A
M34– Villa Pool	45	N/A	N/A

Source: Dudek 2019e
Notes:
N/A – Not applicable. No noise-sensitive receiver exists at this level.
Shaded numbers represent receiver locations exceeding 65 CNEL; these locations will require noise barriers to comply with the 65 CNEL noise standard for outdoor areas.
Bolded numbers represent receiver locations exceeding 60 CNEL; these guest rooms will require subsequent interior noise analysis to verify compliance with the 45 CNEL noise standard for habitable rooms.

As shown in Table 4.8-1, the results of the noise modeling indicate that on-site noise levels would range from approximately 30 CNEL (at receiver M26) to 67 CNEL (at receiver M4). At representative receivers M4, M5, and M6, traffic noise levels, when combined with rail noise, would exceed the City of Del Mar's exterior noise compatibility standard of 65 CNEL. At these receivers, which represent the façades in the resort's northeastern corner facing the rail line, the noise levels would be approximately 66 CNEL on the first-floor level at receiver M4 and the second-floor level at receivers M5 and M6 and approximately 67 CNEL at receiver M4 on the second-floor level. If usable private outdoor areas (i.e., patios or balconies) are constructed along the northern, eastern, or southern façades, traffic noise levels would exceed the City of Del Mar's exterior noise compatibility standard of 65 CNEL established by the Del Mar Community Plan, and a significant land use plan consistency impact would occur (Impact LU-1). Therefore, if usable private outdoor areas are constructed along the northern, eastern, or southern façades, MM LU-1 shall be implemented, which requires a noise barriers with a minimum height of 5 feet on balconies that have an unobstructed view of Camino del Mar.

On-Site Interior Noise Levels from Traffic Noise

The State of California requires that interior noise levels not exceed 45 CNEL or L_{DN} within the habitable rooms of residences, including transient residential lodging. A typical building shell provides approximately 15 dB of noise reduction with the windows open. Therefore, rooms exposed to exterior

noise levels greater than 60 CNEL could result in interior noise levels greater than 45 CNEL. As shown in Table 4.8-1, receivers M3 through M13, all of which were placed at proposed easterly-facing (i.e., northeast, southeast, or east) building facades with direct exposure to Camino del Mar (see Figure 4.8-1), would be exposed to exterior noise levels greater than 60 CNEL. Thus, interior noise levels within the habitable rooms at these locations could potentially exceed the 45 CNEL interior noise standard, resulting in an inconsistency with the standards established by the State of California and impacts would be potentially significant (Impact LU-2). Therefore, mitigation measure MM LU-2 is required, which requires heating, ventilation, and air conditioning (HVAC) and sound-rated windows if future interior noise analysis demonstrates that interior noise levels exceed the 45 CNEL interior standard.

As described above, the Zoning Ordinance (DMMC Title 30) reflects the policies and land use designations in Community Plan and serves as the primary implementation tool of the Community Plan. The development standards and regulations identified in the Specific Plan would serve as new zoning for the project area, supplanting and replacing those of the previously applied R1-14and R1-40 zoning districts of the DMMC. All future development would be subject to design review by the Design Review Board pursuant to the provisions of the Design Review Ordinance and Zoning Code. The Specific Plan will be referenced by Del Mar City staff, the Del Mar Design Review Board, Del Mar Planning Commission, and Del Mar City Council in the review and evaluation of development proposals within the Specific Plan Area. For each permit, unless otherwise identified in the Specific Plan, discretionary permit applications shall be reviewed for compliance with the pertinent standards of review contained in the corresponding chapters of the DMMC, as well as the City of Del Mar's Design Review Guidelines. Accordingly, the project would be consistent with the Community Plan, as well as the DMMC and Zoning Ordinance. Impacts would be less than significant.

Consistency with Coastal Zone Management Act, California Coastal Act, and Local Coastal Program

As described above, compliance with the CZMA and California Coastal Act is determined through the City of Del Mar's LCP process. To ensure development activity within the coastal zone complies with the California Coastal Act, projects are required to demonstrate compliance with the LCP policies and regulations. The Specific Plan provides a discussion of the project's consistency with the City of Del Mar's LCP LUP and Implementing Ordinances. As detailed in Chapter 6 of the Specific Plan, the Specific Plan would be consistent with the LCP LUP and Implementing Ordinances.

The proposed project would be consistent with the California Coastal Act's development policies to maximize opportunities for all segments of the population to gain access to and enjoy the coastline, protect scenic views and coastal resources, and to ensure that new development does not create or significantly contribute to erosion. Future development pursuant to the Specific Plan would result in an increase of public access to and within the project area, which is currently inaccessible by the public. The conceptual project site plan includes the provision of a paved public amenity trail (or loop trail), with "walk out" nodes and picnic areas, providing passive recreational opportunities and public access at the site. Visitors at the resort would also have access to the recreational opportunities at the site. Within the VSA land use designation, development standards and design guidelines refine the footprint and scale of permitted development. These standards and guidelines protect scenic views by clustering the highest structures (three-story) towards the middle of the project and require the development to be oriented and spaced so that buildings and open space areas maintain important vistas to the west, south, and east. The SSPA land use designation restricts encroachment within slope areas of the project site to

protect the integrity of the sloping topography and downstream resources from adverse impacts of erosion and sedimentation. The CBPA land use designation requires that new development address geologic stability over the life of resort development. The Specific Plan contains requirements for minimum setbacks from project boundaries. These setbacks include a minimum structure setback (as well as a sewer system setback) from the top of the coastal bluff to be the greater of 40 feet or in accordance with the minimum factor of safety as recommended by the geotechnical engineers. Additionally, no shoreline protection devices are permitted in the CBPA. No shoreline protection devices are proposed for the Specific Plan.

The LUP contains policies that generally address: maintaining the existing small-scale character of the community, protecting public views, minimizing disturbance of natural topography and vegetation, and providing walkable visitor-serving and recreation-oriented uses. The LUP permits one- and two-story, low intensity development of a maximum allowable height of 26 feet. The Specific Plan includes an amendment to the LUP to allow a maximum building height of 46 feet. The project includes the provision of a paved public amenity trail, as described above, which would provide walkable visitor-serving and recreation-oriented uses in compliance with the coastal access and recreational opportunity policies of the LUP. The paved public amenity trail would be accessible to the public, provide passive recreation opportunities, and allow pedestrians to circumnavigate the Specific Plan Area. The Specific Plan addresses hazard control policies of the LUP by implementing setbacks and a coastal bluff minimum buffer of 40 feet (or a setback in accordance with the factor of safety as recommended by geotechnical engineers) and incorporates adaptive design to ensure no future loss of coastal public access or recreation amenities. For example, the plans for trails and pathways demonstrate adaptive design as required by proximity to the coastal bluff by including adequate space to be moved back if necessary so that no public access would be lost due to sea level rise or bluff retreat in the future.

The Implementing Ordinances address appropriate collection and conveyance of runoff directly into publicly owned discharge and drainage systems, minimization of disturbance of natural landforms and habitat through clustered development, and submittal of erosion and sedimentation plans. The paved public amenity trail would be sited back from the bluffs at a sufficient distance to minimize alteration of natural landforms. New fences, windscreens, and benches would be set back a minimum of 10 feet from the top edge of the coastal bluff, and if these features are less than 40 feet from the top edge of the coastal bluff, they would be constructed using lightweight materials and without the use of grading to minimize the disturbance of natural landforms. Specific Plan areas to be retained in their natural state would be protected through the installation of protective fencing around such designated areas. Future development would be required to include the installation of drainage control measures to protect coastal bluff and steep slope areas from degradation and/or erosion. Grading for the Specific Plan is subject to the submittal of an erosion and sedimentation control plan for review and approval by the City of Del Mar City Engineer, to demonstrate that the Specific Plan would not result in an increase in peak runoff from the project site over the greatest discharge expected during a 10-year, 6-hour frequency storm. Runoff control for the Specific Plan could be accomplished by a variety of measures, including, but not limited to, on-site catchment basins, detention basins, siltation traps, energy dissipaters, and the installation of landscape material. These measures would be outside of the setback buffer from the top of the bluff.

The Implementing Ordinances require new development be set back from the bluff edge, and require all fences, windscreens, and benches be set back a minimum of 10 feet from the bluff edge. Future development would be required to demonstrate consistency with this policy. All new fences,

windscreens, and benches would be set back a minimum of 10 feet and buildings would be setback from the top of bluff a minimum of 40 feet.

Continuous public access trail easements and the improvements would be designed, constructed, maintained, and managed pursuant to the requirements of the CDP and the Implementing Ordinances. The conceptual design in the Specific Plan includes access to the adjacent Preserve and would not interfere with existing public access. The Specific Plan also includes beach amenities, including a public access stairway, public restrooms, and related facilities for resort, City of Del Mar, and public visitor services at North Beach. The project also includes the provision of a paved public amenity trail throughout the project site to provide public access for coastal viewing along the western bluffs and backcountry and Del Mar Fairgrounds viewing to the east. The paved public amenity trail would be dedicated to the City of Del Mar through an irrevocable offer of dedication to provide for public coastal access in perpetuity.

The Implementing Ordinances contain provisions that address the number, design, and location of required off-street parking spaces to ensure that adequate parking is provided on the site to protect otherwise available on-street parking for public coastal access. The Specific Plan identifies 408 off-street parking spaces with at least 27 of the off-street parking spaces available to the general public.

Based on the discussion above, the project would be consistent with the policies of the California Coastal Act, the LCP LUP, and Implementing Ordinances. Therefore, impacts related to potential conflicts with the CZMA, California Coastal Act, and LCP would be less than significant.

Consistency with SB 375 and the Del Mar Climate Action Plan

Table 4.6-8, *Project Consistency with the City of Del Mar CAP,* presents the project's consistency with the CAP. As detailed in therein, the project would be consistent with all of the applicable goals of the CAP. Impacts related to potential conflicts with the CAP would be less than significant.

Consistency with California Government Code, Section 65450 et seq.

The Specific Plan has been prepared in compliance with California Government Code Section 65450 et seq. It includes each of the required items listed in Subsection 4.8.2.2, above, and includes a statement of the relationship of the Specific Plan to the Del Mar Community Plan, consistent with California Government Code Section 65450 et seq. No impact would occur.

Consistency with San Diego Forward: The Regional Plan

Table 4.6-9, *San Diego Forward: The Regional Plan Consistency Analysis,* details the Specific Plan's consistency with applicable goals and policies of San Diego Forward: The Regional Plan and the SCS. As shown, the Specific Plan would be consistent with the policy objectives of the Regional Plan and the strategies outlined in the SCS and no impact would occur.

Consistency with Regional Air Quality Strategy

As described in Subsection 4.2.4 of this EIR under the significance threshold "a," the Specific Plan would change the designation of the site from R1-14 (Modified Low Density) and R1-40 (Very Low Density) to "Specific Plan" land use designations including Visitor-Serving Accommodations (VSA), Parkland/Passive Open Space (PPOS), Coastal Bluff Protection Area (CBPA), and Steep Slope Protection Area (SSPA). The

Visitor-Serving Accommodations (VSA) and Parkland/Passive Open Space (PPOS) designations would allow for more intensive uses than the current low- and very-low density residential land use designations, which would result in criteria pollutant emissions that would potentially exceed those assumed in the SIP and RAQS. The project is located within SRA 13. SANDAG's projections anticipated approximately 34,356 new residents in this SRA from 2012 through 2020 (SANDAG 2013). The addition of 199 new residents[1] to the SRA as a result of the project would be accommodated in the population forecast used to prepare the 2016 RAQS. As such, the project would not conflict with or obstruct implementation of the applicable air quality plan and impacts would be less than significant. Refer to Subsection 4.2, *Air Quality*, for additional discussion.

Consistency with Water Quality Control Plan for the San Diego Basin

Future development pursuant to the Specific Plan would be required to comply with all applicable City of Del Mar and related water quality standards and hydromodification management requirements, including preparation of an HMP. Conformance would be demonstrated through implementation of construction and post-construction BMPs, related maintenance efforts, and required conformance with City storm water standards and associated requirements (including the HMP requirements, the NPDES Construction General Permit, and the MS4 Permit). Compliance with the applicable permits, regulations, and standards would result in consistency with the Water Quality Control Plan for the San Diego Basin. Refer to Subsection 4.7, *Hydrology and Water Quality*.

Consistency with Del Mar's Sea Level Rise Adaptation Plan

As discussed above under the regulatory setting, the City of Del Mar's Adaptation Plan addresses potential coastal hazards including erosion, flooding, projected increases in frequency and intensity of storms, and projected sea level rise. The Adaptation Plan provides recommendations for future actions to respond to hazards and minimize risk. Specifically, the Adaptation Plan identifies the City of Del Mar's favored adaptation approach, which includes adaptation strategies for key areas in Del Mar, including bluff and beach areas. Adaptation strategies for bluff and beach areas of the City of Del Mar include beach nourishment and sand retention, BMPs to reduce bluff erosion and control surface runoff, revegetation and/or restoration of bluff vegetation on existing pathways and installing new pathways, and relocating the LOSSAN railroad track. The requirements set forth in the Specific Plan anticipate future sea level rise and bluff retreat projections through the use of the best available science, consistent with state guidance. Objectives of the Specific Plan include the preservation and protection of scenic coastal bluffs and steep slope areas from the adverse impacts of erosion and sedimentation by establishing land use designations that serve as buffers. The Specific Plan includes a CBPA land use designation, which serves to protect and preserve the scenic coastal bluffs and protect downstream resources from the adverse impacts of erosion and sedimentation.

The only disturbance allowed within the CBPA is the installation of drainage control measures to protect the coastal bluff area from degradation and/or erosion. These measures would be outside of the setback buffer from the top of the bluff. Grading for the Specific Plan is subject to the submittal of an erosion and sedimentation control plan for review and approval by the City of Del Mar City Engineer. Runoff control for the Specific Plan could be accomplished by a variety of measures, including, but not limited to, on-site catchment basins, detention basins, siltation traps, energy dissipaters, and the installation of landscape material. Erosion control measures would be subject to detailed maintenance agreements to

[1] The household size of the villas was assumed to be 2.02 persons consistent with the average household size in the City of Del Mar. Each workforce housing unit was assumed to have one resident.

ensure ongoing repair and maintenance of approved erosion control measures to ensure continued and effective erosion control. The Specific Plan incorporates a minimum setback buffer of 40 feet (or a setback distance in accordance with the factor of safety as recommended by the geotechnical engineers, whichever is greater) from the top of the bluff and utilizes an adaptive design approach to ensure no future loss of coastal public access or recreation amenities. For example, the plans for trails and pathways demonstrate adaptive design as required by proximity to the coastal bluff by including adequate space to be moved back if necessary, ensuring that no public access would be lost in light of sea level rise or bluff retreat. As it relates sea level rise, a majority of the project is located on a coastal terrace with elevations at least 65 feet amsl, which would not be exceeded by even the highest levels of sea level rise predictions in the Adaptation Plan, which are as high as 66 inches (or 5.5 feet) by 2100. As a result, recommendations related to sea level rise in the Adaptation Plan would not apply to future resort development. However, the southeastern portion of the project site, which would include a public access stairway and permanent restrooms to replace the temporary restrooms currently in place, is located adjacent to the Pacific Ocean and would be subjected to inundation and flooding related to sea level rise. These improvements would be relatively minor in scale, as they would not involve habitable buildings or major earthwork activities to construct. Also, most of these improvements would replace existing improvements in the area, like replacing restrooms in North Beach, and would not create new or increased risks related to sea level rise.

4.8.5 Mitigation Measures

MM LU-1: Compliance with Exterior Noise Standards. Prior to the issuance of occupancy permits, if designed with usable outdoor patio or balcony areas, the rooms in the northeastern-most portion of the project site with a direct, unobstructed view of Camino del Mar would require a noise barrier with a minimum height of 5 feet, as measured from the floor of each patio or balcony, in order to meet the City of Del Mar's noise exterior noise compatibility standard of 65 CNEL. The noise barrier may be constructed of a material such as tempered glass, acrylic glass (or similar material), masonry material, or manufactured lumber (or a combination of these), with a surface density of at least three pounds per square foot. The noise barrier should have no openings or cracks.

MM LU-2: Compliance with Interior Noise Standards. Prior to the issuance of occupancy permits, an interior noise analysis shall be required for the proposed dwelling units. Installation of additional systems (e.g., HVAC and sound-rated windows) shall be required if the interior noise analysis shows that impacts would be above the State of California 45 CNEL interior standard. The interior noise analysis shall substantiate that the resulting interior noise levels will be less than the noise standard.

4.8.6 Level of Significance After Mitigation

With implementation of the proposed mitigation measures MM LU-1 and LU-2 potential impacts to land use and planning would be reduced to less than significant. No significant and unavoidable impacts to land use and planning would occur.



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Source: DUDEK 2019

HELIX Environmental Planning

On-Site Noise Modeling Locations

Figure 4.8-1

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4.9 NOISE AND VIBRATION

This subsection includes a description of existing conditions, regulatory requirements, and potential impacts associated with the proposed project on noise and vibration. The technical information in this subsection is based on a Noise Analysis Technical Report prepared by Dudek in November 2019 (2019e). This technical report, including methodologies used and citations and references relied upon, is included as Appendix G of this EIR.

4.9.1 Existing Conditions

4.9.1.1 Noise Concepts

Noise is generally defined as loud, unexpected, or unwanted sound typically associated with human activity. Sound becomes unwanted when it interferes with normal activities, when it causes actual physical harm, or when it has adverse effects on health. The definition of noise as unwanted sound implies that it has an adverse effect on people and their environment. Sound is measured in terms of intensity, which describes the sound's loudness and is measured in decibels (dB), frequency or pitch measured in cycles per second or hertz, and duration of sound. Sound is composed of various frequencies; however, the human ear does not respond to all frequencies, being less sensitive to very low and high frequencies than to medium frequencies that correspond with human speech. Sound-level meters adjust for the weight the human ear gives to certain frequencies, applying a correction to each frequency range to approximate the human ear's sensitivity within each range. This is called "A - weighting" and is commonly used in measurements of community environmental noise. The A-weighted sound level (dBA) is determined to be the most appropriate unit of measure for community noise.

The unit of measure for the cumulative effect of community noise is the community noise equivalent level (CNEL), which is the average noise level for a 24-hour period. The CNEL noise metric (similar to the L_{DN}, or level day-night noise metric) is often used to describe the relationship of a continuous noise source, such as traffic, to the desirable ambient noise level (normal and existing noise level). The CNEL is adjusted to reflect greater sensitivity to noise during evening and nighttime hours, with a 5-dBA penalty assigned to noise between 7:00 p.m. and 10:00 p.m., and a 10-dBA penalty assigned to noise between 10:00 p.m. and 7:00 a.m. The L_{DN} noise metric also uses a penalty of 10 dBA for noise occurring between 10:00 p.m. and 7:00 a.m., but no penalty is applied between 7:00 p.m. and 10:00 p.m. The functional difference between the CNEL and L_{DN} metrics is typically minimal (on the order of 0.2 dB or less), and thus the two are often used interchangeably.

Due to fluctuations in community noise over time, a single measurement called the equivalent sound level (L_{EQ}) is often used to describe the time-varying character of community noise. The L_{EQ} is the energy-averaged A-weighted sound level during a measured time interval, and it is equal to the level of a continuous, steady sound containing the same total acoustical energy over the averaging time period as the actual time-varying sound.

To respond to the human ear's sensitivity to sound, the range of audible sounds exists on a logarithmic scale that takes into account the large differences in audible sound intensities. On this scale, for example, a 10-dBA increase is typically perceived as a doubling of sound. A sound level of 0 dBA is approximately the threshold of human hearing. Normal speech has a sound level of approximately 60 dBA. Sound levels louder than approximately 120 dB begin to be felt inside the human ear as discomfort and eventually as pain at slightly higher levels. The minimum change in the sound level of

individual events that an average human ear can detect in the community environment (i.e., outside of a controlled listening room) is approximately 3 dBA.

There are three conceptual components to noise: the source, the transmission path, and the receiver. Noise can be reduced by reducing noise at its source; by lengthening or interrupting the transmission path through diversion, absorption, or dissipation; or by protecting the receiver through noise insulation. The most efficient and effective means of abating noise is to reduce noise at its source. Source noise can be controlled through regulation, such as following restrictions outlined in noise ordinances; muffling techniques; or sound proofing. The transmission path can be interrupted through creation of a buffer between the source and the receiver, such as a noise wall, earth embankment, or a building. The receiver can be protected from noise impacts through insulation, building orientation, or shielded areas.

Noise sources can be classified in two forms: point sources, such as individual pieces of stationary or mobile equipment (pumps, heavy construction equipment), and line sources, such as a roadway with a large number of pass-by sources (motor vehicles). Sound generated by a point source typically diminishes (attenuates) at a rate of 6 dBA for each doubling of distance from the source to the receptor. For example, a 60-dBA noise level measured at 50 feet from a point source would be 54 dBA at 100 feet from the source and 48 dBA at 200 feet from the source. Sound generated by a line source typically attenuates at a rate of 3 dBA and 4.5 dBA per doubling of distance from the source to the receptor for hard and soft sites[1], respectively. Typical sound levels generated by various activities are listed in Table 4.9-1, *Typical Sound Levels*.

Sound levels can also be attenuated by built or natural barriers. Intervening noise barriers, such as a solid wall or berm, typically reduce noise levels by 5 dBA to 10 dBA. Structures can also provide noise reduction by insulating interior spaces from outdoor noise. The exterior-to-interior noise attenuation provided by typical California building structures ranges from 15 dBA to 25 dBA for windows open and closed, respectively. Acoustically designed enclosures and buildings can provide up to approximately 50 dBA of noise reduction, depending on the noise abatement treatments.

4.9.1.2 Vibration Concepts

Vibration tolerance typically depends on the type of structures that are affected. Structural response to vibration is typically evaluated in terms of peak particle velocity (PPV). PPV is often used since it is related to the stresses that are experienced by the buildings. Various general standards are contained in the International Standards Organization's standards 3945, 4866, and 7626-1. Limits set by these standards indicate a low probability of structural damage occurring to common structures at a PPV of 2 inches per second (IPS). Older (and non-reinforced) masonry structures have a limit of 0.75 IPS to 1.0 IPS (Caltrans 2013). The Federal Transit Administration (FTA) identifies a vibration damage threshold criterion of 0.20 IPS for non-engineered timber and masonry buildings (i.e., fragile buildings) and 0.12 IPS for buildings extremely susceptible to vibration (i.e., fragile historic buildings; FTA 2018).

[1] Hard site conditions consist of concrete, asphalt, and hard pack dirt while soft site conditions exist in areas having slight grade changes, landscaped areas, and vegetation.

Table 4.9-1
TYPICAL SOUND LEVELS

Common Outdoor Activities	Noise Level (dBA)	Common Indoor Activities
	110	Rock band
Jet fly-over at 1,000 feet	100	
Gas lawnmower at 3 feet	90	
Diesel truck at 50 feet at 50 miles per hour	80	Food blender at 3 feet/Garbage disposal at 3 feet
Noisy urban area, daytime/ Gas lawn mower, 100 feet	70	Vacuum cleaner at 10 feet
Commercial area/ Heavy traffic at 300 feet	60	Normal speech at 3 feet
Quiet urban daytime	50	Large business office/ Dishwasher next room
Quiet urban nighttime	40	Theater, large conference room (background)
Quiet suburban nighttime	30	Library
Quiet rural nighttime	20	Bedroom at night, concert hall (background)
	10	Broadcast/recording studio
	0	Lowest threshold of human hearing

Source: Caltrans 2009

4.9.1.3 Noise Environment

A noise survey was conducted on October 30, 2017 to establish existing ambient noise levels at the project site and in surrounding areas. Short-term noise levels were measured at four locations in the vicinity of the proposed project, as shown in Figure 4.9-1, *Existing Noise Measurement and Off-Site Modeling Locations.* As shown, noise measurements were taken in the southern part of the project site (Site ID ST1) and within nearby residential areas north, east, and south of the project site (Site IDs ST2, ST3, and ST4). Two additional locations were modeled based on a computer analysis only, located just north of the project site along Border Avenue and South Sierra Avenue (Site IDs M1 and M2).

During the field measurements, physical observations of the predominant noise sources were noted. The major noise source in the project area was vehicle traffic. Other secondary noise sources included ocean waves, rustling leaves, birds, distant aircraft overflights, and other community activities. The results of the noise level measurements are summarized in Table 4.9-2, *Short-Term Sound Level Measurement Results*. As shown in Table 4.9-2, measured noise levels ranged from 59 dBA L_{EQ} at ST2 to 68 dBA L_{EQ} at ST3 when rounded to whole numbers, as is customary for community noise measurements. Noise levels that were modeled only (Site IDs M1 and M2) were estimated at 59 dBA L_{EQ} and 62 dBA L_{EQ}, respectively. The nearest noise and vibration sensitive land uses are the multi-family residences located immediately north of the project site within the City of Solana Beach and the Preserve south of the project site.

Table 4.9-2
SHORT-TERM SOUND LEVEL MEASUREMENT RESULTS

Site ID	Measurement Location	Measurement Period			Noise Sources	Measurement Results (dBA)					
		Date	Start Time	Duration (minutes)		L_{EQ}	L_{MAX}	L_{MIN}	L_{90}	L_{50}	L_{10}
ST1	Southeastern part of project site	10/30/17	12:14	15	Traffic, birds, distant aircraft, distant gardener/ landscape noise	59.8	69.3	50.3	53.5	58.8	62.7
ST2	2722 Camino del Mar, Del Mar, CA 92014	10/30/17	11:49	15	Traffic, water, hose, power drill, birds, distant aircraft, distant conversations	58.7	68.9	48.1	50.6	56.0	62.7
ST3	160 Via de la Valle, Solana Beach, CA 92075	10/30/17	13:01	15	Traffic, birds, distant aircraft, distant conversation/ yelling, distant traffic	67.5	75.8	50.0	55.9	65.6	71.5
ST4	777 Highway 101, Solana Beach, CA 92075	10/30/17	12:41	15	Traffic, birds, distant aircraft, distant conversation/ yelling, distant traffic	66.5	74.8	49.6	57.2	65.4	69.5

Source: Dudek 2019e
L_{EQ} = equivalent continuous sound level (energy-averaged sound level); L_{MAX} = maximum sound level during the measurement interval; L_{MIN} = minimum sound level during the measurement interval; L_{90} = sound level exceeded for 90% of the measurement interval; L_{50} = sound level exceeded for 50% of the measurement interval; L_{10} = sound level exceeded for 10% of the measurement interval.

4.9.2 Regulatory Setting

4.9.2.1 Federal

Noise Control Act

The Noise Control Act of 1972 recognized the role of the federal government in dealing with major commercial noise sources that require uniform treatment. Since Congress has the authority to regulate interstate and foreign commerce, regulation of noise generated by such commerce also falls under congressional authority. The federal government specifically preempts local control of noise from aircraft, railroads, and interstate highways. The U.S. Environmental Protection Agency has identified acceptable noise levels for various land uses to protect the public, with an adequate margin of safety, and to establish noise emissions standards for interstate commerce.

The Department of Housing and Urban Development's (HUD) standards define L_{DN} at below 65 dBA for outdoors as acceptable for residential areas. Outdoor levels up to 75 dBA L_{DN} may be made acceptable through the use of insulation in buildings (HUD 2009).

4.9.2.2 State

California Code of Regulations, Title 24, Noise Insulation Standards

The pertinent California noise regulations are contained in the California Code of Regulations. Title 24, Noise Insulation Standards, establishes the acceptable interior environmental noise level for multi-family dwellings at 45 dBA L_{DN}. This may be extended by local legislative action to include single-family dwellings.

California Code of Regulations, Section 65302(f)

California Code of Regulations, Section 65302(f), requires local land use planning jurisdictions to prepare a general plan. The noise element is a mandatory component of the general plan. It may include general community noise guidelines developed by the California Department of Health Services and specific planning guidelines for noise/land use compatibility developed by the local jurisdiction. The state guidelines also recommend that the local jurisdiction consider adopting a local noise control ordinance. The California Department of Health Services developed guidelines (OPR 2003) for community noise acceptability for use by local agencies. Selected relevant levels are as follows (L_{DN} may be considered nearly equal to CNEL):

- CNEL below 60 dBA – normally acceptable for low-density residential use
- CNEL of 55 dBA to 70 dBA – conditionally acceptable for low-density residential use
- CNEL below 65 dBA – normally acceptable for high-density residential use
- CNEL of 60 to 70 dBA – conditionally acceptable for high-density residential use, transient lodging, churches, and educational and medical facilities
- CNEL below 70 dBA – normally acceptable for playgrounds and neighborhood parks

"Normally acceptable" is defined as satisfactory for the specified land use, assuming that normal conventional construction is used in buildings. "Conditionally acceptable" may require some additional noise attenuation or special study. Under most of these land use categories, overlapping ranges of acceptability and conditionally acceptable are presented, leaving some ambiguity in areas where noise levels fall within the overlapping range.

California Occupational Health and Safety Administration Occupational Noise Exposure Regulations

California additionally regulates noise emissions levels of licensed motor vehicles traveling on public thoroughfares, sets noise emissions limits for certain off-road vehicles and watercraft, and sets required sound levels for light-rail-transit vehicle warning signals. The extensive state regulations pertaining to worker noise exposure are, for the most part, applicable only to the construction phase of any project, or workers in a central plant and/or a maintenance facility or involved in the use of landscape maintenance equipment or heavy machinery.

4.9.2.3 Local

City of Del Mar

City of Del Mar Community Plan

The City goals for transportation noise sources are published in the Community Plan Transportation Element, Noise Section (March 1976, revised 2002). The section of the Community Plan identifies 65 CNEL as the maximum noise level compatible with residential land uses. The Community Plan has no transportation noise source requirements applicable to compatibility with commercial and retail uses.

Objective D: Reduce the level of noise created by major transportation routes in the community.

Policy 1: Limit the speed of vehicular traffic along City streets, particularly Camino del Mar.

Policy 2: Encourage sound reduction techniques in new buildings within the 65 decibel boundaries adjacent to Camino del Mar and the railroad right-of-way (City 1985).

City of Del Mar Noise Ordinance

Chapter 9.20.040 Sound Level Limits

A. Unless otherwise specified, it shall be unlawful for any person(s) to cause noise by any means to the extent that the one-hour average sound level exceeds the applicable limit given in the following table (Table 4.9-3, *Applicable City of Del Mar Noise Ordinance Limits*) at any location in the City of Del Mar beyond the premises on which the noise is produced, as measured pursuant to the provisions of this Chapter. The noise subject to these limits is that part of the total noise at the specified location that is due solely to the action of said person(s).

Table 4.9-3
APPLICABLE CITY OF DEL MAR NOISE ORDINANCE LIMITS

Property Receiving Noise	Time of Day	1-Hour Average Sound Level (dBA)
1. R1-5, R1-5B, R1-10, R1-10B, R-2, R1-14, R1-40, RM-East, RM-West, RM-Central, RM-South, OS Overlay	7:00 a.m. to 10:00 p.m.	50
	10:00 p.m. to 7:00 a.m.	40
2. NC, RC, CC, PC, BC, VC	7:00 a.m. to 10:00 p.m.	60
	10:00 p.m. to 7:00 a.m.	50
3. RR	7:00 a.m. to 10:00 p.m.	60
	10:00 p.m. to 7:00 a.m.	55

Source: City 1997

B. The noise limits specified in Subsection A. above shall be adjusted as follows to account for the effects of time and duration on the impact of noise levels:

   a. Noise that is produced for no more than a cumulative period of 30 minutes in any hour may exceed the noise limit by three decibels.

b. Noise that is produced for no more than a cumulative period of 15 minutes in any hour may exceed the noise limit by six decibels.

c. Noise that is produced for no more than a cumulative period of ten minutes in any hour may exceed the noise limit by 11 decibels.

d. Noise that is produced for no more than a cumulative period of two minutes in any hour may exceed the noise limit by 15 decibels.

C. For purposes of this chapter, the peak decibel reading for a noise with a fluctuating noise level (such as live or recorded music) shall be considered as the noise level for the entire cumulative period of noise. Likewise, the time between repetitive intermittent noises (such as banging, pounding, or hammering) shall be included in the cumulative of the noise.

D. If the measured ambient level exceeds the applicable limit noted above, the allowable one-hour average sound level shall be the ambient noise level.

E. The sound level limit at a location on a boundary between two zoning districts is the arithmetic mean of the respective limits of the two districts.

F. Fixed-location public utility distribution or transmission facilities located on or adjacent to a property line shall be subject to the noise level limits of this Chapter, measured at or beyond six feet from the boundary of the easement upon which the equipment is located.

Chapter 9.20.050 Construction Noise

Any person who operates powered construction or landscape equipment and/or who erects, constructs, demolishes, excavates for, alters or repairs any building or structure within the City of Del Mar in such a manner as to cause noise to be received beyond the boundaries of the property on which the construction work is occurring shall comply with the following:

A. No construction work shall be performed on Sundays or City holidays.

B. No construction work shall be performed before 9:00 a.m. or after 7:00 p.m. on Saturday.

C. No construction work shall be performed before 7:00 a.m. or after 7:00 p.m. on Monday through Friday.

D. Construction activity shall not cause an hourly average sound level greater than 75 decibels on property zoned or used for residential purposes.

E. Exception: A person may perform construction work on the person's own property, provided such construction activity is not carried on for profit or livelihood, between the hours of 10:00 a.m. and 5:00 p.m. on Sundays and City holidays (City 1997).

Chapter 9.20.090 Public Nuisance Noise

A. It shall be unlawful for any person to make, continue or cause to be made or continued, within the limits of the City of Del Mar, any disturbing, excessive or offensive noise which causes discomfort or annoyance to any reasonable persons of normal sensitivity residing in the area.

B. In the absence of objective measurement by use of a sound level meter, the characteristics and conditions which shall be considered in determining whether a violation of the provisions of this Section exists shall include any or all of the following: (1) the level of noise; (2) whether the nature of the noise is usual or unusual; (3) whether the origin of the noise is natural or unnatural; (4) the level of the ambient noise; (5) the proximity of the noise to sleeping facilities; (6) the nature and zoning of the area from which the noise emanates and the area where it is received; (7) the time of day or night the noise occurs; (8) the duration of the noise; or (9) whether the noise is recurrent, intermittent, or constant.

C. Identified Excessive Noises. The following activities, among others, are declared to cause disturbing, excessive, or offensive noises in violation of this Section but said enumeration shall not be deemed to be exclusive, namely: (1) *Horns, Signaling Devices, etc.* Unnecessary use or operation of horns, signaling devices, etc. on automobiles, motorcycles, or any other vehicle; (2) *Radios, Television Sets, Phonographs, Loud Speaking Amplifiers and Similar Devices*.

    a. *Uses Restricted*. The use, operation or permitting to be played, used, or operated, any sound production or reproduction device, radio, receiving set, musical instrument, drums, phonograph, television set, loud speakers and sound amplifiers or other machine or device for the producing or reproducing of sound in such a manner as to disturb the peace, quiet and comfort of any reasonable person of normal sensitivity in any residential or public area is prohibited. This provision shall not apply to any participant in a duly licensed parade, or to any person who has been otherwise duly authorized by the City of Del Mar to engage in such conduct.

    b. *Prima Facie Violations*. The operation of any such set, instrument, phonograph, television set, machine, loud speakers or similar device between the hours of 10:00 p.m. and 8:00 a.m. in such a manner as to be plainly audible at a distance of 50 feet from the building, structure, or vehicle in which it is located, shall be prima facie evidence of a violation of this Section.

4.9.3 Thresholds of Significance

The City of Del Mar relies on the thresholds of significance that are based on Appendix G of the 2019 State CEQA Guidelines. Impacts related to noise and/or vibration would be significant if implementation of the project would:

a) Result in the generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies;

b) Result in the generation of excessive groundborne vibration or groundborne noise levels;

c) Be located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, so that the project would expose people residing or working in the project area to excessive noise levels; or

4.9.4 Impact Analysis

a) Would the project result in the generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?

Implementation of the proposed project would result in two primary types of potential noise impacts: short-term (temporary) noise during construction and long-term noise during operation of the project. Both construction and operational noise related to the proposed project are evaluated below.

Construction

Project construction would generally involve the following sequence for all phases of the project: (1) site preparation and demolition; (2) grading and pipeline construction; (3) building construction; (4) paving; and (5) architectural coatings. Construction equipment anticipated to be necessary for project construction includes backhoes, excavators, graders, loaders, compactors, cranes, trucks, pavers, pneumatic tools, generator sets, and air compressors. Construction equipment with substantially higher noise-generation characteristics (such as pile drivers, rock drills, and blasting equipment) would not be required for the proposed project.

Construction noise is difficult to quantify because of the many variables involved, including the specific equipment types, size of equipment used, percentage of time in use, condition of each piece of equipment, and number of pieces of equipment that will actually operate on site at a time. The range of maximum noise levels for various types of construction equipment at a distance of 50 feet is depicted in Table 4.9-4, *Construction Equipment Noise Emissions Levels*. The noise values represent maximum noise generation, or full-power operation, of the equipment. As distance increases between the equipment and/or distance increases between areas with simultaneous construction activity, dispersion and distance attenuation reduce the effects of separate noise sources added together. In addition, typical operating cycles may involve two minutes of full-power operation, followed by three or four minutes at lower levels. The average noise level during construction activities is generally lower, since maximum noise generation may only occur up to 50 percent of the time.

The Federal Highway Administration's Roadway Construction Noise Model (RCNM) (FHWA 2008) was used to estimate construction noise levels. Input variables for RCNM consist of the receiver/land use types, the equipment type (e.g., backhoe, grader, scraper), the number of equipment pieces, the duty cycle for each piece of equipment (i.e., percentage of time the equipment typically works in a given time period), and the distance from the noise-sensitive receiver to the construction zone. The construction equipment (by phase) anticipated for development of the project was the same as used for the project's air quality impacts analysis (Dudek 2019b), which was obtained using the California Air Resources Board CalEEMod (California Emissions Estimator Model). The RCNM has default duty cycle values for the various pieces of equipment, which were derived from an extensive study of typical construction activity patterns. Those default duty cycle values were utilized for this analysis. The RCNM model and the detailed results are provided in Appendix B of the Noise Analysis Technical Report (Dudek 2019e, EIR Appendix G).

The closest off-site existing sensitive receptors that would be exposed to construction noise are multi-family residences located approximately 30 feet to the north of the project site at the Del Mar Beach Club. Noise-sensitive receptors consisting of single- and multi-family residences are also located along two potential off-site pipeline alignments for a new water pipeline, generally along Camino del Mar or

Via de la Valle. These receptors would be located as close as approximately 30 feet from project-related construction activities associated with the installation of a water pipeline. Most construction work would take place further away, at distances of up to 1,000 feet from noise-sensitive receptors. The results of the construction analysis are contained in Table 4.9-5, *Construction Noise Analysis Summary.* As shown, the highest noise levels from construction are predicated to range from approximately 67 dBA L_{EQ} (during the demolition phase) to 87 dBA L_{EQ} (during the pipeline site preparation) when construction takes place at or adjacent to the nearest noise-sensitive receivers. More typically, when construction activities would take place throughout the project site, construction noise levels would range from approximately 63 dBA L_{EQ} (during the architectural coating phase) to 77 dBA L_{EQ} (during the grading phase).

To comply with the City of Del Mar's Noise Control Ordinance, construction activities would be limited to Monday through Friday, 7:00 a.m. to 7:00 p.m., and Saturday 9:00 a.m. to 7:00 p.m. No construction activities would be allowed on Sundays or federal holidays. However, because noise associated project construction activities would exceed the 75 dBA L_{EQ} construction noise standards established in the City of Del Mar's Noise Control Ordinance, impacts would be significant (Impact NOI-1). To reduce construction noise impacts, mitigation measure MM NOI-1 would require the preparation of a construction noise mitigation program identifying temporary sound barriers and shielding to reduce impacts to less than significant.

Table 4.9-4
CONSTRUCTION EQUIPMENT NOISE EMISSIONS LEVELS

Equipment Type	Typical Sound Level (dBA) 50 Feet from Source
Backhoe	80
Air compressor	80
Generator	82
Compactor	80
Crane, mobile	85
Excavator	85
Grader	85
Loader	80
Pneumatic tool	85
Truck	84
Paver	85

Source: FHWA 2006

Table 4.9-5
CONSTRUCTION NOISE ANALYSIS SUMMARY

Construction Phase	Construction Noise at Representative Receiver Distances (L_{EQ} (dBA))	
	Nearest Source/Receiver Distance (Approx. 30')[1]	Typical Source/Receiver Distance (Approx. 170')[2]
Demolition	67	65
Site Preparation	84	75
Grading	85	77
Building Construction	81	74
Architectural Coating	74	63
Paving	82	73
Pipeline Site Preparation	87	69
Pipeline Installation / Backfill	83	67
Pipeline Paving	86	68

Source: Dudek 2019e

[1] The exceptions are for the demolition phase, for which the nearest source/receiver distance is approximately 450 feet, and the building and architectural coating phase, for which the nearest source/receiver distance is approximately 40 feet.

[2] The exceptions are for the demolition phase, for which the typical source/receiver distance is approximately 620 feet, and pipeline work, for which the nearest source/receiver distance is approximately 250 feet.

L_{EQ} = equivalent continuous sound level (time-averaged sound level); dBA = A-weighted decibel.

Operation

Off-Site Noise Levels from Traffic Noise

Future operation of a resort at the project site would increase traffic noise in the area compared to existing conditions (see subsection 4.11, *Transportation and Traffic*, of this EIR for a discussion of traffic impacts). Potential noise impacts from vehicular traffic were assessed using the Federal Highway Administration's (FHWA) Traffic Noise Model (TNM) Version 2.5 (FHWA 2004). Traffic data used to model noise levels were derived from the project's Transportation Impact Analysis prepared by Linscott, Law and Greenspan, Engineers (LLG; EIR Appendix H). The existing and existing plus project conditions were analyzed at four short-term noise measurement locations at the site and surrounding areas, as well as two modeled receivers representing off-site residences in the project vicinity (see Figure 4.9-1). The off-site roadway modeling represents a conservative analysis that does not take into account topography or attenuation provided by existing structures. The results of this analysis for the CNEL at the nearest off-site residences along the roadway segments are shown below in Table 4.9-6, *Off-Site Existing and Existing Plus Project Traffic Noise Levels*.

A direct significant impact would occur if the project would result in a 3 CNEL increase in traffic noise, which is generally considered the human threshold for perception of noise increase. As shown in Table 4.9-6, none of the six roadway segments would experience a perceived change in traffic noise. In addition, future traffic associated with resort development would not cause noise levels to exceed applicable standards within the City of Del Mar. As such, the off-site impacts from traffic noise associated with the project would remain less than significant.

Table 4.9-6
OFF-SITE EXISTING AND EXISTING PLUS PROJECT TRAFFIC NOISE LEVELS (CNEL)

Modeled Receptor	Roadway Segment	Existing	Existing Plus Project	Change
ST1 –Southeastern part of project site	Camino del Mar (south of Via de la Valle)	64	64	0
ST2 – Residences south of the project site	Camino del Mar (south of the project site, north of 27th Street)	62	63	1
ST3 – Residences east of the project site	Via de la Valle (east of Camino del Mar)	69	69	0
ST4 – Residences north of the project site	Camino del Mar (north of Via de la Valle)	67	67	0
M1 – Residences northeast of the project site	South Sierra Avenue (north of Border Avenue)	57	57	0
M2 – Residences north of the project site	Border Avenue (west of Camino del Mar)	61	61	0

Source: Dudek 2019e
Note: Project-related traffic noise levels are rounded to the nearest whole numbers.

On-Site Mechanical, Recreational, and Parking Lot Noise

In addition to traffic noise, on- and off-site receptors would be exposed to noise from HVAC equipment, recreational activities (including special events), and vehicle parking associated with the proposed project. Mechanical HVAC units located on the ground or on rooftops of the proposed structures would have the potential to generate high noise levels. Specific information on the HVAC units (locations, sizes, manufactures, models) is not known. Noise levels generated by HVAC units vary, but typically range from approximately 50 to 65 dBA at a distance of 50 feet (City of Santa Ana 2010). Noise emitted from a single point source, such as an HVAC unit, tends to decrease by about 6 dBA for each doubling of distance. Depending on their locations within the project site, the HVAC units have the potential to emit noise levels that exceed the City of Del Mar stationary noise source standard for residential uses of 50 dBA L_{EQ} during daytime hours and 40 dBA L_{EQ} for nighttime hours at the nearest off-site multi-family receptors located immediately north of the project site. As the ultimate locations and specific model types of the HVAC units are not determined at the time of the preparation of this EIR and there is a potential for on-site noise to exceed City of Del Mar standards, the proposed project could result in a potentially significant impact (Impact NOI-2). Therefore, mitigation measure MM NOI-2, which requires the installation of equipment that would not exceed stationary noise source standards or would be brought into conformance with stationary noise standards with the inclusion of acoustical enclosures around the HVAC units, is included.

Operation of the project would also result in recreational noise associated with pool use and special events within the resort grounds and would include outdoor gatherings, such as weddings. Typically, approximately 20 guests would be anticipated to use the resort pool and 10 guests would be anticipated to use the spa at any given time. Additionally, up to two guests would be anticipated to use other on-site amenities at any one time. Outdoor gatherings are expected to include groups of people and amplified music and would result in periodic increases in noise levels. As shown on Figure 3-2, the event space is located in the eastern portion of the site and is intended to accommodate event gardens/lawns, ballroom, and banquet facilities. These locations would be surrounded to the north, south, and west by the proposed resort buildings and would be located between 150 and 1,000 feet from the multi-family

residential development north of the project site. Pursuant to DMCC Chapter 9.20.090, Public Nuisance Noise, the operation of any loud speakers or similar devices between the hours of 10:00 p.m. and 8:00 a.m. is not allowed if plainly audible at a distance of 50 feet from the building, structure, or vehicle in which it is located. Noise from pool uses and other activities would be shielded from the residential area north of the project site and other surrounding locations by the one- to three-story high resort buildings and local terrain. However, amplified music and outdoor recreational activities at the project site could result in noise levels in excess the City of Del Mar's stationary noise standard of 50 dBA L_{EQ} during daytime hours and 40 dBA L_{EQ} for nighttime hours, resulting in a potentially significant impact (Impact NOI-3). Therefore, mitigation measure MM NOI-3 is required, which limits the hours of pool usage and amplified music to the hours of 7:00 a.m. and 10:00 p.m. Additionally, MM NOI-3 requires that policies and procedures be implemented to ensure that noise levels from the project are minimized. This may include signage on-site requesting that visitors and guests be aware and respectful of the surrounding environment and refrain from excessive noise-making. With implementation of MM NOI-3, impacts associated with recreational noise would be less than significant.

Parking for the project would be accommodated by an underground parking structure. Access to the parking structure would be provided via Border Avenue to the north of the site, at the intersection of Border Avenue and South Sierra Avenue. Noise sources associated with parking structures include car alarms, radios, slammed doors, and squealing tires. Noise levels from these sources typically range from about 30 dBA to 66 dBA at 100 feet and are generally short-term and intermittent (Gordon Bricken & Associates 1996). The parking structure would have the potential to generate noise levels that exceed 60 dBA depending on the location of the specific noise source; however, noise sources from the parking structure would be different from each other in type, duration, and location so that the overall effects would most likely not simultaneously affect noise-sensitive receptors. Furthermore, the proposed parking structure would be underground, and the entrance to the structure would be shielded from the residences to the north by intervening resort buildings. Therefore, it is not anticipated that noise levels generated by the parking structure would exceed applicable noise standards at the nearest off-site receptors, and impacts would be less than significant.

b) Would the project result in generation of excessive groundborne vibration or groundborne noise levels?

Construction

Groundborne vibration is a small, rapidly fluctuating motion transmitted through the ground that diminishes (attenuates) fairly rapidly over distance. Anticipated groundborne vibration from heavy equipment operations during construction of the project was evaluated and compared to relevant vibration impact criteria using the FTA's Transit Noise and Vibration Impact Assessment manual, which provides vibration impact criteria and recommended methodologies and guidance for assessment of vibration effects (FTA 2018).

At a distance of approximately 30 feet, the vibration level from heavy construction machinery (such as a large bulldozer) would be approximately 0.068 peak particle velocity in inches per second (PPV IPS). Vibration levels of this magnitude would likely be perceptible at nearby residences, but they would be below the FTA's threshold of potential damage for normal structures (0.20 PPV IPS) and would not be considered excessive. Additionally, the majority of construction work would take place at distances further than 30 feet away and would not be perceptible, nor would construction activities involve pile

drivers, rock drills, or blasting equipment. Therefore, short-term construction-related vibration impacts would be less than significant.

Railway

On-site vibration levels from the rail line located to the east of the project site were also evaluated. Based upon the methodology for FTA's Transit Noise and Vibration Impact Assessment manual, the vibration level from a diesel-powered locomotive (passenger or freight) would be approximately 68 VdB (velocity decibels) traveling 50 miles per hour at a distance of 280 feet (the nearest distance from the project site to the rail line). Adjusting for an estimated passenger train speed of 70 miles per hour, the resulting vibration level would be approximately 70.9 VdB, which is below the FTA threshold for acceptable ground-borne vibration for residential uses of 72 VdB. Therefore, on-site vibration impacts from rail vibration would be less than significant.

c) For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?

The closest airport to the project site is the McClellan-Palomar Airport, located at 2192 Palomar Airport Road in the City of Carlsbad, more than 10 miles north of the project site. The nearest private airstrip to the project site is the Lyall-Roberts Airport located at Lyall Roberts Orchards, 15524 Highway 76 in the City of Escondido, approximately 28 miles northeast of the project site. The project would not be located within the vicinity of a private airstrip, an airport land use plan, or within two miles of an airport and would therefore not expose people residing or working in the project area to excessive noise levels associated with a private airstrip or an airport. No impact would occur.

4.9.5 Mitigation Measures

MM NOI-1 Prior to initiation of project construction activities, the City of Del Mar shall approve a construction noise mitigation program to include the following so that construction noise levels do not exceed the 75-dBA L_{EQ} construction noise standard established in the City of Del Mar's Noise Control Ordinance for off-site sensitive receptors:

- Temporary sound barriers/shielding shall be installed to shield non-mobile equipment in the vicinity of nearby sensitive receptors, or, alternatively, to shield at the site's boundaries. For example, for on-site construction activities, an 8-foot high noise barrier would be constructed along the project's northern site boundary. For noisy pipeline construction activities near residential land uses, a portable noise barrier which would break the line-of-sight between the construction activity (to the extent practical) and the residences would be used. The material for a temporary noise barrier could consist of materials such as 3/4-inch thick plywood, or portable barriers with a minimum sound transmission class (STC) rating of 20.

- Construction equipment shall be properly outfitted and maintained with feasible noise-reduction devices (e.g., functioning mufflers and silencers, tightly closed access panels) to minimize construction-generated noise.

- Stationary noise sources such as generators and pumps shall be located as far away from noise-sensitive land uses as feasible.
- Laydown and construction vehicle staging areas shall be located away from noise-sensitive land uses if feasible.
- Whenever possible, residential areas that will be subject to construction noise shall be informed one week before the start of each construction phase.

MM NOI-2 Prior to the issuance of building permits, the project applicant shall retain an acoustical specialist to review project construction-level plans to confirm that the equipment specifications and plans for HVAC and other outdoor mechanical equipment incorporate measures, such as the specification of quieter equipment or provision of acoustical enclosures, so that noise levels will not exceed City of Del Mar noise standards (50 dBA L_{EQ} during daytime hours and 40 dBA L_{EQ} for nighttime hours) at the nearest off-site multi-family receptors located immediately north of the project site. Prior to the commencement of construction, the acoustical specialist shall certify in writing to the City of Del Mar that the equipment specifications and plans incorporate measures that will achieve the relevant noise limits.

MM NOI-3 During the long-term operation of the project, policies and procedures shall be implemented to ensure that noise levels from the project are minimized in the surrounding areas. Such policies may include signage requesting that visitors and guests be aware and respectful of the surrounding environment and refrain from excessive noise-making. Usage of the on-site pool and other recreational areas shall be limited to the hours of between 7:00 a.m. and 10:00 p.m. Additionally, amplified music shall be limited to the hours between 7:00 a.m. and 10:00 p.m. Enforcement of these limitations shall be carried out by resort staff and management, and through the posting of signs.

4.9.6 Level of Significance After Mitigation

With implementation of MM NOI-1 through MM NOI-3, impacts related to temporary construction noise, temporary recreational activity, and operational HVAC unit noise would be less than significant.

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Source: DUDEK 2019

HELIX Environmental Planning

Existing Noise Measurement and Off-site Modeling Locations

Figure 4.9-1

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4.10 PUBLIC SERVICES

This subsection includes a description of existing conditions, regulatory requirements, and potential impacts on public services associated with the proposed project. Public services are those functions that serve residents on a community-wide basis. Such functions include fire protection, police protection, schools, and parks.

4.10.1 Existing Conditions

4.10.1.1 Fire Protection

Fire protection services, including fire suppression and protection, emergency medical services (EMS), vehicle accident response, rescue, and hazardous material response, are provided throughout the City by the Del Mar Fire Department (Fire Department). The Fire Department protects nearly five thousand full-time residents as well as the over three million annual visitors to the Del Mar Fairgrounds and beaches. The area served includes the City and surrounding areas such as San Diego, Solana Beach, and Encinitas, is over two and a half square miles, and includes over 1,600 structures (City 2018c).

The Fire Department consists of one fire station located on the Del Mar Fairgrounds at 2200 Jimmy Durante Boulevard, which is approximately 2.8 miles from the project area. Personnel are comprised of nine full-time staff members, including three captains, three fire engineers, and three firefighters/ paramedics. The Fire Department operates one front-line fire engine and one reserve fire engine. It utilizes an integrated 800 megahertz (MHz) radio system and contracts with the North County Dispatch Joint Powers Authority for 24-hour dispatch services. The radio system is also used by the City of Del Mar's Public Works Department, the City of Del Mar's Lifeguards, and the County Sheriff Department (City 2018c). In addition to serving the City of Del Mar, the Fire Department provides mutual aid to Solana Beach, Encinitas, and portions of the City of San Diego. The 2018 annual report indicates an average response time of 5 minutes 50 seconds within the City of Del Mar. The cities of Encinitas, Del Mar, and Solana Beach, along with the Rancho Santa Fe Fire Protection District (RSFFPD), entered into a Cooperative Fire Management Services Agreement in October 2009. In July 2013, RSFFPD opted out of the agreement. A minor reorganization currently allows the City of Encinitas and City of Solana Beach fire staff to provide operational oversight for the fire departments of the cities of Del Mar, Encinitas, and Solana Beach (Hans Schmidt, pers. comm 2019).

4.10.1.2 Police Protection

The San Diego County Sheriff's Department (Sheriff's Department) provides contract law enforcement services, including patrol, traffic, and investigative services for the City. Overall, the Sheriff's Department serves an area of approximately 4,200 square miles which includes incorporated cities and unincorporated areas of the County (San Diego County Sheriff's Department 2015).

The incorporated cities of Del Mar, Solana Beach, and Encinitas are served by the North Coastal Station located at 175 North El Camino Real in the City of Encinitas (approximately 7.5 miles from the project area). The North Coastal Station provides public safety services to more than 80,000 residents over 60 square miles. It is supported by numerous divisions ranging from patrol, traffic, community service officers, senior volunteers, area detectives, professional staff, and a community-oriented policing and problem-solving unit. In total, the station has 107 staff with 36 active members of the Senior Volunteer

Unit (San Diego County Sheriff's Department 2015). One deputy patrol, one traffic patrol, and one motor patrol per 24 hours are assigned to the City. These personnel are based out of the North Coastal Station.

The City of Del Mar Park Ranger Division, based at Del Mar City Hall, provides protection of beaches, parks, lagoons, preserves, waterways, and city facilities. The Park Ranger Division is comprised of a park ranger and Beach Community Officers. The Park Ranger is a law enforcement and emergency response officer and is a member of the lifeguard specialized rescue team, responding to cliff, boat, swift water, search and recovery, and scuba rescues. The Beach Community Officers assist the Park Ranger and lifeguard staff in providing information to the public, responding to beach and park emergencies, reporting and responding to illegal activity within the City, and issuing warnings and writing citations. The officers of the Park Ranger Division patrol over 2.5 miles of beach, area bluffs and preserves, and community parkland (City 2018c).

4.10.1.3 Schools

The southern portion of the project area is located within the Del Mar Union School District (Del Mar District) and the northern portion of the area is located within the Solana Beach School District (Solana Beach District). The entire Specific Plan is located within the San Dieguito High School District (San Dieguito District). The Del Mar District provides public education for elementary students, grades kindergarten through sixth, within its 15-square-mile attendance area. The Del Mar District maintains and operates eight elementary schools, with preschool programs at two of the schools. Elementary schools within the Del Mar District range in enrollment capacities of approximately 300 to 700 students per campus (Del Mar Union School District 2018). The Solana Beach District operates seven elementary schools that collectively serve 3,100 students in grades kindergarten through sixth. Individual schools in the Solana Beach District accommodate between 300 and 600 students (Solana Beach School District 2018). The San Dieguito District serves students in the incorporated cities of Encinitas, Solana Beach, and Del Mar, as well as the unincorporated communities of La Costa, Olivenhain, Rancho Santa Fe, Fairbanks Ranch, and Carmel Valley. The San Dieguito District is comprised of five middle schools serving grades 7 and 8, four high schools serving grades 9 through 12, and one alternative education school serving grades 9 through 12. Middle schools and high schools in the San Dieguito District have enrollments of 500 to more than 2,500 students (San Dieguito High School District 2018). The project area is within the enrollment boundaries of Skyline Elementary School, Earl Warren Middle School, and Torrey Pines High School. The Winston School is a private school for grades 6 through 12, with an enrollment of 115 students (Winston School 2019). The Winston School is located approximately 1.7 miles south of the project area.

4.10.1.4 Parks

The City of Del Mar's principal parks include Powerhouse Community Park and Seagrove Park, located between 15th and 18th Streets on Coast Boulevard. Seagrove Park, at the base of 15th Street, becomes Powerhouse Park, which then stretches northward to 18th Street. Both parks include long turf areas that overlook Del Mar City Beach. There is a playground at the south end of Powerhouse Park, and the Powerhouse Community Center at the north end of the park. The Powerhouse Community Center includes amenities such as a community room, trellis-covered verandas, an outdoor theatre, outdoor rinse showers, and restrooms. Additionally, the City provides tennis courts for public use, located at 21st Street off of Court Street east of Camino Del Mar. Both parks are located approximately one mile south of the proposed project area. Shores Park, a 5.3-acre property located west of Camino del Mar, south of 9th Street, and east of Stratford Court, was acquired by the City in 2008 with the intention of

preserving open space and recreational uses. The private Winston School is also located on the Shores Park property. The property is currently the subject of master planning to develop the park (City 2019). Shores Park is located approximately 1.7 mile south of the project area. North Beach, also known as Dog Beach, is located north of 29th Street and stretches nearly one mile to the City of Del Mar's border with Solana Beach. The area includes the mouth of the San Dieguito River and a stretch of coastal bluff. North Beach is located south of the proposed resort development, separated from the project area by the City-owned Preserve. The Preserve contains trails and benches and is a publicly owned area that offers views of the San Diego coastline, native plants, shorebirds, and other wildlife.

4.10.2 Regulatory Setting

4.10.2.1 State of California

California Mutual Aid Plan

The California Mutual Aid Plan establishes policies, procedures, and responsibilities for requesting and providing inter- and intra-agency assistance in emergencies. The plan directs local agencies to develop automatic or mutual aid agreements, or to enter into agreements for assistance by hire (e.g., Schedule A contracts) where local needs are not met by the framework established by the Mutual Aid Plan.

Assembly Bill 16

AB 16 was passed in 2002 and created the Critically Overcrowded School Facilities program to supplement the construction provisions within the School Facilities Program (SFP). The SFP provides state funding assistance for new construction and modernization of facilities. The Critically Overcrowded School Facilities program allows school districts that have been determined by the California Department of Education (CDE) to have critically overcrowded facilities to apply for new construction projects without meeting all SFP program requirements (CDE 2015). Districts with SFP new construction eligibility and school sites included on a CDE list of source schools may apply (Chapter 33, Statutes of 2002).

Senate Bill 50

SB 50, or the Leroy F. Greene School Facilities Act of 1998, restricts the ability of local agencies to deny project approvals on the basis that public school facilities (classrooms, auditoriums, etc.) are inadequate. School impact fees are collected at the time when building permits are issued. Payment of school fees is required by SB 50 for all new residential development projects and is considered "full and complete mitigation" of any school impacts. School impact fees are payments to offset capital cost impacts associated with new developments, which result primarily from costs of additional facilities, related furnishings and equipment, and projected capital maintenance requirements. As such, agencies cannot require additional mitigation for any school impacts (Chapter 407, Statutes of 1998).

4.10.2.2 Local

City of Del Mar Uniform Fire Code

Per the City of Del Mar's Municipal Code, Chapter 10.04.010, Adoption of California Fire Code, the 2012 International Fire Code and 2013 California Fire Code, including the appendix to Chapter 4, and Appendices B, H, and I, as published by the International Code Council, serve as the fire code of the City

of Del Mar. It regulates and governs the safeguarding of life and property from fire and explosion hazards arising from the storage, handling, and use of hazardous substances, materials and devices, and from conditions hazardous to life or property in the occupancy of buildings and premises, or construction, erection, alteration, repair, moving, removal, conversion, demolition, equipment use, and maintenance of buildings and structures, including providing for the issuance of permits and collection of fees. South of the project site in the eastern portion of the City, there are a number of properties designated within the Wildland Urban Interface zone; however, the project site is neither within nor close to this zone.

4.10.3 Thresholds of Significance

The City of Del Mar relies on the thresholds of significance that are based on Appendix G of the 2019 State CEQA Guidelines. Impacts to public services would be significant if implementation of the project would:

a) Result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the following:

    i. Fire Protection

    ii. Police Protection

    iii. Schools

    iv. Parks

    v. Other public facilities

4.10.4 Impact Analysis

a) Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the following:

i. Fire Protection

Implementation of the proposed project would increase fire protection demand at the project site, which is within the service area of the Del Mar Fire Department. Due to the project's location surrounded by existing development served by the Fire Department and proximity to the Fire Department Station (2.8 miles), it is not anticipated that project implementation would substantially increase the Fire Department's response times. No fire station improvements are identified in the Initiative and it is not expected that they would be required as a result of the project. In addition, the project would incorporate an on-site fire protection system. As shown on Figure 3-12, seven fire hydrants connected by a proposed private fire service and backflow preventer are included as part of

the project design and would be constructed in accordance with the City Uniform Fire Code, which incorporates the California Fire Code and International Fire Code. Physical environmental impacts associated with these improvements are evaluated throughout this EIR and while the project would result in the provision of new facilities in the form of fire hydrants and a fire service water main, none of the potentially significant environmental effects identified in this EIR were identified to increase as a result of these improvements. Therefore, the project would not result in substantial adverse physical impacts associated with the provision of new or physically altered fire facilities, and impacts would be less than significant.

ii. Police Protection

Implementation of the proposed project would increase police protection demand at the project site, which is within the existing service area of the North Coastal Station of the San Diego County Sheriff's Department. Due to the project's location surrounded by existing development served by the Sheriff's Department, it is not anticipated that project implementation would increase the response times of the Sheriff's Department. In addition, project design features, such as a controlled access system to the parking garage and adequate lighting in parking areas and along public-use trails, would promote safety and decrease reliance on the Sheriff's Department. Therefore, the project would not require the provision of new or physically altered police facilities, and impacts would be less than significant.

iii. Schools

Most of the resort facilities, including the guest rooms and lower-cost shared visitor-serving accommodations, would accommodate temporary guests and would not generate a permanent population of school-aged children. Of the 32 for-sale resort villas, 27 of the resort villas would be owner occupied for up to 120 days out of the year and are not expected to include school-aged children that would use the project site as their permanent residence. The remaining 4 resort villas and 22 affordable housing units would have some potential to generate school-aged children, due to their availability for long-term occupancy. It is assumed that 4 resort villas and 22 affordable housing units would be permanently occupied. Applying generation rates from previous City of Del Mar analyses for student generation of 0.07 elementary school students per unit and 0.19 middle/high school students per unit, the 26 total units would generate approximately 7 students, including 2 elementary and 5 middle/high school students. Two elementary school students divided by seven grade levels (kindergarten through sixth grade), yields less than one student per grade. Also, five middle/high school students divided by five grade levels (7th grade through 12th grade), yields approximately one student per grade. Therefore, if all 26 units were permanently occupied, which is unlikely due to the resort/vacation setting of the project, the increase in the number of school-aged children would be minimal. Overall, the proposed project would not generate school-aged children in a manner that would necessitate the expansion of existing schools or construction of new schools; however, the project applicant would be required to pay school impact fees prior to receiving occupancy permits for the resort villas and affordable housing units. Impacts would be less than significant.

iv. Parks

The proposed project would include public open space and recreational areas intended for use by guests of the resort, including pedestrian paths, vista points, picnic areas, and low-impact passive recreational uses. Public open space areas associated with the project include the provision of public amenities for beach visitors, including a public access stairway, public restrooms, interpretive signage, and pathway lighting. These amenities would be located in the southeastern portion of the project area, to connect

North Beach to the proposed project area. The project includes the provision of a loop trail that would provide access to the public and allow pedestrians to circumnavigate the project area, with "walk out" nodes and picnic areas situated at various points along the trail that would enhance the public access experience. The loop trail would provide coastal views along the western bluffs, and backcountry views to the east along with views of the Del Mar Fairgrounds. Additionally, the project includes the provision of a minimum of 27 public parking spaces to provide additional access to area beaches. The provision of new public access recreational areas at the project area would provide improved recreational opportunities and access to the public in this popular recreational area. Additionally, the project includes recreational amenities and facilities for guests, such as pools and event gardens. These facilities, coupled with the public access recreational amenities included in the project, would likely accommodate resort guests in a manner that would not lead to an increased usage of off-site parks in the City. As such, implementation of the project would not result in the construction or alteration of new or existing off-site park facilities, and impacts would be less than significant.

4.10.5 Mitigation Measures

Impacts related to public services would be less than significant; therefore, no mitigation measures are required.

4.10.6 Level of Significance After Mitigation

No mitigation measures are required and impacts would be less than significant.

4.11 TRANSPORTATION AND TRAFFIC

This subsection includes a description of existing conditions within the vicinity of the proposed project, regulatory requirements, and potential impacts associated with the proposed project on transportation and traffic. The technical information in this subsection is based on a Transportation Impact Analysis (TIA) prepared by LLG in December 2019 (LLG 2019). This impact analysis, including methodologies used and citations and references relied upon, is included as Appendix H to this EIR.

4.11.1 Existing Conditions

The proposed project site is just southwest of the intersection of Via de la Valle and Camino del Mar. Regional access to the site is achieved from I-5, which connects to Via de la Valle about one mile east of the proposed project. An existing gated and fenced driveway occurs at the intersection of South Sierra Avenue and Border Avenue; however, existing access to the project site is achieved from a paved driveway that heads south, west of the intersection of Border Avenue and Via de la Valle. There are existing bicycle, pedestrian, and public transit facilities in the project vicinity, including bike lanes along Via de la Valle and Camino del Mar; continuous sidewalks along South Sierra Avenue, Border Avenue, Via de la Valle, and Camino del Mar; and two public transit bus routes (routes 101 and 308) that travel along Highway 101 once every 30 and 60 minutes, respectively. Routes 101 and 308 stop along Highway 101 at Plaza Street, located about 0.8 mile north of the project site.

The discussion of existing traffic conditions includes a description of the transportation network and existing operations, an overview of the major streets in the areas surrounding the project site, and a summary of existing operating conditions of intersections, street segments, and freeway facilities, as well as forms of non-motorized transportation available in the area. The traffic study area includes 19 intersections, nine street segments, three freeway mainline segments, and two metered freeway on-ramps and is depicted on Figure 4.11-1, *Traffic Study Area*. No other roadway segments, intersections, freeway mainline segments, or metered freeway on-ramps were determined to meet the San Diego Traffic Engineers' Council (SANTEC) and International Transportation Engineers' (ITE) Regional Guidelines for Traffic Impact Studies for inclusion in the traffic study area.

Existing conditions for traffic facilities consider several factors, including roadway geometries, signal phasing, speed, travel delay, freedom to maneuver, and safety, and qualitatively assigns a level of service (LOS) grade to summarize the operating conditions at a given intersection or street segment, with LOS A representing the best operating conditions, LOS E generally representing the limit of acceptable operating conditions, and LOS F representing the worst and unacceptable operating conditions. An intersection operational LOS is then determined for the morning and evening peak hours, which are high-traffic periods during the most congested 60-minute period between 7:00 a.m. and 9:00 a.m. for the AM peak hour, and 4:00 p.m. and 6:00 p.m. for the PM peak hour. Acceptable LOS is based on published SANTEC guidelines with LOS D being the minimum acceptable and LOS E and F being unacceptable.

4.11.1.1 Baseline Traffic Conditions

Two baselines for existing traffic conditions were developed, including existing observed traffic counts (comprising counts conducted between May and July 2017 and in June 2019 that represent the existing baseline) and existing observed traffic counts plus cumulative projects (the near-term baseline). The months of June and July were selected because traffic volumes are at their highest near the project

during the summer months associated with higher rates of tourism, beach use, and additional traffic associated with the annual county fair held at the Del Mar Fairgrounds. Two baselines are considered in the existing conditions because project-related traffic would occur sometime in the future and the observed traffic counts in mid-2017 and 2019 would underrepresent traffic conditions at the time project-related traffic occurs once constructed and operational (approximately late 2022). As is discussed further below under threshold (a) in this subsection, different traffic impacts were determined when compared to each baseline, and as such, both are included in this EIR. For the near-term baseline, traffic trips associated with future projects include known projects that are either not yet approved or that have been recently approved. Trips associated with near-term projects were added to the observed traffic counts and distributed onto the transportation network. The estimate of 20,303 daily traffic trips for these projects is detailed in the TIA (see Table 7-1 in Appendix H of this EIR). The most substantial cumulative projects in terms of daily trips include the 22nd District Agricultural Association Master Plan (6,960 daily trips), the Santa Fe Christian School Master Plan Update (2,580 daily trips), and the NCTD Train Station Project (2,520 daily trips).

The following scenarios were analyzed for both baselines, including: (1) during a typical weekday and weekend for the AM and PM peak hours; (2) during the fair on a typical weekday for the AM and PM peak hours; (3) during the fair on a weekend for the PM peak hour only; and (4) during the horse races on a typical weekday and weekend for the PM peak hour only. Since fair activities occur outside of the AM peak hour, only PM peak hour analysis was conducted on a weekend during the Fair. During the horse races scenario, gates typically open at noon and an AM peak hour analysis is therefore not included.

4.11.1.2 Transportation Network and Operations

The intersections, street segments, freeway mainline segments, and metered freeway on-ramps within the traffic study area and their existing LOS grade were analyzed during a weekday and weekend on a typical day, during the fair, and during the horse races. Existing operating traffic conditions are described below for both baselines (existing and near-term), followed by a quantitative discussion of how intersections, street segments, and freeways currently operate within the study area on a typical day, during the fair, and during the horse races. The principal streets in the traffic study area are briefly described below and depicted on Figure 4.11-1.

Via de la Valle (Del Mar/City of San Diego) is an east-west street along the City of Del Mar's northern jurisdictional boundary that provides inland and beach access, including regional access via I-5 and local access to the Del Mar Fairgrounds. Via de la Valle east of Jimmy Durante Boulevard is within the City of San Diego. The roadway is currently improved with curb, gutter, and sidewalk, and functions as a two-lane road with a center two-way left-turn lane between Jimmy Durante Boulevard and Highway 101/Camino del Mar. On-street parking, bike lanes, and bike buffers are provided for a majority of the roadway on the north and south sides, west of I-5. Adjacent land uses include residential and commercial properties to the north and the Del Mar Fairgrounds to the south. This section of Via de la Valle has an average daily traffic (ADT) capacity of between 19,000 and 50,000 vehicles and a posted speed limit of 45 mph.

Highway 101 (Solana Beach) between Lomas Santa Fe Drive and Via de la Valle, is a four-lane major arterial that serves as the primary north-south access to numerous beaches and parks along the coast as well as connections to the cities of Solana Beach, Encinitas, Carlsbad, and Oceanside to the north and Del Mar and La Jolla to the south. Recent improvements to this portion of Highway 101 include an

increase in the number of parking spaces, the creation of a bicycle- and pedestrian-friendly corridor, improvements to the aesthetics of the area, traffic calming along Highway 101, and the installation of two new traffic signals and two new mid-block crosswalks. This roadway is surrounded by multi-family residential and commercial uses to the west and a pedestrian/bike path and train tracks to the east. This section of Highway 101 has a capacity of 37,000 ADT and a posted speed limit of 35 mph.

Camino del Mar (Del Mar) is generally a two-lane road with a raised landscape median. The northern section, up to 600 feet south of Via de la Valle, is a four-lane Major Road with a raised median. A portion of Camino del Mar to the south of the project site is constructed as a bridge that crosses over the San Dieguito Lagoon. Surrounding land uses include a public beach (i.e., North Beach) and residential areas. Curb, gutter, sidewalks, and bike lanes are provided. Curbside parking is permitted on the west curb north of the bridge and is permitted on both curbs south of the bridge. This section of Camino del Mar has a capacity of 19,000 ADT and a posted speed limit of 30 mpg.

Sierra Avenue (Solana Beach) is a two-lane roadway parallel to and west of Highway 101. Although there are no designated bicycle lanes along this roadway, it is regularly used by bicyclists as it provides a north-south connection parallel to Highway 101 with lower vehicular traffic volumes. This portion of Sierra Avenue is surrounded primarily by multi-family residential uses with some commercial properties to the east. This section of Sierra Avenue has a capacity of 8,000 ADT and a posted speed limit of 25 mph.

Border Avenue (Del Mar) is a short road about 400 feet in length that extends west from the intersection of Highway 101 and Via de la Valle and terminates at South Sierra Avenue within the City of Del Mar's jurisdiction. Surrounding land uses include the project area to the south and residential uses to the north. It is a two-lane roadway with parking permitted on both curbs and no posted speed limit (due to its short extent).

Lomas Santa Fe Drive (Solana Beach) is a four-lane divided roadway that runs east-west and provides coastal and inland access for Solana Beach and access to and from I-5. Parking is limited and a striped bike lane is provided on both sides of the street. This section of Lomas Santa Fe is surrounded by commercial uses and has a posted speed limit of 35 mph. Loma Santa Fe is located 0.8 mile north of the project area.

South Cedros Avenue (Solana Beach) is a two-lane roadway that is parallel to and east of Highway 101. South Cedros Avenue functions primarily to provide access to businesses and residences adjacent to the roadway. South Cedros Avenue between Marsolan Avenue and Via de la Valle is fronted entirely by residential properties and is located 500 feet east of the project site. Bicycle sharrows are present and this section of South Cedros Avenue has a posted speed limit of 25 mph.

Intersections

Existing intersection operations within the traffic study area were evaluated based on intersection delay and queuing evaluations, each of which is discussed below.

a) Intersection Delay

Existing operations at signalized intersections are typically evaluated based on the amount of delay experienced by a single vehicle and are considered to be acceptable if they operate at LOS D or better, which is equivalent to a delay of 55 seconds or less. Therefore, if the amount of vehicle delay exceeds

55 seconds, then it is considered to operate at a failing or unacceptable LOS E or F. Existing intersection operations at the 19 traffic study area intersections without the project under three scenarios (typical weekday/weekend, fair weekday/weekend, and horse races weekday/weekend) are shown in Table 4.11-1a, *Existing Intersection Operations (Typical Weekday/Weekend)*, Table 4.11-1b, *Existing Intersection Operations (Fair Weekday/Weekend)*, and Table 4.11-1c, *Existing Intersection Operations (Horse Races Weekday/Weekend)*.[1] As shown, all study area intersections that were analyzed operate at an acceptable LOS (i.e., LOS D or better) except for the following five traffic study area intersections (intersections 1, 10, 13, 14, and 17) during the PM peak hour:

- Intersection #1 – Highway 101/Lomas Santa Fe Drive (during a typical weekend and during the horse races on a weekday and weekend);
- Intersection #10 – Via de la Valle/Jimmy Durante Boulevard (during a fair weekday);
- Intersection #13 – Camino del Mar/27th Street (during a fair weekday and weekend and during the horse races on a weekday);
- Intersection # 14 – Camino del Mar/Coast Boulevard (during a typical weekday, a fair weekday and weekend, and during horse races on a weekday and weekend); and
- Intersection #17 – Camino del Mar/Del Mar Heights Road (during a typical weekday and weekend and during the horse races on a weekday and weekend).

Near-term baseline intersection operations without the project are shown in Table 4.11-2a, *Near-Term Intersection Operations (Typical Weekday/Weekend)*, Table 4.11-2b, *Near-Term Intersection Operations (Fair Weekday/Weekend)*, and Table 4.11-2c, *Near-Term Intersection Operations (Horse Races Weekday/ Weekend)*. As shown, the same five traffic study area intersections (intersections 1, 10, 13, 14, and 17) operate at an unacceptable LOS without the project under the near-term baseline as under the existing baseline for the same scenarios. One additional intersection was identified as deficient with the addition of cumulative projects in the near-term (intersection 9). Also, three of the five traffic study area intersections (intersections 10, 13, and 14) would also operate at an unacceptable LOS (e.g., LOS E or F) in the PM peak hour under additional scenarios in the near-term. As such, the deficient intersections in the near-term include those noted above under existing conditions, as well as the following:

- Intersection #9 – Via de la Valle/South Cedros Avenue (during a typical weekday and during the horse races on a weekday);
- Intersection #10 – Via de la Valle/Jimmy Durante Boulevard (during a fair weekend);
- Intersection #13 – Camino del Mar/27th Street (during a typical weekday and weekend and during the horse races on a weekend); and
- Intersection #14 – Camino del Mar/Coast Boulevard (during a typical weekend).

[1] All tables are located at the end of this subsection due to their quantity and size.

b) Intersection Queues

An additional type of intersection analysis, known as a queuing analysis, was conducted to provide information about the operations of signalized intersections that are located within close proximity to one another. Within the traffic study area for the project, four intersections along Lomas Santa Fe (intersections 1 through 4) and six intersections along Via de la Valle (intersections 7 through 12) were included in a queuing analysis. Queue lengths are considered to be acceptable if they are within the storage length of the roadway lane 95 percent of the time. Eleven intersections involving 63 traffic lanes were evaluated based on their queue length after two light cycles. As shown on Table 4.11-3, *Existing and Existing Plus Project Queuing Analysis (95th Percentile)*, 14 lanes at six intersections currently exceeded the available storage length five percent of the time after two light cycles, including the following:

- Intersection #1 – Highway 101/Lomas Santa Fe Drive
    - Southbound left-turn lane to eastbound
    - Westbound left-turn lane to southbound

- Intersection #2 – South Cedros Avenue/Lomas Santa Fe Drive
    - Westbound left-turn lane to southbound

- Intersection #3 – I-5 SB Ramps Lomas Santa Fe Drive
    - Southbound left-turn lane to eastbound
    - Eastbound through lane

- Intersection #4 – I-5 NB Ramps/Lomas Santa Fe Drive
    - Eastbound left-turn lane to northbound
    - Eastbound through lane

- Intersection #8 – Highway 101 (Camino del Mar)/Via de la Valle (Border Avenue)
    - Southbound left-turn lane to eastbound
    - Westbound left-turn lane to southbound

- Intersection #10 – Via de la Valle/Jimmy Durante Boulevard
    - Southbound left-turn lane to eastbound
    - Westbound through lane
    - Westbound left-turn lane to southbound
    - Northbound left-turn lane to westbound
    - Eastbound left-turn lane to northbound

Street Segments

Existing operations at each of the nine street segments within the traffic study area during the weekday are shown in Table 4.11-4a, *Existing Street Segment Operations (Typical Weekday)*, Table 4.11-4b, *Existing Street Segment Operations (Fair Weekday)*, Table 4.11-4c, *Existing Street Segment Operations (Horse Races Weekday)*. Street segment analysis uses roadway capacities that are calculated assuming typical commuter peak hours and the spread of traffic throughout the day assuming workday travel patterns. As such, weekends are not included in the street segment existing operations analysis as they do not have peak commuter periods. As shown in Tables 4.11-4a through 4.11-4c, all study area street

segments operate at an acceptable LOS during the weekday except for five street segments (street segments 4, 5, 7, 8, and 9):

- Street Segment #4 – Camino del Mar, between Via de la Valle and 27th Street (under all scenarios);
- Street Segment #5 – Camino del Mar, between 27th Street and Coast Boulevard (under the fair and horse races scenarios);
- Street Segment #7 – Via de la Valle, between Highway 101 and South Cedros Avenue (under all scenarios);
- Street Segment #8 – Via de la Valle, between South Cedros Avenue and Jimmy Durante Boulevard (under all scenarios); and
- Street Segment #9 – Via de la Valle, between Jimmy Durante Boulevard and I-5 SB Ramps (under all scenarios).

Near-term baseline street segment operations are shown in Table 4.11-5a, *Near-Term Street Segment Operations (Typical Weekday)*, Table 4.11-5b, *Near-Term Street Segment Operations (Fair Weekday)*, and Table 4.11-5c, *Near-Term Street Segment Operations (Horse Races Weekday)*. As shown, the same five study area street segments operate at an unacceptable LOS without the project under the near-term baseline as under the existing baseline and there are no substantial differences between the existing and near-term baseline conditions without the proposed project.

Due to the currently failing operations along three study area segments of Via de la Valle between Highway 101 and I-5 (LOS E and F without the project), two peak hour street segment analyses were conducted to determine the influence of the street environment, interaction among vehicles, and traffic control on street segment quality of service under typical weekday conditions and during horse races on weekdays. As shown previously in Table 4.11-4a, the existing LOS on Via de la Valle for a typical weekday is LOS E at a capacity of 19,000 ADT; however, as shown in Table 4.11-6, *Existing Via de la Valle Arterial Peak Hour Operations Between Highway 101 and I-5 (Typical Weekday)*, the peak hour arterial analysis of Via de la Valle between Highway 101 and I-5 indicates that the segment operates at LOS C in both westbound and eastbound directions in the AM peak hour and in the westbound direction in the PM peak hour under existing conditions during a typical weekday. The segment is calculated to operate at LOS D in the eastbound direction during the PM peak hour during a typical weekday. As a result, the functional capacity of Via de la Valle (i.e., the amount of daily traffic that can occur while maintaining LOS C or better), is greater than 19,000 ADT since the traffic on this roadway is spread throughout the day with less sharp increases during peak commute periods.

Freeways

I-5 is the principal freeway in the traffic study area for the project and is a major north-south freeway providing regional connectivity between San Diego, Orange, and Los Angeles counties (and areas further north). It has a posted speed limit of 65 mph, and generally consists of eight travel lanes in the north-south direction with additional auxiliary lanes in the project study area. Existing I-5 freeway mainline segment operations are shown in Table 4.11-7a, *Freeway Mainline Segment Operations (Typical Weekday)*, and existing metered freeway on-ramps are shown in Table 4.11-7b, *Metered Freeway*

On-Ramps (Typical Weekday). As shown in Table 4.11-7a, the freeway mainline segments operate at an acceptable LOS except for two freeway mainline segments during a typical weekday, including: (1) I-5 from Lomas Santa Fe Drive to Via de la Valle (LOS F in northbound direction during the PM peak hour); and (2) I-5 from Via de la Valle to Del Mar Heights Road (LOS E in SB direction during the AM peak hour and LOS F in northbound direction during the PM peak hour). As shown in Table 4.11-7b, all study area metered on-ramps are calculated to currently operate with no delay.

Alternative Transportation System

Transit Services

The North County Transit District (NCTD) operates two bus routes, 101 and 308, in the project vicinity. Route 101 runs along Highway 101 and connects Oceanside to the VA Medical Center, the University of California San Diego (UCSD), and University Town Center (UTC). The route runs once every half-hour. Route 308 runs between Solana Beach and Escondido via Del Dios Highway. The terminus in Solana Beach is located on Highway 101, just south of Lomas Santa Fe Drive. The route runs once every hour.

The Solana Beach Transit Center is also located approximately 0.9 mile north-northeast of the project site, off Highway 101. Train service is provided out of the Solana Beach Transit Center by the Amtrak Surfliner and the NCTD Coaster, which operates northbound and southbound service from the Oceanside Transit Center and the Santa Fe Depot in downtown San Diego.

Bicycle Network

Existing bicycle lanes are present along both curbs of Via de la Valle, Camino del Mar, and Highway 101 and bicycle sharrows are present along South Cedros Avenue. Camino del Mar and Highway 101 is a high-volume coastal bike corridor in the San Diego region and is identified as part of the Coastal Rail Trail. The Coastal Rail Trail is part of a regional bikeway managed by the San Diego Association of Governments (SANDAG) and is part of a regional effort to provide a north-south connection for bicycles, pedestrians, and joggers and will eventually link the coastal cities of Oceanside, Carlsbad, Encinitas, Solana Beach, Del Mar, and San Diego. As previously mentioned, although there are no designated bicycle lanes along South Sierra Avenue in the City of Solana Beach, it is regularly used by bicyclists as it provides a north-south connection parallel to Highway 101 with lower vehicular traffic volumes.

Pedestrian Facilities

Continuous sidewalks are provided along both sides of South Sierra Avenue, Border Avenue, Via de la Valle, and Highway 101. Sidewalks are provided along the entire west side of Camino del Mar. On the east side, sidewalks are provided for most of the length of Camino del Mar opposite the project site to the Lagoon bridge.

4.11.1.3 Regulatory Setting

State

Caltrans

The California Department of Transportation (Caltrans) is the public agency responsible for designing, building, operating, and maintaining California's state highway system, which consists of freeways,

highways, expressways, toll roads, and the area between the roadways and property lines. Caltrans is also responsible for permitting and regulating the use of state roadways. Caltrans' construction practices require temporary traffic control planning during activities that interfere with the normal function of a roadway.

Local

2050 Regional Transportation Plan

The SANDAG San Diego Forward: The Regional Plan is an update of the Regional Comprehensive Plan (RCP) and the 2050 Regional Transportation Plan and Sustainable Communities Strategy (RTP/SCS), combined into one document. The Regional Plan includes an SCS, in compliance with SB 375. The SCS aims to create sustainable, mixed-use communities conducive to public transit, walking, and biking by focusing future growth in the previously developed, western portion of the region along the major existing transit and transportation corridors. The Regional Plan has a horizon year of 2050, and projects regional growth and the construction of transportation projects over this time period.

City of Del Mar Community Plan

The Del Mar Community Plan identifies, evaluates, and makes recommendations regarding the location, capacity, and design of various modes of transportation within and around the community. It also considers the creation of pedestrian walkways, bicycle rights-of-way, public access to the beach, preservation of the existing character of residential streets, and the elimination of unwanted noise created by transportation, and a goal to minimize air pollution. The following goals and policies are identified in the Del Mar Community Plan associated with transportation and circulation (Del Mar 1986):

Goal 2	Minimize the impact of the automobile on the character of Del Mar and emphasize a more pedestrian-oriented environment, safer sidewalks, landscaped buffer zones, and alternative means of transportation.
Objective A	Encourage a pedestrian-oriented non-motorized community by developing a system of bicycle right-of-way and pedestrian paths, and discouraging high-speed traffic along city streets.
Policy 1	Redesign Camino del Mar to improve its appearance as a scenic coastal route and accommodate low-speed vehicular traffic.
Policy 2	Improve the safety of Camino del Mar pedestrian crossings, particularly in the north and south ends of the community.
Policy 3	Provide continuous north/south bicycle network through the City.
Policy 4	Develop a continuous pedestrian loop trail which extends around the perimeter of the City while connecting and passing through areas of natural and scenic value without unnecessarily imposing on residential privacy.
Policy 5	Preserve and improve pedestrian access to and along beaches and sea cliffs by use of all public rights-of-way and prescriptive public easements.

Policy 6 Encourage all unimproved public right-of-way to be used solely for pedestrian movement unless absolutely necessary for vehicular access.

Objective B Facilitate the movement of traffic in a safe and uncongested manner consistent with a pedestrian-oriented community.

Policy 1 Encourage the development of an improved intersection design at Via de la Valle, Stevens Street, Turf Road, and Jimmy Durante Boulevard.

City of Del Mar Local Coastal Program

The City of Del Mar Local Coastal Program identifies a number of policies aimed at providing long-term use of beach access ways. The provision of improvements within beach access ways is tempered by the need to preserve the fragile resources within the respective areas and to protect the safety, rights, and privacy of residents who live in the area (City 1993).

Goal IV-B Give priority to pedestrian and bicycle traffic as opposed to automobile traffic through application of the following policies, and pursue the increased use of alternate transportation modes to regionally significant areas within Del Mar. Examples of "alternate transportation modes" include bicycle, pedestrian, bus, shuttle service, and railroad.

Policy IV-15 Retain and maintain existing bikeways, including those along Coast Boulevard, Camino del Mar, Jimmy Durante Boulevard, and Via de la Valle.

Policy IV-18 Cooperate with local, state, and federal agencies in developing a system of pedestrian trails and bicycle paths that would link together coastal recreation areas such as the beaches, Crest Canyon, San Dieguito Lagoon, and Los Peñasquitos Lagoon.

Policy IV-19 The improvement or establishment of alternative transportation modes shall be designed to ensure protection of sensitive resources and the retention of the small-town scenic qualities of Del Mar.

4.11.2 Thresholds of Significance

The following significance criteria are based on Appendix G of the State CEQA Guidelines, with the exception of threshold b. On December 28, 2018, comprehensive updates to Appendix G of the State CEQA Guidelines became effective. These changes are reflected below, with the exception of threshold b regarding LOS standards and travel demand measures. The California Natural Resources Agency has certified and adopted changes to the CEQA Guidelines that identify vehicle miles traveled (VMT) as the most appropriate metric to evaluate a project's transportation impacts. To date, the City of Del Mar has not yet adopted significance criteria or technical methodologies for VMT analysis and is not required to do so until the mandated deadline of July 1, 2020. As no VMT criteria or methodologies have been adopted by the City of Del Mar, the environmental analysis contained in this document includes an analysis of LOS for evaluating traffic impacts. Impacts related to transportation and traffic would be significant if implementation of the project would:

a) Conflict with an applicable program, plan, ordinance, or policy addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities;

b) 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;

c) Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment); or

d) Result in inadequate emergency access.

4.11.3 Impact Analysis

a) Would the project conflict with an applicable program, plan, ordinance, or policy addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities?

b) Would the project 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?

Thresholds for identifying direct project-related impacts are based on published SANTEC guidelines and a significant direct project impact is identified for intersections and street segments if the LOS with the project degrades from LOS D or better to LOS E or F. If baseline conditions are at LOS E or F without the project, a significant intersection or street segment impact is identified in the City of Del Mar only if an additional two seconds of delay or an increase of 0.02 volume-to-capacity (v/c) results, respectively. The v/c value is determined by dividing the daily vehicle volume by the capacity of the roadway at LOS Within the City of San Diego, a significant street segment impact is identified if there is an additional increase of 0.02 v/c at LOS E or 0.01 with LOS F. For intersections that are close together and warrant a queuing analysis, direct project-related impacts are identified if the addition of project-related traffic increases the queue lengths by more than 10 feet for lanes that already exceed the available storage length. Impacts on freeway mainlines are identified if the LOS with the project is worse than LOS D and an addition of 0.01 v/c or a decrease in average speed of one mile per hour occurs. If operations for intersections, street segments, or freeway mainline segments are worse than LOS D but the additional delay or v/c does not exceed these limits, impacts are concluded to be less than significant and no mitigation is required. For freeway metered on-ramps, a significant impact is identified if the total delay exceeds 15 minutes and an additional two minutes of delay are added with the project. If the total delay does not exceed 15 minutes, then the project cannot have a significant impact at that freeway metered on-ramp. For more information on the traffic analysis methodology, please see Section 4.3 of the TIA in Appendix H.

Trip Generation

Trip generation during project operation is based on estimates from SANDAG's (Not so) Brief Guide of Vehicular Traffic Generation Rates for the San Diego Region, April 2002, and from the 10th Edition of the (ITE) Regional Guidelines for Traffic Impact Studies. Specifically, SANDAG's trip rates were used for weekdays and ITE's trip rates were used for weekends because SANDAG does not provide weekend trip generation rates. To estimate weekend trips using ITE's rates, trip generation rates for single-family homes were used for the detached villas. Also, ITE's trip rates for Multi-family Housing (Low Rise) were used for the affordable housing and lower-cost shared visitor-serving accommodations.

These estimates indicate that the project would result in a weekday trip rate of eight trips per hotel guest room or attached villa, 12 trips per detached villa, and six trips per affordable housing unit and lower-cost shared visitor-serving accommodation. On weekends, trip rates of 10.5 trips per hotel guest room, 8.14 trips per attached villa, affordable housing unit, and lower-cost shared visitor-serving accommodation, and 12 trips per detached villa were used as estimates. Project trip generation is summarized in Table 4.11-8, *Project Trip Generation*. As shown in Table 4.11-8, the project is estimated to generate a total of 1,408 daily weekday trips with 98 AM peak hour trips and 123 PM peak hour trips, and a total of 1,650 daily weekend trips with 139 PM peak hour trips. Trips during the AM peak hour were not analyzed on weekends.

These trip rate estimates represent conservative conditions as trip generation for the hotel was not reduced to account for workers living onsite, walk/bike trips, employees using transit to reach the site, or other Transportation Demand Management (TDM) measures that may be employed. In addition, the condominium trip rate assumed constant 100 percent occupancy of the resort villas, which is unlikely due to the fact that they would likely accommodate residents that do not live year-round onsite and do not go to work each day during the AM and PM peak hours.

Direct Project Traffic Impacts

Impacts related to project-generated traffic are evaluated based on the observed existing traffic conditions provided in Tables 4.11-1a through -1c and with the addition of traffic associated with cumulative projects in the near-term provided in Tables 4.11-2a through -2c. Anticipated trips associated with buildout of the project provided in Table 4.11-8 were then distributed throughout the traffic study area to determine the changes in operations for intersections, street segments, freeway mainline segments, and metered freeway on-ramps, as outlined below.

Intersections

Intersection operations with the project compared to existing conditions are shown in Tables 4.11-1a through -1c. As shown, all study area intersections would operate at an acceptable LOS (e.g., LOS D or better) or would not experience more than an additional two seconds of delay if operating at LOS E or F except for:

- Intersection #9 – Via de la Valle/South Cedros Avenue (during a typical weekday and horse races weekday in the PM peak hour; Impact TRA-1);
- Intersection #10 – Via de la Valle/Jimmy Durante Boulevard (during a fair weekday and weekend in the PM peak hour; Impact TRA-2);
- Intersection #13 – Camino del Mar/27th Street (during a typical weekend, fair weekday and weekend, and horse races weekday in the PM peak hour; Impact TRA-3); and
- Intersection #14 – Camino del Mar/Coast Boulevard (during a typical weekday, fair weekday and weekend, and horse races weekday and weekend in the PM peak hour; Impact TRA-4).

Intersection operations with the project compared to near-term conditions are shown in Tables 4.11-2a through -2c. As shown, the same four traffic study area intersections (intersections 9, 10, 13, and 14) impacted in the existing plus project condition would also result in direct project impacts with the project under the near-term baseline for the same scenarios. Also, three of the four traffic study area

intersections (intersections 10, 13, and 14) would also experience project impacts under additional scenarios in the near-term. As such, project impacts in the near-term include those noted above under existing conditions, as well as during the following additional scenarios:

- Intersection #10 – Via de la Valle/Jimmy Durante Boulevard (during a typical weekday in the PM peak hour; Impact TRA-2);

- Intersection #13 – Camino del Mar/27th Street (during a horse races weekend in the PM peak hour; Impact TRA-3); and

- Intersection #14 – Camino del Mar/Coast Boulevard (during a typical weekend in the PM peak hour; Impact TRA-4).

In summary, project impacts related to intersection delay would occur at four intersections within the traffic study area under existing plus project and near-term plus project conditions. Specifically, direct project impacts would occur at Via de la Valle/South Cedros Avenue (Impact TRA-1); Via de la Valle/Jimmy Durante Boulevard (Impact TRA-2); Camino del Mar/27th Street (Impact TRA-3); and at Camino del Mar/Coast Boulevard (Impact TRA-4), all within the City of Del Mar in the existing plus project and near-term plus project conditions. Mitigation measures MM TRA-1 through MM TRA-4 would be required and potentially significant intersection delay impacts TRA-1, TRA-2, and TRA-3 would be reduced to less than significant. Mitigation measure MM TRA-4 includes five options for mitigation, all of which would reduce project impacts to less than significant, except for Option E. Because Option E may be selected, impact TRA-4 is concluded to be potentially significant and unavoidable.

Street Segments

Street segment operations with the project compared to existing and near-term baseline conditions are shown in Tables 4.11-4a through -4c and Tables 4.11-5a through 4.11-5c, respectively. As shown, all study area street segments would operate at an acceptable LOS (e.g., LOS D or better) or would not experience an additional increase in allowable v/c if operating at LOS E or F with the addition of project traffic except for:

- Street Segment #7 – Via de la Valle, from Highway 101 to South Cedros Avenue (during a typical weekday, fair weekday, and horse races weekday, Impact TRA-5a);

- Street Segment #8 – Via de la Valle, from South Cedros Avenue to Jimmy Durante Boulevard (during a typical weekday, fair weekday, and horse races weekday, Impact TRA-5b); and

- Street Segment #9 - Via de la Valle, from Jimmy Durante Boulevard to I-5 SB Ramps (during a typical weekday, fair weekday, and horse races weekday, Impact TRA-5c).

The increase in v/c would be greater than the allowable v/c threshold on these three street segments along Via de la Valle under existing plus project and near-term plus project conditions during a typical weekday, fair weekday, and horse races weekday. Arterial analyses of Via de la Valle based on LOS operations of the signalized intersections between Camino del Mar and the I-5 Ramps were conducted under existing and near-term conditions, as peak hour intersection operations tend to be a better indicator of actual segment operations than ADT operations on a street segment. The results of the arterial analyses are shown in Table 4.11-9a, *Existing Via de la Valle Arterial Peak Hour Operations (Typical Weekday)*, and Table 4.11-9b, *Near-Term Via de la Valle Arterial Peak Hour Operations (Typical*

Weekday). These tables indicate that the LOS on Via de la Valle between Camino del Mar and I-5 would be LOS D or better under existing plus project and near-term plus project conditions on a typical weekday. Also, Table 4.11-9c, *Existing Via de la Valle Arterial Peak Hour Operations (Horse Races Weekday)*, and Table 4.11-9d, *Near-Term Via de la Valle Arterial Peak Hour Operations (Horse Races Weekday)*, show that during the horse races, the LOS on Via de la Valle between Camino del Mar and I-5 would be LOS D or better under existing plus project conditions. As a result, no significant direct impact on Via de La Valle would occur during a typical weekday or during the horse races under existing plus project or near-term plus project conditions. A similar arterial analysis was not conducted for Via de la Valle under the fair scenario because the traffic signal at the Via de la Valle/Jimmy Durante Boulevard intersection is controlled manually during this event. As a result, direct project impacts on three segments of Via de la Valle between Highway 101 and I-5 (street segments 7, 8, and 9) would occur during the fair with implementation of the proposed project (Impact TRA-5a, TRA-5b, and TRA-5c). Mitigation measures TRA-2 and TRA-7, which include intersection improvements along Via de la Valle, would partially mitigate Impacts TRA-5a through TRA-5c; however, impacts would remain significant and unavoidable.

Freeways

Freeway mainline segment operations with implementation of the proposed project are shown on Table 4.11-7a and metered freeway on-ramp operations with the project are shown in Table 4.11-7b. As shown, no freeway mainline segments within the traffic study area would operate at an unacceptable LOS (e.g., LOS E or F) and experience a change greater than 0.01 v/c and impacts on freeway mainline segments and metered freeway on-ramps would continue to operate with no delay with the addition of project traffic. As a result, no impacts on freeways would occur as a result of the proposed project.

Impacts to Pedestrian, Bicycle, and Transit Facilities

Existing pedestrian facilities at and in the immediate vicinity of the project site include the City of Del Mar Coastal Viewing Access Easement along the northern boundary of the project site that travels west from Border Avenue and a trail at the Preserve located south of the project site. Pedestrian sidewalks and bike lanes occur along Camino del Mar and Via de la Valle. Temporary impacts to pedestrian and bicycle mobility are not anticipated during construction for the pedestrian facilities at the City of Del Mar Coastal Viewing Access Easement or the pedestrian trail at the Preserve; however, temporary impacts may occur during installation of storm drain improvements and a water line within the right-of-way of Camino del Mar or Via de la Valle. While the exact location of the water line is not yet determined, installation of these improvements has the potential to result in temporary impacts as construction equipment and activities may preclude pedestrian and bicycle facilities (e.g., sidewalks and bicycle lanes within the roadway may be temporarily closed or access may be limited). As construction of a water line and storm drain improvements would occur along Breeze bus routes 101 and 308, there may also be temporary reductions in bus commute times; however, temporary impacts to pedestrian, bicycle, and transit facilities would be reduced to less than significant with implementation of MM TRA-6 (Impact TRA-6).

During project operations, the proposed paved public amenity trail and extension of the bluff top trail network would occur along the perimeter of the project site and would provide enhanced public access through the site between the existing City of Del Mar Coastal Viewing Access Easement north of the project site and the existing Preserve trail system south of the project site. The project site's proximity to public transit, including Breeze bus routes 101 and 308 and the Solana Beach Transit Center, would

allow for non-vehicular modes of access to and from the project site for resort guests, residents, employees, and visitors. The Transit Center and bus route 101 is located 0.8 mile north of the project site along Highway 101 and bus route 308 is located 0.8 mile to the east at the corner of Via de la Valle and Stevens Avenue. The on-site circulation improvements and their access to existing pedestrian and bicycle facilities would increase connectivity to these transit options. The resort would also include the provision of a shuttle service between the project site and the Solana Beach Transit Center for additional mobility and connectivity to transit options.

Based on the project site's proximity to existing pedestrian, bicycle, and transit facilities, and well as the planned on-site circulation improvements, implementation of the project would be consistent with Goal 2, Objectives A and B of the Del Mar Community Plan and Goal IV-B of the Del Mar Local Coastal Program. Therefore, the project would not conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities, and no impacts would occur.

c) Would the project substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?

Construction activities would occur within right-of-way along portions of Camino del Mar, Via de la Valle, Jimmy Durante Boulevard, and Border Avenue for storm water and potable and reclaimed water infrastructure improvements. During these activities, traffic controls would be required to maintain safety for roadway users and construction personnel along these roadways. Review of a Traffic Control Plan by the City of Del Mar would occur. Due to the potential for conflicts to vehicles, pedestrians, and bicyclists along adjacent roadways during construction of the utilities improvements, impacts are considered potentially significant (Impact TRA-6). Mitigation measure MM TRA-6 would be required to reduce potential temporary hazards related to work within public right-of-way during construction to less than significant.

Regarding permanent impacts related to a hazard due to a design feature, potential impacts could occur as a result of adding 1,408 ADT during weekdays and 1,650 ADT during weekends at the 11 intersections and 63 traffic lanes evaluated within the queuing analysis. As shown on Table 4.11-3, existing intersection queuing with and without the project exceeds the available lane storage length at 14 lanes without the project. Of the 14 existing deficient lanes, one lane would be increased by more than the 10-foot threshold and would result in a direct project impact. Specifically, the westbound left-turn lane from Via de la Valle onto southbound Camino del Mar that currently exceeds the lane storage length would experience an additional 27 feet of vehicle queuing with the project. As a result, a direct project impact related to queuing would occur at one lane at the westbound left-turn lane at the intersection of Camino del Mar/Via de la Valle (Impact TRA-7).

The only access to the project site would be via Border Avenue. Raised medians would be provided on Border Avenue and South Sierra Avenue at the project entrance, as described in mitigation measure MM TRA-7. This configuration would allow inbound left turns from Border Avenue, prohibit outbound project traffic from using Sierra Avenue and prohibit U-turns on Sierra Avenue southbound to northbound. Regarding queuing conditions at the project driveway at Border Avenue, traffic entering the project site (heading westbound along Border Avenue and turning left onto the project driveway) has a storage length of 70 feet backing up to Camino del Mar and traffic exiting the project site (turning right onto Border Avenue from the project driveway and heading eastbound) has a storage length of 50 feet backing up into the project site. At the completion of project construction, project traffic would result in

a 3-foot queue for traffic entering the site and a 5-foot queue for traffic exiting the site. Neither of these project-related queues would exceed the available storage length. As a result, potential impacts related to an increase in hazards due to a design features, such as a dangerous intersection, would not occur and impacts related to the safety at the project driveway at Border Avenue would be less than significant.

d) Would the project result in inadequate emergency access?

Construction of the project would utilize roadways in the vicinity of the project site for access. Construction equipment and materials would primarily be stored at the project site during construction; however, some equipment may be present along the roadways for work within the City of Del Mar right-of-way areas adjacent to the project site (such as Border Avenue, Via de la Valle, Jimmy Durante Boulevard, and Camino del Mar). Construction equipment would be used intermittently depending on construction phase. Although equipment, truck, and worker trips would be added to the current roadway conditions in the project vicinity, adequate emergency access would be provided to the site and surrounding areas. A traffic control plan and encroachment permit would be prepared per mitigation measure MM TRA-6 and would include provisions for construction times and for allowance of vehicles, bicyclists, and pedestrians along area roadways throughout construction, including Border Avenue, Via de la Valle, Jimmy Durante Boulevard, and Camino del Mar. The traffic control plan would also include provisions to maintain emergency vehicle access during construction at all times.

Once constructed, primary emergency access to the site would be provided by the project driveway at Border Avenue. As shown on Figure 3-4, emergency vehicle access only would be provided throughout the project site, generally alongside the proposed loop trail located around the perimeter of the project site. A large turnaround area is also shown near the center of the coastal terrace within the project site on Figure 3-4, which would allow emergency vehicles to enter and exit the site during an emergency. Pathway lighting would also be provided along the emergency vehicle access pathway. During both construction and operation, the project would not result in inadequate emergency access and impacts would be less than significant.

4.11.4 Mitigation Measures

Mitigation measures are included to address the direct project impacts identified above, including four impacts to intersections at Via de la Valle/South Cedros Avenue (Impact TRA-1), at Via de la Valle/Jimmy Durante Boulevard (Impact TRA-2), at Camino del Mar/27th Street (Impact TRA-3), and at Camino del Mar/Coast Boulevard (Impact TRA-4); three impacts to street segments along Via de la Valle (Impacts TRA-5a, TRA-5b, and TRA-5c); a temporary impact related to vehicle, pedestrian, and bicycle conflicts during construction traffic (Impact TRA-6); and a direct project impact related to queuing at the westbound left-turn lane at the intersection of Camino del Mar (Highway 101)/Via de la Valle (Border Avenue) (Impact TRA-7).

MM TRA-1: Improvements at Via de la Valle/South Cedros Avenue. Prior to the issuance of occupancy permits, the project applicant shall be responsible for the installation of a traffic signal at the intersection of Via de la Valle and South Cedros Avenue to the satisfaction of the City of Del Mar.

MM TRA-2: Improvements at Via de la Valle/Jimmy Durante Boulevard. Prior to the issuance of occupancy permits, the project applicant shall be responsible for the re-striping of Via de la Valle at Jimmy Durante Boulevard per Figure 4.11-2, *Via de la Valle/Jimmy Durante Boulevard Intersection*

Improvements, which illustrates an exclusive westbound right-turn lane for vehicles and a bike lane on westbound Via de la Valle between the right-turn lane and through lane east of Jimmy Durante Boulevard.

MM TRA-3: Improvements at Camino del Mar/27th Street. Prior to the issuance of occupancy permits, the project applicant shall complete one of the following improvements, to the satisfaction of the City of Del Mar:

- Option A: Install a traffic signal at the intersection of Camino del Mar and 27th Street;
- Option B: Install a roundabout at the intersection of Camino del Mar and 27th Street;
- Option C: Provide manual control of the intersection during the peak hours until such time as a permanent mitigation measure is decided;
- Option D: Provide a second through lane on Camino del Mar and modify the intersection control to a two-way stop control; or
- Option E: Remove the stop signs on Camino del Mar and modify the intersection control to a two-way stop control.

MM TRA-4: Improvements at Camino del Mar/Coast Boulevard. Prior to the issuance of occupancy permits, the project applicant shall complete one of the following improvements, to the satisfaction of the City of Del Mar:

- Option A: Install a traffic signal at the intersection of Camino del Mar and Coast Boulevard;
- Option B: Install a roundabout at the intersection of Camino del Mar and Coast Boulevard;
- Option C: Provide manual control of the intersection during the peak hours until such time as a permanent mitigation measure is decided;
- Option D: Provide a second through lane on Camino del Mar at Coast Boulevard; or
- Option E: Remove the stop signs on Camino del Mar and modify the intersection control to a two-way stop control.

MM TRA-5: Implement mitigation measures MM TRA-2 and TRA-7.

MM TRA-6: Traffic Control Plan. During the encroachment permit process, the contractor or other responsible party will provide a traffic control plan for review and approval by the City of Del Mar Public Works Department. The traffic control plan shall be prepared in accordance with the City of Del Mar's Traffic and Roadway Standards Manual and to the satisfaction of the City of Del Mar Public Works Department. It must demonstrate that adequate emergency access and egress will be maintained, and that traffic will be allowed to move efficiently and safely along Camino del Mar, Border Avenue, and surrounding roadways. The traffic control plan may include measures such as signage, detours, traffic control staff, a temporary traffic signal, or other appropriate traffic controls, as determined appropriate by the City of Del Mar Public Works Department.

MM TRA-7: Improvements at Camino del Mar (Highway 101)/Via de la Valle (Border Avenue). Prior to the issuance of occupancy permits, the project applicant shall install either Option A or Option B, which are depicted on EIR Figure 4.11-3, *Border Avenue/Via de la Valle Intersection Improvements,* and Figure 4.11-4, *Via de la Valle Segment Improvements*, respectively:

- Option A (EIR Figure 4.11-3): An exclusive eastbound left-turn lane, one through-lane, and one shared through right-lane within Border Avenue at Camino del Mar; or

- Option B (EIR Figure 4.11-4): An exclusive eastbound left-turn lane, one through-lane, one shared through right-turn lane, in addition to restriping within Via de la Valle with a westbound right-turn lane, a shared through left-turn lane, and a left-turn lane with east/west split phasing. A second eastbound through lane on Via de la Valle from Highway 101 through approximately 200 feet east of South Cedros Avenue shall also be provided.

4.11.5 Level of Significance After Mitigation

As shown on Table 4.11-10a, Existing + Project Intersection Delay Before and After Mitigation, and Table 4.11-10b, Near-Term + Project Intersection Delay Before and After Mitigation, implementation of the proposed mitigation measures MM TRA-1 and MM TRA-2 would reduce impacts at Via de la Valley/South Cedros Avenue and Via de la Valle/Jimmy Durante Boulevard to less than significant. The intersection of Via de la Valle/Jimmy Durante Boulevard would continue to operate at LOS E after incorporation of MM TRA-2 during a fair weekday under the Existing + Project scenario; however, when compared to baseline conditions without the project, the addition of project traffic and implementation of MM TRA-2 would result in a reduction in delay and impacts would be reduced to less than significant.

For impacts TRA-3 and TRA-4 at Camino del Mar/27th Street and Camino del Mar/Coast Boulevard, respectively, five options (options A through E) are included as potential mitigation measures to address impacts. As shown on Tables 4.11-10a and -10b, options A through E would mitigate impacts at Camino del Mar/27th Street to less than significant; however, implementation of TRA-4, Option E, which involves removing stop signs along Camino del Mar at Camino del Mar/Coast Boulevard, would not reduce impacts to a less-than-significant level during a typical and fair weekend PM peak hour. If any of Options A through D of MM TRA-4 are adopted, impacts at Camino del Mar/Coast Boulevard would be reduced to less than significant; however, if Option E of MM TRA-4 is selected, impacts would remain significant and unavoidable. Because there is the potential for Option E to be implemented to address impact TRA-4, this impact is concluded to be potentially significant and unavoidable.

For impacts TRA-5a through -5c, mitigation measures TRA-2 and TRA-7, which include improvements along Via de la Valle, would partially mitigate impacts to three segments along Via de la Valle during the fair weekday only (segments 7, 8, and 9); however, impacts to these three segments during the fair weekday would remain significant and unavoidable.

Implementation of a traffic control plan per mitigation measure MM TRA-6 would reduce potentially significant impacts (Impact TRA-6) related to construction activities in adjacent roadways to less than significant.

Regarding queuing at study area intersections, as shown on Table 4.11-10c, *Existing + Project Intersection Storage Length Before and After Mitigation*, implementation of mitigation measure MM TRA-7 would reduce project-related queuing lengths to less than existing conditions at Camino del Mar

(Highway 101)/Via de la Valle (Border Avenue) during the PM peak hour on a weekday with implementation of Option B only. Specifically, mitigation measure MM TRA-7, Option B, would reduce Impact TRA-7 to less than significant by reducing the storage length to 246 feet, which is 36 feet shorter than the available storage length of 282 feet. Option A would not reduce Impact TRA-7 to less than significant, as the available storage length would be 20 feet greater than the available storage length of 282 feet, and impacts would remain significant and unavoidable if Option A is implemented. Because there is the potential for Option A to be implemented that would not reduce the impact to less than significant, Impact TRA-7 is concluded to be potentially significant and unavoidable.

In conclusion, significant and unavoidable traffic impacts associated with the proposed project could potentially occur at the intersections of Camino del Mar/Coast Boulevard during the PM peak hour on a typical and fair weekend and at Camino del Mar (Highway 101)/Via de la Valle (Border Avenue) during the PM peak hour on a weekday depending on which options within mitigation measures MM TRA-4 and MM TRA-7 are implemented. Significant and unavoidable impacts would also occur at three segments along Via de la Valle (between Highway 101 and I-5 SB Ramps) during the fair on a weekday.

Table 4.11-1a
EXISTING INTERSECTION OPERATIONS (TYPICAL WEEKDAY/WEEKEND)

Intersection	Control Type	Peak Hour	Without Project		With Project		Δ Delay[b]
			Delay (seconds)	LOS[a]	Delay (seconds)	LOS	
1. Highway 101/Lomas Santa Fe Drive	Signal	Weekday AM	32.8	C	33.5	C	0.7
		Weekday PM	41.8	D	42.2	D	0.4
		Weekend PM	**60.3**	**E**	**61.0**	**E**	0.7
2. Cedros/Lomas Santa Fe Drive	Signal	Weekday AM	33.4	C	33.6	C	0.2
		Weekday PM	21.7	C	21.8	C	0.1
		Weekend PM	20.7	C	20.7	C	0.0
3. I-5 Southbound Ramps/Lomas Santa Fe Drive	Signal	Weekday AM	14.8	B	14.9	B	0.1
		Weekday PM	29.4	C	29.7	C	0.3
		Weekend PM	12.4	B	12.5	B	0.1
4. I-5 Northbound Ramps/Lomas Santa Fe Drive	Signal	Weekday AM	16.1	B	16.2	B	0.1
		Weekday PM	14.3	B	14.4	B	0.1
		Weekend PM	13.1	B	13.1	B	0.0
5. South Sierra Avenue/Dahlia Drive	AWSC[c]	Weekday AM	8.0	A	8.0	A	0.0
		Weekday PM	8.6	A	8.6	A	0.0
		Weekend PM	8.0	A	8.0	A	0.0
6. Highway 101/Dahlia Drive	Signal	Weekday AM	7.7	A	7.7	A	0.0
		Weekday PM	5.9	A	5.9	A	0.0
		Weekend PM	6.2	A	6.2	A	0.0
7. Border Avenue/South Sierra Avenue	[e]	Weekday AM	N/A		8.5	A	N/A
		Weekday PM	N/A		8.5	A	N/A
		Weekend PM	N/A		9.1	A	N/A
8. Camino del Mar/Via de la Valle	Signal	Weekday AM	13.4	B	13.8	B	0.4
		Weekday PM	29.1	C	29.3	C	0.2
		Weekend PM	23.3	C	23.9	C	0.6
9. Via de la Valle/South Cedros Avenue	MSSC[d]	Weekday AM	21.8	C	23.3	C	1.5
		Weekday PM	33.0	D	36.5	E	3.5
		Weekend PM	22.9	C	24.9	C	2.0
10. Via de la Valle/Jimmy Durante Boulevard	Signal	Weekday AM	36.7	D	37.7	D	1.0
		Weekday PM	40.1	D	42.1	D	2.0
		Weekend PM	29.6	C	30.2	C	0.6

Table 4.11-1a (cont.)
EXISTING INTERSECTION OPERATIONS (TYPICAL WEEKDAY/WEEKEND)

Intersection	Control Type	Peak Hour	Without Project		With Project		Δ Delay[b]
			Delay (seconds)	LOS[a]	Delay (seconds)	LOS	
11. Via de la Valle/I-5 Southbound Ramps	Signal	Weekday AM	10.4	B	10.8	B	0.4
		Weekday PM	11.1	B	11.5	B	0.4
		Weekend PM	9.8	A	10.0	A	0.2
12. Via de la Valle/I-5 Northbound Ramps	Signal	Weekday AM	24.2	C	24.4	C	0.2
		Weekday PM	27.0	C	27.5	C	0.5
		Weekend PM	24.8	C	25.3	C	0.5
13. Camino del Mar/27th Street	AWSC[d]	Weekday AM	16.2	C	16.5	C	0.3
		Weekday PM	28.9	D	30.2	D	1.3
		Weekend PM	34.5	D	36.2	E	1.7
14. Camino del Mar/Coast Boulevard	AWSC[d]	Weekday AM	15.0	B	15.7	C	0.7
		Weekday PM	62.0	F	65.4	F	3.4
		Weekend PM	30.2	D	31.7	D	1.5
15. Camino del Mar/L'Auberge Del Mar	Signal	Weekday AM	6.4	A	6.4	A	0.0
		Weekday PM	10.6	B	10.6	B	0.0
		Weekend PM	8.9	A	8.9	A	0.0
16. Camino del Mar/15th Street	Signal	Weekday AM	21.8	C	21.8	C	0.0
		Weekday PM	31.8	C	32.1	C	0.3
		Weekend PM	33.3	C	33.6	C	0.3
17. Camino del Mar/Del Mar Heights Road	Signal	Weekday AM	32.8	C	33.0	C	0.2
		Weekday PM	**77.5**	**E**	**78.2**	**E**	**0.7**
		Weekend PM	**129.0**	**F**	**129.9**	**F**	**0.9**
18. Camino del Mar/Carmel Valley Road	Signal	Weekday AM	22.6	C	23.1	C	0.5
		Weekday PM	22.6	C	23.1	C	0.5
		Weekend PM	12.2	B	12.3	B	0.1
19. Via de la Valle/Solana Circle	MSSC[e]	Weekday AM	19.0	C	19.9	C	0.9
		Weekday PM	18.9	C	19.9	C	1.0
		Weekend PM	15.4	C	16.2	C	0.8

Source: LLG 2019
a. Level of Service
b. Increase in delay to due project
c. AWSC – All-Way Stop Controlled intersection. Minor street left turn delay is reported
d. MSSC – Minor Street Stop Controlled intersection. Minor street left turn delay is reported
e. Turn in the road. No traffic control exists
N/A = Not Available
Shaded cells indicate a significant direct project impact. **Bolded cells** indicate a failing intersection but no direct project impact.

Table 4.11-1b
EXISTING INTERSECTION OPERATIONS (FAIR WEEKDAY/WEEKEND)

Intersection	Control Type	Peak Hour	Without Project		With Project		Δ Delay[b]
			Delay (seconds)	LOS[a]	Delay (seconds)	LOS	
1. Highway 101/Lomas Santa Fe Drive	Signal	Weekday AM	31.7	C	31.8	C	0.1
		Weekday PM	48.6	D	49.0	D	0.4
		Weekend PM	40.5	D	44.2	D	3.7
6. Highway 101/Dahlia Drive	Signal	Weekday AM	6.9	A	6.9	A	0.0
		Weekday PM	8.2	A	8.2	A	0.0
		Weekend PM	6.5	A	6.5	A	0.0
8. Border Avenue/Via de la Valle	Signal	Weekday AM	14.9	B	15.8	B	0.9
		Weekday PM	24.0	C	24.2	C	0.2
		Weekend PM	21.4	C	22.0	C	0.6
9. Via de la Valle/South Cedros Avenue	MSSC[d]	Weekday AM	22.7	C	24.3	C	1.6
		Weekday PM	23.0	C	25.0	D	2.0
		Weekend PM	17.7	C	19.1	C	1.4
10. Via de la Valle/Jimmy Durante Boulevard	Signal	Weekday AM	37.3	D	38.1	D	0.8
		Weekday PM	64.9	E	67.2	E	2.3
		Weekend PM	52.1	D	89.7	F	37.6
11. Via de la Valle/I-5 Southbound Ramps	Signal	Weekday AM	10.3	B	10.5	B	0.2
		Weekday PM	12.4	B	12.9	B	0.5
		Weekend PM	17.7	B	18.8	B	1.1
12. Via de la Valle/I-5 Northbound Ramps	Signal	Weekday AM	24.0	C	24.4	C	0.2
		Weekday PM	29.9	C	30.3	C	0.4
		Weekend PM	29.4	C	29.7	C	0.3
13. Camino del Mar/27th Street	AWSC[e]	Weekday AM	17.3	C	17.7	C	0.4
		Weekday PM	68.4	F	71.6	F	3.2
		Weekend PM	45.7	E	48.4	E	2.7
14. Camino del Mar/Coast Boulevard	AWSC[e]	Weekday AM	17.6	C	17.9	C	0.3
		Weekday PM	93.4	F	97.4	F	4.0
		Weekend PM	39.0	E	41.6	E	2.6
16. Camino del Mar/15th Street	Signal	Weekday AM	21.7	C	21.7	C	0.0
		Weekday PM	31.0	C	31.1	C	0.1
		Weekend PM	30.9	C	32.3	C	1.4

Table 4.11-1b (cont.)
EXISTING INTERSECTION OPERATIONS (FAIR WEEKDAY/WEEKEND)

Intersection	Control Type	Peak Hour	Without Project		With Project		Δ Delay[b]
			Delay (seconds)	LOS[a]	Delay (seconds)	LOS	
19. Via de la Valle/Solana Circle	MSSC[d]	Weekday AM	17.2	C	17.2	C	0.0
		Weekday PM	14.5	B	14.6	B	0.1
		Weekend PM	N/A	N/A	N/A	N/A	N/A

Source: LLG 2019
a. Level of Service
b. Increase in delay to due to the project
c. Represents a turn in the road but no traffic control exists
d. MSSC – Minor Street Stop Controlled intersection. Minor street let turn delay is reported
e. AWSC – All-Way Stop Controlled intersection. Minor street left turn delay is reported
N/A = Not Available
Shaded cells indicate a significant direct project impact. **Bolded cells** indicate a failing intersection but no direct project impact.

Table 4.11-1c
EXISTING INTERSECTION OPERATIONS (HORSE RACES WEEKDAY/WEEKEND)

Intersection	Control Type	Peak Hour	Without Project		With Project		Δ Delay[b]
			Delay (seconds)	LOS[a]	Delay (seconds)	LOS	
1. Highway 101/Lomas Santa Fe Drive	Signal	**Weekday PM**	**61.0**	**E**	**61.5**	**E**	**0.5**
		Weekend PM	**68.1**	**E**	**68.7**	**E**	**0.6**
2. Cedros/Lomas Santa Fe Drive	Signal	Weekday PM	20.7	C	20.7	C	0.0
		Weekend PM	21.7	C	21.7	C	0.0
3. I-5 Southbound Ramps/Lomas Santa Fe Drive	Signal	Weekday PM	20.6	C	21.3	C	0.7
		Weekend PM	14.7	B	14.8	B	0.1
4. I-5 Northbound Ramps/Lomas Santa Fe Drive	Signal	Weekday PM	14.3	B	14.3	B	0.0
		Weekend PM	12.5	B	12.5	B	0.0
5. South Sierra Avenue/Dahlia Drive	AWSC[c]	Weekday PM	8.1	A	8.1	A	0.0
		Weekend PM	13.6	B	13.9	B	0.3
6. Highway 101/Dahlia Drive	Signal	Weekday PM	5.8	A	7.5	A	1.7
		Weekend PM	6.5	A	6.5	A	0.0
7. Border Avenue/South Sierra Avenue	[d]	Weekday PM	N/A		13.0	B	N/A
		Weekend PM	N/A		12.2	B	N/A
8. Camino del Mar/Via de la Valle	Signal	Weekday PM	24.4	C	24.9	C	0.5
		Weekend PM	23.6	C	26.2	C	2.6
9. Via de la Valle/South Cedros Avenue	MSSC[e]	Weekday PM	31.3	D	35.6	E	4.3
		Weekend PM	18.1	C	19.5	C	1.4
10. Via de la Valle/Jimmy Durante Boulevard	Signal	Weekday PM	35.6	D	40.6	D	5.0
		Weekend PM	30.6	C	31.0	C	0.4
11. Via de la Valle/I-5 Southbound Ramps	Signal	Weekday PM	9.1	A	10.1	B	1.0
		Weekend PM	8.7	A	8.9	A	0.2
12. Via de la Valle/I-5 Northbound Ramps	Signal	Weekday PM	25.8	C	26.3	C	0.5
		Weekend PM	24.8	C	25.3	C	0.5
13. Camino del Mar/27th Street	AWSC[c]	Weekday PM	35.1	E	139.3	F	4.2
		Weekend PM	29.4	D	30.9	D	1.5
14. Camino del Mar/Coast Boulevard	AWSC[c]	Weekday PM	257.9	F	262.4	F	4.5
		Weekend PM	88.6	F	92.9	F	4.3
15. Camino del Mar/L'Auberge Del Mar	Signal	Weekday PM	9.2	A	9.5	A	0.3
		Weekend PM	9.6	A	9.6	A	0.0

Table 4.11-1c (cont.)
EXISTING INTERSECTION OPERATIONS (HORSE RACES WEEKDAY/WEEKEND)

Intersection	Control Type	Peak Hour	Without Project		With Project		Δ Delay[b]
			Delay (seconds)	LOS[a]	Delay (seconds)	LOS	
16. Camino del Mar/15th Street	Signal	Weekday PM	31.6	C	31.9	C	0.3
		Weekend PM	33.4	C	33.6	C	0.2
17. Camino del Mar/Del Mar Heights Road	Signal	**Weekday PM**	**164.4**	**F**	**164.9**	**F**	**0.5**
		Weekend PM	**113.9**	**F**	**114.9**	**F**	**1.0**
18. Camino del Mar/Carmel Valley Road	Signal	Weekday PM	28.2	C	28.7	C	0.5
		Weekend PM	13.8	B	13.9	B	0.1
19. Via de la Valle/Solana Circle	Signal	Weekend PM	22.4	C	23.9	C	1.5
		Weekend PM	16.5	C	17.6	C	1.1

Source: LLG 2019
a. Level of Service
b. Increase in delay due to the project
c. AWSC – All-Way Stop Controlled intersection. Minor street left turn delay is reported
d. Turn in the road. No traffic control exists
e. MSSC – Minor Street Stop Controlled intersection. Minor street let turn delay is reported
N/A = Not Available
Shaded cells indicate a significant direct project impact. **Bolded cells** indicate a failing intersection but no direct project impact.

Table 4.11-2a
NEAR-TERM INTERSECTION OPERATIONS (TYPICAL WEEKDAY/WEEKEND)

Intersection	Control Type	Peak Hour	Without Project		With Project		Δ Delay[b]
			Delay (seconds)	LOS[a]	Delay (seconds)	LOS	
1. Highway 101/Lomas Santa Fe Drive	Signal	Weekday AM	34.1	C	34.4	C	0.3
		Weekday PM	45.5	D	46.0	D	0.5
		Weekend PM	**61.6**	**E**	**62.1**	**E**	**0.5**
2. Cedros/Lomas Santa Fe Drive	Signal	Weekday AM	33.5	C	36.1	D	2.6
		Weekday PM	22.2	C	22.2	C	0.0
		Weekend PM	21.0	C	21.0	C	0.0
3. I-5 Southbound Ramps/Lomas Santa Fe Drive	Signal	Weekday AM	15.4	B	15.5	B	0.1
		Weekday PM	32.4	C	32.9	C	0.5
		Weekend PM	13.2	B	13.3	B	0.1
4. I-5 Northbound Ramps/Lomas Santa Fe Drive	Signal	Weekday AM	16.4	B	16.4	B	0.0
		Weekday PM	14.8	B	14.8	B	0.0
		Weekend PM	13.3	B	13.3	B	0.0
5. South Sierra Avenue/Dahlia Drive	AWSC[c]	Weekday AM	8.0	A	8.1	A	0.1
		Weekday PM	8.7	A	8.7	A	0.0
		Weekend PM	8.1	A	8.2	A	0.2
6. Highway 101/Dahlia Drive	Signal	Weekday AM	10.9	B	10.9	B	0.0
		Weekday PM	10.5	B	10.6	B	0.1
		Weekend PM	11.5	B	11.5	B	0.0
7. Border Avenue/South Sierra Avenue	[e]	Weekday AM	N/A		9.0	A	N/A
		Weekday PM	N/A		9.5	A	N/A
		Weekend PM	N/A		9.1	A	N/A
8. Camino del Mar (Highway 101)/Via de la Valle (Border Avenue)	Signal	Weekday AM	14.2	B	14.6	B	0.4
		Weekday PM	31.4	C	31.9	C	0.5
		Weekend PM	22.8	C	24.0	C	1.2
9. Via de la Valle/South Cedros Avenue	MSSC[d]	Weekday AM	24.2	C	26.1	D	1.9
		Weekday PM	42.6	E	48.5	E	5.9
		Weekend PM	24.5	C	26.7	D	2.2
10. Via de la Valle/Jimmy Durante Boulevard	Signal	Weekday AM	43.8	D	45.3	D	1.5
		Weekday PM	53.9	D	57.1	E	3.2
		Weekend PM	31.2	C	32.1	C	0.9

Table 4.11-2a (cont.)
NEAR-TERM INTERSECTION OPERATIONS (TYPICAL WEEKDAY/WEEKEND)

Intersection	Control Type	Peak Hour	Without Project		With Project		Δ Delay[b]
			Delay (seconds)	LOS[a]	Delay (seconds)	LOS	
11. Via de la Valle/I-5 Southbound Ramps	Signal	Weekday AM	14.4	B	15.0	B	0.6
		Weekday PM	14.6	B	15.1	B	0.5
		Weekend PM	12.7	B	13.0	B	0.3
12. Via de la Valle/I-5 Northbound Ramps	Signal	Weekday AM	25.6	C	25.9	C	0.3
		Weekday PM	29.3	C	29.9	C	0.6
		Weekend PM	27.0	C	27.5	C	0.5
13. Camino del Mar/27th Street	AWSC[d]	Weekday AM	18.3	C	18.8	C	0.5
		Weekday PM	**38.4**	**E**	**40.2**	**E**	**1.8**
		Weekend PM	49.6	E	52.5	F	2.9
14. Camino del Mar/Coast Boulevard	AWSC[d]	Weekday AM	17.0	C	17.4	C	0.4
		Weekday PM	81.5	F	84.9	F	3.4
		Weekend PM	43.5	E	45.9	E	2.4
15. Camino del Mar/L'Auberge Del Mar	Signal	Weekday AM	6.5	A	6.5	A	0.0
		Weekday PM	10.6	B	10.6	B	0.0
		Weekend PM	8.9	A	8.9	A	0.0
16. Camino del Mar/15th Street	Signal	Weekday AM	22.0	C	22.0	C	0.0
		Weekday PM	32.5	C	33.0	C	0.5
		Weekend PM	33.7	C	35.0	D	1.3
17. Camino del Mar/Del Mar Heights Road	Signal	Weekday AM	33.7	C	33.9	C	0.2
		Weekday PM	**89.3**	**F**	**90.1**	**F**	**0.8**
		Weekend PM	**145.6**	**F**	**146.2**	**F**	**0.6**
18. Camino del Mar/Carmel Valley Road	Signal	Weekday AM	22.7	C	23.2	C	0.5
		Weekday PM	23.1	C	23.6	C	0.5
		Weekend PM	12.2	B	12.3	B	0.1
19. Via de la Valle/Solana Circle	MSSC[e]	Weekday AM	20.1	C	21.1	C	1.0
		Weekday PM	20.1	C	21.3	C	1.2
		Weekend PM	16.3	C	17.2	C	0.9

Source: LLG 2019
a. Level of Service
b. Increase in delay to due project
c. AWSC – All-Way Stop Controlled intersection. Minor street left turn delay is reported
d. MSSC – Minor Street Stop Controlled intersection. Minor street left turn delay is reported
e. Turn in the road. No traffic control exists
N/A = Not Available
Shaded cells indicate a significant direct project impact. **Bolded cells** indicate a failing intersection but no direct project impact.

Table 4.11-2b
NEAR-TERM INTERSECTION OPERATIONS (FAIR WEEKDAY/WEEKEND)

Intersection	Control Type	Peak Hour	Without Project		With Project		Δ Delay[b]
			Delay (seconds)	LOS[a]	Delay (seconds)	LOS	
1. Highway 101/Lomas Santa Fe Drive	Signal	Weekday AM	32.2	C	32.3	C	0.1
		Weekday PM	52.3	D	52.9	D	0.6
		Weekend PM	49.5	D	49.9	D	0.4
6. Highway 101/Dahlia Drive	Signal	Weekday AM	10.1	B	10.1	B	0.0
		Weekday PM	14.6	B	14.7	B	0.1
		Weekend PM	12.6	B	12.6	B	0.0
7. Border Avenue/South Sierra Avenue	[c]	Weekday AM	DNE	N/A	12.5	B	N/A
		Weekday PM	DNE	N/A	14.0	B	N/A
		Weekend PM	DNE	N/A	9.0	A	N/A
8. Camino del Mar (Highway 101)/Via de la Valle (Camino del Mar)	Signal	Weekday AM	15.8	B	16.7	B	0.9
		Weekday PM	24.4	C	24.6	C	0.2
		Weekend PM	21.7	C	22.3	C	0.6
9. Via de la Valle/South Cedros Avenue	MSSC[d]	Weekday AM	25.4	D	27.2	D	1.8
		Weekday PM	27.5	D	30.1	D	2.6
		Weekend PM	20.1	C	21.8	C	1.7
10. Via de la Valle/Jimmy Durante Boulevard	Signal	Weekday AM	43.9	D	45.1	D	1.2
		Weekday PM	84.4	F	87.4	F	3.0
		Weekend PM	110.3	F	112.0	F	1.7
11. Via de la Valle/I-5 Southbound Ramps	Signal	Weekday AM	13.0	B	13.4	B	0.4
		Weekday PM	17.3	B	17.8	B	0.8
		Weekend PM	27.0	C	28.8	C	1.8
12. Via de la Valle/I-5 Northbound Ramps	Signal	Weekday AM	25.2	C	25.4	C	0.2
		Weekday PM	31.8	C	32.2	C	0.4
		Weekend PM	29.5	C	29.9	C	0.4
13. Camino del Mar/27th Street	AWSC[e]	Weekday AM	19.9	C	20.3	C	0.4
		Weekday PM	89.7	F	93.4	F	3.7
		Weekend PM	64.6	F	68.0	F	3.4

Table 4.11-2b (cont.)
NEAR-TERM INTERSECTION OPERATIONS (FAIR WEEKDAY/WEEKEND)

Intersection	Control Type	Peak Hour	Without Project		With Project		Δ Delay[b]
			Delay (seconds)	LOS[a]	Delay (seconds)	LOS	
14. Camino del Mar/Coast Boulevard	AWSC[e]	Weekday AM	19.9	C	20.5	C	0.6
		Weekday PM	115.6	F	119.7	F	4.1
		Weekend PM	53.0	F	56.3	F	3.3
16. Camino del Mar/15th Street	Signal	Weekday AM	21.9	C	21.9	C	0.0
		Weekday PM	31.4	C	31.4	C	0.0
		Weekend PM	32.3	C	32.3	C	0.0
19. Via de la Valle/Solana Circle	MSSC[d]	Weekday AM	18.2	C	18.2	C	0.0
		Weekday PM	15.4	C	15.5	C	0.1
		Weekend PM	N/A	N/A	N/A	N/A	N/A

Source: LLG 2019

a. Level of Service
b. Increase in delay to due project
c. AWSC – All-Way Stop Controlled intersection. Minor street left turn delay is reported
d. MSSC – Minor Street Stop Controlled intersection. Minor street left turn delay is reported
e. Turn in the road. No traffic control exists

N/A = Not Available

Shaded cells indicate a significant direct project impact.

Table 4.11-2c
NEAR-TERM INTERSECTION OPERATIONS (HORSE RACES WEEKDAY/WEEKEND)

Intersection	Control Type	Peak Hour	Without Project		With Project		Δ Delay[b]
			Delay (seconds)	LOS[a]	Delay (seconds)	LOS	
1. Highway 101/Lomas Santa Fe Drive	Signal	**Weekday PM**	**68.1**	**E**	**68.7**	**E**	**1.6**
		Weekend PM	**74.2**	**E**	**74.8**	**E**	**0.6**
2. Cedros/Lomas Santa Fe Drive	Signal	Weekday PM	21.1	C	21.1	C	0.0
		Weekend PM	22.1	C	22.1	C	0.0
3. I-5 Southbound Ramps/Lomas Santa Fe Drive	Signal	Weekday PM	22.5	C	24.1	C	1.6
		Weekend PM	15.8	B	15.9	B	0.1
4. I-5 Northbound Ramps/Lomas Santa Fe Drive	Signal	Weekday PM	15.0	B	15.0	B	0.0
		Weekend PM	12.7	B	12.7	B	0.0
5. South Sierra Avenue/Dahlia Drive	AWSC[c]	Weekday PM	8.2	A	8.3	A	0.1
		Weekend PM	12.3	B	14.3	B	2.0
6. Highway 101/Dahlia Drive	Signal	Weekday PM	10.6	B	12.4	B	1.8
		Weekend PM	12.1	B	12.4	B	0.3
7. Border Avenue/South Sierra Avenue	[d]	Weekday PM	N/A		13.0	B	N/A
		Weekend PM	N/A		12.0	B	N/A
8. Camino del Mar (Highway 101)/Via de la Valle (Border Avenue)	Signal	Weekday PM	25.0	C	25.4	C	0.4
		Weekend PM	24.1	C	26.8	C	2.7
9. Via de la Valle/South Cedros Avenue	MSSC[e]	Weekday PM	40.6	E	48.1	E	7.5
		Weekend PM	21.4	C	22.1	C	0.7
10. Via de la Valle/Jimmy Durante Boulevard	Signal	Weekday PM	46.4	D	54.0	D	7.6
		Weekend PM	32.2	C	35.3	D	3.1
11. Via de la Valle/I-5 Southbound Ramps	Signal	Weekday PM	12.3	B	12.7	B	0.4
		Weekend PM	10.5	B	10.8	B	0.3
12. Via de la Valle/I-5 Northbound Ramps	Signal	Weekday PM	27.9	C	28.4	C	0.5
		Weekend PM	26.8	C	27.3	C	0.5
13. Camino del Mar/27th Street	AWSC[c]	Weekday PM	165.1	F	169.4	F	4.3
		Weekend PM	41.7	E	43.7	E	2.0
14. Camino del Mar/Coast Boulevard	AWSC[c]	Weekday PM	285.3	F	290.0	F	4.7
		Weekend PM	112.7	F	117.2	F	4.5

Table 4.11-2c (cont.)
NEAR-TERM INTERSECTION OPERATIONS (HORSE RACES WEEKDAY/WEEKEND)

Intersection	Control Type	Peak Hour	Without Project		With Project		Δ Delay[b]
			Delay (seconds)	LOS[a]	Delay (seconds)	LOS	
15. Camino del Mar/L'Auberge Del Mar	Signal	Weekday PM	9.2	A	9.5	A	0.3
		Weekend PM	8.6	A	9.5	A	0.9
16. Camino del Mar/15th Street	Signal	Weekday PM	32.2	C	32.6	C	0.4
		Weekend PM	32.6	C	33.3	C	0.7
17. Camino del Mar/Del Mar Heights Road	Signal	**Weekday PM**	**175.7**	**F**	**176.2**	**F**	**0.5**
		Weekend PM	**127.6**	**F**	**128.7**	**F**	**1.1**
18. Camino del Mar/Carmel Valley Road	Signal	Weekday PM	28.9	C	29.6	C	0.7
		Weekend PM	13.9	B	14.2	B	0.3
19. Via de la Valle/Solana Circle	MSCC	Weekday PM	24.1	C	25.9	D	1.8
		Weekend PM	17.5	C	18.5	C	1.0

Source: LLG 2019
a. Level of Service
b. Increase in delay to due project
c. AWSC – All-Way Stop Controlled intersection. Minor street left turn delay is reported
d. MSSC – Minor Street Stop Controlled intersection. Minor street left turn delay is reported
e. Turn in the road. No traffic control exists
N/A = Not Available
Shaded cells indicate a significant direct project impact. **Bolded cells** indicate a failing intersection but no direct project impact.

Table 4.11-3
EXISTING AND EXISTING PLUS PROJECT QUEUING ANALYSIS (95th PERCENTILE)

Intersection	Movement	Storage Length (Feet)	Existing Queues (Feet)	Existing Plus Project Queues (Feet)
1. Highway 101/Lomas Santa Fe	SB Through	>500	134	137
	SB Left to EB	335	**#359**	**#359**
	WB Right to NB	220	54	54
	WB Through	220	134	139
	WB Left to SB	100 [a]	**111**	**111**
	NB Through	>800	#564	#576
	NB Left to WB	200	73	73
	EB Through	170	145	145
2. South Cedros Avenue/Lomas Santa Fe Drive	SB Right to WB	100	31	31
	SB Through	>300	17	17
	SB Left to EB	65	63	63
	WB Right to NB	265	9	9
	WB Through	265	196	196
	WB Left to SB	80	**87**	**88**
	NB Through	>300	45	45
	NB Left to WB	70	66	65
	EB Through	220	198	199
	EB Left to NB	70	73	73
3. I-5 SB Ramps/Lomas Santa Fe Drive	SB Right to WB	>400	261	266
	SB Left to EB	>400	**#508**	**#508**
	WB Through	>600	252	253
	EB Through	340	**745**	**747**
4. I-5 NB Ramps/Lomas Santa Fe Drive	WB Through	430	337	337
	NB Right to EB	610	90	90
	NB Through	610 [b]	202	202
	NB Left to WB	610	196	196
	EB Left to NB	200	**#208**	**#208**
	EB Through	650	**#830**	**#833**

Table 4.11-3 (cont.)
EXISTING AND EXISTING PLUS PROJECT QUEUING ANALYSIS (95th PERCENTILE)

Intersection	Movement	Storage Length (Feet)	Existing Queues (Feet)	Existing Plus Project Queues (Feet)
7. Border Avenue/South Sierra Avenue/ Project Driveway	WB Left to SB	70	DNE	3
	NB Right to EB	50	DNE	5
8. Camino del Mar (Highway 101)/Via de la Valle (Border Avenue)	SB Through	>500	193	194
	SB Left to EB	300	**307**	**307**
	WB Right to NB	120	113	113
	WB Through	300	162	203
	WB Left to SB	120	**#282**	**#309**
	NB Right to EB	90	90	92
	NB Through	>500	324	324
	NB Left to WB	100	77	86
	EB Through	300	224	287
9. Via de la Valle/South Cedros Avenue	SB Right to WB	60	13	15
	SB Left to EB	>200	100	55
	EB Left to NB	90	5	5
19. Via de la Valle/Solana Circle	SB Right to WB	>100	12	13
	SB Left to EB	>100	12	13
	EB Left to NB	150	1	3
10. Via de la Valle/Jimmy Durante Boulevard	SB Right to WB	100	0	0
	SB Through	>300	115	115
	SB Left to EB	120	**#253**	**#253**
	WB Through	>500	**#555**	**#598**
	WB Left to SB	130	**#267**	**#267**
	NB Right to EB	>400	40	40
	NB Through	>400	213	213
	NB Left to WB	170	**#285**	**#288**
	EB Through	>400	303	326
	EB Left to NB	125	**#126**	**#129**
11. I-5 SB Ramps/Via de la Valle	SB Right to WB	>500	153	167
	SB Left to EB	>500	163	172
	WB Through	>500	387	416
	EB Through	>500	202	215

Table 4.11-3 (cont.)
EXISTING AND EXISTING PLUS PROJECT QUEUING ANALYSIS (95th PERCENTILE)

Intersection	Movement	Storage Length (Feet)	Existing Queues (Feet)	Existing Plus Project Queues (Feet)
12. I-5 NB Ramps/Via de la Valle	WB Through	>500	269	274
	NB Right to EB	>500	280	291
	NB Left to WB	>500	372	380
	EB Through	>500	462	475

Source: LLG 2019
# - 95th percentile volume exceeds capacity, queue may be longer. Queue shown after two cycles
DNE = Does Not Exist
a. Per lane
b. Shared through/left lane
Shaded cells indicate a significant direct project impact. **Bolded cells** indicate a failing queue without the project but no direct project impact.

Table 4.11-4a
EXISTING STREET SEGMENT OPERATIONS (TYPICAL WEEKDAY)

Segment	Functional Classification [a]	Capacity (LOS E)	Without Project			With Project			Δ V/C [e]
			ADT [b]	LOS [c]	V/C [d]	ADT	LOS	V/C	
South Sierra Avenue									
1. Del Mar Shores Terrace to Beach Club Drive	Minor Collector	8,000	3,400	B	0.425	3,460	B	0.433	0.008
Highway 101									
2. Lomas Santa Fe Drive to Dahlia Drive	4-lane Major Arterial	37,000	15,000	B	0.405	15,200	B	0.411	0.006
3. Dahlia Drive to Via de la Valle	4-lane Major Arterial	37,000	17,900	B	0.484	18,100	B	0.489	0.005
Camino del Mar									
4. Via de la Valle to 27th Street	Community Collector	**19,000**	**15,300**	**E**	**0.805**	**15,450**	**E**	**0.813**	**0.008**
5. 27th Street to Coast Boulevard	Community Collector	19,000	10,900	B	0.574	11,050	B	0.582	0.008
6. Coast Boulevard to Jimmy Durante Boulevard	Community Collector	19,000	8,900	A	0.468	9,030	A	0.475	0.007
Via de la Valle									
7. Highway 101 to South Cedros Avenue	Town Collector	**19,000**	**16,500**	**E**	**0.868**	**17,500**	**E**	**0.921**	**0.053[g]**
8. South Cedros Avenue to Jimmy Durante Boulevard	Town Collector	**19,000**	**18,800**	**E**	**0.989**	**19,770**	**F**	**1.041**	**0.052[g]**
9. Jimmy Durante Boulevard to I-5 SB Ramps	4-lane Major Arterial[f]	**50,000**	**44,200**	**E**	**0.884**	**45,120**	**E**	**0.902**	**0.018[g]**

Source: LLG 2019

a. Capacities based on San Diego County capacity at which the roadway operates
b. Average Daily Traffic
c. Level of Service
d. Volume to Capacity
e. Increase in V/C ratio due to the addition of project traffic
f. A third eastbound through lane is provided along this segment, which merges into the I-5 SB on-ramp. Hence the capacity of an additional lane is assumed.
g. Not an impact due to arterial peak analysis along Via de la Valle (see Table 4.11-9a).

Bolded cells indicate a failing segment but no direct project impact.

TABLE 4.11-4b
EXISTING STREET SEGMENT OPERATIONS (FAIR WEEKDAY)

Segment	Functional Classification [a]	Capacity (LOS E)	Without Project			With Project			Δ V/C [e]
			ADT [b]	LOS [c]	V/C [d]	ADT	LOS	V/C	
South Sierra Avenue									
1. Del Mar Shores Terrace to Beach Club Drive	Minor Collector	8,000	3,500	B	0.438	3,560	B	0.445	0.007
Highway 101									
2. Lomas Santa Fe Drive to Dahlia Drive	4-lane Major Arterial	37,000	18,700	B	0.505	18,900	B	0.511	0.006
3. Dahlia Drive to Via de la Valle	4-lane Major Arterial	37,000	19,000	B	0.514	19,200	B	0.519	0.005
Camino del Mar									
4. Via de la Valle to 27th Street	Community Collector	**19,000**	**17,700**	**E**	**0.932**	**17,850**	**E**	**0.939**	**0.007**
5. 27th Street to Coast Boulevard	Community Collector	**19,000**	**16,800**	**E**	**0.884**	**16,950**	**E**	**0.892**	**0.008**
6. Coast Boulevard to Jimmy Durante Boulevard	Community Collector	19,000	11,300	B	0.595	11,430	B	0.602	0.007
Via de la Valle									
7. Camino del Mar to South Cedros Avenue	Town Collector	**19,000**	**15,600**	**E**	**0.821**	**16,600**	**E**	**0.874**	**0.053**
8. South Cedros Avenue to Jimmy Durante Boulevard	Town Collector	**19,000**	**24,300**	**F**	**1.279**	**25,270**	**F**	**1.330**	**0.051**
9. Jimmy Durante Boulevard to I-5 SB Ramps	4-lane Major Arterial[f]	**50,000**	**58,200**	**F**	**1.164**	**59,120**	**F**	**1.182**	**0.018**

Source: LLG 2019

a. Capacities based on San Diego County Classification Table
b. Average Daily Traffic
c. Level of Service
d. Volume to Capacity
e. Increase in V/C ratio due to the addition of project traffic.
f. A third eastbound through lane is provided along this segment, which merges into the I-5 SB on-ramp. Hence the capacity of an additional lane is assumed.

Shaded cells indicate a significant direct project impact. **Bolded cells** indicate a failing segment but no direct project impact.

Table 4.11-4c
EXISTING STREET SEGMENT OPERATIONS (HORSE RACES WEEKDAY)

Segment	Functional Classification [a]	Capacity (LOS E)	Existing			Existing + Project			Δ V/C [e]
			ADT [b]	LOS [c]	V/C [d]	ADT	LOS	V/C	
South Sierra Avenue									
1. Del Mar Shores Terrace to Beach Club Drive	Minor Collector	8,000	4,300	C	0.538	4,360	C	0.545	0.007
Highway 101									
2. Lomas Santa Fe Drive to Dahlia Drive	4-lane Major Arterial	37,000	19,400	B	0.524	19,600	B	0.530	0.006
3. Dahlia Drive to Via de la Valle	4-lane Major Arterial	37,000	20,400	B	0.551	20,600	B	0.557	0.006
Camino del Mar									
4. Via de la Valle to 27th Street	Community Collector	**19,000**	**16,900**	**E**	**0.889**	**17,050**	**E**	**0.897**	**0.008**
5. 27th Street to Coast Boulevard	Community Collector	**19,000**	**18,500**	**E**	**0.974**	**18,650**	**E**	**0.982**	**0.008**
6. Coast Boulevard to Jimmy Durant Boulevard	Community Collector	19,000	12,800	C	0.674	12,930	C	0.681	0.007
Via de la Valle									
7. Camino del Mar to South Cedros Avenue	Town Collector	**19,000**	**18,500**	**E**	**0.974**	**19,500**	**F**	**1.026**	**0.052[g]**
8. South Cedros Avenue to Jimmy Durante Boulevard	Town Collector	**19,000**	**23,700**	**F**	**1.247**	**24,670**	**F**	**1.298**	**0.051[g]**
9. Jimmy Durante Boulevard to I-5 SB Ramps	4-lane Major Arterial[f]	**50,000**	**45,200**	**F**	**0.904**	**46,120**	**E**	**0.922**	**0.018[g]**

Source: LLG 2019

a. Capacities based on San Diego County Classification Table
b. Average Daily Traffic
c. Level of Service
d. Volume to Capacity
e. Increase in V/C ratio due to the addition of project traffic
f. A third eastbound through lane is provided along this segment, which merges into the I-5 SB on-ramp. Hence the capacity of an additional lane is assumed.
g. Not an impact due to arterial peak analysis along Via de la Valle (see Table 4.11-9c).

Bolded cells indicate a failing segment but no direct project impact.

Table 4.11-5a
NEAR-TERM STREET SEGMENT OPERATIONS (TYPICAL WEEKDAY)

Segment	Functional Classification [a]	Capacity	Near-Term			Near-Term + Project			Δ V/C [e]
			ADT [b]	LOS [c]	V/C [d]	ADT	LOS	V/C	
South Sierra Avenue									
1. Del Mar Shores Terrace to Beach Club Drive	Minor Collector	8,000	3,580	B	0.448	3,640	B	0.455	0.008
Highway 101									
2. Lomas Santa Fe Drive to Dahlia Drive	4-lane Major Arterial	37,000	15,470	B	0.418	15,670	B	0.424	0.006
3. Dahlia Drive to Via de la Valle	4-lane Major Arterial	37,000	18,600	B	0.503	18,800	B	0.508	0.005
Camino del Mar									
4. Via de la Valle to 27th Street	Community Collector	**19,000**	**16,550**	**E**	**0.871**	**16,700**	**E**	**0.879**	**0.008**
5. 27th Street to Coast Boulevard	Community Collector	19,000	12,150	C	0.639	12,300	C	0.647	0.008
6. Coast Boulevard to Jimmy Durante Boulevard	Community Collector	19,000	9,730	A	0.512	9,860	A	0.519	0.007
Via de la Valle									
7. Camino del Mar to South Cedros Avenue	Town Collector	**19,000**	**17,300**	**E**	**0.911**	**18,300**	**E**	**0.963**	**0.052[g]**
8. South Cedros Avenue to Jimmy Durante Boulevard	Town Collector	**19,000**	**19,950**	**F**	**1.050**	**20,920**	**F**	**1.101**	**0.051[g]**
9. Jimmy Durante Boulevard to I-5 SB Ramps	4-lane Major Arterial [f]	**50,000**	**48,090**	**E**	**0.962**	**49,010**	**E**	**0.980**	**0.018[g]**

Source: LLG 2019

a. The San Diego County roadway classification at which the roadway currently functions
b. Average Daily Traffic
c. Level of Service
d. Volume to Capacity
e. Increase in V/C ratio due to the addition of project traffic
f. A third eastbound through lane is provided along this segment, which merges into the I-5 SB on-ramp. Hence the capacity of an additional lane is assumed.
g. Not an impact due to arterial peak analysis along Via de la Valle (see Table 4.11-9b).

Bolded cells indicate a failing segment but no direct project impact.

Table 4.11-5b
NEAR-TERM STREET SEGMENT OPERATIONS (FAIR WEEKDAY)

Segment	Functional Classification [a]	Capacity	Near-Term			Near-Term + Project			Δ V/C [e]
			ADT [b]	LOS [c]	V/C [d]	ADT	LOS	V/C	
South Sierra Avenue									
1. Del Mar Shores Terrace to Beach Club Drive	Minor Collector	8,000	3,680	B	0.460	3,740	B	0.468	0.008
Highway 101									
2. Lomas Santa Fe Drive to Dahlia Drive	4-lane Major Arterial	37,000	19,170	B	0.518	19,370	B	0.524	0.006
3. Dahlia Drive to Via de la Valle	4-lane Major Arterial	37,000	19,700	B	0.532	19,900	B	0.538	0.006
Camino del Mar									
4. Via de la Valle to 27th Street	Community Collector	**19,000**	**18,950**	**E**	**0.997**	**19,100**	**F**	**1.005**	**0.008**
5. 27th Street to Coast Boulevard	Community Collector	**19,000**	**18,050**	**E**	**0.950**	**18,200**	**E**	**0.958**	**0.008**
6. Coast Boulevard to Jimmy Durant Boulevard	Community Collector	19,000	12,130	C	0.638	12,260	C	0.645	0.007
Via de la Valle									
7. Camino del Mar to South Cedros Avenue	Town Collector	**19,000**	**16,400**	**E**	**0.863**	**17,400**	**E**	**0.916**	**0.053**
8. South Cedros Avenue to Jimmy Durante Boulevard	Town Collector	**19,000**	**25,450**	**F**	**1.339**	**26,420**	**F**	**1.391**	**0.051**
9. Jimmy Durante Boulevard to I-5 SB Ramps	4-lane Major Arterial[f]	**50,000**	**62,090**	**F**	**1.242**	**63,010**	**F**	**1.260**	**0.018**

Source: LLG 2019

a. The San Diego County roadway classification at which the roadway currently functions, as indicated.
b. Average Daily Traffic
c. Level of Service
d. Volume to Capacity
e. Increase in V/C ratio due to the addition of project traffic.
f. A third eastbound through lane is provided along this segment, which merges into the I-5 SB on-ramp. Hence the capacity of an additional lane is assumed.

Shaded cells indicate a significant direct project impact. **Bolded cells** indicate a failing segment but no direct project impact.

Table 4.11-5c
NEAR-TERM STREET SEGMENT OPERATIONS (HORSE RACES WEEKDAY)

Segment	Functional Classification [a]	Capacity	Near-Term			Near-Term + Project			Δ V/C [e]
			ADT [b]	LOS [c]	V/C [d]	ADT	LOS	V/C	
South Sierra Avenue									
1. Del Mar Shores Terrace to Beach Club Drive	Minor Collector	8,000	4,480	C	0.560	4,540	C	0.568	0.008
Highway 101									
2. Lomas Santa Fe Drive to Dahlia Drive	4-lane Major Arterial	37,000	19,870	B	0.537	20,070	B	0.542	0.005
3. Dahlia Drive to Via de la Valle	4-lane Major Arterial	37,000	21,100	B	0.570	21,300	B	0.576	0.006
Camino del Mar									
4. Via de la Valle to 27th Street	Community Collector	**19,000**	**18,150**	**E**	**0.955**	**18,300**	**E**	**0.963**	**0.008**
5. 27th Street to Coast Boulevard	Community Collector	**19,000**	**19,750**	**F**	**1.039**	**19,900**	**F**	**1.047**	**0.008**
6. Coast Boulevard to Jimmy Durant Boulevard	Community Collector	19,000	13,630	D	0.717	13,760	D	0.724	0.007
Via de la Valle									
7. Camino del Mar to South Cedros Avenue	Town Collector	**19,000**	**19,300**	**F**	**1.016**	**20,300**	**F**	**1.068**	**0.052[g]**
8. South Cedros Avenue to Jimmy Durante Boulevard	Town Collector	**19,000**	**24,850**	**F**	**1.308**	**25,820**	**F**	**1.359**	**0.051[g]**
9. Jimmy Durante Boulevard to I-5 SB Ramps	4-lane Major Arterial[f]	**40,000**	**49,090**	**E**	**0.982**	**50,010**	**F**	**1.000**	**0.018[g]**

Source: LLG 2019

a. The San Diego County roadway classification at which the roadway currently functions, as indicated.
b. Average Daily Traffic
c. Level of Service
d. Volume to Capacity
e. Increase in V/C ratio due to the addition of project traffic.
f. A third eastbound through lane is provided along this segment, which merges into the I-5 SB on-ramp. Hence the capacity of an additional lane is assumed.
g. Not an impact due to arterial peak analysis along Via de la Valle (see Table 4.11-9d).

Bolded cells indicate a failing segment but no direct project impact.

Table 4.11-6
EXISTING VIA DE LA VALLE ARTERIAL PEAK HOUR OPERATIONS BETWEEN HIGHWAY 101 AND I-5 (TYPICAL WEEKDAY)

Direction	Observed				Calculated			
	AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour	
	Speed (mph)	LOS	Speed (mph)	LOS	Speed (mph)	LOS	Speed (mph)	LOS
Westbound	39.0	C	39.0	C	25.6	25.1	C	C
Eastbound	39.0	C	39.0	C	25.5	22.7	C	D

Source: LLG 2019

Table 4.11-7a
FREEWAY MAINLINE SEGMENT OPERATIONS (TYPICAL WEEKDAY)

Freeway Segment	Dir.[f]	# of Lanes	Hourly Cap[a]	AADT[b]	Peak Hour Traffic						V/C[d]				LOS[e]		ΔV/C	
					Existing		Project[c]		Existing + Project		Existing		Existing + Project					
					AM	PM	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM
Interstate 5																		
Lomas Santa Fe Drive to Via de la Valle	NB	4ML + 1HOV + 1Aux	9,200	204,540	7,334	9,586	10	12	7,344	9,598	0.797	1.042	0.798	1.043	C	F(0)	0.001	0.001
	SB	5ML + 1Aux	10,000		9,162	7,919	10	13	9,172	7,932	0.916	0.792	0.917	0.793	D	C	0.001	0.001
Via de la Valle to Del Mar Heights Road	NB	4ML + 1HOV + 1Aux	9,200	210,160	7,528	9,839	20	25	7,548	9,864	0.818	1.069	0.820	1.072	D	F(0)	0.002	0.003
	SB	5ML + 1HOV	10,000		9,404	8,129	19	24	9,423	8,153	0.940	0.813	0.942	0.815	E	D	0.002	0.002
Del Mar Heights Road to SR 56	NB	6ML + 1Aux + 1HOV	12,800	176,660	6,325	8,267	20	25	6,345	8,292	0.494	0.646	0.496	0.648	B	C	0.002	0.002
	SB	5ML + 1Aux + 1HOV	11,000		7,901	6,829	19	24	7,920	6,853	0.718	0.621	0.720	0.623	C	C	0.002	0.002

Source: LLG 2019

a. Capacity calculated at 1800 vehicles per hour per lane and 1200 vehicles per hour per Auxiliary lane.
b. Existing Average Annual Daily Traffic Volumes form Caltrans PeMS (June 2017).
c. Project traffic at the ramps.
d. V/C = Peak Hour volume/Truck Factor/Capacity
e. Level of Service
f. NB = northbound; SB = southbound

Table 4.11-7b
METERED FREEWAY ON-RAMPS (TYPICAL WEEKDAY)

Segment	Peak Hour Flow (F) (veh/hr/ln)[a]	Calculated (Most Restrictive)			
		Discharge Rate (veh/hr/ln)	Excess Demand (veh/hr/ln)	Delay (min/ln)	Queue (ft)
EB[c] Via de la Valle to SB[e] I-5					
AM (SOV[a])					
Existing	665	966	0	0	0
Existing + Project	681	996	0	0	0
Near-Term	751	966	0	0	0
Near-Term + Project	838	996	0	0	0
AM (HOV[b])					
Existing	117	996	0	0	0
Existing + Project	120	996	0	0	0
Near-Term	133	996	0	0	0
Near-Term + Project	148	996	0	0	0
PM (SOV[a])					
Existing	529	996	0	0	0
Existing + Project	549	996	0	0	0
Near-Term	643	996	0	0	0
Near-Term + Project	758	996	0	0	0
PM (HOV[b])					
Existing	93	498	0	0	0
Existing + Project	97	498	0	0	0
Near-Term	114	498	0	0	0
Near-Term + Project	134	498	0	0	0
EB Via de la Valle to NB[d] I-5					
PM (SOV[a])					
Existing	209	372	0	0	0
Existing + Project	221	372	0	0	0
Near-Term	213	372	0	0	0
Near-Term + Project	217	372	0	0	0

Source: LLG 2019

a. SOV = Single Occupancy Vehicle Lane. A 15 percent reduction in volume is applied to the volume in SOV lanes due to HOV lane.
b. HOV = High Occupancy Vehicle Lane
c. EB = eastbound
d. NB = northbound
e. SB = southbound

Table 4.11-8
PROJECT TRIP GENERATION

Land Use	Size	Daily Trip Ends (ADT)		AM Peak Hour					PM Peak Hour				
		Rate [a]	Volume	% of ADT	In : Out Split	Volume In	Volume Out	Volume Total	% of ADT	In : Out Split	Volume In	Volume Out	Volume Total
Weekday													
Hotel Rooms	65	8.0 [b]	520	5	60:40	13	13	26	7	40:60	18	18	36
Attached Resort Villas	81		648	8	20:80	26	26	52	10	70:30	33	32	65
Detached Resort Villas	4	12	48	8	30:70	2	2	4	10	70:30	3	2	5
Affordable Housing [b]	22	6	132	8	20:80	6	5	11	9	70:30	6	6	12
Shared Visitor accommodation [b]	10	6	60	8	20:80	3	2	5	9	70:30	3	2	5
Total Weekday Trips			**1,408**	--	--	**50**	**48**	**98**	--	--	**63**	**60**	**123**
Weekend													
Hotel Rooms [c]	65	10.5	683	Not Analyzed					0.87	50:50	28	28	56
Attached Resort Villas [d]	81	8.14	659						0.70	54:46	31	26	57
Detached Resort Villas [e]	4	12	48						0.93	54:46	2	2	4
Affordable Housing [f]	22	8.14	179						0.70	54:46	8	7	15
Shared Visitor Accommodation [f]	10	8.14	81						0.70	54:46	4	3	7
Total Weekend Trips			**1,650**						--	--	**73**	**66**	**139**

Source: LLG 2019

ADT = Average Daily Traffic

a. Weekday trip rates are based on the *(Not so) Brief Guide of Vehicular Traffic Generation Rates for the San Diego Region*, April 2002, published by SANDAG. Weekend trip rates were estimated based on the weekend rates from *Trip Generation*, Institute of Transportation Engineers, 10th Edition).

b. No specific SANDAG weekday rates are available for Affordable Housing and Shared Visitor Accommodation and a rate for Apartment was used.

c. The Saturday rates for Land Use 310 – Hotel, *Trip Generation,* Institute of Transportation Engineers, 10th Edition, was used for Resort hotel since that is the closest description to the proposed land use.

d. The Saturday rates for Land Use 220 – Multi-family Housing (Low Rise), *Trip Generation*, Institute of Transportation Engineers, 10th Edition, was used for Affordable Housing since that is the closest description to the proposed land use.

e. The Saturday rates for Land Use, *Trip Generation,* Institute of Transportation Engineers, 10th Edition, was used for Saturday.

f. No specific ITE Saturday rates are available for Affordable Housing and Shared Visitor Accommodation. The rates for Land Use 220 – Multi-family Housing (Low Rise), *Trip Generation,* Institute of Transportation Engineers, 10th Edition, was used.

Table 4.11-9a
EXISTING VIA DE LA VALLE ARTERIAL PEAK HOUR OPERATIONS (TYPICAL WEEKDAY)

Direction	Existing						Existing + Project					
	AM Peak Hour			PM Peak Hour			AM Peak Hour			PM Peak Hour		
	Time (seconds)	Speed (mph)	LOS	Time (seconds)	Speed (mph)	LOS	Time (seconds)	Speed (mph)	LOS	Time (seconds)	Speed (mph)	LOS
Eastbound	117.9	25.6	C	120.3	25.1	C	118.8	25.5	C	121.0	25.0	C
Westbound	118.7	25.5	C	133.3	22.7	C	120.2	25.2	C	135.7	22.3	C

Source: LLG 2019

Table 4.11-9b
NEAR-TERM VIA DE LA VALLE ARTERIAL PEAK HOUR OPERATIONS (TYPICAL WEEKDAY)

Direction	Near-Term						Near-Term + Project					
	AM Peak Hour			PM Peak Hour			AM Peak Hour			PM Peak Hour		
	Time (seconds)	Speed (mph)	LOS	Time (seconds)	Speed (mph)	LOS	Time (seconds)	Speed (mph)	LOS	Time (seconds)	Speed (mph)	LOS
Eastbound	120.7	25.1	C	122.6	24.7	C	121.1	25.0	C	124.4	24.3	C
Westbound	122.4	24.7	C	148.1	20.4	D	123.6	24.5	C	158.2	19.1	D

Source: LLG 2019

Table 4.11-9c
EXISTING VIA DE LA VALLE ARTERIAL PEAK HOUR OPERATIONS (HORSE RACES WEEKDAY)

Direction	Existing						Existing + Project					
	AM Peak Hour			PM Peak Hour			AM Peak Hour			PM Peak Hour		
	Time (seconds)	Speed (mph)	LOS	Time (seconds)	Speed (mph)	LOS	Time (seconds)	Speed (mph)	LOS	Time (seconds)	Speed (mph)	LOS
Eastbound	119.2	25.4	C	123.6	24.5	C	123.0	24.6	C	128.1	23.6	C
Westbound	133.6	22.6	C	119.4	25.3	C	149.8	20.2	D	122.5	24.7	C

Source: LLG 2019

Table 4.11-9d
NEAR-TERM VIA DE LA VALLE ARTERIAL PEAK HOUR OPERATIONS (HORSE RACES WEEKDAY)

Direction	Near-Term						Near-Term + Project					
	AM Peak Hour			PM Peak Hour			AM Peak Hour			PM Peak Hour		
	Time (seconds)	Speed (mph)	LOS	Time (seconds)	Speed (mph)	LOS	Time (seconds)	Speed (mph)	LOS	Time (seconds)	Speed (mph)	LOS
Eastbound	122.2	24.7	C	126.6	23.9	C	121.1	25.0	C	124.4	24.3	C
Westbound	144.2	21.0	D	121.7	24.8	C	123.6	24.5	C	158.2	19.1	D

Source: LLG 2019

Table 4.11-10a
EXISTING + PROJECT INTERSECTION DELAY BEFORE AND AFTER MITIGATION

Intersection	Mitigation Measure	Peak Hour	Typical				Fair				Horse Races			
			Before Mitigation		After Mitigation		Before Mitigation		After Mitigation		Before Mitigation		After Mitigation	
			Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS
9. Via de la Valle/ South Cedros Avenue	TRA-1	Weekday PM	**36.5**	**E**	18.6	B	-	-	-	-	**35.6**	**E**	19.8	B
10. Via de la Valle/ Jimmy Durante Boulevard	TRA-2	Weekday PM	-	-	-	-	**67.2**	**E**	**64.9**	**E**	-	-	-	-
		Weekend PM	**-**	**-**	**-**	**-**	**89.7**	**F**	53.7	D	**-**	**-**	**-**	**-**
13. Camino del Mar/ 27th Street	TRA-3 – Option A	Weekday PM	-	-	-	-	**67.2**	**E**	8.8	A	**139.3**	**F**	9.4	A
		Weekend PM	**36.2**	**E**	10.4	B	**89.7**	**F**	10.3	B	**-**	**-**	-	-
	TRA-3 – Option B	Weekday PM	-	-	-	-	**67.2**	**E**	8.9	A	**139.3**	**F**	11.0	B
		Weekend PM	**36.2**	**E**	7.7	A	**89.7**	**F**	8.2	A	**-**	**-**	-	-
	TRA-3 – Option C	Weekday PM	-	-	-	-	**67.2**	**E**	8.8	A	**139.3**	**F**	9.4	A
		Weekend PM	**36.2**	**E**	10.6	B	**89.7**	**F**	10.3	B	**-**	**-**	-	-
	TRA-3 – Option D	Weekday PM	-	-	-	-	**67.2**	**E**	17.4	C	**139.3**	**F**	31.5	D
		Weekend PM	**36.2**	**E**	13.8	B	**89.7**	**F**	14.8	B	**-**	**-**	-	-
	TRA-3 – Option E	Weekday PM	-	-	-	-	**67.2**	**F**	**53.4**	**F**	**139.3**	**F**	**95.2**	**F**
		Weekend PM	**36.2**	**E**	33.4	D	**89.7**	**F**	33.6	D	**-**	**-**	**-**	**-**
14. Camino del Mar/ Coast Boulevard	TRA-4 – Option A	Weekday PM	**65.4**	**F**	7.6	A	**97.4**	**F**	14.4	B	**262.4**	**F**	17.4	B
		Weekend PM	**-**	**-**	-	-	**-**	**-**	-	-	**92.9**	**F**	8.8	A
	TRA-4 – Option B	Weekday PM	**-**	**-**	-	-	**-**	**-**	-	-	**262.4**	**F**	17.3	C
		Weekend PM	**65.4**	**F**	7.9	A	**97.4**	**F**	9.2	A	**92.9**	**F**	8.1	A
	TRA-4 – Option C	Weekday PM	**-**	**-**	-	-	**-**	**-**	-	-	**262.4**	**F**	17.4	B
		Weekend PM	**65.4**	**F**	6.6	A	**97.4**	**F**	14.4	B	**92.9**	**F**	8.8	A
	TRA-4 – Option D	Weekday PM	**-**	**-**	-	-	**-**	**-**	-	-	**262.4**	**F**	**81.1**	**F**
		Weekend PM	**65.4**	**F**	16.7	C	**97.4**	**F**	25.9	D	**92.9**	**F**	18.5	C
	TRA-4 – Option E	Weekday PM	**-**	**-**	-	-	**-**	**-**	**-**	**-**	**262.4**	**F**	**>300.0**	**F**
		Weekend PM	**65.4**	**F**	**37.1**	**E**	**97.4**	**F**	**>100.0**	**F**	**92.9**	**F**	**>100.0**	**F**

Source: LLG 2019
Bolded cells indicate a failing intersection.

Table 4.11-10b
NEAR-TERM + PROJECT INTERSECTION DELAY BEFORE AND AFTER MITIGATION

Intersection	Mitigation Measure	PM Peak Hour	Typical				Fair				Horse Races			
			Before Mitigation		After Mitigation		Before Mitigation		After Mitigation		Before Mitigation		After Mitigation	
			Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS
9. Via de la Valle/ South Cedros Avenue	TRA-1	Weekday PM	**48.5**	**F**	21.8	C	**-**	**-**	-	-	**48.1**	**E**	13.3	B
10. Via de la Valle/ Jimmy Durante Boulevard	TRA-2	Weekday PM	**57.1**	**E**	**42.8**	**D**	**87.4**	**F**	**82.7**	**F**	**-**	**-**	-	-
		Weekend PM	**-**	**-**	**-**	**-**	**112.0**	**F**	**68.7**	**E**	**-**	**-**	-	-
13. Camino del Mar 27th Street	TRA-3 – Option A	Weekday PM	**-**	**-**	-	-	**93.4**	**F**	9.6	A	**169.4**	**F**	9.8	A
		Weekend PM	**52.5**	**F**	7.9	A	**68.0**	**E**	10.7	B	**43.7**	**E**	12.5	B
	TRA-3 – Option B	Weekday PM	**-**	**-**	-	-	**93.4**	**F**	9.6	A	**169.4**	**F**	12.2	B
		Weekend PM	**52.5**	**F**	8.4	A	**68.0**	**E**	8.6	A	**43.7**	**E**	8.1	A
	TRA-3 – Option C	Weekday PM	**-**	**-**	-	-	**93.4**	**F**	9.6	A	**169.4**	**F**	9.8	A
		Weekend PM	**52.5**	**F**	7.9	A	**68.0**	**E**	10.7	B	**43.7**	**E**	12.5	B
	TRA-3 – Option D	Weekday PM	**-**	**-**	-	-	**93.4**	**F**	21.1	C	**169.4**	**F**	**40.7**	**E**
		Weekend PM	**52.5**	**F**	15.5	C	**68.0**	**E**	16.8	C	**43.7**	**E**	14.8	B
	TRA-3 – Option E	Weekday PM	**-**	**-**	-	-	**93.4**	**F**	**67.2**	**F**	**169.4**	**F**	**121.7**	**F**
		Weekend PM	**52.5**	**F**	**39.0**	**E**	**68.0**	**E**	**39.0**	**E**	**43.7**	**E**	33.2	D
14. Camino del Mar/ Coast Blvd	TRA-4 – Option A	Weekday PM	**84.9**	**F**	11.3	A	**119.7**	**F**	12.3	B	**290.0**	**F**	17.2	B
		Weekend PM	**45.9**	**E**	33.3	C	**56.3**	**E**	15.0	B	**117.2**	**F**	14.4	B
	TRA-4 – Option B	Weekday PM	**84.9**	**F**	8.4	A	**119.7**	**F**	10.0	B	**290.0**	**F**	20.5	C
		Weekend PM	**45.9**	**E**	8.2	A	**56.3**	**E**	8.9	A	**117.2**	**F**	8.8	A
	TRA-4 – Option C	Weekday PM	**84.9**	**F**	11.3	A	**119.7**	**F**	12.3	B	**290.0**	**F**	17.2	B
		Weekend PM	**45.9**	**E**	33.3	C	**56.3**	**E**	15.0	B	**117.2**	**F**	14.4	B
	TRA-4 – Option D	Weekday PM	**84.9**	**F**	19.4	C	**119.7**	**F**	32.7	D	**290.0**	**F**	**96.6**	**F**
		Weekend PM	**45.9**	**E**	18.2	C	**56.3**	**E**	18.3	C	**117.2**	**F**	21.4	C
	TRA-4 – Option E	Weekday PM	**84.9**	**F**	**52.1**	**F**	**119.7**	**F**	**>100.0**	**F**	**290.0**	**F**	**>300.0**	**F**
		Weekend PM	**45.9**	**E**	**>100.0**	**F**	**56.3**	**E**	**>100.0**	**F**	**117.2**	**F**	**43.0**	**E**

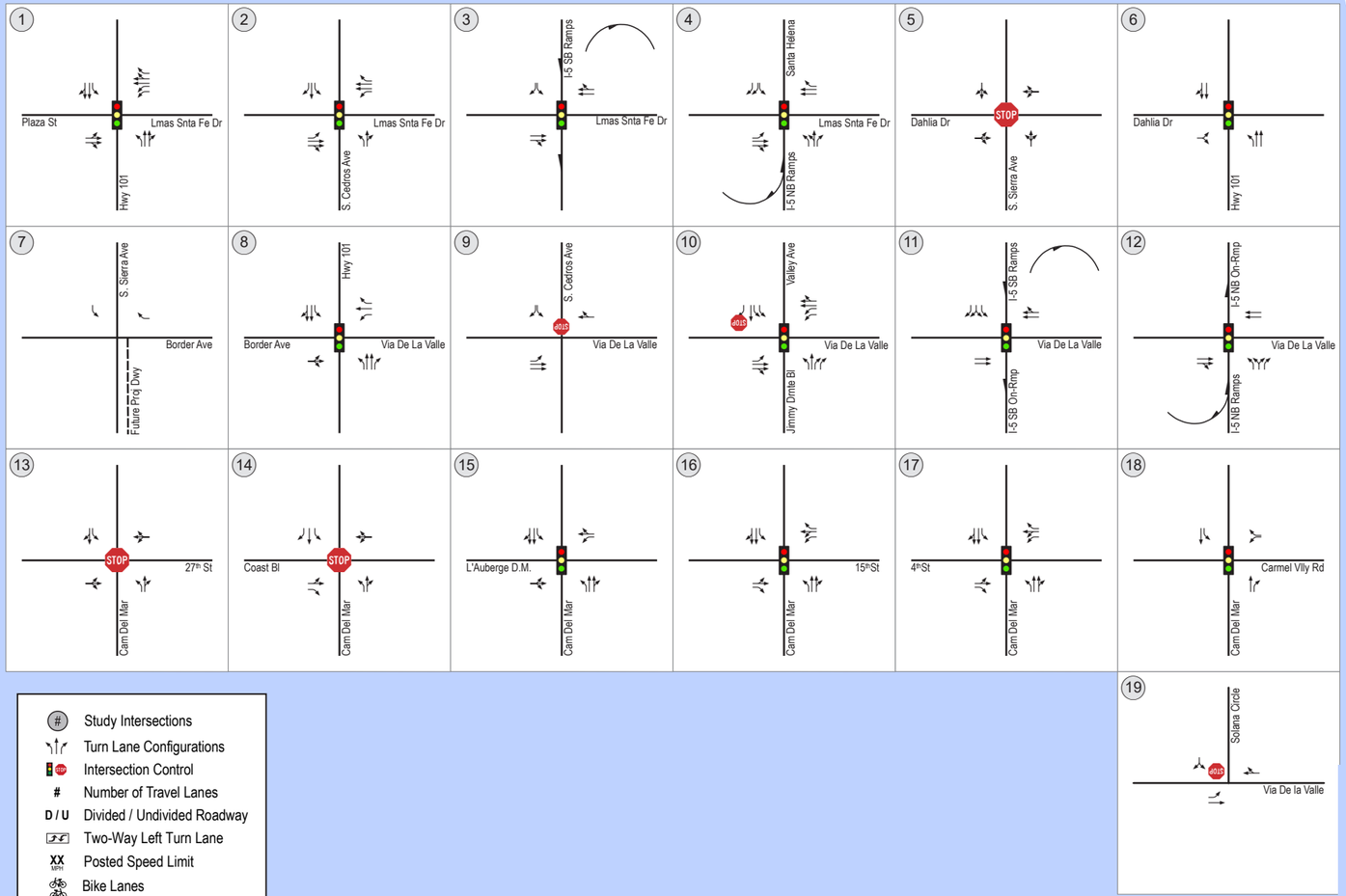
Source: LLG 2019
Bolded cells indicate a failing intersection.

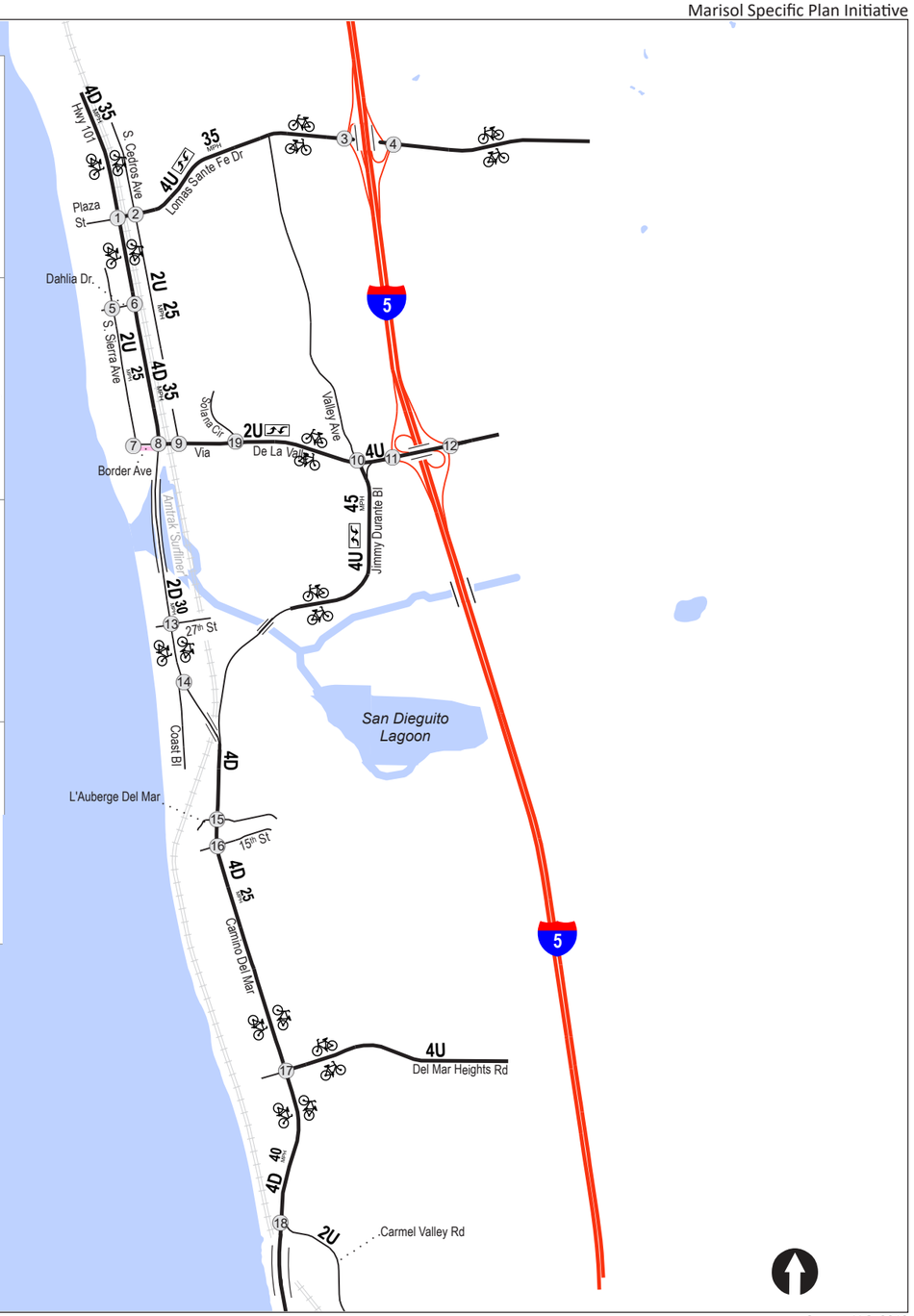
Table 4.11-10c
EXISTING + PROJECT INTERSECTION STORAGE LENGTH BEFORE AND AFTER MITIGATION

Intersection	Lane[a]	Available	Existing	Before Mitigation	With Mitigation
8. Highway 101 (Camino del Mar)/ Via de la Valle (Border Avenue) PM Peak Hour	WB Left to SB	120 feet	282 feet	309 feet	302 feet (MM TRA-7, Option A) 246 feet (MM TRA-7, Option B)

Source: LLG 2019

a. WB = Westbound; SB = Southbound





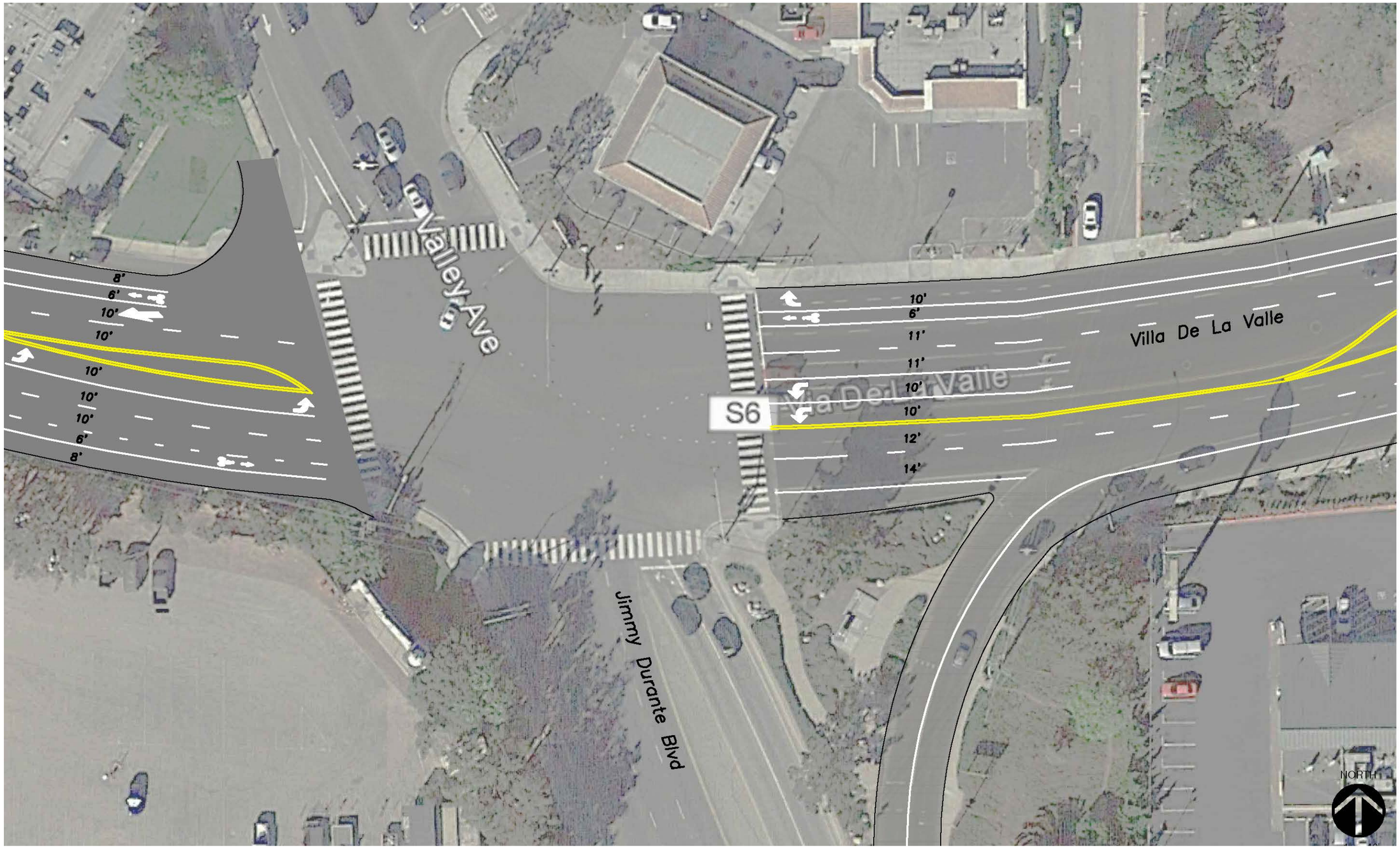
Source: LLG, 2019

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HELIX Environmental Planning

Traffic Study Area

Figure 4.11-1



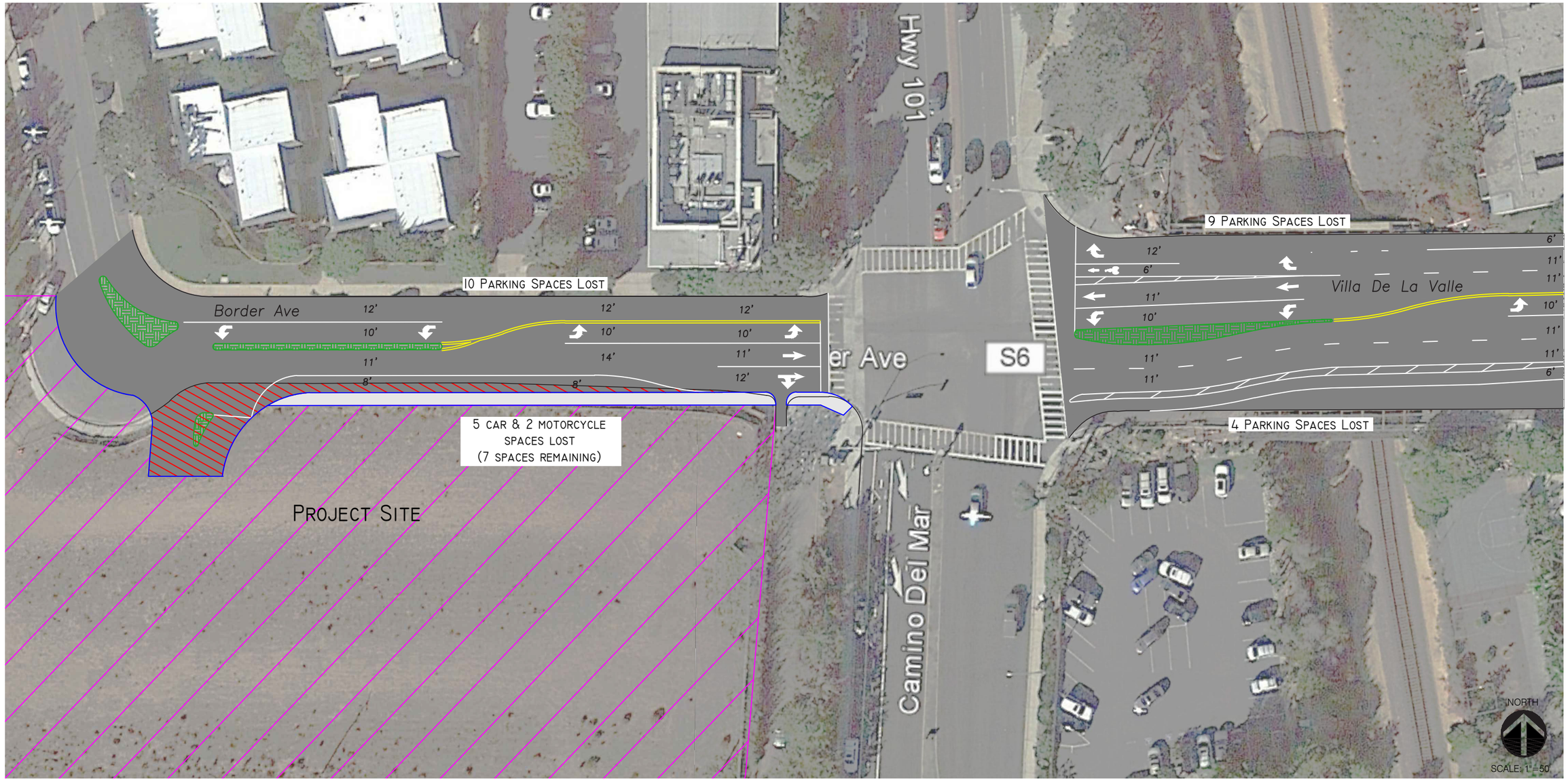
Source: LLG, 2019

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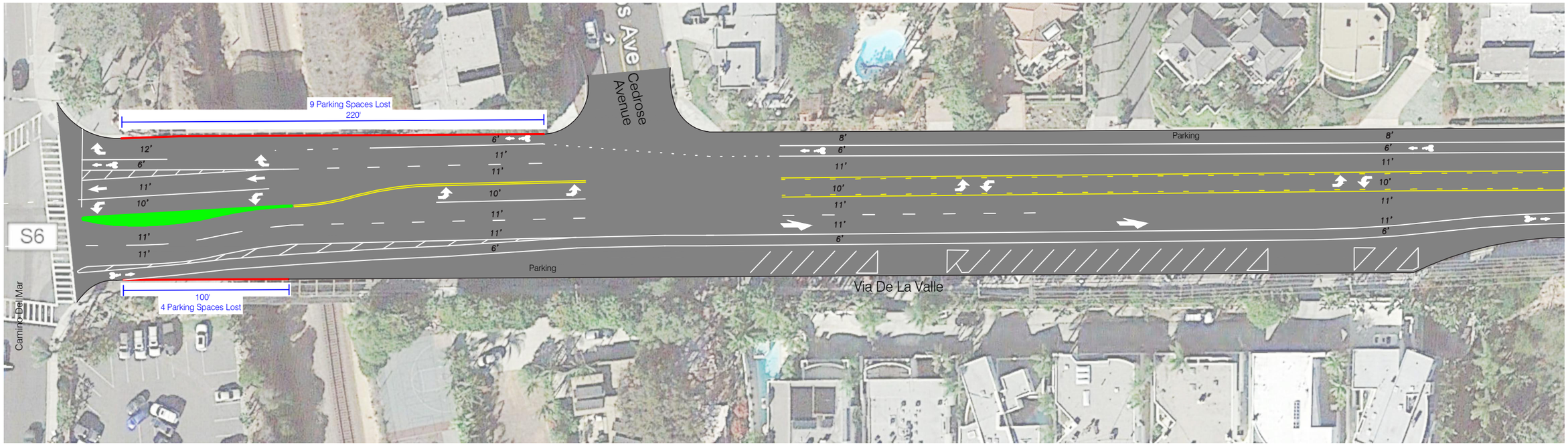
HELIX Environmental Planning

Via De La Valle/Jimmy Durante Boulevard Intersection Improvements

Figure 4.11-2



Source: LLG, 2019



LEGEND

- Edge of Pavement
- No Parking

NORTH

Source: LLG, 2019

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HELIX Environmental Planning

Via De La Valle Segment Improvements

Figure 4.11-4

4.12 UTILITIES AND SERVICE SYSTEMS

This subsection includes a description of existing conditions, regulatory requirements, and potential impacts on utilities and service systems associated with the proposed project. Utilities and service systems include water, wastewater, storm water, and solid waste facilities and services.

4.12.1 Existing Conditions

4.12.1.1 Water

Domestic water in the City of Del Mar is provided by the Santa Fe Irrigation District (SFID) and the City of Del Mar via the San Diego County Water Authority (SDCWA). The SDCWA purchases water from a variety of sources as well as producing its own water. SDCWA is the largest member of the Metropolitan Water District of Southern California and it receives a large amount of its water from this agency. The SDCWA's mission is to provide a safe and reliable supply of water to its 24 member agencies serving the San Diego region. In partnership with the member agencies and stakeholders, the SDCWA meets the region's water supply needs by providing a safe and reliable water supply; diversifying the region's water supply sources; and building, maintaining, and operating critical water facilities in a cost-effective and environmentally sensitive manner (SDCWA 2015). The Del Mar Climate Action Plan identifies a projected annual water supply for the City of Del Mar of 381 million gallons for the year 2020 (City 2016a).

Del Mar currently uses an average of 1,350 acre feet of water per year but has a capacity to provide roughly 1,800 acre feet per year (City 2013). The water pressure in the local water distribution system is controlled by a pressure-reducing station located at the northeast corner of the intersection of South Cedros Avenue and Via De La Valle. A 6-inch diameter reclaimed water line owned and operated by the City of Del Mar is located within Camino del Mar; however, there is no current connection to the project site.

Domestic water supply to the site under existing conditions (including potable and recycled water) is provided by the Santa Fe Irrigation District (SFID). SFID is a Special District formed in 1923 that serves a population of 19,839 across the City of Solana Beach and communities of Rancho Santa Fe and Fairbanks Ranch. SFID delivers an average of 500 acre feet of recycled water per year, all of which is supplied by the San Elijo Joint Powers Authority (SEJPA). SFID operates 150 miles of pipelines and has a total storage capacity of six million gallons. It jointly owns (in conjunction with the San Dieguito Water District) the R.E. Badger Filtration Plant, which has a capacity of 40 million gallons per day (SFID 2018). SFID provides water to the project site via an existing 10-inch-diameter water main in Border Avenue, which is connected to an existing 10-inch diameter water main in South Sierra Avenue and Camino Del Mar and an existing 12-inch diameter water main in Via de la Valle. There is an existing SFID 4-inch-diameter water main located in the private drive extending off Border Avenue along the east side of the project site near the intersection of Camino Del Mar and Via De La Valle.

4.12.1.2 Wastewater

Wastewater collection at the project site is provided by the City of Del Mar. The City of Del Mar owns and operates a wastewater collection system consisting of approximately 27 miles of sewer mains, 3 miles of force main, and 2 lift stations; these provide service to approximately 4,500 residents (approximately 1,800 sewer connections). Of the collection system sewer lines, 78 percent are made up of 6- to 8-inch diameter pipe, 20 percent are 9- to 15-inch diameter pipe, and 2 percent are 16- to

24-inch-diameter pipe. The City of Del Mar's sewer system management plan, last updated in August 2016, identifies how the City complies or implements mandatory elements of the Wastewater Discharge Requirements to reduce sanitary sewer overflows (City 2016c).

In early 2018, the City of Del Mar began sending a majority of its sanitary flows north to the San Elijo Wastewater Reclamation Facility, which is operated by the SEJPA and located approximately 2.6 miles north of the project site. The San Elijo Wastewater Reclamation Facility is a permitted secondary treatment facility that produces recycled water currently used by the City of Del Mar at the Del Mar Fairgrounds and sold to several water agencies in the vicinity. As part of the agreement between the City of Del Mar and SEJPA, the City of Del Mar sends 0.5 of its 0.6 million gallons per day (mgd) wastewater flow to the San Elijo Wastewater Reclamation Facility. The City of Del Mar's average daily influent flows at the San Elijo Wastewater Reclamation Facility were 0.34 mgd for 2018, and average daily effluent flows for 2018 were 0.183 mgd, with a capacity of 0.6 mgd (SEJPA 2019). As a member of the Metro Wastewater Joint Powers Authority (Metro JPA), the remaining flow volume (approximately 0.1 mgd) of the City of Del Mar's wastewater is transported to and treated by the City of San Diego at the Point Loma Wastewater Treatment Plant (approximately 21 miles south of the project site in the City of San Diego) and the North City Water Reclamation Plant. However, all wastewater in the vicinity of the proposed project is sent to the San Elijo Wastewater Reclamation Facility.

The nearest wastewater infrastructure to the project site includes a 10-inch diameter sewer force main in Camino Del Mar and Via De La Valle operated by the City of Del Mar. There is also an 8-inch diameter gravity fed sewer main located in Border Avenue and South Sierra Avenue operated by the City of Solana Beach.

4.12.1.3 Storm Water

The majority of the project site includes undeveloped pervious areas with natural and landscaped vegetation, with the exception of an existing private residence and associated impervious areas that are estimated to include about 63,000 sf, or 1.45 acres. There are no private storm drains to collect or convey storm runoff at the project site to a public storm drain system. Storm water currently drains either west into the Pacific Ocean or east towards Camino Del Mar, where storm water is intercepted by an existing 21-foot curb inlet that drains to an existing 24-inch diameter storm drain that discharges to North Beach, south of the project site, where flows ultimately enter the Pacific Ocean. Opposite of the inlet on the eastern side of Camino Del Mar is an existing 12-inch diameter storm drain that discharges to the Lagoon; however, drainage from the project site does not drain into this storm drain under existing conditions.

4.12.1.4 Solid Waste and Recycling

Coast Waste Management provides solid waste services for the City by offering curbside pickup and optional recycling pickup. Solid waste generated by the proposed project would be collected by Coast Waste Management, taken to the Palomar Transfer Station, and then to the West Miramar Sanitary Landfill (Miramar Landfill) located just north of SR-52, between I-805 and SR-163 in the City of San Diego. According to the Solid Waste Information System (SWIS) database maintained by CalRecycle, the Miramar Landfill has a maximum permitted throughput of 8,000 tons per day and had a remaining capacity of 15,527,878 cy as of June 30, 2014. It is anticipated that the Miramar Landfill will be filled to capacity and close by August 2025 (CalRecycle 2018).

4.12.2 Regulatory Setting

4.12.2.1 Federal

Federal Clean Water Act

The Clean Water Act is the primary federal law that protects the nation's waters, including lakes, rivers, aquifers, and coastal areas. Section 401 of the Clean Water Act requires that any applicant for a federal permit to conduct any activity, including the construction or operation of a facility that may result in the discharge of any pollutant, obtain certification from the state.

Section 303 of the Clean Water Act requires states to identify surface waters that have been impaired. Under Section 303(d), states, territories, and authorized tribes are required to develop a list of water quality segments that do not meet water quality standards, even after point sources of pollution have installed the minimum required levels of pollution control technology.

National Pollution Discharge Elimination System

Section 402 of the Clean Water Act established the National Pollution Discharge Elimination System (NPDES) to regulate the discharge of pollutants from point sources. The EPA has authorized California to administer its NPDES permitting program. The NPDES permitting program prohibits the unauthorized discharge of pollutants from a point source (e.g., pipe, ditch, well) to waters of the United States. The permitting program addresses municipal, commercial, and industrial wastewater discharges and discharges from large animal feeding operations. Permittees must verify compliance with permit requirements by monitoring their effluent, maintaining records, and filing periodic reports. The program is administered at the local level by the RWQCBs.

4.12.2.2 State of California

State Water Resources Control Board

The State Water Resources Control Board (SWRCB) preserves, enhances, and restores the quality of California's water resources and ensures proper allocation and efficient use for the benefit of present and future generations. Wastewater generators must obtain a permit to discharge their wastewater. Pursuant to the federal Clean Water Act and California's Porter-Cologne Water Quality Control Act, the SWRCB regulates wastewater discharges to surface waters through the NPDES program. Some wastewater discharges are exempt from federal NPDES requirements, but California law may still apply. Under California law, the SWRCB requires waste discharge requirements for some discharges, in addition to those subject to NPDES permits. Permits contain specific requirements that limit the pollutants in discharges. They also require dischargers to monitor their wastewater to ensure that it meets all requirements. Wastewater dischargers must maintain their treatment facilities, and treatment plant operators must be certified. The SWRCB routinely inspects treatment facilities and strictly enforces permit requirements.

Sanitary Sewer Management Plan

On May 2, 2006, the SWRCB adopted Wastewater Discharge Requirements Order 2006-0003-DWQ. This order mandated all federal and state agencies, municipalities, counties, districts, and other public entities ("enrollees") that own or operate sanitary sewer systems greater than one mile in length that

collect and/or convey untreated or partially treated sewer to a publicly owned treatment works facility in California to comply with the terms of the order. Order 2006-0003-DWQ also stated that, to facilitate proper funding and management of sanitary sewer systems, each enrollee must develop and implement a system-specific sewer management plan. To be effective, sewer system management plans must include provisions to provide proper and efficient management, operation, and maintenance of sanitary sewer systems, while taking into consideration risk management and cost/benefit analysis. Additionally, a sewer system management plan must contain a spill response plan that establishes standard procedures for immediate response to a sewer system overflow in a manner designed to minimize water quality impacts and potential nuisance conditions.

Assembly Bill 75

Assembly Bill 75 was passed in 1999, and the State Agency Model Integrated Waste Management Act (Chapter 764, Statutes of 1999, Strom-Martin) took effect on January 1, 2000. The State Agency Model Integrated Waste Management Act mandated that state agencies develop and implement an integrated waste management plan. The Act also mandated that community service districts providing solid waste services report disposal and diversion information to the city, county, or regional agency in which the community service district is located. Provisions of the act require all state agencies and large state facilities to divert at least 50 percent of solid waste from landfills after 2004, and that each state agency and large facility submit an annual report to CalRecycle summarizing its yearly progress in implementing waste diversion programs.

Assembly Bill 939

Enacted by Assembly Bill 939 and signed into law in 1990, the California Integrated Waste Management Authority established an integrated system of solid waste management whereby each city and county is required to develop and implement plans consistent with the mandated diversion rates of 25 percent by 1995 and 50 percent by 2000. Under the California Integrated Waste Management Authority, the County of San Diego was required to prepare a countywide siting element describing areas to be developed as disposal or waste management facilities (California Public Resources Code, Section 41700).

Assembly Bill 341

Starting July 1, 2012, pursuant to Chapter 476, Statutes of 2011 (Assembly Bill 341, Chesbro), businesses and public entities that generate four cubic yards or more waste per week, and multi-family units that generate five cubic yards or more are required to recycle if they are not already doing so. The purpose of this law is to reduce GHG emissions by diverting commercial solid waste to recycling efforts and expand opportunities for additional recycling services and recycling manufacturing facilities in California.

Assembly Bill 1826

In October 2014, Governor Brown signed AB 1826, Chesbro (Chapter 727, Statutes of 2014), which requires businesses to recycle their organic waste on and after April 1, 2016, depending on the amount of waste they generate per week. Organic waste means food waste, green waste, landscape and pruning waste, nonhazardous wood waste, and food-soiled paper waste that is mixed in with food waste. For businesses that generate eight or more cy of organic waste per week, this requirement began April 1, 2016, while those that generate four cy of organic waste per week must have an organic waste recycling program in place beginning January 1, 2017. This law also requires that on and after January 1, 2016, local jurisdictions across the state implement an organic waste recycling program to divert organic

waste generated by businesses, including multi-family residential dwellings that consist of five or more units. Mandatory recycling of commercial organics would be phased in over time, and an exemption process is available for rural counties.

Recycled Water Policy Resolution No. 2009-0011

The purpose of the Recycled Water Policy is to increase the use of recycled water from municipal wastewater sources that meets the definition in California Water Code, Section 13050(n), in a manner that implements state and federal water quality laws. When used in compliance with the policy, Title 22, and all applicable state and federal water quality laws, the SWRCB strongly supports recycled water as a safe alternative to potable water for approved uses.

4.12.2.3 Local

City of Del Mar Climate Action Plan

On June 6, 2016, the Del Mar City Council adopted a Climate Action Plan (CAP), which sets targets for reducing Greenhouse Gas (GHG) emissions by 2020 and 2035; identifies strategies to meet the targets; formulates a plan for implementation; and discusses ways the City needs to adapt to the effects of climate change already occurring or anticipated to occur, such as sea level rise and water supply shortages. The CAP aims to reduce GHG emissions by 15 percent by 2020, and 50 percent by 2035. The CAP also includes a renewable energy goal of 50 percent by 2020, and 100 percent by 2035. The following CAP goals are aimed at reducing water consumption, diverting waste from landfills, and capturing emissions from wastewater treatment, respectively:

Goal 9: Reduce Outdoor Water Consumption – The CAP goals are to reduce outdoor water consumption by 20 gallons (6.1 acre-feet) per capita per day by 2020 and 30 gallons (9.2 acre-feet) per capita per day by 2035.

Goal 11: Divert Waste from Landfills and Capture Emissions – The City is aiming to exceed state requirements with CAP goals for waste diversion of 80 percent by 2020 and 95 percent by 2035. In addition, the CAP goals also include achieving a landfill gas capture rate of 75 percent by 2020 and 80 percent by 2035 to comply with state landfill methane capture regulations.

Goal 12: Capture Emissions from Wastewater Treatment – The CAP goal is to achieve a 98-percent methane capture rate for wastewater treatment by 2035.

City of Del Mar, Water Supply

Under the City of Del Mar Municipal Code, Title 21 – Water Supply, provisions are established for the regulation, use, and operation of the water system of the City, as acquired from the Del Mar Utilities. Within Title 21, regulations relating to service connections, water rates and charges, extensions of water mains, backflow, administrative enforcement, water conservation, and emergency water management are addressed, and all projects within the City must be in conformance.

City of Del Mar, Management of Solid Waste

Under Chapter 11.20 of the City of Del Mar's Municipal Code, rules and regulations are adopted for the management of solid waste within the City, and to conform to regulations set forth in AB 341.

Chapter 11.20 of the City of Del Mar's Municipal Code is taken from the County of San Diego's Municipal Code, including ordinances for construction debris diversion and recycling.

4.12.3 Thresholds of Significance

The City of Del Mar relies on the thresholds of significance that are based on Appendix G of the 2019 State CEQA Guidelines. Impacts to utilities and service systems would be significant if implementation of the project would:

a) Require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects;

b) Not have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years;

c) Result in a determination by the wastewater treatment provider which serves or may serve the project that it does not have adequate capacity to serve the project's projected demand in addition to the provider's existing commitments;

d) Generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals; or

e) Not comply with federal, state, and local management and reduction statutes and regulations related to solid waste.

4.12.4 Impact Analysis

a) Would the project require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electrical power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?

Domestic water supply to the project site is currently provided by the SFID; however, upon project approval the City of Del Mar would provide water to the project site. As described in Section 3.0 of this EIR, a new water pipeline extension in either Camino del Mar or Via de La Valle would be installed off-site as part of the proposed project to connect with the City of Del Mar domestic water supply system. Existing water supply facilities in the City of Del Mar to which the new pipeline would connect are adequately sized to accommodate the proposed project and no other expansion of existing water facilities in the area would be required. As potable water available to the City of Del Mar exceeds the existing demand, the project would not result in the need for construction or expansion of water treatment facilities.

Wastewater generated during operation of the proposed project would be treated and disposed of by the SEJPA at their San Elijo Wastewater Reclamation Facility. Although a portion of the City of Del Mar's wastewater flow can be sent to the Point Loma Wastewater Treatment Plant in the City of San Diego, the portion of the City that the proposed project is located does not send flows to the Point Loma Wastewater Treatment Plant. Both wastewater treatment facilities operate in accordance with treatment requirements of the San Diego RWQCB, which are intended to implement the Clean Water

Act. The proposed project would generate additional wastewater related to the operation of a resort, which would include wastewater generated by employees and guests, and wastewater would be treated at the San Elijo Wastewater Reclamation Facility. As shown in Figure 3-11, the proposed project involves on- and off-site improvements to the City of Del Mar's wastewater system. Specifically, gravity-fed sewer mains are proposed throughout the project site, a sewer lift station and force main are proposed at the northeast corner of the project site that would connect to an existing 10-inch diameter sewer force main at the southeast corner of Camino del Mar and Via de la Valle, and a gravity-fed sewer main would be constructed at North Beach and would extend across Camino del Mar to an existing 10-inch diameter polyvinyl chloride (PVC) sewer force main. All proposed wastewater infrastructure, including on- and off-site improvements, would connect to existing wastewater infrastructure in adjacent areas. Existing wastewater facilities in the City and region are adequately sized to accommodate the proposed project and no construction of new wastewater treatment facilities or the expansion of existing wastewater treatment facilities would be required.

The project includes the construction of new storm water drainage facilities, and the Specific Plan identifies the construction of private on-site storm drains and water quality biofiltration basins modular wetland systems to provide storm water drainage for the resort. As part of future entitlement reviews, the City of Del Mar would ensure that facilities would accommodate the anticipated storm water flows under developed conditions in accordance with applicable regulatory requirements, as further described in this EIR in Subsection 4.7, *Hydrology and Water Quality*. All proposed storm water infrastructure, including on- and off-site improvements, would connect to existing storm water infrastructure in adjacent areas. Existing storm water facilities in the City are adequately sized to accommodate the proposed project and no construction of new wastewater facilities or the expansion of existing wastewater facilities would be required. Environmental effects associated with associated with general ground disturbance are analyzed throughout Section 4 of this EIR, including subsections 4.2 (*Air Quality*) 4.3 (*Biological Resources*), 4.4 (*Cultural and Paleontological Resources*), 4.6 (*Greenhouse Gas Emissions*), and 4.10 (*Noise and Vibration*), and no other significant environmental impacts related to the construction of new storm water drainage facilities or the expansion of existing facilities would occur.

The Specific Plan is located within a developed area of the City of Del Mar and is situated within proximity to existing electric power, natural gas, and telecommunications facilities. Thus, substantial expansion of electric power, natural gas, and telecommunication facilities would not be required to implement the Specific Plan. Impacts would be less than significant.

Physical environmental effects of the project associated with general ground disturbance, including the construction of an off-site water supply connection pipeline, are identified in Section 4 of this EIR, including subsections 4.2 (*Air Quality*) 4.3 (*Biological Resources*), 4.4 (*Cultural and Paleontological Resources*), 4.6 (*Greenhouse Gas Emissions*), and 4.10 (*Noise and Vibration*).

b) Would the project have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?

Based on estimates from the California Emissions Estimator (CalEEMod), which applies water usage rates based on land use type, the proposed project would demand approximately 3.5 million gallons per year, or 10.7 acre-feet, of water per year for indoor and outdoor uses. This increase in demand on water supplied by the City of Del Mar would be approximately one percent of the 2020 projected water supply of 381 million gallons (City 2016a). Because the proposed project does not involve more than 500 hotel rooms or demand an amount of water equivalent to or greater than the amount of water required by a

500-dwelling-unit project, a WSA would not be required to demonstrate sufficient water supply is available. Also, the City of Del Mar includes 1,861 service connections and would not meet the definition of a "subdivision," which is defined as a project that would be served by a supplier with less than 5,000 service connections and would account for an increase of 10 percent or more of the existing service connections. In addition, project design would involve the implementation of water conservation measures to reduce water usage on site. Conservation measures would include using recycled water and/or graywater for outdoor irrigation, landscaping with drought-tolerant plants, and installing low-flow faucets and fixtures. Therefore, the City of Del Mar has sufficient water supplies available to serve the project from existing entitlements and resources, and impacts would be less than significant.

c) Would the project result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?

A conservative estimate of the proposed project's wastewater usage was developed by approximating the amount of indoor water use only and assuming that all indoor water would become wastewater. Using the CalEEMod to estimate indoor water use result4ed in approximately 14 million gallons of indoor water used per year, or approximately 38,000 gpd, or 0.038 mgd, which would be converted into wastewater (CalEEMod 2016). The San Elijo Wastewater Reclamation Facility would provide wastewater treatment service for the project. The City of Del Mar currently has an agreement for the treatment of up to 0.6 mgd at the San Elijo Wastewater Reclamation Facility, and in 2018, the City of Del Mar's average daily influent was 0.34 mgd. The addition of 0.038 mgd would represent about an 11 percent increase in wastewater generation compared to existing conditions. When considered with the most recent estimates of wastewater influent flows from the City of Del Mar to the San Elijo Wastewater Reclamation Facility, the proposed project, when added to the 2018 influent average daily flows, would result in an estimated average daily influent flow of approximately 0.38 mgd, which is 0.22 mgd less than the City of Del Mar's permitted capacity at the San Elijo Wastewater Reclamation Facility. Therefore, it is anticipated that the San Elijo Wastewater Reclamation Facility has sufficient capacity to serve the project and impacts would be less than significant.

d) Would the project generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?

The project would generate solid waste during construction and operation. Coast Waste Management would be responsible for solid waste collection and hauling during the construction and operational phases of the project. Construction activities, including demolition of existing on-site structures, vegetation clearing, and grading, would generate solid waste. Such waste would be source separated on-site for reuse, recycling, or proper disposal. Bins for the various construction material waste types would be provided on site to allow Coast Waste Management ease of transport and to ensure waste materials are disposed of at the proper facilities.

Based on estimates from CalEEMod, operating the resort is anticipated to generate approximately 254 pounds, or 0.13 tons, of waste per day. The amount of solid waste generated on a daily basis would be minimal compared to the 8,000-ton per day permitted capacity of the Miramar Landfill. In addition, the project would implement recycling and food waste reduction measures to decrease the amount of the waste going to the landfill. Therefore, the project would be served by a landfill with sufficient capacity to accommodate its solid waste disposal needs. Related impacts would be less than significant.

e) Would the project comply with federal, state, and local management and reduction statutes and regulations related to solid waste?

The City of Del Mar is required by the California Integrated Waste Management Board to divert 50 percent of its waste stream away from landfills. To achieve this target, Chapter 11.20, Management of Solid Waste, of the City of Del Mar's Municipal Code designates recyclable materials based on land use type. The proposed project, as a resort, would be required to recycle corrugated cardboard, plastic beverage bottles, glass jars and bottles, white goods (appliances), and tin and bi-metal cans. Containers would be provided for recyclables, and recyclables would be separated from other trash and segregated by type for proper collection and disposal. Such measures would reduce the amount of solid waste disposed of at the Miramar Landfill. Therefore, the project would comply with federal, state, and local statutes and regulations related to solid waste, and impacts would be less than significant.

4.12.5 Mitigation Measures

Impacts related to utilities and service systems would be less than significant; therefore, no mitigation measures are required.

4.12.6 Level of Significance After Mitigation

No mitigation measures are required, and impacts would be less than significant.

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5.0 OTHER CEQA CONSIDERATIONS

Section 15128 of the CEQA Guidelines requires that an EIR contain a brief statement disclosing the reasons why various possible significant effects of a proposed project were found not to be significant and not discussed in detail. Potential impacts on agriculture and forestry resources, mineral resources, population and housing, and recreation were concluded to be less than significant for the proposed project at the time the NOP was prepared in September 2017. Since the NOP was released, impacts related to hazards and hazardous materials were also determined not to be significant and are included in this section. Discussions for energy and wildfire were also added to this section, which were not a part of the CEQA Guidelines at the time the NOP was prepared. A brief discussion for each of these issue areas is provided below in Section 5.1.

Section 15126 of the CEQA Guidelines requires that all phases of a project be considered when evaluating its impact on the environment, including planning, acquisition, development, and operation. As part of this analysis, this EIR includes the following components, which are addressed in this chapter:

- Growth-inducing impacts of the proposed project (addressed in Section 5.2);
- Significant irreversible environmental effects that would be result should the proposed project be implemented (addressed in Section 5.3); and
- Significant environmental effects that cannot be avoided if the proposed project is implemented (addressed in Section 5.4).

5.1 EFFECTS FOUND NOT TO BE SIGNIFICANT

The seven environmental topics discussed below would have a less-than-significant project impact on the environment and do not warrant and extensive discussion. Specifically, this section includes a discussion related to agriculture and forestry resources, energy, hazards and hazardous materials, mineral resources, population and housing recreation, and wildfire.

5.1.1 Agriculture and Forestry Resources

The evaluation of agriculture and forestry resources includes consideration for areas where agricultural or forestry uses are possible or designated by the state to have importance. As shown on the San Diego County Important Farmland 2014 map, prepared by the California Department of Conservation's (CDC) Farmland Mapping and Monitoring Program, the project site is designated as "urban and built-up land." Neither the site nor the surrounding areas contain prime farmland, unique farmland, or farmland of local or statewide importance and the project site is not subject to a Williamson Act Contract (CDC 2013; CDC 2016).

Although the proposed project site does include biological resources, including several trees that would be removed during construction, the site is not zoned for forest or timberland production, and implementation of the project would not result in impacts to timberland or forestry resources. Due to the project site's classification as "urban and built-up land" through the Farmland Mapping and Monitoring Program, and the lack of agricultural and forestry resources on site and in the surrounding areas, no impacts to agricultural or forestry resources would result from implementation of the project.

5.1.2 Energy

The project's energy use includes electricity and natural gas. The project would install a photovoltaic system on the villas that would produce 678,000 kilowatt-hours (kWh) annually, representing 94 percent of the villas' energy demand. A photovoltaic system installed on the hotel would produce 339,000 kWh annually, representing 28 percent of the hotel's energy demand. The solar hot water system, which would serve the domestic hot water and pool heating, would produce a combined 16,000 therms annually, or approximately 60 percent of project-wide hot water demand. The project would be served by SDG&E, which as of 2017 had a 44% renewable energy content value (SDG&E 2016). Additionally, 45 percent of the project's electricity demand would be offset by photovoltaic systems.

The Specific Plan contains sustainable design standards to reduce energy consumption through the use of renewable resources and other energy conservation measures. The Specific Plan's design and construction methodology involve state-of-the-art energy and water conservation features. The project would comply with the requirements of California Code of Regulations Title 24 with regards to building energy efficiency standards. In addition to the provisions already required by state law, the project includes a number of measures to reduce energy consumption, such as the following:

- The building envelope would mitigate solar heat gain during the day through the use of light-colored roofing or shading by rooftop solar and window overhang/balconies;
- Concrete construction would be used to provide thermal mass to the buildings, which delays heat gain into the buildings and can shift peak cooling loads to later in the day, reducing electricity demand by avoiding peak periods of demand;
- Wind and roof insulation would use the optimum building envelope to reduce peak summer cooling and winter heating loads while still accommodating the temperate fall and spring seasons; and
- The project proponent would apply for Leadership in Energy and Environmental Demand (LEED BD+C) gold certification.

Based on the project photovoltaic system, solar hot water system, and sustainable design standards, the project is not expected to result in significant impacts associated with the wasteful, inefficient, or unnecessary consumption of energy resources. Additionally, as discussed in Section 4.6, *Greenhouse Gas Emissions*, the project's proposed on-site systems, combined with the renewable energy content value provided by SDG&E, would meet the City's CAP goal of procuring 50 percent of renewable energy supply by 2020. As detailed in Section 4.6, the project would be consistent with applicable elements of San Diego Forward: The Regional Plan, including policy objectives for environmental stewardship and SCS. Thus, the project would not conflict with or obstruct a state or local plan for renewable energy or energy efficiency. Impacts would be less than significant.

5.1.3 Hazards and Hazardous Materials

The evaluation of hazards and hazardous materials includes consideration for construction or operation of the project to involve the use of or exposure to hazardous materials, either through materials introduced to the area or as a result of hazardous materials already present on or beneath the ground surface within the project site. The potential for interference with an emergency response plan or

evacuation plan, as well as the potential to subject people or structures to wildland fires, are also considered. Construction equipment would involve the use of hazardous and/or flammable materials such as diesel fuel, gasoline, solvents, and other oils and lubricants needed to maintain and operate construction equipment. These materials are not considered to be acutely hazardous and the use, storage, transport, and disposal of these materials would be required to comply with local, state, and federal regulations intended to minimize the risk of hazardous materials release. For instance, the California Occupational Safety and Health Administration enforces requirements for employee training, availability of safety equipment, accident prevention programs, and hazardous substance exposure warnings. Operation of the project would not include uses that would require the routine transport, handling, or disposal of hazardous materials, other than typical cleaning, maintenance, and landscaping materials, which are also not acutely hazardous and would also be subject to local, state, and federal regulations intended to minimize the risk of hazardous material release. The types and quantities of such typical materials would not be substantial and would not pose a health risk to resort guests, employees, or the public.

As disclosed in a Phase I Environmental Subject Site Assessment conducted at the project site in June 2016, there are no hazardous waste sites within or adjacent to the project site (Boogay 2016). Specifically, there are no storage tanks, drains or sumps, pits, ponds, lagoons, or pools of liquid, distressed vegetation, odors, solid wastes, wells, or storage of hazardous materials observed on or adjacent to the project site. As a result, construction of the proposed project would not result in the release of hazardous materials into the environment.

The project site is not within two miles of a public airport or private airstrip and would not result in a safety hazard for those residing or working in the project site. Emergency evacuation routes in the project vicinity are identified in the San Diego County Operational Area Emergency Operations Plan and include I-5 as a primary evacuation route for the region, and identify Del Mar Heights Road, Jimmy Durante Boulevard, and the segment of Camino Del Mar south of the intersection with Jimmy Durante Boulevard as local roadways in the City that serve as major thoroughfares in an evacuation event. Lomas Santa Fe Drive and Highway 101 are identified as major thoroughfares in Solana Beach (County of San Diego 2014). While the project would involve temporary construction work within adjacent roadways such as Border Avenue, Camino Del Mar, and Via De La Valle to install utilities to connect to the project site, traffic control plans would be required to maintain access along roadways during construction and the project would not involve the closure of existing roadways. Also, as shown on Figure 3-4, an emergency vehicle access ring is designated around the Specific Plan and would provide access to Border Avenue. As a result, the project would not interfere with an emergency response or evacuation plan. Additionally, the project site is not within a Very High Fire Hazard Severity Zone and would therefore not expose people or structures to risk from wildland fires (California Department of Forestry and Fire Protection 2012). Impacts related to hazards and hazardous materials would be less than significant and no mitigation measures are required.

5.1.4 Mineral Resources

Per the CDC, Division of Mines and Geology, the Specific Plan is located within Mineral Resource Zone 3 (MRZ-3) in the Del Mar Quadrangle (CDC 2011). MRZ-3 indicates areas that contain mineral deposits, the significance of which cannot be evaluated from available data. Although there is the potential for mineral resources to be present within the project site, mineral resource extraction would be incompatible with the current zoning. As such, implementation of the proposed project would not result

in the loss of availability of a mineral resource that was previously available, and no impacts to mineral resources would occur.

5.1.5 Population and Housing

The proposed project would include the construction and operation of 75 rooms for rent (65 hotel guest rooms and 10 lower-cost visitor-serving accommodations) that would accommodate temporary guests and would not induce population growth. The resort would also provide 22 affordable housing units and 31 resort villas that could accommodate permanent residents. The affordable housing units are intended to provide residence for income-qualifying people, and resort employees would be prioritized. While the resort villas would be for-sale, up to 27 villas could be divided into three rentals each for a total of 81 additional hotel rooms. It is anticipated that the resort villas would be rented when not owner-occupied for up to a maximum allowed 120 days and would not result in permanent population growth. As a result, it is assumed that 4 resort villas and 22 affordable housing units could be permanently occupied, totaling 26 housing units within the Specific Plan. The California Department of Finance reported that as of January 1, 2019, the City of Del Mar includes 4,451 people residing in 2,625 housing units and a vacancy rate of 19 percent for an average of 2.09 persons per household (CDF 2019). At this rate, about 55 permanent residents could reside at the project site with the proposed project. SANDAG's most recent forecast for population and housing growth in the City of Del Mar is based on current land use and zoning designations, and projects 4,784 residents and 2,667 housing units by the year 2050, which is an increase of 462 residents and 55 new housing units (SANDAG 2013). As the proposed project would allow an increase in density at the project site compared to existing conditions, an increase of 55 residents and 26 permanent housing units would result from the proposed project. As a result, the proposed project could result in increases of about 1.2 percent to the existing population (55 additional residents to the existing 4,451 residents) and about 1 percent of the existing housing units in the City (26 additional units to the existing 2,625 housing units). While the project could result in direct population growth, it is not expected to be substantial. Also, the proposed project does not involve the extension of roads or other infrastructure, with the exception of an off-site water supply pipeline to connect the project to the existing City of Del Mar water supply infrastructure and infrastructure within the Specific Plan to serve the proposed resort development. Therefore, impacts related to population and housing associated with the project would be less than significant.

5.1.6 Recreation

The proposed project would include improved access and recreational opportunities within the Specific Plan and surrounding areas for both resort guests and the general public. As shown on Figure 3-4, the existing bluff top trail network would be maintained and would connect to a bluff top trail constructed as part of the proposed project. A paved public amenity trail would also be constructed further from the bluff edge and would circle the Specific Plan area from the corner of Camino Del Mar and Border Avenue to the project driveway along Border Avenue. These improvements would connect to existing recreational amenities at North Beach, which is located immediately south of the proposed resort. Such facilities include multi-use paths around the resort property. Additionally, the proposed Specific Plan would designate Parkland/Passive Open Space (PPOS) areas generally between the resort and the edge of the coastal bluff to the west, as well as areas to the south and east of the proposed resort site that would accommodate public, passive recreation uses while preserving natural open space and allowing for habitat restoration. Therefore, the increased use of existing parks and recreational facilities would not result in substantial physical deterioration as the project includes improvements to these areas. Lastly, several community benefits would be constructed on the project site directly adjacent to and

accessed from North Beach, including, a public access stairway, public restrooms, and related facilities for resort and public visitor services (see Figure 3-15). Environmental effects associated with associated with general ground disturbance are analyzed throughout Section 4 of this EIR, including subsections 4.2 (*Air Quality*) 4.3 (*Biological Resources*), 4.4 (*Cultural and Paleontological Resources*), 4.6 (*Greenhouse Gas Emissions*), and 4.10 (*Noise and Vibration*), and no other significant environmental impacts related to the construction or use of recreational amenities would occur.

5.1.7 Wildfire

The City of Del Mar is not located in or near State Responsibility Areas or in a very high fire hazard severity zone (California Department of Forestry and Fire Protection 2012). Thus, the project would not be expected to be subject to or result in substantial adverse effects related to wildfires, and impacts would be less than significant.

5.2 GROWTH INDUCEMENT

In accordance with Section 15126(d) of the State CEQA Guidelines, an EIR must include an analysis of the growth-inducing impact of the project. The growth inducement analysis must address: (1) the ways in which the proposed project could foster economic or population growth, or the construction of additional housing, either directly or indirectly in the surrounding environment; and (2) the potential for the project to encourage and facilitate other activities that could significantly affect the environment, either individually or cumulatively. This second issue involves the potential for the project to induce further growth by the expansion or extension of existing services, utilities, or infrastructure. The State CEQA Guidelines further state that "[i]t must not be assumed that growth in any area is necessarily beneficial, detrimental, or of little significance to the environment" (Section 15126.2[d]).

Demand for construction trade skills and labor would increase during the anticipated 26-month construction period; however, it is anticipated that this demand would be met by the local labor force and would not require importation of a substantial number of workers that could cause an increased demand for temporary or permanent housing in the Del Mar or Solana Beach area. In the long-term, the proposed project involves an increase in of up to 53 housing units associated with the resort villas that would be for sale. As discussed above under Subsection 5.1.4 of this EIR, the remainder of the proposed project involves short-term rentals at the resort. The remaining portions of the project site would not be developed in the future as a result of the proposed project because of zoning restrictions that do not permit development. Off-site areas surrounding the Specific Plan are either built-out or are not suitable for development. Specifically, areas north of the Specific Plan in Solana Beach are developed primarily with residential land uses. Areas east of the project include the Lagoon, which is a protected environmentally sensitive area, and development would not be allowed. Areas south of the Specific Plan include the Preserve, and North Beach, and areas west of the Specific Plan include the Pacific Ocean. These areas would not be subjected to increased development as a result of the project.

Once constructed, the proposed resort development would create additional part-time and full-time employment, resulting in a variety a jobs ranging in pay. Resort staffing is not expected to require the importation of a specialized work force and the local labor pool is considered adequate to meet the needs of the proposed project. As a result, the project is not expected to have an effect on regional population growth because it would draw from the local population for jobs.

Public services and utilities in the area would be extended to the project site from immediately adjacent roadways, with the exception of an off-site waterline within either Camino del Mar or Via de la Valle, and would not be upsized or otherwise relocated in a way that would promote additional growth off site. The off-site water supply pipeline would connect the project site to the City of Del Mar water supply system. The project site is accessible from I-5 and local roadways and no new or extended freeways or roadways are proposed that would provide access to currently inaccessible areas. While a new driveway connection is proposed at Border Avenue, and some utilities improvements would occur beneath Camino Del Mar and Via De La Valle, these improvements would not widen or extend these roadways or facilities into new developable areas.

No expansion of schools, parks, or libraries would be required to meet the needs of the project. As a primarily short-term rental resort facility, the generation of school-aged children would be minimal (up to 8 students). As a result, the proposed project would place a limited demand on local parks or libraries and would not induce significant growth in the area. Impacts would be less than significant.

5.3 SIGNIFICANT IRREVERSIBLE ENVIRONMENTAL EFFECTS

CEQA Guidelines Section 15126.2(c) requires the evaluation of "[u]ses of nonrenewable resources during the initial and continued phases of the project [that] may be irreversible since a large commitment of such resources makes removal or non-use thereafter unlikely. Primary impacts and, particularly, secondary impacts (such as a highway improvement which provides access to a previously inaccessible area) generally commit future generations to similar uses. Also irreversible damage can result from environmental accidents associated with the project. Irretrievable commitments of resources should be evaluated to assure that such current consumption is justified (14 CCR 15000 et seq.)."

Implementation of the proposed project would result in irreversible environmental changes. Approval of the project, including the Initiative as well as future entitlements and subsequent approvals, would commit the City of Del Mar to the development of a resort, associated recreational facilities, and internal and external circulation system improvements. Construction and operation of the proposed project would require the use of resources that include soils, gravel, concrete, and asphalt; lumber and other related forest products; petrochemical construction materials; steel, copper, and other metals; water; fuels; and energy. Also, resort operations would incrementally increase the consumption of resources such as water, fuels, and electricity and would add to the existing use of fossil fuels and other nonrenewable resources, even with the proposed implementation of energy-efficient design features.

5.4 SIGNIFICANT AND UNAVOIDABLE IMPACTS

Pursuant to Section 15126.2(b) of the CEQA Guidelines, this subsection identifies significant impacts that would not be avoided, even with the implementation of feasible mitigation measures. The final determination of significance of impacts and of the feasibility of mitigation measures will be made by the Del Mar City Council as part of their EIR certification action if the Initiative is successful and the environmental impacts associated with future entitlements and subsequent approvals are determined to be adequately addressed in this EIR. Subsections 4.1 through 4.12 of this EIR provide a comprehensive identification of the proposed project's potentially significant adverse environmental effects and any necessary mitigation measures, as well as the level of significance both before and after mitigation.

As described in EIR subsection 4.11, *Transportation and Traffic*, significant and unavoidable impacts would occur at Camino del Mar/Coast Boulevard during the PM peak hour on a typical and fair weekend, if Option E in mitigation measure MM TRA-4 is selected. Also, impacts along three segments of Via de la Valle (between Camino del Mar and I-5 SB Ramps) during the fair weekday scenario would remain significant and unavoidable because traffic along Via de la Valle is manually-controlled during the fair season and an arterial analysis to demonstrate that impacts would be less than significant is not appropriate for the fair scenario. Finally, queuing impacts at Camino del Mar (Highway 101)/Via de la Valle (Border Avenue) would be significant and unavoidable if Option A in mitigation measure MM TRA-7 is selected.

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6.0 CUMULATIVE EFFECTS

Section 15130 of the CEQA Guidelines requires that an EIR address cumulative impacts of a project when its incremental effect would be cumulatively considerable. Cumulatively considerable means that the incremental effects of an individual project would be significant when viewed in connection with the effects of past, current, or probable future projects. The analysis of cumulative impacts can identify cumulative impacts where none are identified at the project level (see Section 4.0 and Subsection 5.1 for an analysis of potential impacts at the project level).

According to Section 15130 of the State CEQA Guidelines, the discussion of cumulative effects "... need not provide as great a detail as is provided of the effects attributable to the project alone. The discussion should be guided by the standards of practicality and reasonableness." The evaluation of cumulative impacts is to be based on either: the List Method, which is "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 the Plan Method, which is "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 area-wide conditions contributing to the cumulative effect. Any such planning document shall be referenced and made available to the public at a location specified by the Lead Agency."

The basis and geographic area for the analysis of cumulative impacts (also referred to as the cumulative study area) is dependent on the nature of the issue and the project. In some cases, regional planning addresses cumulative impacts, while in other cases, the analysis takes into consideration more localized effects. For the analysis of cumulative impacts which are localized (e.g., traffic and noise), a list of past, approved, and pending (i.e., active applications) projects within the project vicinity was identified based on their ability to contribute to and/or compound impacts with those of the project (List Method). For air quality, greenhouse gas emissions, and land us and planning the cumulative setting is the region, and analysis is instead based on regional planning documents.

6.1 CUMULATIVE PROJECTS LIST

The geographical extent of the project's cumulative list of projects generally includes known projects within about four miles of the project site. The location of identified cumulative projects is illustrated on Figure 6-1, *Cumulative Projects*, and Table 6-1, *Cumulative Projects*, contains a brief description of the development associated with these projects (with the numbers in list corresponding to the locations on Figure 6-1). The analysis of localized cumulative impacts is based on known projects that are pending (in the planning or permitting process), approved, under construction, or are complete (built).

Table 6-1
CUMULATIVE PROJECTS

Project Name	Type of Development	Approximate Distance from Project Site (miles)	Status
City of Del Mar			
1. Watermark	Multi-Family Residential; 48 units	0.7	Pending
2. 941 Camino del Mar	Multi-Family Residential, Restaurant	2.0	Approved/Pending
3. Bully's/Hillstone	Restaurant; 5,000 sf	1.7	Approved
4. Shores Park/Winston School	Active Recreation Center	1.8	Existing
5. Del Mar Civic Center	Civic	1.6	Completed
City of Solana Beach			
6. Solana Highlands	Multi-Family Residential; 66 units	0.5	Pending
7. The Pearl	Single-Family Residential; 10 units, Commercial Office	0.2	Pending
8. Ocean Ranch Estates	Mixed Use, Office, Restaurant	0.5	Pending
9. 330 S. Cedros Mixed Use	Retail, Restaurant, Office, Multi-Family Residential	0.6	Approved
10. NCTD Train Station Project	Retail, Restaurant, Office, Hotel, Multi-Family Residential	0.9	Pending
11. Feather Acres 7-Lot Subdivision	Single-Family Residential; 7 units	1.3	Under construction
12. Genevieve Street Senior Care Facility	Residential Care; 99 beds	1.1	Pending
13. Solana 101	Retail, Restaurant, Office, Multi-Family Residential; 31 units	0.7	Pending
14. San Andres Drive Median Improvements	Roadway Improvement	1.4	Pending
15. Stevens Avenue CATS Project	Roadway Improvement	0.8	Pending
16. Lomas Santa Fe Corridor Study	Corridor Study	1.0	Pending
17. Skyline Elementary School Reconstruction	Education	1.2	Pending
18. Earl Warren Middle School Reconstruction	Education	0.9	Pending
19. Solana Beach School District Office and Child Development Center Modular Building Replacement	Office	1.0	Pending
20. Santa Fe Christian School Master Plan Update	Education; 172,336 sf	1.0	Pending

Table 6-1 (cont.)
CUMULATIVE PROJECTS

Project Name	Type of Development	Approximate Distance from Project Site (miles)	Status
City of San Diego			
21. Via de la Valle Townhomes	Multi-Family Residential; 22 units	2.1	Pending
22. St. John Armenian Church	Church, Offices, Assembly, School, Gym; 8,800 sf	1.9	Pending
23. Hacienda Del Mar	Assisted Living; 195 beds	2.7	Pending
County of San Diego			
24. Morgan Country Club	Health Club; 9,400 sf	3.7	Pending
Other Agencies			
25. 22nd Agricultural District Association Master Plan	Various	0.5	Pending
26. Surfside Race Place	Special Events	0.7	Pending

Source: LLG 2019
sf = square feet

6.2 CUMULATIVE IMPACT ANALYSIS

This subsection includes a cumulative impact analysis for each of the environmental topics in Section 3.0 of this EIR. The cumulative analysis includes the following information for each environmental topic: (1) an explanation of how a cumulatively considerable impact could result for each environmental topic; (2) a definition of the cumulative study area for each environmental topic; (3) a discussion of past, present, and reasonably foreseeable future cumulative projects and determination if those projects (without the proposed project) would result in a significant cumulative impact; and (4) a conclusion as to whether the project's contribution to the impacts of past, present, and reasonably foreseeable future projects is cumulatively considerable. Generally, a project is considered to result in a cumulative impact if past, present, and reasonably foreseeable future projects have resulted in a significant cumulative impact without the project; however, depending on the severity of the impact, a project's contribution to a less than significant cumulative impact may be cumulatively considerable.

6.2.1 Aesthetics

A cumulatively considerable impact on aesthetics would result if the proposed project would contribute to a significant cumulative impact related to a substantial and adverse change on a scenic vista or scenic resources, the cumulative degradation that would affect the overall scenic quality of the area, or the addition of a substantial cumulative amount of light and/or glare. The geographic scope of analysis for cumulative aesthetics impacts to which the project may contribute includes the viewpoints described and analyzed in Subsection 4.1 of this EIR. The cumulative study area generally includes the geographic area between Key View 1 in Solana Beach to the north; Key View 12 in Del Mar to the south, at the Del Mar Plaza; to Key View 9 in the City to the east, at the bridge that crosses the San Dieguito River; and the Pacific Ocean to the west. This area is about 1.5 miles long by 0.5 mile wide and mostly includes

views oriented to the west towards the Pacific Ocean and to the north and south towards the San Dieguito River and the associated Lagoon.

Past projects along coastal areas in the City of Del Mar and neighboring coastal communities have changed the area from a natural and undeveloped setting to a suburban setting defined by a mixed of residential, commercial, and office uses, as well as bridges, roadways, and highways that accommodate a heavily populated metropolitan area. Past projects developed along the coastline have precluded some coastal views from areas further inland. For present and future projects, up to five of the 26 cumulative projects listed in Table 6-1 above are located within the cumulative study area for aesthetics (cumulative projects #1, #7, #22, #25, and #26) would continue to modify the visual appearance and aesthetics along the coast and would also include lighting for safety. The remaining 21 cumulative projects would be located too far to be seen in the vicinity of the project site. As mentioned in Subsection 4.1, development in Del Mar is subject to strict design guidelines and review prior to project approval, as is other land use and development within coastal San Diego County. Therefore, projects listed in Table 6-1 would receive similar reviews prior to approval, or if they are approved, have likely been altered due to public or municipal comments. These design reviews are intended to improve project design to be more consistent with the visual character, size, scale, and bulk of previous development in the area. Compliance with these requirements generally minimizes aesthetic impacts, as well as light and glare impacts. While past and present cumulative projects have and would continue to visually alter the coastal areas near the project site from a more natural to a more developed and suburban aesthetic, and future projects are anticipated to continue this trend, views in coastal areas have been regulated by local governments for decades and a cumulatively significant impact from past, present, and reasonably foreseeable future projects is not identified.

As mentioned in Subsection 4.1, the layout of the project site includes clustered development towards the center of the site, the establishment of open spaces oriented to the west towards the Pacific Ocean, and a paved public amenity trail (or loop path) around the coastal bluff. The project is also located on a coastal terrace adjacent to other two- and three-story development in Solana Beach. Past, present, and reasonably foreseeable future projects have not and would not result in a significant aesthetic impact and the proposed project would not result in an impact such that a cumulatively significant impact would be created. As a result, the project's contribution to aesthetics impacts would be less than cumulatively considerable.

6.2.2 Air Quality

Potential cumulative air quality impacts would result when cumulative projects' emissions would combine to degrade air quality conditions below attainment levels for the SDAB, delay attainment of air quality standards, impact sensitive receptors, or subject surrounding areas to objectionable odors. As the topic of air quality is cumulative by nature, the potential impacts analyzed in Subsection 4.2 are already somewhat cumulative; however, this discussion focuses on if the project's contribution within the SDAB is cumulatively considerable in consideration of past, present, and reasonably foreseeable future projects. The geographic scope of the cumulative study area for air quality is generally the SDAB, which includes all of San Diego County (or about 4,260 square miles); however, impacts related to sensitive receptors and odors are more localized due to the limited area of dispersion.

Past development projects within the SDAB have resulted in the generation of emissions of criteria air pollutants, such as O_3, PM_{10}, and $PM_{2.5}$, and the SDAB is in non-attainment at the state level for each of these pollutants. As explained in Subsection 4.2 of this EIR, O_3 precursors include NO_X and VOCs. The

non-attainment status was achieved as a result of past projects, and current and future projects are anticipated to continue to generate these criteria air pollutants. Therefore, impacts related to the cumulative contribution of nonattainment pollutants and the exposure of sensitive receptors to substantial pollutant concentrations are cumulatively significant.

The project's contribution to a cumulatively significant impact identified as a result of past projects and anticipated to continue under current and future projects would be less than significant as criteria pollutant emissions would not exceed SDAPCD thresholds for O_3, PM_{10}, or $PM_{2.5}$ during construction or operation (see Tables 4.2-5 and 4.2-6). These thresholds have been designed to address cumulative projects and identify when a project would result in a cumulatively considerable contribution to the existing cumulative air quality impacts. The proposed project would involve land use and zoning changes to permit the proposed resort project and would modify the existing low-density residential designations on the site to allow for resort development. The project is located within SRA 13. SANDAG's projections anticipated approximately 34,356 new residents in this SRA from 2012 through 2020 (SANDAG 2013). The addition of 199 new residents to the SRA as a result of the project would be accommodated in the population forecast used to prepare the 2016 RAQS. As such, the project would not conflict with or obstruct implementation of the applicable air quality plan. While cumulative projects have resulted in a cumulatively significant impact on air quality, the project's contribution would not conflict with the RAQS for the SDAB and the project's contribution would be less than cumulatively significant.

6.2.3 Biological Resources

Potentially cumulative impacts related to biological resources would occur if the proposed project would contribute to cumulative impacts related to sensitive habitat or species, sensitive natural communities, federally protected wetlands, or wildlife movement corridors. The geographic scope, or cumulative study area, for biological resources to which impacts of the project may contribute includes adjacent and nearby coastal areas of the City of Del Mar and the City of Solana Beach, including the beach areas to the west, and the San Dieguito River and Lagoon to the south and east. Three of the cumulative projects listed in Table 6-1 (including cumulative projects #1, #7, and #25) are located near sensitive biological areas and could contribute to cumulative impacts on biological resources because these projects could result in disturbances directly (as a result of paving, grading, or landscaping activities) or indirectly (related to noise, lighting, or runoff).

The project site and surrounding areas are located in a dynamic area with beaches, the San Dieguito River and the Lagoon, as well as coastal residential, commercial, and recreational development. While much of the Lagoon has been preserved and managed to restore its ecological health, past projects in the cumulative study area have resulted in the urbanization of a once coastal and tidally influenced area. While the cumulative study area is nearly built-out, present and future cumulative projects are and will continue to somewhat urbanize the area. However, besides areas at the Lagoon, which are prohibited from development, most of the sensitive habitat and biological resources that previously existed are no longer present. As such, there is a low potential for cumulative projects to further degrade biological resources in the area. Present and future cumulative projects would be required to comply with applicable federal, state, and local regulations pertaining to biological resources, including compliance with the federal MBTA and the applicable local LCP, which protect migratory birds and coastal resources, respectively. Similarly, related to water quality and potential cumulative impacts on the Lagoon, various state and local regulations, such as the requirement to prepare and implement a SWPPP and identify BMPs to address construction and operational management of stormwater and runoff from

a project site, would apply. While past projects have degraded biological resources within the cumulative study area, based on efforts to restore the Lagoon, as well as current regulations to minimize further degradation of biological resources, cumulative biological resources impacts from past, present, and reasonably foreseeable future projects are considered less than cumulatively significant.

The proposed project would result in less-than-significant impacts to biological resources with the incorporation of mitigation measures. Specifically, the project would mitigate impacts to 0.27 acre of southern coastal bluff scrub with restoration; would mitigate impacts associated with restoration activities at the project parcel east of Camino del Mar, near the Lagoon; would be required to comply with the MBTA, would not impact federal wetlands or migratory wildlife corridors; and would comply with the City of Del Mar's Tree Removal Permit process. Indirect effects related to lighting would also be mitigated to less than significant. As a result, the project's contribution to cumulative impacts would not be considerable, and cumulative biological resources impacts would remain less than significant.

6.2.4 Cultural and Tribal Cultural Resources

Potentially cumulative impacts related to cultural resources would occur if the proposed project would contribute to a cumulative impact on significant historical, archaeological, or tribal cultural resource. The geographic scope of analysis for cumulative historical resources impacts includes areas where historic buildings are located, which include areas in the City along Camino Del Mar, located more than one mile south of the project. The cumulative study area for archaeological and tribal cultural resources impacts generally includes the cultural landscape relevant to the project, which for the project site includes areas identified by the Kumeyaay and Luiseño peoples who populated areas throughout greater coastal San Diego County.

Past projects within coastal San Diego County have resulted in development, generally consisting of single- and multi-family residential and commercial development. As noted in Subsection 4.4, there are no historic resources at the project site, 20 recorded cultural resources within one mile of the project, including two prehistoric habitation sites on the project site (sites CA-SD-7979 and -10940). Past projects, including previous agricultural and residential uses within the project site, have resulted in some impacts to historical and cultural sites in coastal San Diego County. For some of the past projects, evaluation and monitoring and reporting of archaeological discoveries was conducted, including at site CA-SD-7979, where a data recovery program was completed in the 1990s to recover cultural information from this site. Site CA-SD-10940 on the project site has also been somewhat disturbed by past projects; however, it is noted as mostly undisturbed. Present and reasonably foreseeable future projects could result in additional impacts on historic resources, such as the four cumulative projects in central Del Mar (cumulative projects 2 through 5) about one mile south of the project site, and while these projects have or would undergo environmental review pursuant to CEQA, their location in an area with potentially historic buildings could contribute to increased impacts on historical resources. Likewise, due to the identified 20 recorded cultural sites within one mile of the project site and the moderate to high sensitivity for pre-historic cultural resources, present and future project have the potential to discover buried resources and contribute to cumulative impacts.

While present and future projects would likely continue to modify existing historical structures, discover buried cultural resources, or otherwise affect tribal cultural resources, current laws and environmental review processes would reduce these impacts by requiring historical and pre-historic cultural evaluations and monitoring for projects where there is the potential to discover important cultural information. Similarly, with the passage of AB 52, local government tribal consultation opportunities are

increased and require notification of local tribes prior to considering a discretionary action on a project. While these processes and requirements do not inherently guarantee that impacts will be reduced to less than significant, they do increase the likelihood that alternatives or mitigation measures will be included to minimize cultural resources impacts. As a result, cultural resource impacts from past, present, and reasonably foreseeable future projects are not considered to be cumulatively significant.

The project site does not contain any historically designated or eligible structures on site and would not have a contribution to a cumulatively significant impact on historic resources. The project would result in potentially significant impacts to archaeological resources on the site; however, mitigation measures to address potential impacts to the two archaeology sites within the project boundary would reduce potential impacts to less than significant. In September 2017, the City of Del Mar sent out letters notifying 22 tribal organizations of the proposed project in accordance with AB 52 and Section 20180.3.1 of CEQA, and included information on the project location and description, and indicated the negative results of the NAHC Sacred Lands File request. To date, no additional contact or questions, including requests for consultation, have been received by the City. Therefore, because a cumulatively significant impact is not present and because the proposed project's impact on cultural resources would be reduced with mitigation measures, and because the project has conducted tribal coordination in compliance with AB 52 and Section 20180.3.1 of CEQA, the project's contribution to cumulative cultural and tribal cultural resource impacts would not be cumulatively considerable.

6.2.5 Geology and Soils

Potentially cumulative impacts related to geology and soils for the proposed project would occur if the project would contribute to a cumulative impact related to exposing people to risks associated with landslides or erosion, as well as issues related to faulting, ground shaking, liquefaction, expansive soils, or the use of septic tanks within inadequate soils. Potentially cumulative impacts related to paleontological resources would occur if the proposed project would contribute to a cumulative impact on significant paleontological resources.

The geographic scope for cumulative impacts varies for geological resources and depends on the geologic issue. For cumulative seismic-related impacts (faulting and ground shaking), the areas immediately surrounding the project site are considered as cumulative impacts related to buildings collapsing or falling further away would not directly affect the project site. The scope for unstable and expansive soils would be limited to the project site as these issues relate primarily to methods for building construction. The cumulative study area for soil erosion and landslides is also limited to the project site. While areas further north of the project site in Solana Beach along the coast include coastal bluffs with similar underlying soils and structure, erosion rates or occurrences of bluff retreat along coastal bluffs in Solana Beach, except for those immediately adjacent to the project site, do not have a cumulative impact on the project site. The cumulative study area for paleontological resources also includes coastal San Diego County as there are similarly highly sensitive paleontological areas similar to the project site.

Related to soils and suitability for development, past, present, and reasonably foreseeable future projects have and will continue to replace unsuitable soils for construction with soils that meet engineering regulations and City grading requirements. Past projects within the cumulative study area for geology and soils have resulted in increased infrastructure, structural improvements, and increased the number of residents and visitors within the area, subjecting people to potential impacts related to fault rupture and seismic ground shaking that could result in damage to people and property. However,

development in the surrounding area is generally three or fewer stories and does not involve high-rise development. Also, current building codes, such as the CBC, require compliance with seismic building regulations and the list of projects in Table 6-1 would all be required to be constructed pursuant to current building codes. Related to landslides and erosion, past development has resulted in coastal bluff development to the north and south of the project, including revetment and sea wall development along the western edge of the coastal bluffs that follow the coastline. More recently, coastal development has been more regulated, and concerns of sea level rise and exacerbated bluff erosion and retreat caused by irrigation runoff have been raised and are addressed with consideration of CDPs along the coast. While current and future projects along coastal bluffs are and will continue to be evaluated for potential impacts involving erosion and bluff failure, the impacts of past, present, and reasonably foreseeable future projects are nonetheless considered cumulatively significant.

The proposed project would result in development on a coastal bluff, which has been significantly impacted in terms of erosion and bluff failure by past runoff over the coastal bluff related to previous agricultural and residential development on the site. None of the present or reasonably foreseeable future projects involve development on a coastal bluff within the cumulative study area; although cumulative projects #7 and #13 are located in coastal Solana Beach, neither is directly located on a coastal bluff. While the proposed project has been carefully evaluated and considered relative to historic information about bluff retreat and projected future retreat in the area, such as setbacks related to a FOS of 1.5 plus a 33-foot distance anticipated to account for 75 years of future bluff retreat, a mitigation measure for new trails, fences, windscreens, and benches outside of the identified coastal bluff-top setback, which requires construction above-grade with lightweight materials and incorporation of Adaptive Design strategies has been included to reduce potential project-related impacts to less than significant. When this project impact is combined with the significant cumulative impact from past development, it is not considered to be cumulatively significant because the result would not pose a significant safety threat to people or property. Its effects would be highly localized and would not have a substantial effect on the stability or erosion of off-site portions of the bluff. Consequently, impacts of past, present, and reasonably foreseeable future projects as they relate to erosion and bluff retreat would be less than cumulatively considerable.

Regarding paleontological resources, while present and future projects would likely continue to discover buried paleontological resources, current laws and environmental review processes would reduce these impacts by requiring evaluations and monitoring for projects where there is the potential to discover important paleontological resources. While these processes and requirements do not inherently guarantee that impacts will be reduced to less than significant, they do increase the likelihood that alternatives or mitigation measures will be included to minimize paleontological resources impacts. As a result, paleontological resource impacts from past, present, and reasonably foreseeable future projects are not considered to be cumulatively significant.

The project site is moderately to highly sensitive to paleontological resources. The project would result in potentially significant impacts to paleontological resources on the project site and along the proposed Option 2 water pipeline alignment; however, mitigation measures to address potential impacts to paleontological resources would reduce potential impacts to less than significant. Therefore, because a cumulatively significant impact is not present and because the proposed project's impact on paleontological resources would be reduced with mitigation measures, the project's contribution to cumulative paleontological resources impacts would not be cumulatively considerable.

6.2.6 Greenhouse Gas Emissions

Significant cumulative impacts related to GHG emissions would occur if the proposed project would contribute to cumulative impacts by either directly or indirectly generating GHG emissions that result in a net increase of more than the CARB-based efficiency metric of 4.48 MT per service population per year, or by conflicting with an applicable plan, policy, or regulation to reduce GHG emissions.

Impacts related to GHG emissions are the result of cumulative global emissions and no single project on its own can cause climate change as a single project is not large enough to change the global atmosphere. As such, the geographic scope for cumulative GHG emissions impacts is global and past, present, and reasonably foreseeable future projects in the region, state, nation, and world, have and will continue to contribute to GHG emissions. While federal, state, and local regulations have been put in place to address targets for emissions reductions, changes from past, present, and reasonably foreseeable future projects have contributed to a cumulatively significant impact on GHG emissions.

The proposed project would also contribute to impacts related to GHG emissions during construction and operation, as discussed in Subsection 4.6 of this EIR. Specifically, during construction the project would utilize off-road construction equipment, on-road hauling and vendor trucks, and worker vehicles, resulting in emissions of CO_2e during the 26-month construction period (taking place in the years 2020, 2021, and 2022) between approximately 413 and 741 MT CO_2e each year and amortized to 559 MT CO_2e per year over 30 years (taking into account the loss of sequestered carbon from tree removal associated with the project). Operations would generate GHG emissions in the form of traffic, energy use, solid waste generation, and water and wastewater use, resulting in an amortized yearly generation of about 3,011 MT CO_2e for a combined generation of about 3,068 MT CO_2e per year. With a service population of 687 people, GHG emissions associated with the project would equal 4.47 MT CO_2e per service population per year, which is less than the threshold of 4.48 MT CO_2e per service population per year. As the service population analysis is intended to achieve GHG reduction efforts at the state and local level, the project would not result in the GHG emissions impacts nor would it conflict with plans policies or regulations to reduce GHG emissions impacts. The proposed project's contribution would not be cumulatively considerable.

6.2.7 Hydrology and Water Quality

A significant cumulative impact on hydrology and water quality would result if the proposed project were to contribute to impacts related to water quality standards violations, increased runoff in excess of available infrastructure capacity, alterations to drainage patterns, or the placement of structures within a 100-year flood hazard area when evaluated within the context of past, present, and reasonably foreseeable future projects. The project is not expected to result in impacts related to the exposure of people or structures to inundations by seiche or tsunami, depletion of groundwater supplies or recharge, and, as such, cumulative impacts related to these issues are not further evaluated. The geographic scope of analysis for cumulative impacts on hydrology and water quality includes the San Dieguito HU, which includes all of the projects listed in Table 6-1.

Past projects within the San Dieguito HU have contributed pollutants to the Pacific Ocean at the Lagoon as evidenced by the CWA Section 303(d) list, which identifies the Pacific Ocean at the Lagoon as an impaired water body for indicator bacteria. The current and reasonably foreseeable future projects in Table 6-1 would all be subject to state and local regulatory standards for construction and operation as they relate to containing or avoiding polluted runoff into nearby waters; however, some contribution of

oils and grease, suspended solids, metals, gasoline, pesticides, and pathogens into the stormwater system could result. Some of the large cumulative projects in Table 6-1, such as cumulative projects #1 (Watermark), #6 (Solana Highlands), and #12 (Genevieve Street Senior Care Facility) would involve one or more acres of grading and would be required to obtain an NPDES Construction General Permit, including preparation of a SWPPP and implementation of BMPs to address runoff from individual projects and require that they meet current water quality standards. Because the Pacific Ocean at the Lagoon is currently an impaired water body, the cumulative effect of past, present, and reasonably foreseeable future projects has resulted in a cumulative significant water quality impact.

To address the proposed project's potential impacts on the water quality at the Pacific Ocean at the Lagoon, project-related construction would implement a SWPPP with BMPs for erosion/sedimentation, hazardous materials, and demolition debris. During operations, the proposed drainage infrastructure and new storm drain pipes would divert stormwater from the project site to east of Camino del Mar, instead of at Pacific Ocean at the Lagoon where runoff is currently deposited. As a result, the project's incremental contribution to a significant cumulative water quality impact from past, present, and reasonably foreseeable future projects would be less than cumulatively considerable.

6.2.8 Land Use and Planning

Potentially cumulative impacts related to land use and planning would occur if past, present, and future projects have divided an established community or resulted in significant physical impacts due to an inconsistency with a land use or planning regulation, policy, or document, including plans that address sensitive biological impacts. The geographic scope of analysis for cumulative land use and planning impacts includes the list of cumulative projects in Table 6-1 that are located west of I-5, which includes areas within the City of Del Mar, City of Solana Beach, and portions of the City of San Diego. The area east of I-5, where there are nine cumulative projects, is not considered part of the cumulative study area because it does not reflect coastal development and is not subject to the same land use and planning restrictions (i.e., CDPs).

Past projects in the City of Del Mar, Solana Beach, and the City of San Diego have been subjected to local land use controls which have guided the current pattern of coastal development seen today. Past development has generally been residential with some commercial uses, but also includes the State Fairgrounds, the I-5 freeway, and local roadways. Further, the City, Solana Beach, and San Diego also regulate development pursuant to their respective CDPs, which address sensitive coastal issues such as beach access and affordable accommodations within the coastal zone. As a result, several points of coastal access have been maintained in the area, such as the coastal easement adjacent and north of the project site. However, other coastal development in the area has precluded coastal access for residents and visitors, including the decision to subdivide some of the project site a long time ago, which has restricted public access across the site and connections to the North Beach area. Although coastal access has been somewhat restricted, it remains available; therefore, impacts from past projects have not been cumulatively significant. Regarding present and reasonably foreseeable future projects, none of the projects shown on Figure 6-1 west of I-5 would result in substantial changes to the land use patterns or development of the area. For instance, cumulative projects #2 through #5 in the City would all occur within existing lots with uses that have historically existed in the area (such as restaurants, housing, and recreational uses). As a result, present, and future projects are not expected to be cumulatively considerable.

Present and reasonably foreseeable future projects in Table 6-1 are generally consistent with regional and local planning documents (such as the City of Del Mar's Community Plan) and a significant cumulative impact related to land use and planning is not present. The project would result in an inconsistency with City of Del Mar Community Plan exterior noise standard and state of California interior noise standard for on-site receivers in 2035, as discussed in Subsection 4.8. The City of Del Mar Community Plan establishes an exterior noise standard of 65 CNEL, which would be exceeded at three on-site receiver locations due to future traffic and rail noise (identified as direct project impact LU-1). Additionally, eleven on-site receivers could be exposed to interior noise levels in excess of state standards due to future traffic noise (identified as direct project impact LU-2). These are potentially significant land use consistency impacts. However, with implementation of MM LU-1, which requires a noise barrier with a minimum height of 5 feet for rooms with usable outdoor patio space in the northeastern-most portion of the project site with a direct, unobstructed view of Camino del Mar, and with implementation of MM LU-2, which requires an interior noise analysis and installation of additional systems if required by the interior noise analysis, project impacts would be reduced to less than significant. Thus, the project's contribution to a cumulatively significant land use consistency impact would be less than cumulatively considerable.

6.2.9 Noise and Vibration

Potentially cumulative impacts related to noise and vibration would occur if the proposed project were to contribute to impacts related to exceedances in noise standards, groundborne vibration, or ambient noise levels when evaluated within the context of past, present, and reasonably foreseeable future projects. Impacts related to air traffic noise were determined to have no impact at the project level and cumulative impacts related to air traffic noise are not evaluated. The cumulative study area for noise and vibration for the proposed project includes areas identified in Figure 4.9-1, which identifies six locations within less than a mile of the project site, as well as the project site itself, which could experience cumulative increases in noise from increased traffic from the list of cumulative projects in Table 6-1.

As discussed in Subsection 4.9, existing community noise levels (CNEL) range between 59 and 68 CNEL, and as result, past projects have resulted in an exceedance of the City of Del Mar's acceptable level of 65 CNEL at two locations (ST3 and ST4 at residential areas east and north of the project site, respectively). The addition of current and future projects in Table 6-1 would each add traffic within the cumulative study area, and cumulative effects from past, present, and reasonably foreseeable future projects are cumulatively significant. Regarding vibration, impacts are usually limited to construction activities; although the railroad east of the project site does generate some vibration, it is not to a level of significance (see Subsection 4.9 for more details on railway vibration) and has not resulted in a cumulatively significant vibration impact.

As shown in Table 6-2, *Off-Site Year 2035 Plus Project Traffic Noise Levels (CNEL)*, future noise levels due to increases in roadway noise related to increased traffic by 2035 with and without the proposed project would result in an increase in noise levels at one of the modeled receptors by 1 dBA CNEL (at ST4); however, an increase of less than 3 dBA CNEL is not considered noticeable to the human ear and would not be an audible change in the context of community noise. No noise level increases were identified in 2035 as a result of the project and there would be no cumulatively considerable contribution to a cumulatively significant noise impact. Also, the project's contribution to vibration impacts during construction were not concluded to result in significant impacts and would not contribute to a cumulatively considerable vibration impact.

Table 6-2
OFF-SITE YEAR 2035 PLUS PROJECT TRAFFIC NOISE LEVELS (CNEL)

Modeled Receptor	Roadway Segment	2035	2035 Plus Project	Change
ST1 – Southeastern part of project site	Camino del Mar (south of Via de la Valle)	64	64	0
ST2 – Residences south of the project site	Camino del Mar (south of the project site, north of 27th Street)	63	63	0
ST3 – Residences east of the project site	Via de la Valle (east of Camino del Mar)	69	70	1
ST4 – Residences north of the project site	Camino del Mar (north of Via de la Valle)	69	69	0
M1 – Residences northeast of the project site	South Sierra Avenue (north of Border Avenue)	58	58	0
M2 – Residences north of the project site	Border Avenue (west of Camino del Mar)	62	62	0

Source: Dudek 2019e
Note: Project-related traffic noise levels are rounded to the nearest whole numbers.

6.2.10 Public Services

Potentially cumulative impacts related to public services would occur if increased demands on fire, police, schools, or parks, when considered in conjunction with past, present, and future projects, would result physical environmental impacts associated with the construction of additional public services facilities. The geographic scope for public services varies by each service area for fire, police, schools, and parks and includes the 2.5 square miles serviced by the Fire Department, the 4,200 square miles serviced by the Sherriff's Department, the 15 square-mile attendance area of the Del Mar District, and the City limits which provide parks for residents in the City.

Past projects have required the construction of public services to serve the areas in the City, Solana Beach, and the City of San Diego, and present and future projects will incrementally increase demand on public service providers. However, existing services are adequate to serve the cumulative study area currently and a cumulative impact on public services from past projects is not identified. For current and future projects, coordination and review by public service providers in the cumulative study area would continue and the identification of the need for new or expanded facilities would be identified more on a long-term planning basis rather than a project-by-project basis unless a single project was large enough to warrant new or expanded facilities on its own. As such, present and future projects are not considered to result in a cumulatively significant impact on public services.

The contribution of the proposed project on public services demand is discussed in Subsection 4.10 and concludes that the project has been reviewed by applicable public service providers and would not necessitate the expansion or development of new public services. Further, the project would provide public access and trails around the perimeter of the site and would result in an increase in the provision of recreational facilities. Therefore, the project's contribution to cumulative public services impacts would be less than cumulatively considerable.

6.2.11 Transportation and Traffic

Potentially cumulative impacts related to transportation and traffic could result if past, present, and reasonably foreseeable future projects combine to result in unacceptable intersection, street segment, freeway ramp, freeway mainline, or queuing operations; or if cumulative projects would result in unacceptable pedestrian, bicycle, or public transit accessibility and/or degraded service. A significant cumulative impact on an intersection would occur if one of the following occurs: (1) an intersection is degraded from LOS D or better without the project to LOS E or F with the contribution of the project; or (2) an intersection operating at LOS E or F without the project is degraded by more than two seconds of average vehicle delay with the contribution of the project. Freeway segment impacts are based on a combination of volume-to-capacity changes and level of service, while freeway on- and off-ramp impacts are identified if the length of the ramp is exceeded by the traffic queue and if the proposed project were to result in an increase of on-ramp delay by 2 additional minutes under LOS E and by 1 minute under LOS F when there is an existing 15-minute delay or more at the on-ramp. Impacts on alternative transportation modes are considered, which include determining if there are sufficient pedestrian, bicycling, and public transit facilities.

The geographic scope for transportation and traffic impacts includes traffic in the greater San Diego region, which is managed by SANDAG, but only as this traffic relates to the intersections, street segments, and freeway mainline segments and ramps within the traffic study area for the proposed project (shown on Figure 4.11-1). A long-term scenario was selected in the year 2035 to represent cumulative traffic conditions from anticipated growth in the San Diego region, which considers future traffic conditions in 2035 as reported in the SANDAG Series 12 Regional Model and daily segment and peak hour volumes reported by SANDAG. For intersection turning movements, LLG developed ADT volumes using the relationship between existing peak hour turn movements and the existing ADT volumes, which is assumed to continue in 2035.

Past projects within the cumulative study area have added vehicle trips within the City of Del Mar and other nearby coastal cities and communities, and present and future projects will continue to add vehicle trips within the cumulative study area. Existing conditions within the traffic study area reflect the traffic contribution from past projects. Combining existing traffic conditions with the present and reasonably foreseeable future projects in Table 6-1 and considering future forecasted traffic volumes in the San Diego region by 2035, eight intersections within the traffic study area would be failing in 2035 without the project. See Table 6-3, *Year 2035 Intersection Operations*, which identifies the following eight failing intersections without the project by 2035 during a typical weekday:

- Intersection #1: Highway 101/Lomas Santa Fe Drive (LOS E during the PM peak hour);
- Intersection #3: I-5 SB Ramps/Lomas Santa Fe Drive (LOS E during the PM peak hour);
- Intersection #8: Camino del Mar (Highway 101)/Via de la Valle (Border Avenue) (LOS E during the PM peak hour);
- Intersection #9: Via de la Valle/South Cedros Avenue (SB left-turn LOS F during the AM and PM peak hours);
- Intersection #10: Via de la Valle/Jimmy Durante Boulevard (LOS E during the AM and PM peak hours);

- Intersection #13: Camino del Mar/27th Street (LOS E during the PM peak hour);
- Intersection #14: Camino del Mar/Coast Boulevard (LOS F during the PM peak hour); and
- Intersection #17: Camino del Mar/Del Mar Heights Road (LOS E during the AM peak hour and LOS F during the PM peak hour).

Table 6-3
YEAR 2035 INTERSECTION OPERATIONS

Intersection	Control Type	Peak Hour	Without Project		With Project		Δ Delay[b]
			Delay (seconds)	LOS[a]	Delay (seconds)	LOS	
1. Highway 101/Lomas Santa Fe Drive	Signal	Weekday AM	45.0	D	45.5	D	0.5
		Weekday PM	**77.4**	**E**	**78.3**	**E**	**0.9**
2. South Cedros Avenue/Lomas Santa Fe Drive	Signal	Weekday AM	32.7	C	37.1	D	4.4
		Weekday PM	27.8	C	37.7	D	9.9
3. I-5 Southbound Ramps/Lomas Santa Fe Drive	Signal	Weekday AM	23.3	C	23.5	C	0.2
		Weekday PM	**57.7**	**E**	**58.5**	**E**	**0.8**
4. I-5 Northbound Ramps/Lomas Santa Fe Drive	Signal	Weekday AM	17.0	B	17.0	B	0.0
		Weekday PM	15.3	B	15.4	B	0.1
5. South Sierra Avenue/Dahlia Drive	AWSC[c]	Weekday AM	9.0	A	9.0	A	0.0
		Weekday PM	10.3	B	10.3	B	0.0
6. Highway 101/Dahlia Drive	Signal	Weekday AM	4.0	A	4.0	A	0.0
		Weekday PM	2.4	A	2.4	A	0.0
7. Border Avenue/South Sierra Avenue	[e]	Weekday AM	N/A		12.9	B	N/A
		Weekday PM	N/A		16.5	C	N/A
8. Camino del Mar (Highway 101)/Via de la Valle (Border Avenue)	Signal	Weekday AM	17.6	B	19.1	B	1.5
		Weekday PM	60.6	E	63.9	E	3.3
9. Via de la Valle/South Cedros Avenue	MSSC[d]	Weekday AM	50.4	F	58.7	F	8.3
		Weekday PM	130.2	F	159.1	F	28.9
10. Via de la Valle/Jimmy Durante Boulevard	Signal	Weekday AM	59.5	E	62.0	E	2.5
		Weekday PM	75.9	E	79.2	E	3.3
11. Via de la Valle/I-5 Southbound Ramps	Signal	Weekday AM	12.9	B	13.5	B	0.6
		Weekday PM	12.9	B	13.4	B	0.5
12. Via de la Valle/I-5 Northbound Ramps	Signal	Weekday AM	27.7	C	28.1	C	0.4
		Weekday PM	33.5	C	34.6	C	1.1
13. Camino del Mar/27th Street	AWSC[c]	Weekday AM	20.3	C	20.8	C	0.5
		Weekday PM	45.5	E	47.8	E	2.3
14. Camino del Mar/Coast Boulevard	AWSC[c]	Weekday AM	20.1	C	20.8	C	0.7
		Weekday PM	103.5	F	107.4	F	3.9
15. Camino del Mar/L'Auberge Del Mar	Signal	Weekday AM	6.7	A	6.7	A	0.0
		Weekday PM	11.5	B	11.5	B	0.0
16. Camino del Mar/15th Street	Signal	Weekday AM	22.5	C	22.6	C	0.1
		Weekday PM	34.5	C	34.9	C	0.4
17. Camino del Mar/Del Mar Heights Road	Signal	**Weekday AM**	**67.7**	**E**	**68.7**	**E**	**1.0**
		Weekday PM	**193.0**	**F**	**194.0**	**F**	**1.0**

Table 6-3 (cont.)
YEAR 2035 INTERSECTION OPERATIONS

Intersection	Control Type	Peak Hour	Without Project		With Project		Δ Delay[b]
			Delay (seconds)	LOS[a]	Delay (seconds)	LOS	
18. Camino del Mar/Carmel Valley Road	Signal	Weekday AM	32.2	C	33.0	C	0.8
		Weekday PM	33.0	C	33.9	C	0.9
19. Via de la Valle/Solano Circle	MSSC[d]	Weekday AM	26.6	D	28.1	D	1.5
		Weekday PM	26.6	D	28.4	D	1.8

Source: LLG 2019
a. Level of Service
b. Increase in delay to due project
c. AWSC – All-Way Stop Controlled intersection. Minor street left turn delay is reported
d. MSSC – Minor Street Stop Controlled intersection. Minor street left turn delay is reported
e. Turn in the road. No traffic control exists
N/A = Not Available
Shaded cells indicate a potentially significant cumulative project impact. **Bolded cells** indicate a failing intersection but no cumulative project impact.

Traffic conditions with the cumulative projects in Table 6-1 and regional growth by the year 2035 are projected to include four failing street segments within the traffic study area, as shown in Table 6-4, *Year 2035 Street Segment Operations*:

- Street Segment #4: Camino del Mar, from Via de la Valle to 27th Street (LOS E);
- Street Segment #7: Via de la Valle, from Highway 101 to South Cedros Avenue (LOS E);
- Street Segment #8: Via de la Valle, from South Cedros Avenue to Jimmy Durante Boulevard (LOS F); and
- Street Segment #9: Via de la Valle, from Jimmy Durante Boulevard to I-5 SB Ramps (LOS F).

Table 6-4
YEAR 2035 STREET SEGMENT OPERATIONS

Segment	Functional Classification [a]	Capacity	Year 2035			Year 2035 + Project			Δ V/C [e]
			ADT [b]	LOS [c]	V/C [d]	ADT	LOS	V/C	
South Sierra Avenue									
1. Del Mar Shores Terrace to Beach Club Drive	Minor Collector	8,000	3,900	B	0.488	3,960	B	0.495	0.007
Highway 101									
2. Lomas Santa Fe Drive to Dahlia Drive	4-lane Major Arterial	37,000	22,500	B	0.608	22,700	B	0.614	0.006
3. Dahlia Drive to Via de la Valle	4-lane Major Arterial	37,000	26,600	C	0.719	26,800	C	0.724	0.005
Camino Del Mar									
4. Via de la Valle to 27th Street	Community Collector	19,000	**18,200**	**E**	0.958	**18,350**	**E**	0.966	0.008
5. 27th Street to Coast Boulevard	Community Collector	19,000	13,400	C	0.705	13,550	D	0.713	0.008
6. Coast Boulevard to Jimmy Durante Boulevard	Community Collector	19,000	10,100	B	0.532	10,230	B	0.538	0.006
Via de la Valle									
7. Highway 101 to South Cedros Avenue	Town Collector	19,000	**19,000**	**E**	1.000	**20,000**	**F**	1.053	0.053[g]
8. South Cedros Avenue to Jimmy Durante Boulevard	Town Collector	19,000	**21,700**	**F**	1.142	**22,670**	**F**	1.193	0.051[g]
9. Jimmy Durante Boulevard to I-5 SB Ramps	4-lane Major Arterial [f]	50,000	**52,900**	**F**	1.058	**53,820**	**F**	1.076	0.018[g]

Source: LLG 2019

a. The San Diego County roadway classification at which the roadway currently functions.
b. Average Daily Traffic
c. Level of Service
d. Volume to Capacity
e. Increase in V/C ratio due to the addition of project traffic.
f. A third eastbound through lane is provided along this segment, which merges into the I-5 SB on-ramp. Hence the capacity of an additional lane is assumed.
g. Not an impact due to arterial peak analysis along Via de la Valle (see Table 6-5).

Bolded cells indicate a failing segment but no cumulative project impact.

Due to the failing operations along three street segments of Via de la Valle between Highway 101 and I-5 (LOS E or F) as shown above, a peak hour street segment analysis was conducted to determine the influence of the street environment, interaction among vehicles, and traffic control on street segment quality of service. As shown in Table 6-5, *Year 2035 Via de la Valle Arterial Peak Hour Operations*, the peak hour arterial analysis of Via de la Valle between Highway 101 and I-5 would operate at LOS D or better in both westbound and eastbound directions in the AM and PM peak hours under cumulative conditions in 2035 with and without the proposed project. Since peak hour operations are more indicative of actual operations than ADT operations, based on the peak hour arterial analysis, no significant cumulative impact is calculated on any of the traffic study area segments in 2035.

Table 6-5
YEAR 2035 VIA DE LA VALLE ARTERIAL PEAK HOUR OPERATIONS

Direction	Year 2035						Year 2035 + Project					
	AM Peak Hour			PM Peak Hour			AM Peak Hour			PM Peak Hour		
	Time (seconds)	Speed (mph)	LOS	Time (seconds)	Speed (mph)	LOS	Time (seconds)	Speed (mph)	LOS	Time (seconds)	Speed (mph)	LOS
Eastbound	148.1	20.4	D	138.8	21.8	D	137.3	18.6	D	117.9	21.7	D
Westbound	136.4	22.2	C	159.9	18.9	D	82.7	30.9	B	89.3	28.6	B

Source: LLG 2019

Lastly, regarding freeway mainline segments, the cumulative projects in Table 6-1 and regional growth anticipated by the year 2035 have resulted in three failing freeway mainline segments within the traffic study area, as shown in Table 6-6, *Year 2035 Freeway Mainline Segment Operations*:

- I-5, from Lomas Santa Fe to Via de la Valle (LOS F in the NB PM peak hour, and LOS F in the SB AM and PM peak hours);
- I-5, from Via de la Valle and Del Mar Heights Road (LOS F in the NB AM and PM peak hours, and LOS F in the SB AM and PM peak hours); and
- I-5, from Del Mar Heights Road and SR 56 (LOS F in the NB PM peak hour, and LOS F and E in the SB AM and PM peak hours, respectively).

Table 6-6
YEAR 2035 FREEWAY MAINLINE SEGMENT OPERATIONS

Freeway Segment	Dir.[f]	Hourly Cap[a]	AADT	Peak Hour Traffic						V/C[d]				LOS[e]		ΔV/C	
				Year 2035[b]		Project[c]		Year 2035 + Project		Year 2035		Year 2035 + Project					
				AM	PM	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM
Interstate 5																	
Lomas Santa Fe Drive to Via de la Valle	NB	12,000	307,200	11,033	14,421	10	12	11,043	14,433	0.919	1.202	0.920	1.203	D	F(0)	0.001	0.001
	SB	10,200		13,783	11,914	10	13	13,793	11,927	1.351	1.168	1.352	1.169	F(2)	F(0)	0.001	0.001
Via de la Valle to Del Mar Heights Road	NB	10,000	301,100	10,814	14,134	20	25	10,834	14,159	1.081	1.413	1.083	1.416	F(0)	F(2)	0.002	0.002
	SB	10,000		13,509	11,677	19	24	13,528	11,701	1.351	1.168	1.353	1.170	F(2)	F(0)	0.002	0.002
Del Mar Heights Road to SR 56	NB	12,000	306,400	11,005	14,383	20	25	11,025	14,408	0.917	1.199	0.919	1.201	D	F(0)	0.002	0.002
	SB	12,000		13,747	11,883	19	24	13,766	11,907	1.146	0.990	1.147	0.992	F(0)	E	0.002	0.002

Source: LLG 2019

a. Capacity calculated at 1800 vehicles per hour per lane and 1200 vehicles per hour per Auxiliary lane.
b. Existing Average Annual Daily Traffic Volumes form Caltrans PeMS (June 2017).
c. Project traffic at the ramps
d. V/C = Peak Hour volume/Truck Factor/Capacity
e. Level of Service
f. NB = northbound; SB = southbound

No freeway metered on-ramps in the cumulative study area were concluded to be significantly impacted (see Table 6-7, *Year 2035 Metered Freeway On-Ramps*). In conclusion, traffic operations as a result of regional growth in the San Diego area by the year 2035 would result in failing operations at eight intersections, four street segments, three freeway mainline segments, and no freeway metered on-ramps. However, as shown in Table 6-4, cumulative segment impacts in 2035 without the project are not considered to be significant. As a result, past, present and future projects have resulted in a cumulatively significant traffic impacts related to eight intersections and three freeway mainline segments.

The City of Solana Beach is currently conducting a study to identify transportation issues and proposals along Lomas Santa Fe Drive from Highland 101 to Highland Drive. One of the proposed improvements at the Highway 101/Lomas Santa Fe Drive intersection is to eliminate one westbound through lane. An analysis of long-term peak hour intersection operation was conducted for several scenarios assuming the Lomas Santa Fe Drive Corridor improvement at the Highway 101/Lomas Santa Fe Drive is implemented. As shown in Table 6-8, *Loma Santa Fe Drive Corridor Study Long-Term Intersection Operations at the Highway 101/Lomas Santa Fe Drive Intersection,* with the addition of project traffic, the Highway 101/Lomas Santa Fe intersection is calculated to remain operating at LOS D and F during the AM and PM peak hours, respectively, in the long-term scenario. As a result, the project would not result in a significant cumulative impact at this intersection.

Table 6-7
YEAR 2035 METERED FREEWAY ON-RAMPS

Segment	Peak Hour Flow (F) (veh/hr/ln)	Calculated (Most Restrictive)			
		Discharge Rate (veh/hr/ln)	Excess Demand E (veh/hr/ln)	Delay (min/ln)	Queue (ft)
EB[c] Via de la Valle to SB I-5					
AM					
		SOV [a]			
Year 2035	978	996	0	0	0
Project	16				
Year 2035 + Project	994	996	0	0	0
		HOV [b]			
Year 2035	173	996	0	0	0
Project	3				
Year 2035 + Project	176	996	0	0	0
PM					
		SOV			
Year 2035	927	996	0	0	0
Project	20				
Year 2035 + Project	947	996	0	0	0
		HOV			
Year 2035	164	498	0	0	0
Project	4				
Year 2035 + Project	168	498	0	0	0

Table 6-7 (cont.)
YEAR 2035 METERED FREEWAY ON-RAMPS

Segment	Peak Hour Flow (F) (veh/hr/ln)	Calculated (Most Restrictive)			
		Discharge Rate (veh/hr/ln)	Excess Demand E (veh/hr/ln)	Delay (min/ln)	Queue (ft)
EB[c] Via de la Valle to NB[d] I-5					
PM					
		SOV			
Year 2035	250	372	0	0	0
Project	12				
Year 2035 + Project	262	372	0	0	0

Source: LLG 2019
SOV = Single Occupancy Vehicle Lane. A 15 percent reduction in volume is applied to the volume in SOV lanes due to HOV lane; HOV = High Occupancy Vehicle Lane; EB = eastbound ; NB = northbound

Table 6-8
LOMAS SANTA FE DRIVE CORRIDOR STUDY
LONG-TERM INTERSECTION OPERATIONS AT THE HIGHWAY 101/LOMAS SANTA FE DRIVE INTERSECTION

Scenario	Control Type	Peak Hour	Year 2035		Year 2035 + Project		Delay	Impact Type
			Delay[a]	LOS[b]	Delay[a]	LOS[b]		
Long-Term	Signal	AM	49.0	D	49.5	D	0.5	None
		PM	91.0	F	92.1	F	1.1	None

Source: LLG 2019
a. Delay in seconds per vehicle
b. Level of Service

As shown in Tables 6-6 and 6-3, respectively, the proposed project would not contribute to the three freeway mainline segments but would contribute to five of the eight intersections that have been significantly impacted by cumulative projects unless mitigation measures MM TRA-1 through MM TRA-7 are implemented. Because these measures would be required to mitigate for direct project impacts identified in Subsection 4.11, these are not considered to be cumulative mitigation measures and the potential cumulative impacts identified in this subsection would not occur as mitigation measures MM TRA-1 through MM TRA-7 would be required to be implemented at the project level prior to 2035 (see Table 6-9, *Year 2035 + Project Intersection Delay Before and After Mitigation*). As such, the project's contribution to a cumulatively significant traffic impact would not be cumulatively considerable.

Table 6-9
YEAR 2035 + PROJECT INTERSECTION DELAY BEFORE AND AFTER MITIGATION

Intersection	Mitigation Measure	Peak Hour	Before Mitigation		After Mitigation	
			Delay	LOS	Delay	LOS
8. Camino del Mar (Highway 101)/ Via de la Valle (Border Avenue)	TRA-7, Option A	Weekday PM	63.9	E	48.3	D
	TRA-7, Option B	Weekday PM	63.9	E	58.5	E
9. Via de la Valle/South Cedros Avenue	TRA-1	Weekday AM	58.7	F	9.6	A
		Weekday PM	159.1	F	30.6	C
10. Via de la Valle/Jimmy Durante Boulevard	TRA-2	Weekday AM	62.0	E	58.5	E
		Weekday PM	79.2	E	64.4	E
13. Camino del Mar/27th Street	TRA-3, Option A	Weekday PM	47.8	E	7.5	A
	TRA-3, Option B	Weekday PM	47.8	E	8.0	A
	TRA-3, Option C[a]	Weekday PM	47.8	E	7.5	A
	TRA-3, Option D	Weekday PM	47.8	E	14.1	B
	TRA-3, Option E	Weekday PM	47.8	E	26.3	D
14. Camino del Mar/Coast Boulevard	TRA-4, Option A	Weekday PM	107.4	F	9.9	A
	TRA-4, Option B	Weekday PM	107.4	F	9.2	A
	TRA-4, Option C[a]	Weekday PM	107.4	F	9.9	A
	TRA-4, Option D	Weekday PM	107.4	F	22.9	C
	TRA-4, Option E	Weekday PM	107.4	F	64.4	F

Source: LLG 2019
a. Intersection will essentially function as a signal with manual control during the peak hours

6.2.12 Utilities and Service Systems

Potentially cumulative impacts related to utilities and service systems would occur if the project's contribution to demands on utilities, in conjunction with past, present, and future projects, were to result in the need for new or expanded water, wastewater, or solid waste provider services. The geographic scope of cumulative impacts for utilities and service systems includes the service provider's service area for water, wastewater, and solid waste, which would generally include the projects within the City of Del Mar and Solana Beach in Table 6-1, and not include those in the City of San Diego, generally east of I-5.

As discussed in Subsection 4.12, water (potable and reclaimed) and wastewater is provided by the City of Del Mar and solid waste is collected by Coast Waste Management. For water and wastewater, the City of Del Mar has indicated that it has adequate capacity to provide sufficient service within its service area. For solid waste, which would ultimately end up in the Miramar Landfill, there is a remaining capacity of 15,527,878 cy as of June 30, 2014. Current and future projects would continue to add demand on these facilities; however, these projects would either be small and relatively insignificant in their increased demand. As such, impacts on utilities and service systems are not cumulatively significant.

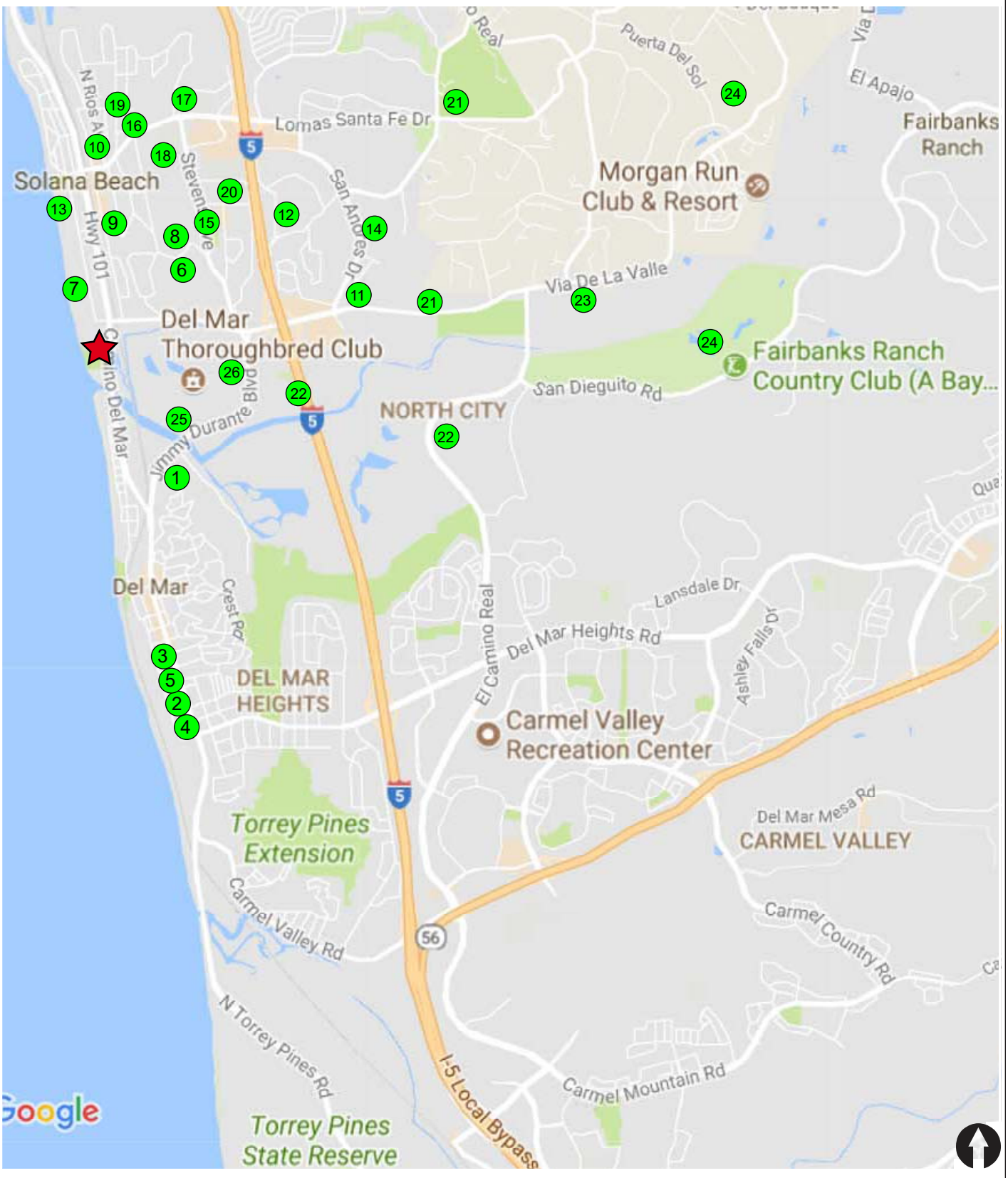
The project's contribution to cumulative utilities and service systems would incrementally increase the demand on water, wastewater, and solid waste providers; however, as discussed in Subsection 4.12, the City of Del Mar and Miramar Landfill would be able to accommodate the additional demand on utilities and the project's contribution to cumulative impacts on utilities without the need for new or expanded facilities, and service systems would not be cumulatively considerable.

6.2.13 Mitigation Measures

Impacts related to cumulatively considerable contributions to a cumulative effect would not occur; therefore, no mitigation measures are required.

6.2.14 Level of Significance After Mitigation

No mitigation measures are required and cumulative impacts would be less than significant.



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Source: LGG, 2018

HELIX Environmental Planning

Cumulative Projects Location Map

Figure 6-1

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7.0 PROJECT ALTERNATIVES

Section 15126.6 of the State CEQA Guidelines requires that an EIR describe a reasonable range of alternatives to the proposed project or to the project location that would feasibly attain most of the project objectives and would avoid or lessen any significant environmental impacts. According to CEQA Guidelines Section 15126.6(e), a No Project Alternative is required to be included in the range of alternatives. An EIR need not consider an alternative whose effects cannot be reasonably identified, whose implementation is remote or speculative, or one that would not achieve most of the basic project objectives. An EIR should evaluate the environmental impacts of the alternatives compared to the proposed project. Finally, the Environmentally Superior Alternative shall be identified and if it is the No Project Alternative, the next Environmentally Superior Alternative shall be identified.

In accordance with the requirements set forth in the CEQA Guidelines (14 CCR 15000 et seq.), this chapter of the EIR includes a summary of the significant impacts of the proposed project, the project objectives, and a description and evaluation of proposed project alternatives. This chapter also identifies the Environmentally Superior Project Alternative.

7.1 SIGNIFICANT AND UNAVOIDABLE IMPACTS

Significant and unavoidable environmental impacts on transportation and traffic are identified in subsection 4.11, *Transportation and Traffic*, of this EIR. Environmental impacts related to aesthetics, biological resources, cultural and tribal cultural resources, geology and soils, land use and planning, and noise and vibration were determined to be less than significant after the incorporation of mitigation measures. No other potentially significant or significant and unavoidable environmental impacts, including cumulative impacts, are identified in this EIR.

7.2 SUMMARY OF PROJECT OBJECTIVES AND SIGNIFICANT IMPACTS

7.2.1 Project Objectives

Chapter 1 of the Specific Plan includes a list of objectives that would be achieved by the proposed project. A total of 11 objectives are identified, including the following:

1. Preserve and protect the scenic coastal bluffs and steep slope areas from the adverse impacts of erosion and sedimentation by establishing land use sub-designations that serve as buffers;

2. Establish development standards and design guidelines to achieve a high-quality visitor-serving development that addresses the physical site constraints and results in visually attractive and sustainable buildings, landscaping, parkland/passive open space, and amenities;

3. Plan for future sea level rise and bluff retreat projections through the use of the best available science, consistent with state guidance. Utilize an adaptive design approach to ensure no future loss of coastal public access or recreation amenities;

4. Establish an environmentally sensitive multimodal circulation system that enhances linkages to existing trail systems in the vicinity, to North Beach, and to other uses that serve the local community;

5. Implement a loop trail around the perimeter of the Marisol Specific Plan Area to achieve complete connectivity and "walk-out" nodes that will enhance the public access experience;

6. Provide sufficient and secure off-street parking, which not only satisfies the needs of the Specific Plan uses, but also includes designated public parking spaces screened from view from the public right-of-way;

7. Facilitate the development of visitor-serving accommodations and parkland and passive open space with public and private amenities consistent with the goals and policies of the Del Mar Community Plan and the City's Local Coastal Program, as amended by the Marisol Specific Plan Initiative;

8. Establish a site plan and building design that create a strong sense of place and which recognize and protect the unique features of the Marisol Specific Plan Area as a valuable asset for the community of Del Mar;

9. Provide villas, some of which are available as hotel guest rooms when not in use by owners;

10. Provide 22 affordable housing units to assist the City in fulfilling its housing goals; and

11. Facilitate the development of lower-cost shared visitor-serving accommodations.

7.2.2 Significant Impacts of the Proposed Project

Based on the environmental analysis in EIR Section 4.0, *Environmental Analysis*, the proposed project would result in significant or potentially significant impacts to the environmental resources discussed below. Mitigation measures that would avoid or reduce potential impacts to below a level of significance are identified for all environmental issues, except for the identified traffic impacts, some of which would remain significant and unavoidable and others of which would potentially remain significant and unavoidable, depending on which mitigation option is selected. No cumulative impacts were identified for the proposed project in EIR Section 6.0, *Cumulative Effects*.

Aesthetics

Implementation of the proposed project would result in potentially significant impacts associated with the placement of resort buildings within proximity to the natural Preserve just south of the project site. Potentially significant impacts could also occur due to the addition of lighting during nighttime as there is potential for light spill to occur onto adjacent residential properties to the north of the project site. Impacts associated with the project would be reduced to below a level of significance with mitigation measures MM AES-1 and MM AES-2, which require an enhanced landscaping plan as part of the City of Del Mar Design Review permit application, as well as a lighting plan and photometric study to be completed prior to the issuance of construction permits, respectively.

Biological Resources

The project consists primarily of non-sensitive land covers (e.g., ornamental, disturbed habitat, or urban/developed areas); however, potentially significant impacts to biological resources were identified in EIR subsection 4.3, *Biological Resources*, as a result of project implementation. Potentially significant biological resources impacts include indirect and direct impacts on nesting birds and special-status wildlife species, indirect impacts on wildlife movement related to resort lighting, direct and indirect impacts to southern coastal bluff scrub (including 0.27 acre of direct impact), and the removal of protected trees (i.e., Monterey cypress and Torrey pines). Implementation of biological resources mitigation measures MM BIO-1 through BIO-4 would reduce project-related impacts to less than significant.

Cultural and Tribal Cultural Resources

As discussed in EIR subsection 4.4, *Cultural and Tribal Cultural Resources*, the project site is known to include an intact and mostly undisturbed prehistoric habitation site (CA-SDI-10940) for which a data recovery program would be required as part of mitigation measure MM CUL-1a to plan for the discovery of archaeological information during ground-disturbing activities associated with project construction. Also, the project applicant would be required to implement mitigation measures MM CUL-1b and -1c, which require the preparation, approval, and implementation of an archaeological resources monitoring and treatment plan and an archaeological and Native American monitoring program, respectively. Implementation of these three mitigation measures would reduce project-related impacts to less than significant.

Geology and Soils

As discussed in EIR subsection 4.5, *Geology and Soils*, resort buildings would be set back from the coastal bluff by a FOS of 1.5 plus 33 feet to accommodate bluff erosion and sea level rise over a 75-year design life and associated potential impacts would therefore be less than significant. New trails, fences, windscreens, and benches associated with the project could be subjected to future bluff collapse over a 75-year period as they would be located between the resort buildings and the coastal bluff. While these amenities are prohibited from occurring within 10 feet of a coastal bluff edge, mitigation measure MM GEO-1 has been included to require adaptive design strategies so that resort amenities can be relocated over time in response to bluff erosion, subject to review and approval by the City of Del Mar. Also, due to the moderate to high sensitivity for the area to contain paleontological resources, mitigation measure MM GEO-2a and -2b are included to require the development, approval, and implementation of a treatment plan and a monitoring plan. With the incorporation of mitigation measures, project-related impacts related to geology and soils would be less than significant.

Land Use and Planning

As discussed in EIR subsection 4.8, *Land Use and Planning*, there is the potential for future exterior and interior noise levels at the project site to exceed local and state standards. Mitigation in the form of exterior and interior noise attenuation (e.g., noise barriers and sound-rated windows; see mitigation measures MM LU-1 and -2) is included to require that applicable exterior and interior noise standards are met. As a result, potentially significant impacts associated with land use conflicts would be reduced to less than significant.

Noise and Vibration

As discussed in EIR subsection 4.9, *Noise and Vibration*, the nearest existing residences outside of the project site are located about 30 feet to the north at the Del Mar Beach Club and construction noise levels would range between approximately 67 to 87 dBA L_{EQ} at this distance. As a result, construction noise associated with the project would exceed the City of Del Mar's 75 dBA L_{EQ} construction noise standards and mitigation measure NOI-1 is included prepare, approve, and implement a construction noise mitigation program to reduce temporary impacts during construction to a level below significance. Further, operational noise associated HVAC equipment and pool and recreational area use could exceed the City of Del Mar's noise standards and mitigation measures MM NOI-2 and -3 are included to require that compliance with the City of Del Mar's noise standard be demonstrated by an acoustic specialist to the satisfaction of the City of Del Mar.

Transportation and Traffic

The proposed project is anticipated to result in the generation of 1,408 daily weekday trips, with 50 inbound and 48 outbound trips during the AM peak hour and 63 outbound and 60 inbound trips during the PM peak hour. Weekend trips were estimated to include 1,650 daily trips, with 73 inbound and 66 outbound trips during the PM peak hour (trips during the AM peak hour on the weekend was not analyzed). As discussed in EIR subsection 4.11, *Transportation and Traffic*, several traffic impacts would occur upon operation of the proposed project, including significant and unavoidable impacts to street segments along Via de la Valle during the fair weekday scenario (Impacts TRA-5a, -5b, and -5c) and potentially significant and unavoidable impacts to the intersections of Camino del Mar/Coast Boulevard (Impact TRA-4) and Camino del Mar/Via de la Valle (Impact TRA-7) depending on which mitigation option is selected as part of mitigation measures MM TRA-4 and MM TRA-7. Other traffic impacts, including impacts at the intersections of Via de la Valle/South Cedros (Impact TRA-1), Via de la Valle/Jimmy Durante Boulevard (Impact TRA-2), and Camino del Mar/27th Street (Impact TRA-3), and conflicts with vehicles during construction in street right-of-way (Impact TRA-6), would be reduced to less than significant with the incorporation of mitigation measures.

7.3 ALTERNATIVES CONSIDERED BUT REJECTED

In accordance with CEQA Guidelines 15126.6(f), an EIR may consider an alternative location for the proposed project but is only required to do so if significant project effects would be avoided or substantially lessened by moving the project to another site and if the project proponent can reasonably acquire, control, or otherwise have access to the alternative site. The City of Del Mar is substantially built-out and there is no other feasible site available within Del Mar that would accommodate a project of the size proposed.

Another alternative considered but rejected was development of the project site pursuant to the State of California's Regional Housing Needs Allocation and Housing Elements Program. Under this program, cities must identify appropriate sites to accommodate their identified housing need, with a minimum residential density of 20 units per acre for suburban and metropolitan areas (20 percent of which being affordable housing units). This alternative was considered by the City of Del Mar as they will be updating the Housing Element of the Community Plan as mandated by the State of California. At this density, about 331 housing units could be accommodated at the project site, 66 of which would be affordable units. As 331 units at the project site would exceed the amount of development proposed under the project, it is anticipated that most of the environmental impacts would remain, and some (such as

traffic) may be increased. For these reasons, designating the site for 20 units per acre as part of the City of Del Mar's Housing Element update was rejected as an alternative in this EIR.

7.4 ALTERNATIVES IDENTIFIED AND ANALYZED

Pursuant to CEQA Guidelines 15126.6, an analysis of alternatives is presented in this EIR to provide decision makers with alternatives to be considered. The State CEQA Guidelines state that an EIR shall describe a reasonable range of alternatives that would avoid or substantially lessen any significant effects of the project but need not consider every conceivable alternative. The discussion in this EIR focuses on four alternatives, including the following: (1) No Project (No Build) Alternative; (2) No Project (Existing Land Use, Zoning, and Lot Configurations) Alternative; (3) Single-Family Residential (Existing Land Use and Zoning with Lot Reconfigurations) Alternative; and (4) Reduced Project (Specific Plan) Alternative.

The four alternatives present a reasonable range of alternatives to the proposed project, and they are directed at avoiding or reducing environmental impacts of the project as identified in this EIR. The analysis of alternatives in this section focuses on effects found to be less than significant with the incorporation of mitigation measures and effects found to be significant and unavoidable as discussed in this EIR. The following discussion provides the rationale for and characteristics of each of the alternatives addressed in this section, an analysis of the environmental effects associated with the proposed project in comparison with each alternative, and an analysis of the alternative's ability to feasibly attain most of the project objectives. A summary comparison of the project impacts with proposed alternative impacts is provided in Table 7-1, *Comparison of Project and Alternative Impacts*.

7.4.1 Alternative 1 – No Project (No Build)

Under the No Project (No Build) Alterative, no physical changes would occur and the site would remain as it does under existing conditions (see EIR Section 2.0, *Environmental Setting*, for a description of the existing site conditions). Specifically, the project site would remain as a primarily vacant and disturbed mesa top surrounded by coastal bluffs with a single-family residence, associated single-story buildings, landscaping and irrigation improvements, and a driveway that extends to just west of the Camino del Mar/Via de la Valle intersection. While environmental impacts would be avoided under this alternative, several components associated with the project would not occur, including utilities improvements; public access through the project site via paved public amenity trail (or loop trail) and a future bluff top trail network; traffic improvements to the surrounding roadway network associated with project mitigation measures; stormwater improvements to reduce runoff over the western bluff edge; new public restrooms and a staircase at North Beach; affordable lodging; and additional public parking spaces. Also, the existing driveway near the northeastern corner of the project site would remain as it does under existing conditions.

Aesthetics

The No Project (No Build) Alternative would not result in any construction or additional operations and would leave the project site in its current state. As a result, the project site would continue to appear as a mostly vacant site with ornamental landscaping, a single-family residence, and a driveway connecting to Border Avenue. This alternative would not result in impacts to aesthetics as no changes would occur and neither of the two mitigation measures identified to reduce impacts from the project would apply.

Specifically, no development near the Preserve or nighttime lighting improvements would occur under this alternative and as a result, aesthetics impacts would be avoided.

Biological Resources

Under the No Project (No Build) Alternative, no ground disturbance would occur, the potentially significant direct and indirect impacts on biological resources would be avoided, and mitigation measures to address potentially significant impacts on biological resources would not be necessary. The No Project (No Build) Alternative would avoid all potentially significant biological resources impacts as no development would occur.

Cultural and Tribal Cultural Resources

Similar to the discussion for biological resources, no ground disturbance would occur under the No Project (No Build) Alternative. There would be no potential for impacts to archaeological resources, tribal cultural resources, or human remains. As a result, this alternative would avoid impacts on cultural and tribal cultural resources.

Geology and Soils

The No Project (No Build) Alternative would not result in additional impacts related to geology and soils, including paleontological resources, as there would be no site disturbances, no new construction, and no change to operations or use of the project site. It should be noted that the previous and current erosion evident along the western edge of the project site is considered to be a result of existing topography/drainage characteristics and landscaping irrigation, which result in flows in a westerly direction over the coastal bluffs. These conditions would remain as they are under existing conditions and would not be improved to direct flows away from the bluff as they would under the proposed project. The project site would remain private and not accessible to the public. No public trails or amenities would be constructed around the site as they would under the proposed project with the construction of the paved public amenity trail (or loop trail) and future bluff top trail network. As a result, potentially significant impacts associated with constructing public trails near a coastal bluff that has the potential to collapse due to sea level rise and natural erosion (i.e., Impact GEO-1) would be avoided under this alternative. Lastly, similar to the discussion for cultural resources, no site disturbance would occur and no potential impacts to paleontological resources would result from this alternative. Compared to the project, the No Project (No Build) Alternative would avoid potential erosion impacts associated with improvements near a coastal bluff and disturbance within areas that are sensitive to paleontological resources. Geology and soils impacts would be reduced with this alternative compared to the proposed project.

Land Use and Planning

Under the No Project (No Build) Alternative, potentially significant land use and planning impacts associated with exceeding exterior and interior noise levels at the project site would be avoided. Therefore, land use mitigation measures would not be required under the No Project (No Build) Alternative.

Noise and Vibration

The No Project (No Build) Alternative would not involve construction noise or changes to operational noise associated with the existing single-family residence on the project site. No public access or resort guests would occur at the project site, and no operation of pools or other outdoor recreation amenities would occur. As a result, project-related noise impacts would be avoided.

Transportation and Traffic

The No Project (No Build) Alternative would not result in new traffic impacts because no new traffic would be generated and traffic patterns would not be altered from existing conditions. The existing driveway in the northeastern corner of the project site would continue to provide vehicular site access to the existing single-family residence. As a result, traffic impacts under the No Project (No Build) Alternative would be avoided; however, the failing intersections at Via de la Valle/South Cedros Avenue, Via de la Valle/Jimmy Durante Boulevard, Camino del Mar/27th Street, and Camino del Mar/Coast Boulevard without the project would continue to fail and would not be improved by mitigation measures as they would under the proposed project.

Ability to Accomplish Project Objectives

The No Project (No Build) Alternative would not result in new environmental impacts as no changes to the existing site or surrounding conditions would occur. Ongoing erosion due to runoff over the bluff edge and deficient traffic operations would; however, continue. This alternative would also not achieve any of the project objectives identified in EIR subsection 7.2, above, such as construction and operation of a visitor-serving development (Objective 2) with connections to North Beach and the Preserve (Objective 4), public access through the site (Objective 5), off-street public parking (Objective 6), affordable housing (Objective 10), and lower-cost shared visitor-serving accommodations (Objective 11), among others. As a result, the No Project (No Build) Alternative would not achieve any of the 11 project objectives.

7.4.2 Alternative 2 – No Project (Existing Land Use, Zoning, and Lot Configurations)

Under the No Project (Existing Land Use, Zoning, and Lot Configurations) Alternative, the existing low-density residential land use and zoning designations as well as the existing lot configurations would continue to apply to the project site. Under this alternative, no additional lots would be modified, created, or subdivided, and development would proceed in accordance with existing development regulations. As a result, this alternative is assumed to involve the construction and operation of six additional single-family residences. Specifically, this alternative would involve the development of four residential estates on the Whalen Property and two residential estates on the Lazier Property. The existing 5,800 sf residence on the Gilbert Property would remain and would not be modified under this alternative (see Table 2-1 for a description of the ownership of parcels). The six additional residences would be built at up to two stories or 26 feet in height, which is the current height restriction at the project site.

Several components associated with the project would not occur, including utilities improvements; traffic improvements to the surrounding roadway network; new public restrooms and a staircase at North Beach; affordable lodging; and additional public parking spaces. The existing driveway near the

northeastern corner of the project site would remain for access to the two lots at the Lazier Property while the four lots associated with the Whalen Property would take access from a new driveway along Border Avenue. Public access through the site would be made a condition of approval as part of permit review by the City of Del Mar in order to provide lateral coastal access between the City of Del Mar Coastal Viewing Access Parcel and the Preserve. Lastly, bluff erosion issues on the western side of the project site would be addressed during permit review and would be enforced by the City of Del Mar through compliance with the requirements of the existing Bluff, Slope, and Canyon Overlay Zone that would continue to apply to development at the project site under this alternative.

Aesthetics

The No Project (Existing Land Use, Zoning, and Lot Configurations) Alternative would result in redevelopment of the project site with six additional residential estates up to 26 feet in height, thereby reducing both potentially significant aesthetics impacts of the project which would involve between 118 and 182 units up to three stories or 46 feet in height. However, the introduction of new lighting associated with new development would still occur, albeit at a much reduced scale, and similar mitigation measures as those required for the proposed project would be required under this alternative to reduce impacts to less than significant. In conclusion, this alternative would have reduced impacts to aesthetics compared to the proposed project.

Biological Resources

The intensity of development under this alternative would be reduced; however, general site grading and preparation would still be necessary to prepare the project site for the construction of six residential estates. Grading within the residential parcels of the project site would not be expected to directly impact sensitive vegetation (e.g., southern coastal bluff scrub), which is located along the bluffs in the southeast part of the project site. The residential properties within the project site contain ornamental, disturbed habitat, or urban/developed land cover types. The proposed improvements associated with the proposed project including the new bluff access stairway, facilities, and restrooms, would not occur under this alternative and as a result, direct impacts to southern coastal bluff scrub would be avoided. Also, this alternative would not include potential restoration activities within the remnant parcel east of Camino del Mar or improvements near the southern coastal bluff scrub, as additional development is not assumed to occur at the Gilbert Property. As a result, the potential for indirect impacts to special-status wildlife and wildlife movement impacts associated with new lighting that would be developed under this alternative would not be present under this alternative; however, direct impacts to nesting birds could still occur and would require similar mitigation measures as the project. Due to the reduction in the size and scope of development, the No Project (Existing Land Use, Zoning, and Lot Configurations) Alternative would result in reduced impacts compared to the proposed project.

Cultural and Tribal Cultural Resources

The intensity of development under this alternative would be reduced; however, general site grading and preparation would still be necessary to prepare the project site for the construction of six residential estates. While grading would likely not involve deep excavations for underground parking as it would for the proposed project, the potential for the discovery and potential impact on cultural and tribal cultural resources would be similar because sensitive cultural resources areas are generally within the top six feet of soil on the project site. As grading would occur on a sensitive cultural resources site

under this alternative, similar mitigation measures including preparation of a data recovery program, archaeological resources monitoring and treatment plan, and archaeological and Native American monitoring program would be required for the No Project (Existing Land Use, Zoning, and Lot Configurations) Alternative. This alternative would somewhat reduce the cultural resources impacts identified for the proposed project; however, they would not be avoided.

Geology and Soils

The No Project (Existing Land Use, Zoning, and Lot Configurations) Alternative would have a reduced impact on geology and soils compared to the proposed project. Similar to the proposed project, future development under this alternative would be conditioned by the City of Del Mar to address bluff erosion and to provide public access through the site, connecting the City of Del Mar Coastal Viewing Access Parcel to the Preserve. While the amount of development would be much less under this alternative, the identified bluff erosion and stability concerns would continue to be present at the project site. As the City of Del Mar would require development under this alternative to address bluff erosion as it is influenced by site hydrology and the use of irrigation, similar setbacks from the bluff edge and similar considerations of the appropriate locations of public amenities would be necessary and would likely require a mitigation measure similar to mitigation measure MM GEO-1 requiring the adaptive design of public access improvements if future erosion effects were to pose a safety threat due to proximity to the bluff edge. The potentially significant impacts on paleontological resources that were identified for the proposed project, while they would be reduced due to the reduction in site excavation, would also apply to this alternative because grading would still likely encounter Bay Point Formation, which has a high paleontological resource sensitivity rating. The potential for impacts to geology and soils related to bluff erosion and paleontological resources would be present under this alternative, similar to the proposed project. While the scale of development would be reduced under this alternative, public access and connections through the site would still be included and use of the public access connections by the public would likely be similar to the use assumed under the proposed project. As a result, impacts to geology and soils as they relate to paleontological resources impacts would be reduced when compared to the proposed project; however, they would not be avoided.

Land Use and Planning

While the amount of development under the No Project (Existing Land Use, Zoning, and Lot Configurations) Alternative would be reduced compared to the proposed project, land use and planning impacts associated with noise from the surrounding area exceeding applicable exterior and interior noise standards would still occur, similar to the project. This alternative would somewhat reduce the land use and planning impacts identified for the proposed project as less people would be subjected to exterior and interior noise levels in excess of applicable standards; however, they would not be avoided and mitigation measures requiring noise barriers for outdoor patio or balcony areas and installation of noise-reducing elements to comply with interior noise standards at the six residences would apply to development under this alternative.

Noise and Vibration

Temporary construction noise impacts would be reduced due to a shortened construction period, a general reduction in the amount of construction equipment required to build six residential estates compared to a resort development, and the likelihood that some of the loudest pieces of equipment (e.g., a mobile crane and excavator) would not be used for residential development. However, other

loud construction equipment anticipated to build the proposed project, such as a grader and paver, would also be used to build development under this alternative. As a result, single-day construction-related noise impacts would be similar and similar types of construction noise mitigation would be required. Once built, operational noise impacts associated with general commercial use of the property, including noise from automobile traffic and HVAC systems, would be reduced when compared to the proposed project as fewer people would occupy the project site and less traffic would be generated. Also, amplified music and outdoor recreational activities would be reduced under this alternative when compared to the proposed project.

Transportation and Traffic

The No Project (Existing Land Use, Zoning, and Lot Configurations) Alternative would result in some increase in traffic compared to existing conditions. Specifically, the development of six residential estates at the project site under this alternative is estimated to result in the generation of 72 daily weekday trips, with 2 inbound and 4 outbound trips during the AM peak hour and 5 inbound and 2 outbound trips during the PM peak hour by assuming 12 daily trips per unit[1]. Due to the 72 daily weekday trips generated by the No Project (Existing Land Use, Zoning, and Lot Configurations) Alternative, none of the traffic impacts identified with the proposed project would be expected to occur; however, improvements to traffic identified as mitigation measures also would not be implemented and failing conditions at two intersections (i.e., Camino del Mar/27th Street and Camino del Mar/Coast Boulevard) would not be improved.

Ability to Accomplish Project Objectives

The No Project (Existing Land Use, Zoning, and Lot Configurations) Alternative would result in environmental impacts related to aesthetics, biological resources, cultural and tribal cultural resources, geology and soils, land use and planning, and noise and vibration; however, these impacts would be reduced when compared to the proposed project as the amount of development would be much less. Traffic impacts identified for the project, including significant and unavoidable impacts, would be avoided with this alternative. However, this alternative would not achieve several of the project objectives, including establishing development standards and design guidelines for a visitor-serving development (Objective 2), providing off-street parking for the public (Objective 6), facilitating the development of visitor-serving accommodations (Objective 7), establishing a strong sense of place (Objective 8), providing villas (Objective 9), providing affordable housing units (Objective 10), or facilitating the development of lower-cost share visitor-serving accommodations (Objective 11). As a result, the No Project (Existing Land Use, Zoning, and Lot Configurations) Alternative would fail to achieve most of the 11 project objectives.

7.4.3 Alternative 3 – Single-Family Residential (Existing Land Use and Zoning with Lot Reconfigurations)

Under the Single-Family Residential (Existing Land Use and Zoning with Lot Reconfigurations) Alternative, the existing low-density residential land use and zoning designations would continue to apply to the project site; however, 15.88 acres within the project site (including the 16.55 acres of private property minus the 0.67 acre located east of Camino del Mar which would not be buildable) would be subdivided to create a total of 23 single-family residential lots, which is the maximum amount

[1] Source: SANDAG's (Not So) Brief Guide of Vehicular Traffic Generation Rates for the San Diego Region, April 2002. Residential Estate, Urban or Rural (1-2 units per acre) at 12 trips/dwelling unit.

of single-family residential development that would be allowed under existing land use and zoning designations if the existing residential lots were reconfigured. Similar to Alternative 2, the development of the 23 lots could include two-story residences up to 26 feet in height.

Several components associated with the proposed project would not occur, including utilities improvements, traffic improvements to the surrounding roadway network; new public restrooms and a staircase at North Beach; affordable lodging; and 27 additional public parking spaces. The existing driveway near the northeastern corner of the project site would be reconfigured to move west of Camino del Mar along Border Avenue to better serve the 23 new residences and existing residence. Also, public access through the site would be required as part of permit review by the City of Del Mar and would be made a condition of approval if the project site were to be developed pursuant to existing development regulations. Lastly, bluff erosion on the western side of the project site would be addressed during permit review and would be enforced by the City of Del Mar through compliance with the requirements of the existing Bluff, Slope, and Canyon Overlay Zone that would continue to apply to development at the project site under the Single-Family Residential (Existing Land Use and Zoning with Lot Reconfigurations) Alternative.

Aesthetics

The Single-Family Residential (Existing Land Use and Zoning with Lot Reconfigurations) Alternative would result in redevelopment of the project site with 23 additional single-family residences up to 26 feet in height, thereby reducing both potentially significant aesthetics impacts of the project. However, the introduction of structures adjacent to the natural Preserve as well as the introduction of new lighting associated with new development would still occur, albeit at a much reduced scale, and similar mitigation measures as those required for the proposed project would be required under this alternative. In conclusion, this alternative would have reduced impacts to aesthetics compared to the proposed project.

Biological Resources

The intensity of development under this alternative would be reduced; however, general site grading and preparation would still be necessary to prepare the project site for the construction of 23 single-family residences. Grading within the residential parcels of the project site would not be expected to directly impact sensitive vegetation (e.g., southern coastal bluff scrub), as the residential properties within the project site contain ornamental, disturbed habitat, or urban/developed land cover types. The proposed improvements associated with the project including the new bluff access stairway, facilities, and restrooms, would not occur under this alternative and as a result, direct impacts to southern coastal bluff scrub would be avoided. Also, this alternative would not include potential restoration activities within the remnant parcel east of Camino del Mar. The potential for direct impacts to nesting birds, indirect impacts to special-status wildlife, wildlife movement impacts associated with new lighting, and indirect impacts to southern coastal bluff scrub near the residential properties that would be developed under this alternative would be present under this alternative and would require similar mitigation measures as the project. However, due to the reduction in the size and scope of development, the Single-Family Residential (Existing Land Use and Zoning with Lot Reconfigurations) Alternative would result in reduced impacts compared to the proposed project.

Cultural and Tribal Cultural Resources

The intensity of development under this alternative would be reduced; however, general site grading and preparation would still be necessary to prepare the project site for the construction of 23 single-family residences. While grading would likely not involve deep excavations for underground parking as it would for the proposed project, the potential for the discovery and potential impact on cultural and tribal cultural resources would be similar because sensitive cultural resources areas are generally within the top six feet of soil on the project site. As grading would occur on a sensitive cultural resources site under this alternative, similar mitigation measures including preparation of a data recovery program, archaeological resources monitoring and treatment plan, and archaeological and Native American monitoring program would be required for the Single-Family Residential (Existing Land Use and Zoning with Lot Reconfigurations) Alternative. This alternative would somewhat reduce the cultural resources impacts identified for the proposed project; however, they would not be avoided.

Geology and Soils

The Single-Family Residential (Existing Land Use and Zoning with Lot Reconfigurations) Alternative would have a reduced impact on geology and soils compared to the proposed project. Similar to the proposed project, future development under this alternative would be conditioned by the City of Del Mar to address bluff erosion and to provide public access through the site, connecting the City of Del Mar Coastal Viewing Access Parcel to the Preserve. While the amount of development would be much less under this alternative, the identified bluff erosion and stability concerns would continue to be present at the project site. As the City of Del Mar would require development under this alternative to address bluff erosion as it is influenced by site hydrology and the use of irrigation, similar setbacks from the bluff edge and similar considerations of the appropriate locations of public amenities would be necessary and would likely require a mitigation measure similar to mitigation measure MM GEO-1 requiring the adaptive design of public access improvements if determined to be close enough to the bluff edge. The potentially significant impacts on paleontological resources that were identified for the proposed project, while they would be reduced due to the reduction in site excavation, would also apply to the No Project (Existing Land Use, Zoning, and Lot Configurations) Alternative because grading would still likely encounter Bay Point Formation, which has a high paleontological resource sensitivity rating. While the scale of development would be reduced under this alternative, public access and connections through the site would still be included and use of the public access connections by the public would likely be similar to the use assumed under the proposed project. As a result, impacts to geology and soils as they relate to paleontological impacts under the Single-Family Residential (Existing Land Use and Zoning with Lot Reconfigurations) Alternative would be reduced when compared to the proposed project.

Land Use and Planning

While the amount of development under the Single-Family Residential (Existing Land Use and Zoning with Lot Reconfigurations) Alternative would be reduced compared to the proposed project, land use and planning impacts associated with noise from the surrounding area exceeding applicable exterior and interior noise standards would still occur, similar to the project. This alternative would somewhat reduce the land use and planning impacts identified for the proposed project; however, they would not be avoided and mitigation measures requiring noise barriers for outdoor patio or balcony areas and installation of noise-reducing elements to comply with interior noise standards at the 23 residences would apply to the Single-Family Residential (Existing Land Use and Zoning with Lot Reconfigurations) Alternative.

Noise and Vibration

Temporary construction noise impacts would be reduced due to a shortened construction period, a general reduction in the amount of construction equipment required to build 23 residences compared to a resort development, and the likelihood that some of the loudest pieces of equipment (e.g., a mobile crane and excavator) would not be used for residential development. However, other loud construction equipment anticipated to build the proposed project, such as a grader and paver, would also be used to build the Single-Family Residential (Existing Land Use and Zoning with Lot Reconfigurations) Alternative. As a result, single-day construction-related noise impacts would be similar and similar types of construction noise mitigation would be required. Once built, operational noise impacts associated with general commercial use of the property, including noise from automobile traffic and HVAC systems, would be reduced when compared to the proposed project as fewer people would occupy the project site and less traffic would be generated. Also, amplified music and outdoor recreational activities would be reduced under this alternative when compared to the proposed project.

Transportation and Traffic

The Single-Family Residential (Existing Land Use and Zoning with Lot Reconfigurations) Alternative would result in some increase in traffic compared to existing conditions. Specifically, the development of 23 single-family residences at the project site under this alternative is estimated to result in the generation of 230 daily weekday trips, with 5 inbound and 13 outbound trips during the AM peak hour and 16 inbound and 7 outbound trips during the PM peak hour by assuming 10 daily trips per unit.[2] Due to the 230 daily weekday trips generated by the Single-Family Residential (Existing Land Use and Zoning with Lot Reconfigurations) Alternative, none of the traffic impacts identified with the proposed project would be expected to occur; however, improvements to traffic identified as mitigation measures also would not be implemented and failing conditions at two intersections (i.e., Camino del Mar/27th Street and Camino del Mar/Coast Boulevard) would not be improved.

Ability to Accomplish Project Objectives

The Single-Family Residential (Existing Land Use and Zoning with Lot Reconfigurations) Alternative would result in environmental impacts related to aesthetics, biological resources, cultural and tribal cultural resources, geology and soils, land use and planning, and noise and vibration; however, these impacts would be reduced when compared to the proposed project as the amount of development would be much less. Traffic impacts identified for the project, including significant and unavoidable impacts, would be avoided with this alternative. However, this alternative would not achieve several of the project objectives, including establishing development standards and design guidelines for a visitor-serving development (Objective 2), providing off-street parking for the public (Objective 6), facilitating the development of visitor-serving accommodations (Objective 7), establishing a strong sense of place (Objective 8), providing villas (Objective 9), providing affordable housing units (Objective 10), or facilitating the development of lower-cost share visitor-serving accommodations (Objective 11). As a result, the Single-Family Residential (Existing Land Use and Zoning with Lot Reconfigurations) Alternative would fail to achieve most of the 11 project objectives.

[2] Source: SANDAG's (Not So) Brief Guide of Vehicular Traffic Generation Rates for the San Diego Region, April 2002. Residential Single Family Detached (average 3-6 units per acre) at 10 trips/dwelling unit.

7.4.4 Alternative 4 – Reduced Project (Specific Plan)

The Reduced Project (Specific Plan) Alternative considers resort development at a reduced intensity where a potentially significant environmental impact would be eliminated or reduced, in accordance with State CEQA Guidelines Section 15126.6(b). Under this alternative there would still be modifications to the City of Del Mar's Community Plan and Zoning Code, as well as an LCPA. As the environmental impacts identified in EIR Section 4, *Environmental Analysis*, were concluded to be reduced to less than significant with identified mitigation, except for traffic, this alternative was developed by determining how much of a reduction in development would be necessary to avoid a significant and unmitigable traffic impact. Specifically, an approximately 41 percent reduction in the amount of guest rooms/units was determined to be necessary to avoid potentially significant traffic impacts at Camino del Mar/ 27th Street and Camino del Mar/Coast Boulevard (e.g., impacts TRA-3 and TRA-4). The Reduced Project (Specific Plan) Alternative therefore includes the development of a resort with a maximum of 107 units, including 39 guest rooms, 21 villas (18 of which would be divisible into 3 units each, totaling 54 additional guestrooms), 4 affordable housing units, and 7 lower-cost shared visitor-serving accommodations. Other resort development, such as the hotel amenities, commercial retail, special event space, meeting space, and back of house facilities would similarly be reduced by about 41 percent. While a site plan layout has not been prepared to reflect a potential design of the Reduced Project (Specific Plan) Alternative, this alternative assumes that similar areas of the project site would be developed as shown on EIR Figure 3-2; however, it is also assumed that building heights would likely be reduced from up to three stories or 46 feet with the project, to up to two stories or about 30 feet under this alternative.

Other components associated with the proposed project would also occur, including utilities improvements; new public restrooms and a staircase at North Beach; affordable lodging (at an approximate 41 percent reduction); and additional public parking spaces (also at a 41 percent reduction, or approximately 16 parking spaces). The existing driveway near the northeastern corner of the project site would be reconfigured to move away from Camino del Mar and public access through the site would be provided, both similar to the proposed project.

Aesthetics

The Reduced Project (Specific Plan) Alternative would result in development of the project site with a resort with 107 units and a building height of up to two stories or about 30 feet, compared to the 182 total units with building heights up to three stories or 46 feet under the proposed project. The introduction of structures adjacent to the natural Preserve as well as the introduction of new lighting associated with new development would still occur, albeit at a reduced scale, and similar mitigation measures as those required for the proposed project would also be required under this alternative. In conclusion, this alternative would have reduced impacts to aesthetics compared to the proposed project; however, impacts would still occur and mitigation measures similar to those for the proposed project would be required.

Biological Resources

The intensity of development under this alternative would be reduced; however, general site grading and preparation would still be necessary to prepare the project site for the construction of a resort with 107 units. The proposed improvements associated with the project including the new bluff access stairway, facilities, and restrooms, would occur under this alternative and as a result, direct impacts to

southern coastal bluff scrub would also occur, similar to the proposed project. This alternative is also assumed to identify potential restoration activities within the remnant parcel east of Camino del Mar. The potential for direct impacts to nesting birds, indirect impacts to special-status wildlife, wildlife movement impacts associated with new lighting, and indirect impacts to southern coastal bluff scrub near the proposed resort would occur under this alternative and would require similar mitigation measures as the proposed project. Despite the reduction in development intensity, the Reduced Project (Specific Plan) Alternative would result in similar direct and indirect impacts on biological resources compared to the proposed project.

Cultural and Tribal Cultural Resources

The intensity of development under the Reduced Project (Specific Plan) Alternative would be reduced; however, general site grading and preparation would still be necessary to prepare the project site for the construction of a 107-unit resort development. As grading would likely not involve as deep excavations for underground parking as it would for the proposed project, the potential for the discovery and potential impact on cultural and tribal cultural resources would be similar because sensitive cultural resources areas are generally within the top six feet of soil on the project site. As grading would occur on a sensitive cultural resources site under this alternative, similar mitigation measures including preparation of a data recovery program, archaeological resources monitoring and treatment plan, and archaeological and Native American monitoring program would be required for the Reduced Project (Specific Plan) Alternative. This alternative would not reduce the cultural resources impacts identified for the proposed project.

Geology and Soils

Similar to the proposed project, future development under the Reduced Project (Specific Plan) Alternative would be conditioned by the City of Del Mar to address bluff erosion and to provide public access through the site, connecting the City of Del Mar Coastal Viewing Access Parcel to the Preserve. While the amount of development would be about 41 percent less under this alternative, the identified bluff erosion and stability concerns would continue to be present at the project site. As the City of Del Mar would require development under this alternative to address bluff erosion as it is influenced by site hydrology and the use of irrigation, similar setbacks from the bluff edge and similar considerations of the appropriate locations of public amenities would be necessary and would likely require a mitigation measure similar to mitigation measure MM GEO-1 requiring the adaptive design of public access improvements if determined to be close enough to the bluff edge.

The potentially significant impacts on paleontological resources that were identified for the proposed project, while they would be reduced due to the reduction in site excavation, would also apply to the Reduced Project (Specific Plan) Alternative because grading would still likely encounter Bay Point Formation, which has a high paleontological resource sensitivity rating. While the scale of development would be reduced under this alternative, public access and connections through the site would still be included and use of the public access connections by the public would likely be similar to the use assumed under the proposed project. As a result, impacts to geology and soils as they relate to paleontological impacts under the Reduced Project (Specific Plan) Alternative would be reduced when compared to the proposed project.

Land Use and Planning

While the amount of development under the Reduced Project (Specific Plan) Alternative would be about 41 percent less than the proposed project, land use and planning impacts associated with noise from the surrounding area exceeding applicable exterior and interior noise standards would still occur, similar to the project. This alternative would not reduce the land use and planning impacts identified for the proposed project and mitigation measures requiring noise barriers for outdoor patio or balcony areas and installation of noise-reducing elements to comply with interior noise standards would apply to this alternative.

Noise and Vibration

Temporary construction noise impacts would be reduced due to a shortened construction period and a general reduction in the amount of construction equipment required to build 41 percent of the amount of buildings and development compared to the proposed project. However, all construction equipment assumed to be needed for the proposed project, including the loudest pieces of equipment (e.g., a mobile crane and excavator) would be used for a smaller resort development under the Reduced Project (Specific Plan) Alternative. As a result, single-day construction-related noise impacts would be similar and similar types of construction noise mitigation would be required. Once built, operational noise impacts associated with general commercial use of the property, including noise from automobile traffic and HVAC systems, would be reduced when compared to the proposed project as fewer people would occupy the project site and less traffic would be generated. Also, amplified music and outdoor recreational activities would be incrementally reduced under this alternative when compared to the proposed project.

Transportation and Traffic

The Reduced Project (Specific Plan) Alternative would result in some increase in traffic compared to existing conditions. Specifically, the development of a resort with up to 107 rooms at the project site under the Reduced Project (Specific Plan) Alternative is estimated to result in the generation of 846 daily weekday trips, with 31 inbound and 28 outbound trips during the AM peak hour and 38 inbound and 37 outbound trips during the PM peak hour using trip generation rates of 8 daily trips per hotel room and villa divided into three rooms, 12 daily trips for the 3 villas that would remain as villas, and 6 daily trips for the affordable housing units and lower-cost shared visitor-serving accommodation units.[3]

Due to the reduction in daily weekday trips generated by the Reduced Project (Specific Plan) Alternative, two of the potentially significant traffic impacts identified with the proposed project (e.g., TRA-3: Camino del Mar/27th Street and TRA-4: Camino del Mar/Coast Boulevard) would be avoided and impacts would be reduced compared to the proposed project. As discussed in subsection 4.11, *Transportation and Traffic*, impacts at Camino del Mar/27th Street and Camino del Mar/Coast Boulevard would be mitigated by one of five different options; however, one of the options would not mitigate significant impacts at Camino del Mar/Coast Boulevard and impacts could remain significant and unavoidable. The remaining traffic impacts identified in this EIR for the proposed project, including significant and unmitigable impacts along Via de la Valle during the fair weekday (Impacts TRA-5a, -5b, and -5c) and queueing impacts at Camino del Mar/Via de la Valle (Impact TRA-7) are assumed to occur under this alternative, similar to the project. However, as a significant and unavoidable impact would be avoided

[3] Source: SANDAG's (Not So) Brief Guide of Vehicular Traffic Generation Rates for the San Diego Region, April 2002.

by the reduction in traffic associated with the Reduced Project (Specific Plan) Alternative, impacts on traffic would be reduced compared to the proposed project.

Ability to Accomplish Project Objectives

The Reduced Project (Specific Plan) Alternative would result in environmental impacts related to aesthetics, biological resources, cultural and tribal cultural resources, geology and soils, land use and planning, noise and vibration, and transportation and traffic; however, these impacts would be reduced when compared to the proposed project as the amount of development would be about 41 percent less. Two traffic impacts identified for the project, which are potentially significant and unavoidable impacts depending on which mitigation measure option is selected, would be avoided with this alternative. This alternative would achieve most of the project objectives, including protecting scenic coastal bluffs and addressing physical site constraints (Objective 1), establishing development standards and design guidelines for visitor-serving development (Objective 2), planning for sea level rise (Objective 3), creating linkages to North Beach (Objective 4), implementing a loop trail (Objective 5), and creating a strong sense of place (Objective 8). This alternative would partially achieve the remaining project objectives, including providing off-street parking for the public (Objective 6), developing visitor-serving accommodations and parkland and passive open space consistent with City of Del Mar planning documents (Objective 7), providing villas (Objective 9), providing affordable housing units (Objective 10), and facilitating the development of lower-cost share visitor-serving accommodations (Objective 11).

While 6 of the 11 project objectives would be achieved and the remaining 5 objectives would be partially achieved, most of the environmental impacts would be generally similar to the proposed project. As mentioned above in the summary of comparative traffic impacts between this alternative and the proposed project, impacts at Camino del Mar/27th Street and Camino del Mar/Coast Boulevard would be avoided and no mitigation measures would be necessary. However, existing operations at these two intersections are failing under typical, fair, and horse race conditions (see the traffic tables in EIR subsection 4.11, *Transportation and Traffic*) and as impacts under the Reduced Project (Specific Plan) Alternative would be avoided, there would be no mitigation measures required to improve these two intersections. As a result, these two intersections would continue to fail and would be further degraded (although not to a point of a significant impact) by the additional traffic associated with the 107 rooms under the Reduced Project (Specific Plan) Alternative. When compared to the proposed project, which includes a mitigation measure with 4 options that would mitigate project impacts to less than significant and 1 option that would remain significant and unavoidable. As a result, the Reduce Project Alternative would result in poorer operating conditions at these two intersections. The significant and unavoidable traffic impacts under this alternative may not be reduced compared to the proposed project and some significant and unavoidable traffic impacts may be avoided, 6 of 11 project objectives would be met, and traffic conditions at two intersections could be worse depending on which mitigation options are selected as part of mitigation measures TRA-3 and TRA-4.

7.5 ENVIRONMENTALLY SUPERIOR ALTERNATIVE

State CEQA Guidelines Section 15126.6(e)(2) requires that an EIR identify which alternative is the environmentally superior alternative. An overall comparison of project impacts with alternative impacts is provided in Table 7-1. As shown, the No Project (No Build) Alternative is the environmentally superior alternative as it would avoid all of the impacts associated with the project. This alternative would leave the site in its current state and would avoid direct impacts on aesthetics, biological resources, cultural

and tribal cultural resources, geology and soils, land use and planning, noise and vibration, and transportation and traffic. However, this alternative would not meet any of the project objectives.

State CEQA Guidelines Section 15126.6(e)(2) also states that if the No Project Alternative is the environmentally superior alternative, the EIR must also identify which of the other alternatives is environmentally superior. Based on the analysis of the alternatives in Table 7-1, the Environmentally Superior Alternative is the Single-Family Residential Development (Existing Land Use and Zoning with Lot Reconfigurations) Alternative because it would generally reduce environmental impacts associated with the proposed and would avoid the significant traffic impacts associated with the proposed project, including significant and unmitigable traffic impacts. However, this alternative would not meet most of the project objectives.

Table 7-1
COMPARISON OF PROJECT AND ALTERNATIVE IMPACTS

Environmental Topic	Proposed Project	No Project (No Build) Alternative	No Project (Existing Land Use, Zoning, and Lot Configurations) Alternative	Single-Family Residential Development (Existing Land Use and Zoning with Lot Reconfigurations) Alternative	Reduced Project (Specific Plan) Alternative
Aesthetics	SM	N	SM -	SM -	SM -
Biological Resources	SM	N	SM -	SM -	SM 0
Cultural and Paleontological Resources	SM	N	SM -	SM -	SM 0
Geology and Soils	SM	N	SM -	SM -	SM -
Land Use and Planning	SM	N	SM -	SM -	SM 0
Noise and Vibration	SM	N	SM -	SM -	SM -
Transportation and Traffic	**SU**	N	N	N	**SU** -
Meets Most Project Objectives?	Yes	No	No	No	Yes
Project Objectives Met	All	None	1, 3, 4, 5	1, 3, 4, 5	1, 2, 3, 4, 5, 8

N = no significant impacts
SM = significant but mitigable impacts
SU = significant and unavoidable impact
0 = similar impact compared to the proposed project
- = reduced impact compared to the proposed project

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