HELIX Environmental Planning

Camino Del Mar Bridge Replacement Project

Initial Study/Mitigated Negative Declaration

May 2022 | 01391.00002.002

Prepared for:

City of Del Mar
Planning Department
1050 Camino Del Mar
Del Mar, CA 92014

Prepared by:

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ACRONYMS AND ABBREVIATIONS

AB	Assembly Bill
ACMs	asbestos containing materials
ADL	aerially deposited lead
APE	Area of Potential Effects
BMPs	Best Management Practices
CAAQS	California Ambient Air Quality Standards
CAL FIRE	California Department of Forestry and Fire Protection
CalEEMod	California Emissions Estimator Model
Caltrans	California Department of Transportation
CAP	Climate Action Plan
CAPCOA	California Air Pollution Control Officers Association
CARB	California Air Resources Board
CCC	California Coastal Commission
CDFW	California Department of Fish and Wildlife
CDP	coastal development permit
CEQA	California Environmental Quality Act
cfs	cubic feet per second
CH_4	methane
CIA	Community Impact Assessment
CNDDB	California Natural Diversity Database
CNEL	Community Noise Equivalent Level
CNPS	California Native Plant Society
CO	carbon monoxide
CO_2	carbon dioxide
CO_2e	carbon dioxide equivalent
CRHR	California Register of Historical Resources
CRPR	California Rare Plant Rank
CWA	Clean Water Act
CZMA	Coastal Zone Management Act
dB	decibel
dBA	A-weighted decibel
DMFD	City of Del Mar Fire Department
DMMC	Del Mar Municipal Code
DOC	California Department of Conservation
DPM	diesel particulate matter
DTSC	Department of Toxic Substances Control
EA	Environmental Assessment
EO	Executive Order

ACRONYMS AND ABBREVIATIONS (cont.)

FEMA	Federal Emergency Management Agency
FHWA	Federal Highway Administration
FTA	Federal Transit Authority
FW	Floodway
GHG	greenhouse gas
HELIX	HELIX Environmental Planning, Inc.
HFC	hydrofluorocarbons
JPA	Joint Powers Authority
KV	key view
LBP	lead based paint
LCP	Local Coastal Program
L_{EQ}	Noise Equivalent Level
LOSSAN	Los Angeles–San Diego–San Luis Obispo
L-OZ	Lagoon Overlay Zone
LUP	Land Use Plan
MBTA	Migratory Bird Treaty Act
MLD	Most Likely Descendant
MRZ	mineral resource zone
MSCP	Multiple Species Conservation Program
N_2O	nitrous oxide
NAAQS	National Ambient Air Quality Standards
NAC	noise abatement criteria
NAHC	Native American Heritage Commission
NCTD	North County Transit District
NEPA	National Environmental Protection Act
NESMI	Natural Environment Study (Minimal Impacts)
NO_2	nitrogen dioxide
NO_X	nitrogen oxides
NPDES	National Pollutant Discharge Elimination System
NRHP	National Register of Historic Places
NSLU	noise-sensitive land use
Pb	lead
PFC	perfluorocarbons
PM	particulate matter

ACRONYMS AND ABBREVIATIONS (cont.)

RCNM	Roadway Construction Noise Model
ROG	reactive organic gases
RTIP	Regional Transportation Improvement Program
RWQCB	Regional Water Quality Control Board
SANDAG	San Diego Association of Governments
SB	Senate Bill
SCIC	South Coastal Information Center
SDAB	San Diego Air Basin
SDAPCD	San Diego Air Pollution Control District
SDG&E	San Diego Gas & Electric
SF_6	sulfur hexafluoride
SIP	State Implementation Plan
SO_2	sulfur dioxide
TACs	toxic air contaminants
T-BACT	Toxics-Best Available Control Technology
TCP	Traffic Control Plan
USACE	U.S. Army Corps of Engineers
USEPA	U.S. Environmental Protection Agency
USFWS	U.S. Fish and Wildlife Service
USGS	U.S. Geological Survey
VMT	vehicle miles traveled
VHFHSZ	very high fire hazard severity zone
WSE	water surface elevation

1.0 Introduction

1.1 Initial Study Information Sheet

1.	Project title:	Camino Del Mar Bridge Replacement
2.	Lead agency name and address:	City of Del Mar 1050 Camino del Mar Del Mar, CA 92014
3.	Contact person and phone number:	Joe Bride, Public Works Director/City Engineer 858-755-3294
4.	Project location:	Within the City of Del Mar along Camino del Mar (see Figures 1 through 3)
5.	Project sponsor's name and address:	Same as the lead agency
6.	Community plan designation:	N/A
7.	Zoning:	N/A

8. Description of project:

Overview

The City of Del Mar (City), using Federal Highway Administration (FHWA) funds, is proposing to replace the existing Camino del Mar Bridge (Bridge No. 57C-0209; bridge) over the San Dieguito Lagoon (lagoon), in the northwestern part of the City (see Figure 1, *Regional Location*; Figure 2, *Project Location*; and Figure 3, *Project Location – USGS*). The City is the California Environmental Quality Act (CEQA) lead agency. The California Department of Transportation (Caltrans), as the National Environmental Policy Act (NEPA) lead agency, is responsible for environmental review, consultation, and other actions required in accordance with applicable federal laws under its assumption of NEPA responsibility pursuant to 23 United States Code (U.S.C.) 327.

The bridge was determined in 2010 to be eligible for rehabilitation funding under the Highway Bridge Program but was later determined to be structurally deficient upon preparation of a Final Rehabilitation Strategy Report in 2012. The Camino Del Mar Bridge Replacement Project (project) involves the replacement of the Camino del Mar Bridge to provide for continued vehicle, pedestrian, and bicycle movement along Camino del Mar as it crosses the lagoon, as well as coastal access to Del Mar Beach.

The proposed bridge design consists of a five-span cast-in-place prestressed concrete box girder bridge. The variable depth bridge has a length of 624 feet between abutments, a width of 68.5 feet, and an area of about 41,800 square feet (0.96 acre). The proposed horizontal roadway alignment for Camino del Mar closely matches the existing horizontal alignment. The replacement bridge would be slightly longer, wider, and higher than the existing bridge; and would result in a reduction in the number of piers in the lagoon. The additional bridge width of 7.5 feet would accommodate two-way pedestrian and bicycle movement across the bridge. The roadway approach zones within Camino del Mar would also require

modifications to accommodate the raised elevation of the bridge, including reconstructing the sidewalks to meet the proposed pedestrian sidewalks on both sides of the replacement bridge. The proposed bridge width better aligns with the southerly and northerly approaches; the sidewalk on the east side of the bridge would connect the missing sidewalk gap within the existing bridge design. There would be no change in vehicle capacity as the existing two-lane Camino del Mar roadway would continue to provide one vehicle traffic lane in each direction.

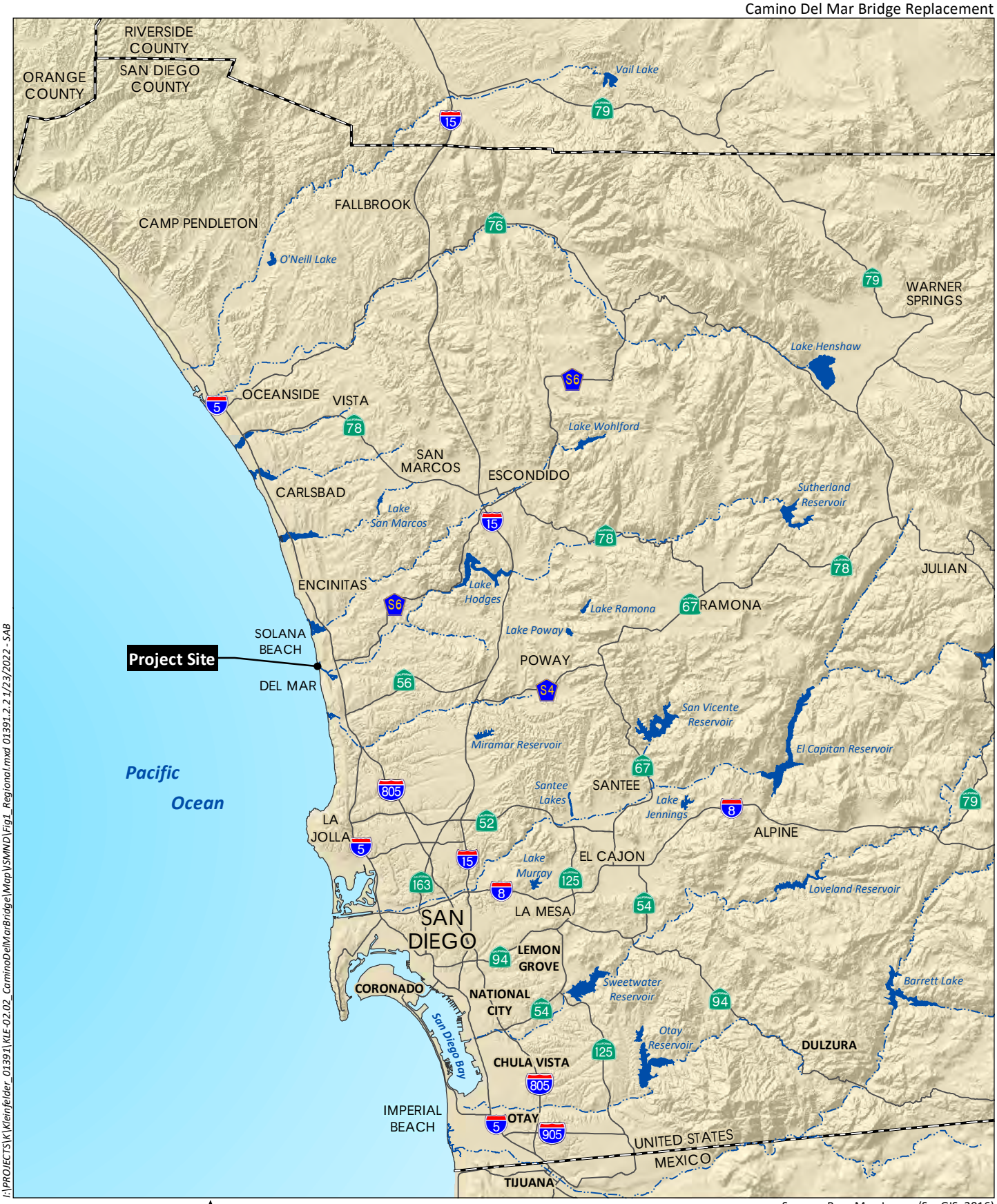
The proposed additional 28 feet, 2 inches in bridge length and additional 7.7 feet in bridge height near the center of the bridge would accommodate a mid-range sea level rise scenario of 38 inches by the year 2100 during a 100-year flood event (National Research Council 2012), while maintaining safe roadway design and avoiding roadway conflicts with driveways and coastal access points. As part of the preliminary design process, other sea level rise scenarios (e.g., Ocean Protection Council State Guidance) were evaluated to determine the appropriate bridge height. An increased water surface elevation of 38 inches, corresponding to the National Research Council mid-range sea level rise scenario for 2100, is the highest elevation where the bridge remains partially useable (in service) during a 100-year flood event. In scenarios where the projected sea level rise exceeds an increased water surface elevation of 38 inches, the bridge would cease to be connected to a functional roadway system due to flooding of the connecting roadway to the south. The proposed design would accommodate a practical amount of sea level rise, but not extreme conditions where the surrounding community would be submerged underwater and bridge use for vehicular mobility would be irrelevant.

Overall, the bridge would be incrementally both wider and higher than the existing structure. The elevation of the bridge deck of the Camino del Mar roadway at the proposed southern and northern abutments would be 19.75 and 20.96 feet, respectively. When compared to the existing abutment elevations, the southern abutment would be raised from 16.99 feet to 19.75 feet (an increase of 2.76 feet); the northern abutment would be increased from 19.80 feet to 20.96 feet (an increase of 1.16 feet); and the mid span would be raised from 17.14 feet to 24.84 feet (an increase of 7.7 feet). The proposed bridge foundation would consist of two abutments and four piers supported by columns and piles that would support the bridge superstructure as shown on Figure 4, *Proposed Bridge Typical Plan View and Elevation*. The new bridge would utilize the existing abutments, with new riprap added to the existing riprap. As shown on Figure 5, *Proposed Bridge Typical Section*, the Camino del Mar Bridge would include a striped median at the centerline, northbound and southbound traffic lanes and bike lanes separated by a buffer (striped), and pedestrian sidewalks at the outer edges of the bridge separated from the bike lanes by bridge railings. Concrete curbs and metal hand railings would line the eastern and western edges of the replacement bridge. Two pedestrian lookouts approximately 237 square feet in size may be located on the west side of the bridge only, facing towards the Pacific Ocean.

Construction Methods and Phasing

The project is estimated to be constructed over 27 months between June 2024 and August 2026 using five construction stages: site preparation, east-side bridge replacement, west-side bridge replacement, closure of the center median, and final improvements.[1] Continuous vehicular and pedestrian access along the Camino del Mar Bridge would be maintained throughout construction, with the exception of up to 12 temporary nighttime full bridge closures, discussed further below. Pedestrian coastal (beach)

[1] Likely construction methods are based on professional Engineer and Construction Manager previous experiences monitoring and inspecting commonly used construction techniques for similar projects with reasonably similar constraints, including both permanent and temporary impact areas. Actual methods and timing of construction sequences may vary based on the contractor.



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0 8 Miles

Source: Base Map Layers (SanGIS, 2016)

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Regional Location

Figure 1

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0 600 Feet

Source: Aerial (SanGIS and Nearmap, 2019)

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Project Location

Figure 2

Source: DEL MAR 7.5' Quad (USGS)

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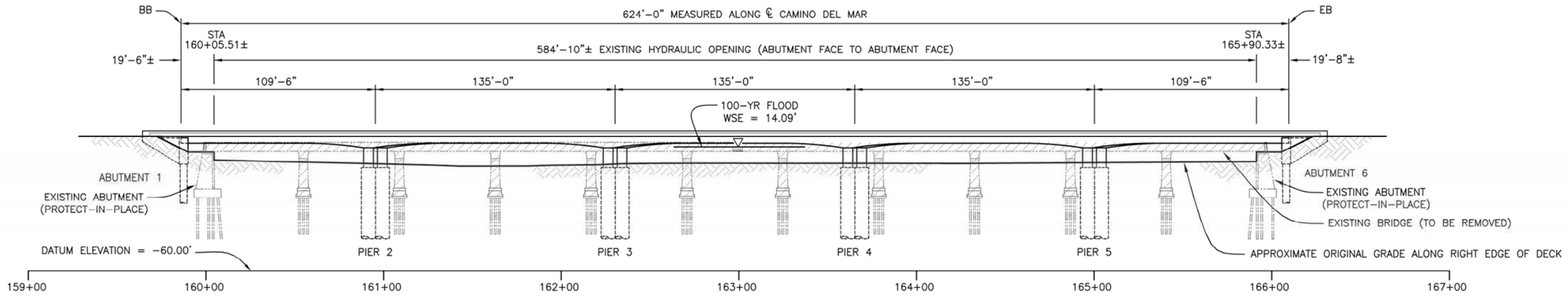
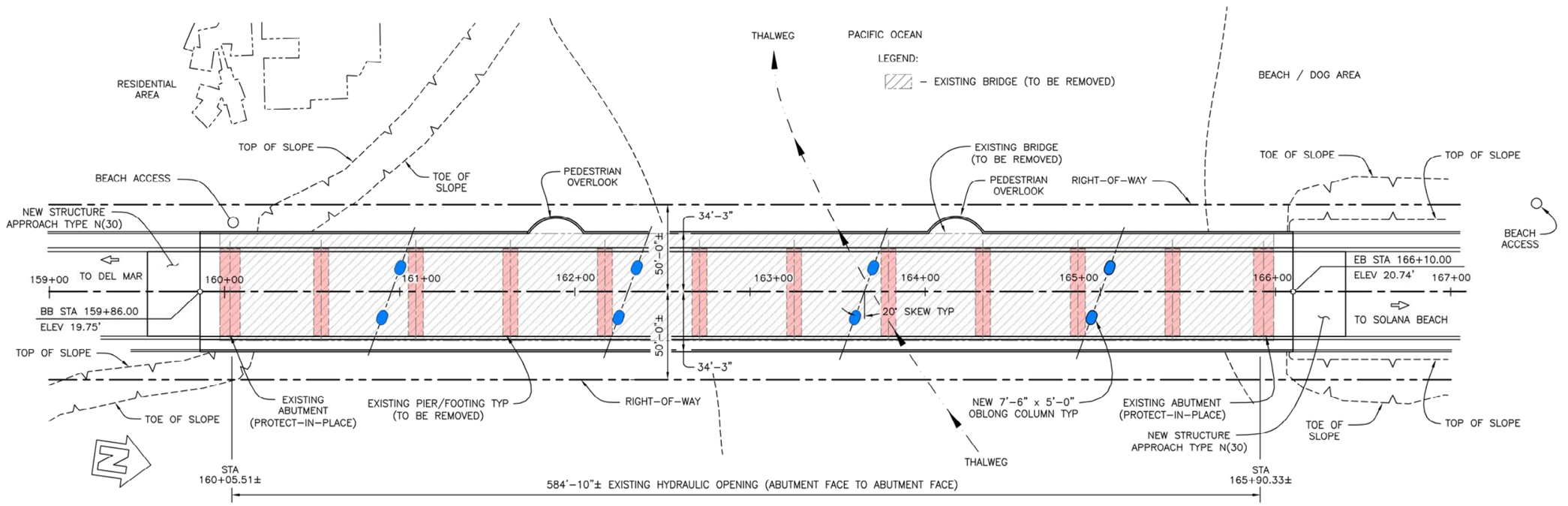
Project Location – USGS

Figure 3



ELEVATION

1" = 30'–0"



PLAN

1" = 30'–0"

Number of Spans	Total Permanent Obstruction Area (Sq. Ft.)
11	2,350±

Number of Spans	Total Permanent Obstruction Area (Sq. Ft.)
5	257

STAGE 5 - FINAL CONDITION

ALTERNATIVE 1.1: 5-SPAN VARIABLE DEPTH CAST-IN-PLACE PRESTRESSED CONCRETE BOX GIRDER BRIDGE WITH TWO COLUMNS PER PIER

Source: Kleinfelder 2021

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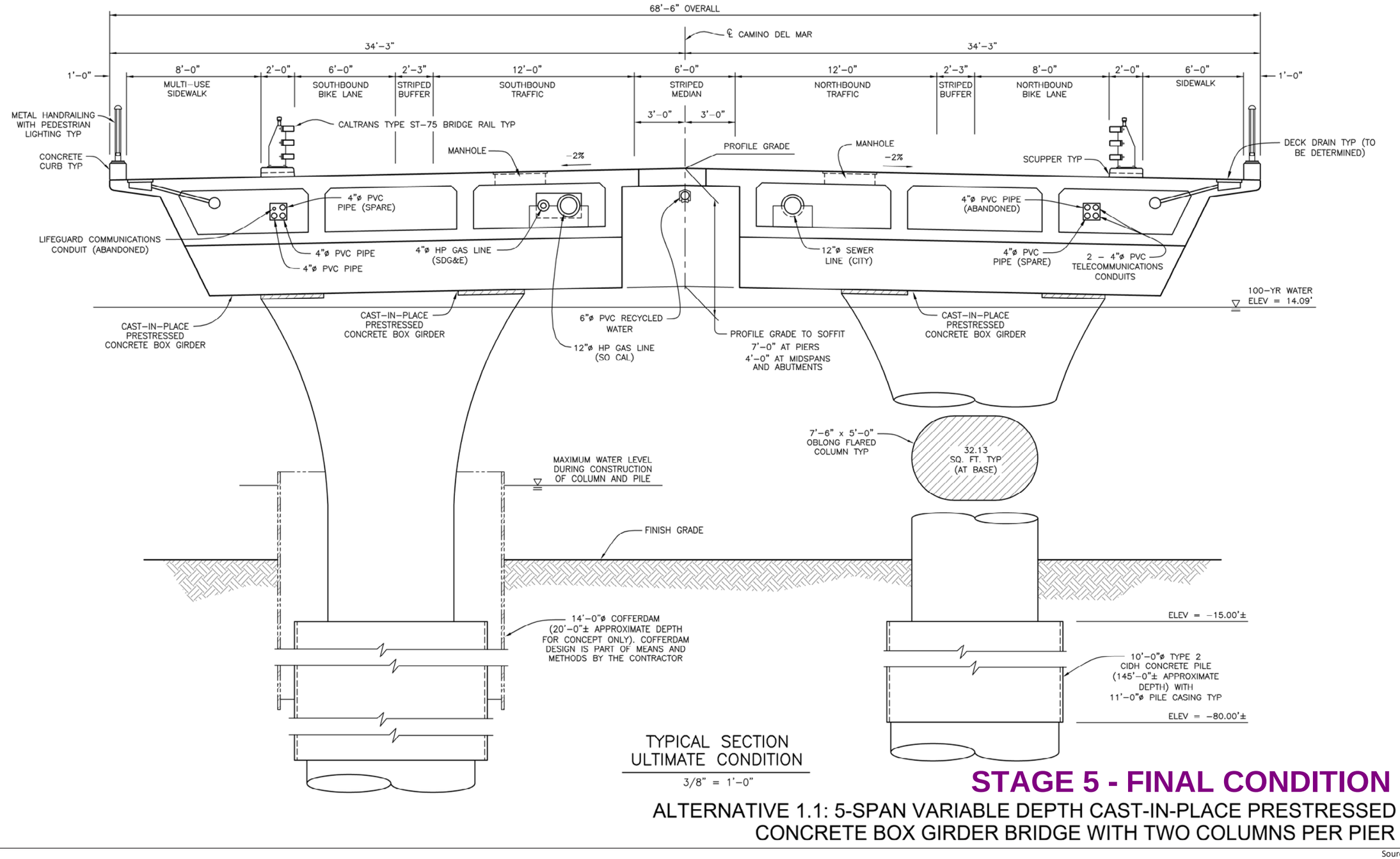
Proposed Bridge Typical Plan View and Elevation

Figure 4



TYPICAL SECTION
ULTIMATE CONDITION
3/8" = 1'-0"

STAGE 5 - FINAL CONDITION

ALTERNATIVE 1.1: 5-SPAN VARIABLE DEPTH CAST-IN-PLACE PRESTRESSED CONCRETE BOX GIRDER BRIDGE WITH TWO COLUMNS PER PIER

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Source: Kleinfelder 2021

access at four existing coastal access points near the bridge also would be maintained throughout the construction period.

Travel lanes along Camino del Mar, including vehicle, pedestrian, and bicycle lanes, would be shifted from one side to the other as the bridge is replaced. Bridge demolition and replacement would occur at one half of the bridge at a time, beginning with the east side (lagoon side) followed by the west side (ocean side). During the demolition and replacement of each side of the bridge, the opposite side would be used to re-route both lanes of traffic. The existing travel way in each direction is approximately 22 feet wide, allowing for two temporary 11-foot-wide travel lanes during construction. Details for each of the construction stages are further described below. Work areas at the bridge that are expected to be utilized by the construction contractor are depicted on Figure 6, *Construction Work Areas*. Existing utilities within the bridge would be temporarily relocated to a utility passage within the temporary work trestle while each side of the bridge is being replaced, unless the utility provider determines they may be temporarily shut down for the duration of construction. The temporary work trestle would consist of an approximately 50-foot-wide elevated platform that spans the entire floodway from each existing abutment, on both sides of the existing bridge. Temporary construction easements would be obtained from the California State Lands Commission for the temporary work trestle that would temporarily encroach into state tidelands, as well as to access one private property southeast of the project (Assessor's Parcel Number 299-030-1919) where a noise barrier is being considered.

Cofferdam systems (enclosures that provide a dry work environment within the river channel below the bridge) would be utilized for removal of existing piers and installation of the new bridge foundations and column. Temporary falsework would be installed to form and construct the bridge foundations and bridge spans. Wood piles from the existing bridge foundation would be partially removed to below the sand level or entirely removed if they conflict with the proposed foundation of the replacement bridge. Temporary ground-level access for construction equipment would be required at the northwest and southeast ends of the bridge for construction and removal the temporary trestle, work platform, and falsework; and for demolition and replacement of the bridge structure. Existing public access to Del Mar Beach would be maintained throughout construction.

Although access along the bridge generally would be maintained throughout construction, some temporary short-term roadway closures may occur between the hours of 10:00 p.m. and 6:00 a.m. when continuous vehicle use is not compatible with specific construction activities. Short-term closures are anticipated for up to four nights during Stage 1 (to prepare the site and remove the roadway median); for one night each near the beginning of Stages 2, 3, and 4 (to shift traffic prior to demolition of each side of the bridge and prior to the median concrete pour); and for one night at the end of the project when the bridge is completed and the roadway is prepared for its final re-opening. Up to four additional night closures may be necessary during Stages 2 and 3 for oversized and major materials deliveries. This totals up to 12 temporary, short-term night closures of the bridge during the 27-month construction period. In compliance with Del Mar Municipal Code (DMMC) Section 23.28.130, a Traffic Control Plan (TCP) would be prepared by a registered traffic engineer and implemented to ensure safe movement of vehicular, bicycle, and pedestrian traffic and adequate emergency access for police, fire, and medical services in the local area (City 2021a). The TCP would include public information for motorists, bicyclists, and pedestrians; lane closures and road detours associated with overnight construction activities; incident management; and construction information. Temporary signs and traffic control advanced warning devices would be placed along the roadway, within the street right-of-way. The contractor would obtain traffic control permits from the City.

Due to limited on-site construction staging areas, the contractor is anticipated to need additional off-site staging areas for materials, equipment, and office purposes (refer to Figure 7, *Off-site Potential Construction-period Staging Areas)*. Areas that have been identified for potential staging uses include the State Fairgrounds and the City's Public Works Yard; these potential staging areas are included within this evaluation. The Public Works Yard is a City-owned area that is unpaved and relatively flat. This area is typically used for overnight storage of construction equipment and is located at the intersection of San Dieguito Drive and Jimmy Durante Boulevard (2240 Jimmy Durante Boulevard), just southeast of the bridge. Temporary worker parking is anticipated to occur at the City's Public Works Yard.

Construction activities by stage are summarized below.

Stage 1 – Site Preparation

Site preparation would occur over a two-month period and require installation of erosion control measures, preparation of the beach level for temporary work trestle installation, relocation of pedestrian crosswalks across Camino del Mar, and removal of the raised concrete median and vegetation/trees within and along the Camino del Mar roadway near the bridge. Stage 1 would also involve preparation of the beach areas on both sides of the bridge, which would involve establishing construction contractor fencing, installing a covered pedestrian boardwalk (southwest corner) to provide residents and visitors with access to Del Mar Beach, and displaying signage that directs coastal visitors to coastal amenities in the area, including the beaches and the River Path Del Mar (River Path).

The two crosswalks closest to each abutment would be temporarily relocated during construction. The crosswalk at the southern abutment that connects to the River Path to the east and Del Mar Beach to the west would be removed and a temporary crosswalk would be established further south at Sandy Lane, about 300 feet from the southern bridge abutment. The temporary crosswalk would connect to existing sidewalks along Camino del Mar and would maintain access to the River Path and Del Mar Beach throughout the entire 27-month construction period. The crosswalk at the northern abutment would also be removed and the existing crosswalk to the north would remain to provide pedestrian access to Del Mar Beach during construction. One parking space would be temporarily lost on the southeast side of the bridge during Stage 1. No permanent losses to parking would occur during Stage 1.

Stage 2 – East-side Bridge Replacement

During a 10-month period following demolition of the east side of the bridge and preparation and construction of new supports, the eastern half of the bridge superstructure and deck would be formed and constructed prior to trestle removal. The existing pedestrian walkway located on the west side of the existing bridge would be maintained during Stage 2. Both lanes of traffic and pedestrian access would be re-routed from the west side to the newly constructed east side of the bridge in preparation for Stage 3 (west side). The temporary trestle would also be disassembled and re-assembled on the west side of the bridge to support construction of Stage 3.

Temporary parking losses along Camino del Mar during Stage 2 would total 55 spaces, including spaces to the northwest (13), northeast (19), southwest (10), and southeast (13). Four parking spaces would be permanently lost for the project, including one space located north of the bridge and three spaces located south of the bridge.

Camino Del Mar Bridge Replacement

Source: Aerial (Nearmap, 2021)

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Construction Work Areas

Figure 6

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0 500 Feet

Source: Aerial (Nearmap, 2021)

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Off-site Potential Construction-period Staging Areas

Figure 7

Stage 3 – West-side Bridge Replacement

During a 10-month period following demolition of the existing structure, the western half of the bridge superstructure and deck would be formed and constructed prior to trestle removal. Similar parking spaces described above for Stage 2 would be temporarily lost during Stage 3.Temporary parking losses along Camino del Mar during Stage 3 would total 54 spaces, including spaces to the northwest (12), northeast (19), southwest (10), and southeast (13). Four parking spaces would be permanently lost for the project.

Stage 4 – Bridge Median Improvements

Once the two halves of the bridge are constructed in Stages 2 and 3, a four-foot-wide closure pour would occur in the center of the bridge, connecting the two sides of the bridge and creating the new median and area for utility lines. Stage 4 would occur over a two-month period. Four parking spaces permanently lost for the project during Stage 2 (one space located north of the bridge and three spaces located south of the bridge) would remain unavailable during Stage 4. No temporary parking space losses are associated with Stage 4.

Stage 5 – Final Improvements

Stage 5 would consist of final contour grading and street improvements in Camino del Mar, including new pavement, curb and gutter, pedestrian ramps, traffic signage, striping and marking (vehicles and bicycles), utility lines (water, sewer, gas), storm drains (curb inlets, catch basins, and outfall pipes), and installation of permanent water quality devices to treat and discharge road runoff during storm events. Two tree wells are proposed, one at the northwestern side and another at the southeastern side of the bridge approach in order to provide stormwater management/treatment and achieve Green Street compliance. A “Green Street” is a street right-of-way that uses low impact development facilities to manage stormwater runoff close to its source (County of San Diego 2019). The proposed tree wells would be constructed according to the latest County of San Diego Green Streets Design Criteria and Standard Drawings and Caltrans standard plans, and in accordance with City Council Policy 114. Each tree well would be a minimum 24 square feet in size and would include biofiltration soil and one 20-foot canopy tree species selected from the County of San Diego list of approved trees, which may include species such as Torrey pine (*Pinus torreyana*), southern magnolia (*Magnolia grandiflora*), and hybrid strawberry tree (*Arbutus ‘Marina’*), among others.

Finally, construction equipment, materials and debris, and temporary traffic control and erosion control devices would be removed at the end of the construction period, with this final phase lasting approximately three months. No temporary parking space losses are associated with Stage 5. As noted, four parking spaces permanently lost for the project during Stage 2 (one space located north of the bridge and three spaces located south of the bridge) would remain unavailable at project completion, as depicted on Figure 8, *Permanent Loss of Four Parking Spaces*.

9. Surrounding land uses and setting:

The project site includes the existing bridge along Camino del Mar over the lagoon and areas immediately surrounding the bridge (see Figures 1 through 3). Regional access to the project site is provided from Interstate 5 (I-5), which trends parallel to the bridge approximately one mile to the east. The bridge serves as an important north-south connection for coastal residents and visitors in the vicinity and the greater San Diego region and is frequently used by motorists, bicyclists, and pedestrians.

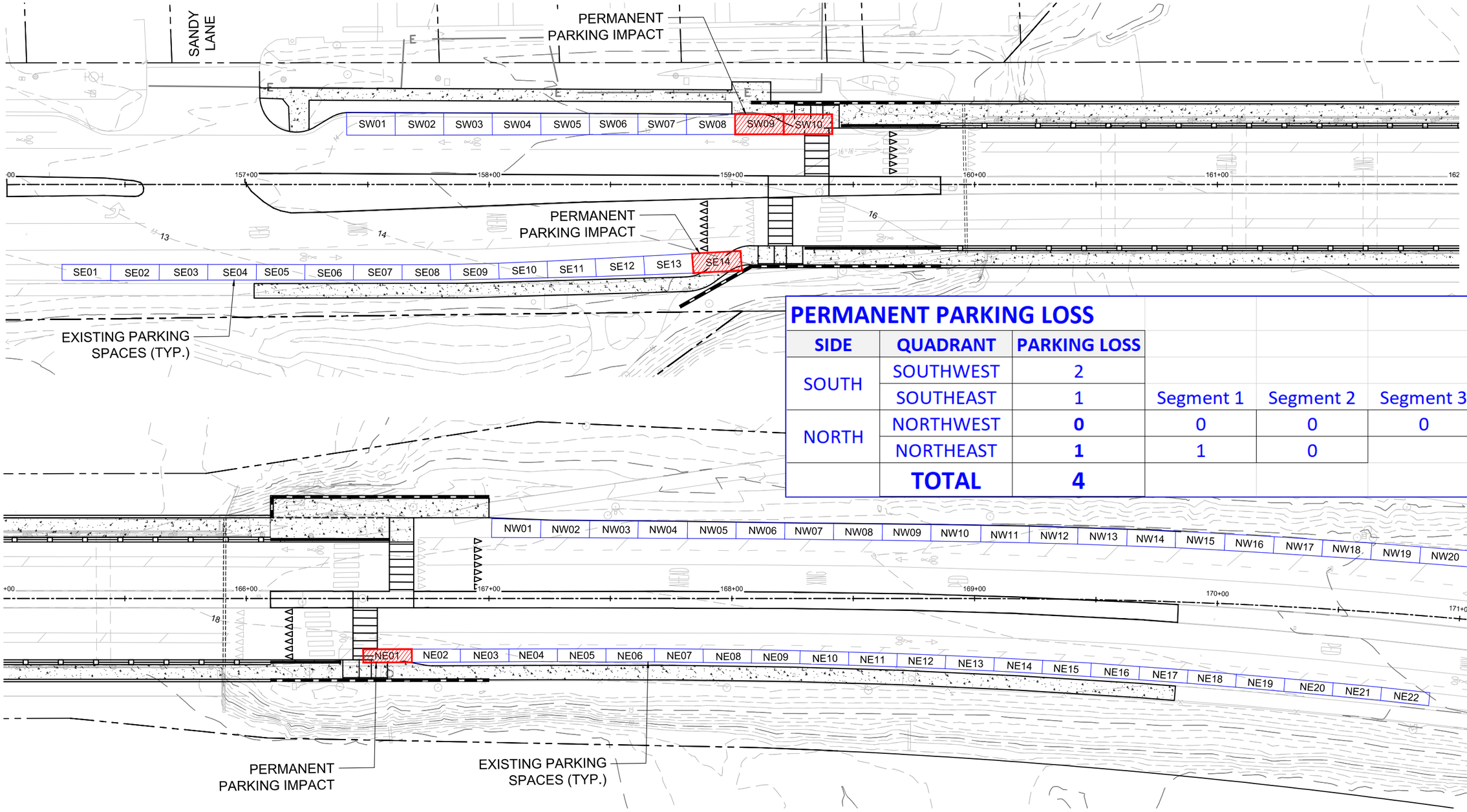
The bridge is situated between the State Fairgrounds and the Pacific Ocean near coastal destinations and provides access to local beaches, open space areas, hiking trails, the Del Mar Village (the City's central business district), and Torrey Pines State Beach. The Camino del Mar roadway becomes Highway 101 north of Via de la Valle within the City of Solana Beach, approximately 0.25 mile north of the bridge.

Camino del Mar is the major north-south route through Del Mar. North of the bridge, the two-lane divided road features parallel and diagonal street parking. Parallel parking is also located south of the bridge. Class II bicycle lanes are located along the length of the project area in both directions, with buffered bike lanes located along portions of the street off the bridge. Sidewalks are provided along both sides of Camino del Mar between Via de la Valle and Coast Boulevard except on the east side of the Camino del Mar Bridge. The sidewalks generally immediately abut the roadside parking except for over the bridge, where the pathway is located slightly west of the bridge near, and with access to, the beach. Marked crosswalks are provided on both the north and south ends of the bridge for connectivity. Based on traffic counts conducted as part of the Traffic Impact Analysis prepared for the project, average daily traffic on Camino del Mar near the project site (from Via de la Valle to Coast Boulevard) on a typical weekday is approximately 12,540 vehicles on a roadway with a capacity of 15,000 trips (STC Traffic Inc. [STC] 2018).

The bridge is located approximately 500 feet inland of the beach and extends over the lagoon, near where the mouth of the San Dieguito River outlets to the Pacific Ocean. Lower elevation areas within the project vicinity, including beach and marsh areas, are subject to tidal influence based on elevation and proximity to the Pacific Ocean. During 50- and 100-year flood events there is no space between the top of the water surface and the bottom of the bridge. The southern bridge abutment includes riprap that protrudes into the lagoon floodway and has an adjacent coastal access point at the western terminus of the River Path that continues east along the lagoon. No public access is allowed below the bridge.

Existing natural and developed conditions at the bridge and surrounding areas are shown on Figure 9, *General Project Setting*. Figure 10, *Focused Project Setting*, centers the setting on the bridge, allowing for a more detailed look at the immediately surrounding uses. As shown, surrounding areas include residential uses south of the bridge; the lagoon, the Los Angeles–San Diego–San Luis Obispo (LOSSAN) corridor railroad trestle bridge crossing the San Dieguito River that is maintained by the North County Transit District (NCTD; NCTD rail bridge), and the State Fairgrounds to the east; residential development to the south; and public beaches and the Pacific Ocean to the west. North of the bridge is a tall coastal bluff along the western edge of Camino del Mar that contains passive recreational opportunities within the James G. Scripps Bluff Preserve (Scripps Bluff Preserve). The lagoon extends eastward from the bridge to beyond I-5. The NCTD rail bridge spans the lagoon parallel to and 500 feet east of the Camino del Mar Bridge. An alternative north-south roadway connection in the area occurs along Jimmy Durante Boulevard, which crosses the lagoon at a bridge (Jimmy Durante bridge) about 0.40 mile southeast of the Camino del Mar Bridge.

Parking in the area is limited as there are no public parking lots or parking structures in the immediate vicinity. Visitors to the beaches and recreational amenities near the bridge typically park at striped parking spaces north and south of the bridge along both sides of Camino del Mar and along side streets. There are approximately 140 existing parking spaces available north and south of the bridge along Camino del Mar; parking is not allowed on the bridge. Where parking is allowed, some spaces are metered, with ability to "pay as you go," or purchase an all-day pass from the "pay and display" boxes.



PERMANENT PARKING LOSS

SIDE	QUADRANT	PARKING LOSS	Segment 1	Segment 2	Segment 3
SOUTH	SOUTHWEST	2			
	SOUTHEAST	1	Segment 1	Segment 2	Segment 3
NORTH	NORTHWEST	**0**	0	0	0
	NORTHEAST	**1**	1	0	
	TOTAL	**4**			

Source: Kleinfelder 2021

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Permanent Loss of Four Parking Spaces

Figure 8

Source: Aerial (SanGIS and Nearmap, 2019)

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General Project Setting

Figure 9

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0 1,000 Feet

Source: Aerial (SanGIS and Nearmap, 2019)

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Focused Project Setting

Figure 10

Beyond 29th Street and to the south, parking is unmetered (free) on both sides of Camino del Mar. Bike racks are located at Del Mar Beach.

10. Other public agencies whose approval is required (e.g., permits, financing approval, or participation agreement):

    - NEPA compliance (issued by Caltrans);
    - Consolidated Coastal Development Permit (issued by the California Coastal Commission [CCC]);
    - Section 404 Nationwide Permit 14 (issued by the United States Army Corps of Engineers [USACE]);
    - Section 7 Consultation (concurrent with the U.S. Fish and Wildlife Service [USFWS] and National Marine Fisheries Service [NMFS] National Oceanic Atmospheric Administration [NOAA] Fisheries);
    - Section 1602 Streambed Alteration Agreement (issued by the California Department of Fish and Wildlife [CDFW]);
    - Section 401 Water Quality Certification (issued by the San Diego Regional Water Quality Control Board [RWQCB]);
    - National Pollutant Discharge Elimination System (NPDES) Permit (issued by RWQCB);
    - Habitat Mitigation and Monitoring Plan (acceptable to the USACE, USFWS, RWQCB, CDFW, and CCC); and
    - Lease Agreement for Public Agency Use (issued by the California State Lands Commission to allow temporary access onto state lands during construction).

As noted above, the USACE, CDFW, RWQCB, and CCC are anticipated to have some permitting authority over the project and would issue the above-listed permits for the project to be constructed. These agencies have a responsibility to regulate discharges of dredged or fill material, including impacts to riparian/wetland vegetation. The USACE, CDFW, RWQCB, and CCC would have permitting authority over the project because the installation of the foundations and associated decking would occur in areas associated with the San Dieguito Lagoon, which are considered potential federal wetlands, waters of the United States, waters of the State, state of California streambed or riparian habitat, and coastal wetlands. Final requirements for regulatory permits would be determined in consultation with the resource agencies.

11. Have California Native American tribes traditionally and culturally affiliated with the project area requested consultation pursuant to Public Resources Code Section 21080.3.1? If so, is there a plan for consultation that includes, for example, the determination of significance of impacts to tribal cultural resources, procedures regarding confidentiality, etc.?

Notices in accordance with the requirements of Assembly Bill (AB) 52 were sent via certified mail on September 28, 2021 to 14 nearby tribes, giving 30 days for the tribes to reply. Two responses were

received from the San Pasqual Band of Mission Indians, dated November 3, 2021, and December 15, 2021. The response letters indicated that the project is located within the boundaries of the territory that the tribe considers its Traditional Use Area, and they would like to engage in consultation with the City to be involved in the development of the measures taken to mitigate potential adverse impacts. Additional coordination with California Native American tribes has occurred as part of the project as further described in Sections V, *Cultural Resources*, and XVIII, *Tribal Cultural Resources*.

1.2 Environmental Factors Potentially Affected

The environmental factors checked below would be potentially affected by this project, involving at least one impact that is a "Potentially Significant Impact" or "Less than Significant with Mitigation Incorporated" as indicated by the checklist on the following pages.

■ Aesthetics	☐ Agriculture and Forestry Resources	☐ Air Quality
■ Biological Resources	■ Cultural Resources	☐ Energy
■ Geology and Soils	☐ Greenhouse Gas Emissions	■ Hazards and Hazardous Materials
☐ Hydrology and Water Quality	☐ Land Use and Planning	☐ Mineral Resources
■ Noise	☐ Population and Housing	☐ Public Services
☐ Recreation	☐ Transportation	■ Tribal Cultural Resources
☐ Utilities and Service Systems	☐ Wildfire	■ Mandatory Findings of Significance

1.3 Determination

On the basis of this initial evaluation:

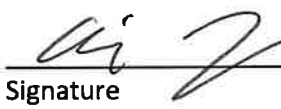
☐ I find that the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.

☒ I find that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because revisions in the project have been made by or agreed to by the project proponent. A MITIGATED NEGATIVE DECLARATION will be prepared.

☐ I find that the proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.

☐ I find that the proposed project MAY have a "potentially significant impact" or "potentially significant unless mitigated" impact on the environment, but at least one effect I) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and 2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.

☐ I find that although the proposed project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier EIR or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.



Signature

5-4-22

Date

Adriana Jaramishian

Printed name

City of Del Mar

For

2.0 Environmental Initial Study Checklist

The lead agency has defined the column headings in the environmental checklist as follows:

A. "Potentially Significant Impact" is appropriate if there is substantial evidence that an effect may be significant. If there are one or more "Potentially Significant Impact" entries when the determination is made, an EIR is required.

B. "Less Than Significant with Mitigation Incorporated" applies where the inclusion of mitigation measures has reduced an effect from "Potentially Significant Impact" to a "Less Than Significant Impact." All mitigation measures are described, including a brief explanation of how the measures reduce the effect to a less than significant level. Mitigation measures from earlier analyses may be cross-referenced.

C. "Less Than Significant Impact" applies where the project does not create an impact that exceeds a stated significance threshold.

D. "No Impact" applies where a project does not create an impact in that category. "No Impact" answers do not require an explanation if they are adequately supported by the information sources cited by the lead agency which show that the impact simply does not apply to projects like the one involved (e.g., the project falls outside a fault rupture zone). A "No Impact" answer should be explained where it is based on project-specific factors as well as general standards (e.g., the project would not expose sensitive receptors to pollutants, based on a project specific screening analysis).

The explanation of each issue identifies the significance criteria or threshold used to evaluate each question; and the mitigation measure identified, if any, to reduce the impact to less than significance. Earlier analyses may be used where, pursuant to the tiering, program EIR, or other CEQA process, an effect has been adequately analyzed in an earlier EIR or negative declaration [CEQA Guidelines Section 15063(c)(3)(D)]. Where appropriate, the discussion identifies the following:

a) Earlier Analyses Used. Identifies where earlier analyses are available for review.

b) Impacts Adequately Addressed. Identifies which effects from the checklist were within the scope of and adequately analyzed in an earlier document pursuant to applicable legal standards, and states whether such effects were addressed by mitigation measures based on the earlier analysis.

c) Mitigation Measures. For effects that are "Less Than Significant with Mitigation Incorporated," describes the mitigation measures which were incorporated or refined from the earlier document and the extent to which they address site-specific conditions for the project.

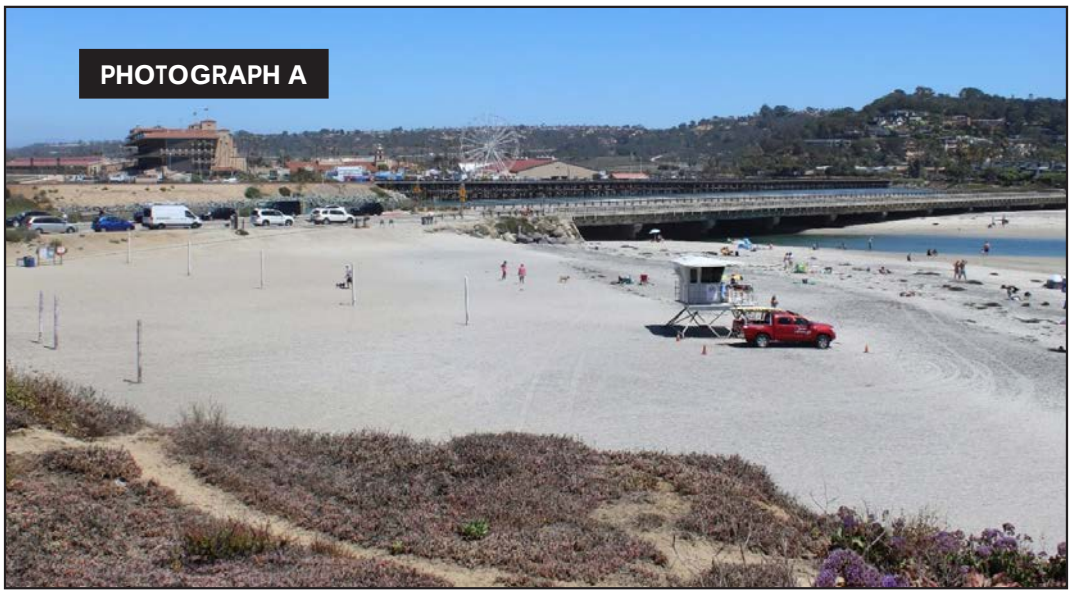
I. Aesthetics

		Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Except as provided in Public Resources Code Section 21099, would the project:					
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? (Public views are those that are experienced from publicly accessible vantage point). If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?	☐	☐	■	☐
d)	Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	☐	☐	■	☐

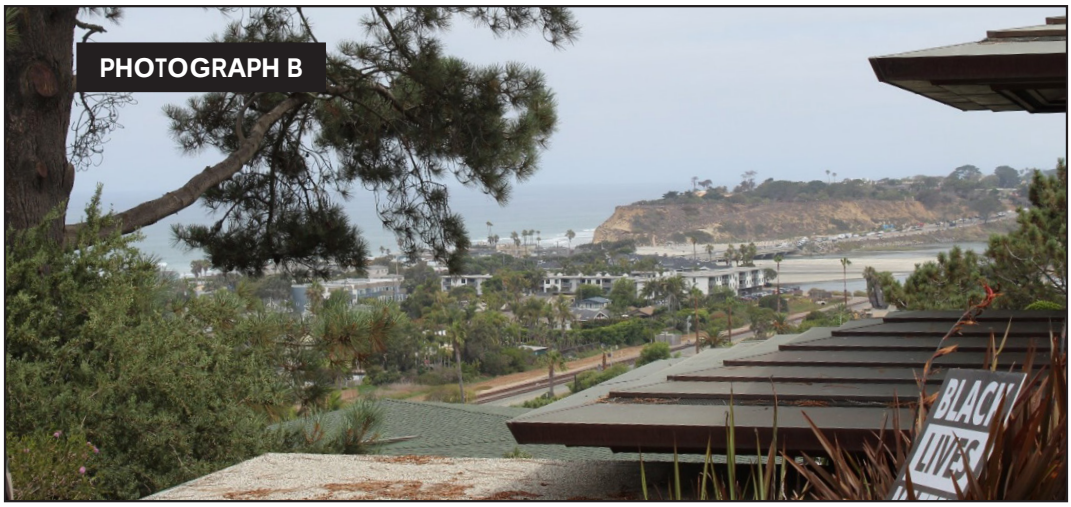
Discussion

The existing visual setting of the project site and surrounding areas is depicted in Figures 11a-b, *Existing Visual Setting*, which contain views from the public trail and bluffs to the northwest (Photograph A), residential development within the bluffs to the southeast (Photograph B), the pedestrian pathway near the southwestern end of the bridge (Photograph C), and the Brigantine restaurant northeast of the project site. Visual context of the bridge location includes a mix of open space and suburban uses, where development is comprised primarily of residential, recreational, and commercial uses. The bridge crosses over the San Dieguito Lagoon and associated river outlet to the Pacific Ocean. Immediately abutting the project corridor to the west are Del Mar Beach and the mouth of the San Dieguito River west of the project site. The James G. Scripps Bluff Preserve is located northwest of the bridge (refer to Figures 9 and 10) and contains paths and seating areas with panoramic views to the west, south, and east. Access is provided via Del Mar Beach and a partially paved access path is constructed into the east-facing slope of the bluff landform. The south- and east-facing slopes of the bluff are covered with low, coastal sage scrub vegetation that displays tones of brown, gray, and green. The location provides highly valued views to each of these amenities. To the east is the LOSSAN corridor railroad trestle bridge, the State Fairgrounds, and the I-5 freeway corridor.

Topography within the project site (as well as in the immediate areas to the east and south) is relatively flat, with elevations ranging from approximately 9 feet above mean sea level (AMSL) at the northern terminus of the project corridor, to approximately 21 feet AMSL at the southern terminus of the project corridor (refer to Figure 3). The elevation of the bridge deck of the Camino del Mar roadway at the proposed southern and northern abutments would be increased by 2.76 feet and 1.16 feet, respectively, and the mid span would be raised by 7.7 feet.



View from the pathway along the southern edge of the Scripps Bluff Preserve northwest of the project site looking southeast toward the Camino del Mar Bridge, State Fairgrounds, and residentially-developed hillsides southeast of the bridge.



Representative view from residences located on Balboa Avenue, Gatun Street, and Luzon Avenue southeast of the project site looking northwest toward the bridge, ocean, and bluffs.

View from the pedestrian pathway at the southwest end of the bridge looking northeast toward the bluffs and residentially and commercially-developed areas of Del Mar and Solana Beach.

View from south of the Brigantine Restaurant southern patio looking southwest toward the bridge and residentially-developed hillsides of Del Mar.

As discussed in detail in the VIA, a number of key views (KVs) from public viewpoints were identified based on the number and frequency of views, the potential sensitivity of viewers, and the types of project-related features that would be visible. KV locations are shown on Figure 12, *Key View Locations*, and listed below:

- KV 1 – From Del Mar Beach looking east-southeasterly toward the bridge.
- KV 2 – From River Path Del Mar looking northwesterly toward the bridge.
- KV 3 – From the State Fairgrounds western boundary looking westerly toward the bridge.
- KV 4 – From Sandy Lane Residences south of the San Dieguito River looking northeasterly toward the bridge.
- KV 5 – From the south side of the Camino del Mar Bridge looking northerly along the bridge.

The following analysis is supported by visual simulations that have been created from the identified KVs to provide a visual comparison of the existing conditions with the proposed final condition, as shown in Figures 13a-e, *Pre- and Post-project Views*.

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

Less Than Significant Impact. Scenic vistas are defined as views or vistas generally expansive or panoramic in nature, usually from an elevated point or open area, that possess visual and aesthetic qualities of high value to the community. For purposes of this analysis, 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. Section 30251, Scenic and Visual Qualities, of the California Coastal Act states that "the scenic and visual qualities of coastal areas shall be considered and protected as a resource of public importance" (Public Resources Code Division 20, Chapter 3, Article 6, Section 30251). Further, permitted development "shall be sited and designed to protect views to and along the ocean and scenic coastal areas, to minimize the alteration of natural landforms, to be visually compatible with the character of surrounding areas and where feasible, to restore and enhance visual quality in visually degraded areas."

The project is sited within scenic view areas to both the east (lagoon) and west (ocean), which also contain commercial and residential development in addition to open space. The Community Plan (General Plan) does not designate specific scenic resources but identifies scenic protection areas throughout the City and encourages harmonious development which is in scale with the character of existing development; is sensitive to bluff, lagoon, and ocean views; and blends with the open character of the land. Specifically, the Transportation Element identifies the entire lagoonal plain and the bluffs immediately parallel and southwest of the project site as part of a scenic protection area. This area is generally west of I-5, south and east of Jimmy Durante Boulevard, and north of Racetrack View Drive. Additionally, the introductory chapters of the City's Community Plan (General Plan) identify scenic views from the bluffs south and west of the project site and refer to a diversity of views from the community's hills and winding streets as positive community assets (City 2019a). The bluff areas south of the project include residential areas along Gatun Street, Luzon Avenue, Balboa Avenue. From these bluff areas along public roadways, most of the prominent views are western facing toward the Pacific Ocean. The existing bridge is visible in these views; however, the low structure is visually minimized by the higher and darker bluff behind it in views from the south as depicted in Figure 11a (Photograph B).

The project would replace a bridge that has been in place since 1932. The new bridge has been carefully designed to remain within the same right-of-way and incrementally changed in terms of length (28 feet longer overall), height (less than 8 feet higher) and width (less than 7.5 feet wider). As a result, the bridge would not alter the immediately abutting bluff or lagoon/beach landforms, being located along the same alignment and right-of-way as the existing bridge. The structure would be generally visually similar to the existing bridge in extent and expanse, as well as materials, with improved bridge aesthetics as described below. The project therefore is assessed as sensitive to the adjacent bluff, ocean, and lagoon resources in this scenic coastal area, and compatible with the existing uses and open space in this developed setting that has contained a similar bridge in this location for approximately 90 years. Also similar to the existing bridge, views to the Pacific Ocean, North Beach, and San Dieguito River and lagoon would be provided to all users of the bridge, including vehicular, pedestrian, and bicyclists. Potential for pedestrian views would be improved—a protected pathway would be provided on the east side of the bridge which does not currently exist, allowing pedestrians to safely pause and admire the view. Two new viewing platforms may be sited on the west side of the bridge so that pedestrians have a protected location from which to stop and enjoy beach area views towards the Pacific Ocean. All proposed new and replacement safety barriers and bridge railings would be low profile and visually permeable similar to existing conditions. On the east side of the bridge, some immediately abutting shrubbery at road grade would be removed and replaced with a new tree. Scenic views created as a result of the landscape changes should be considered temporary until the project landscape installation is completed in accordance with the adopted landscape plans.

Where the project can be considered notably different from the existing structure is in the extent of views afforded to viewers looking under the bridge. The number of supports would be reduced to four, leaving larger upward arching spans between them that allow for more open views to prized visual features of the lagoon and coastal areas on either side of the bridge that are currently obscured by the 10 supports and low elevation of the existing bridge. This is depicted in the visual simulations in Figures 13a, 13b, and 13d, which show that the project would result in extending views to additional water and sand features valued in the area from locations such as the “North Beach” area of Del Mar Beach north of the river outlet (Figure 13a, KV 1), the River Path and adjacent residences to the southeast of the site (Figure 13b, KV 2), and the southern portion of Del Mar Beach and adjacent residences to the southwest of the site (Figure 13d, KV 4). Because those view elements are largely sand and ocean, and/or riparian and lagoonal in nature, the project would be consistent with the goal to restore and enhance visual quality in the area and to enhance public scenic views of the ocean. Therefore, the project would not have a substantial adverse effect on scenic vistas, including those identified in the City’s Community Plan (General Plan).

As described in further detail in Section XIII, *Noise*, a noise barrier is being considered at the exterior use area of the closest residence to the southeast of the bridge as a measure to minimize potential noise impacts. The proposed noise barrier would replace an existing fence in the same location and may be up to 14 inches taller than the existing fence. The proposed change from a fence to a sound reduction barrier would be subject to future design review, would not change the developed nature of the site or the built backdrop of two-story buildings, and would not block views of coastal resources. Therefore, impacts would be less than significant.

0 500 Feet

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HELIX Environmental Planning

Key View Locations

Figure 12

KEY VIEW 1 – From Del Mar Beach looking east-southeasterly toward the bridge.

KEY VIEW 2 – From River Path Del Mar looking northwesterly toward the bridge.

KEY VIEW 3 – From the State Fairgrounds western boundary looking westerly toward the bridge.

KEY VIEW 4 – From Sandy Lane Residences south of the San Dieguito River looking northeasterly toward the bridge.

KEY VIEW 5 – From the south side of the Camino del Mar Bridge looking northerly along the bridge.

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

Less Than Significant with Mitigation Incorporated. There are no designated or eligible scenic highways in the area listed in the California Scenic Highway Program in the proposed project area. No rock outcroppings or historic buildings are within the right-of-way or private property where a noise barrier is being considered. The project would involve removal of low-lying vegetation and trees within the project footprint as further described below.

Low-lying vegetation would be removed from the road median. Ornamental landscaping within five feet of the existing fence where noise barrier improvements are being considered for the project would be trimmed or removed as necessary for barrier construction. The vegetation removal would not substantially damage or conflict with public scenic views or coastal resources in the vicinity. Vegetation removal would be restricted to a narrow corridor within the roadway median and potential noise barrier location in the immediate construction area—public scenic views and coastal resources (i.e., beach vegetation, sand, and water resources) would not be impacted.

Approximately seven trees would be removed between the south side of the bridge and Sandy Lane. Six are in the road median and one is on the west side of the street immediately adjacent to the southerly bridge end. Chapter 23.50 of the DMMC addresses tree removal in the City. Section 23.50 020 E.3 expressly states that in addition to the specific species of Torrey Pine and Monterey Cypress, protected trees include a "tree of any species and located on property within the Central Commercial, Open Space Overlay Zones of the City, within a public right-of-way, or on public or City-owned property" (City 2021a). This means that all seven trees are considered protected trees. The seven trees include two Torrey pines, among other species such as lemon bottlebrush (*Callistemon citrinus*). Section 23.50.080 C.10 allows removal of a protected tree if the tree obstructs proposed improvements that cannot be reasonably designed to avoid the need for tree removal. In this instance, tree removal is required in order to accommodate the necessary improvements required for bridge removal and replacement with a structure that meets applicable public health and safety standards and protection from hazards (i.e., earthquakes, flooding, and sea level rise), while remaining within the existing bridge right-of-way and not resulting in new off-site impacts. This is a Capital Improvement Program project, which means the City Council is the decision making authority at the local level for the proposed project design and tree removal.

In addition, a primary focus in this area is the beach, and the removal of these trees from the Camino del Mar public right-of-way would not adversely affect views to or from the beach sands where the bridge crosses them. Regardless, the visual loss of these trees is considered adverse due to loss of canopy, visual interest related to streetscape, and the maturity of the trees at the northern and southern extents (intervening trees are less substantial). This is supported by the City's interest in tree preservation and strict standards for approved removal. As a result, a potential significant impact has been assessed and a mitigation measure has been incorporated.

The project would include placement of two new trees in the Camino del Mar public right-of-way as part of the proposed stormwater infrastructure improvements. The new street canopy trees would be located within "Green Street" tree wells that include biofiltration soil, which would provide both aesthetic and stormwater management/treatment benefits. Mitigation for additional trees not replaced as part of project landscaping/stormwater infrastructure improvements would be covered by the City's Public Tree/Landscape Management program that is administered by the City of Del Mar Public Works

Department. The Program currently has a net excess of 78 public trees that were added via various Capital Improvement Program projects within the last five years including the Civic Center Redevelopment, Court Street Park, and Downtown Streetscape Plan. These credits can be applied towards future mitigation associated with City projects. Implementation of Mitigation measure AES-1 would reduce potential impacts to less than significant.

Mitigation Measure

AES-1 Mitigation for loss of trees within the Camino del Mar public road right-of-way shall be covered by the City's Public Tree/Landscape Management program as administered by the City of Del Mar Public Works Department. Existing credits that have been added to the Program via Capital Improvement Program projects shall be applied to the project to ensure compliance with Chapter 23.50 of the DMMC.

c) In non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from publicly accessible vantage point). If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?

Less Than Significant Impact. CEQA defines the term urbanized area to mean, among other things, an incorporated city that has a population of less than 100,000 persons if the population of that city and not more than two contiguous incorporated cities combined equals at least 100,000 persons (Public Resources Code Section 21071). While Del Mar has an estimated population of approximately 4,161, the population of the adjacent cities of San Diego and Solana Beach total approximately 1,301,617 and 12,867 respectively (San Diego Association of Governments; SANDAG 2022). Although the project is not sited in a strictly urbanized area, based on the CEQA definition, potential impacts are evaluated relative to consistency with applicable zoning and other regulations governing scenic quality. The project alignment does not have a land use or zoning designation as it consists of road right-of-way. Applicable regulations governing scenic quality include the California Coastal Act and the City's Community Plan (General Plan), which are discussed above for I.a. As discussed, the project would not have a substantial adverse effect on scenic vistas, including those identified in the City's Community Plan (General Plan), nor would it substantially degrade existing visual character or quality of public views of the site and surroundings (City 2019a).

If approved, the potential noise barrier would replace an existing fence in the same location, would not change the developed nature of the site or the built backdrop of two-story buildings, and would not block coastal views. Potential barrier implementation would not degrade visual character or quality of public views in the area. Relative to loss of trees within the existing median and immediately adjacent to the southern extent of the bridge, the focused nature of their removal, the installation of two new trees, and mitigation through the City's Public Tree/Landscape Management program would result in impacts being reduced to less than significant levels. Removal of a small amount of shrubbery east of the bridge atop the existing riprap could be noticeable to west-bound users of the River Path Del Mar, but would be limited in extent and would not affect views to coastal features. Because the project would replace an existing bridge in a developed setting, and because the improved bridge would be similar to the existing structure's color and scale, it is expected to be substantially similar to the existing condition. Changes to visual resources are expected to be relatively minimal in terms of both visual character and quality, and impacts would be less than significant.

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

Less Than Significant Impact. The existing bridge does not contain street or safety lighting. During construction, up to 12 temporary night closures of the bridge during the 27-month construction period are expected during which lighting would be needed. Temporary lighting would be required to be oriented downward (toward the bridge deck) and the lighting source would be required to be shielded in order to minimize light spill. Permanent lighting has not been determined for the proposed bridge; however, if incorporated into the bridge structure/railing, lighting would be consistent with applicable lighting design standards that require lighting be oriented downward (toward the bridge deck/pedestrian path) and that the light source be shielded to minimize light spill. Lighting may be installed within the bridge curbs or railings. If installed within the railings, lighting would not be located on a stand-alone stanchion or pole exceeding the railing height and would not be notable from afar. All fixtures would be designed with lighting not to exceed 2,700 on the Kelvin light scale.

In terms of potential glare, the bridge would be restricted to the same maximum traffic volume as the current two-lane bridge (one lane in each direction). Additional traffic loading in the project area is therefore not expected to result from the proposed improvements. As a result, substantial additional vehicle lights would not be expected, and no new substantial source of glare is anticipated. Relative to the potential noise barrier, materials would either consist of non-reflective clapboard-style cladding or a transparent material for upper portions of the barrier. If transparent materials are used, it is possible that under specific circumstances they could provide additional light or glare should headlights hit them directly. This is not expected because the barrier would be peripheral rather than ahead of northbound drivers located to the west, and both peripheral and largely shielded by landscaping for southbound drivers. Based on these considerations, impacts resulting from a new source of substantial light or glare would be less than significant.

II. Agriculture and Forestry Resources

		Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:					
a)	Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?	☐	☐	☐	■
b)	Conflict with existing zoning for agricultural use, or a Williamson Act contract?	☐	☐	☐	■
c)	Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code Section 12220(g)), timberland (as defined by Public Resources Code Section 4526), or timberland zoned Timberland Production (as defined by Government Code Section 51104(g))?	☐	☐	☐	■

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
d) Result in the loss of forest land or conversion of forest land to non-forest use?	☐	☐	☐	■
e) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non- forest use?	☐	☐	☐	■

a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?

No Impact. The project site does not contain prime farmland, unique farmland, or farmland of statewide importance as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency (California Department of Conservation [DOC] 2018). As such, there is no potential for the project to result in the conversion of farmland resources to a non-agricultural use. No impact would occur.

b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?

No Impact. The project site is not zoned for agricultural use, nor is there a Williamson Act contract on the site. Therefore, the project would not conflict with existing zoning for agricultural use or conflict with a Williamson Act contract. No impact would occur.

c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code Section 12220(g)), timberland (as defined by Public Resources Code Section 4526), or timberland zoned Timberland Production (as defined by Government Code Section 51104(g))?

No Impact. No land zoned as forest land or timberland exists within the proposed project boundaries. The project would not conflict with existing zoning for forest land or timberland. No impact would occur.

d) Result in the loss of forest land or conversion of forest land to non-forest use?

No Impact. As discussed in II.c, no land zoned as forest land or timberland exists within the proposed project boundaries. As such, the project would not result in the loss of forest land or conversion of forest land to other uses. No impact would occur.

e) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?

No Impact. No agricultural land uses, forest land, or timberland exists in the vicinity of the proposed project. The project would not involve other changes in the existing environment which, due to their location or nature, could result in conversion of farmland to non-agricultural use or forest land to non-forest use. No impact would occur.

III. Air Quality

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Where available, the significance criteria established by the applicable air quality management district or air pollution control district may be relied upon to make the following determinations. Would the project:				
a) Conflict with or obstruct 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 non-attainment under an applicable federal or state ambient air quality standard?	☐	☐	■	☐
c) Expose sensitive receptors to substantial pollutant concentrations?	☐	☐	■	☐
d) Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?	☐	☐	■	☐

The following discussion is based on the Air Quality and Greenhouse Gas Assessment Letter prepared by HELIX Environmental Planning (HELIX; 2021) and included as Appendix A to this IS/MND.

Discussion

The project site is located within the San Diego Air Basin (SDAB). The San Diego Air Pollution Control District (SDAPCD) and SANDAG are responsible for developing and implementing the regional clean air plan to attain and maintain ambient air quality standards and compliance with other requirements of federal and state laws in the SDAB. As required by the California Clean Air Act, the SDAPCD has published various air quality planning documents to address requirements to bring the SDAB into compliance with the federal and state ambient air quality standards. The SDAPCD has prepared the San Diego County Regional Air Quality Attainment Plan (Attainment Plan), demonstrating how the region will further reduce air pollutant emissions to attain the current National Ambient Air Quality Standards (NAAQS) and California Ambient Air Quality Standards (CAAQS).

Concentrations of ozone, carbon monoxide (CO), nitrogen dioxide (NO_2), sulfur dioxide (SO_2), lead (Pb), and particulate matter (PM_{10} and $PM_{2.5}$) are commonly used as indicators of ambient air quality conditions. These pollutants are known as criteria pollutants and are regulated by the U.S. Environmental Protection Agency (USEPA) and California Air Resources Board (CARB) through the NAAQS and CAAQS, respectively. The NAAQS and CAAQS limit criteria pollutant concentrations to protect human health and prevent environmental and property damage. Other pollutants of concern in the project area are nitrogen oxides (NO_X) and reactive organic gases (ROG), which are precursors to ozone, and diesel particulate matter (DPM), which can cause cancer and other human health ailments. These toxic air contaminants (TACs) are a diverse group of air pollutants that may cause or contribute to an increase in deaths or in serious illness, or that may pose a present or potential hazard to human health. It is estimated that about 70 percent of total known cancer risk related to air toxics in California is attributable to DPM (CARB 2021).

CARB is required to designate areas of the state as attainment, nonattainment, or unclassified for the ambient air quality standards. An "attainment" designation for an area signifies that pollutant concentrations do not violate the standard for that pollutant in that area. A "nonattainment" designation indicates that a pollutant concentration violated the standard at least once. The SDAB is currently in nonattainment for federal and/or state ozone, PM_{10}, and $PM_{2.5}$ standards. Concentrations of all other pollutants meet state and federal standards.

Criteria pollutant emissions for project construction were estimated using the California Emissions Estimator Model (CalEEMod), Version 2020.4.0. CalEEMod is a statewide land use emissions computer model designed to provide a uniform platform for government agencies, land use planners, and environmental professionals to quantify potential criteria pollutant and greenhouse gas (GHG) emissions associated with both construction and operations from a variety of land use projects. The methodology and assumptions used for the emissions calculations are identified in the Air Quality and Greenhouse Gas Assessment Letter (Appendix A); the CalEEMod output files are included in Attachment A to the letter.

To determine whether the project would (a) result in emissions that would violate an air quality standard or contribute substantially to an existing or projected air quality violation, or (b) result in a cumulatively considerable net increase of PM_{10}, $PM_{2.5}$, or the ozone precursors NO_X and VOCs, emissions were evaluated based on the quantitative emission thresholds established by the SDAPCD. As part of its air quality permitting process, the SDAPCD has established thresholds in Rule 20.2 for the preparation of Air Quality Impact Assessments (AQIAs; SDAPCD 2020). In the absence of a significance threshold for $PM_{2.5}$ from the SDAPCD or the City, the SCAQMD's screening threshold of 55 pounds per day or 10 tons per year was applied to this analysis (SCAQMD 2019). The screening thresholds are shown in Table 1, *Screening-level Thresholds for Air Quality Impact Analysis*.

Table 1
SCREENING-LEVEL THRESHOLDS FOR AIR QUALITY IMPACT ANALYSES

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
Toxic Air Contaminant Health Risk	
Excess Cancer Risk	1 in 1 million 10 in 1 million with T-BACT
Non-Cancer Hazard	1.0

Source: SDAPCD 2020; HELIX 2021
T-BACT = Toxics-Best Available Control Technology

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

Less Than Significant Impact. The SDAPCD is required, pursuant to the federal Clean Air Act, to reduce emissions of criteria pollutants for which the SDAB is in nonattainment. Strategies to achieve these emissions reductions are developed in the Attainment Plan and State Implementation Plan (SIP),

prepared by the SDAPCD for the region. Both the Attainment Plan and SIP are based on regional population projections prepared by SANDAG, as well as land use designations and population projections included in general plans for those communities located throughout the County. Population growth is typically associated with the construction of residential units or large employment centers.

A project would be inconsistent with the Attainment Plan if it is inconsistent with the population and employment growth assumptions within the General Plan or if emissions would exceed the applicable thresholds. Construction of the project would not result in pollutant emissions in excess of applicable thresholds, as discussed under III.b, below. Because construction emissions would be below the applicable thresholds, and because the project would not result in population or employment increases with the replacement of an existing bridge, the project would not conflict with or obstruct implementation of the Attainment Plan for the SDAB and impacts would be less than significant.

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

Less Than Significant Impact. Air pollutant emissions generated from project construction activities would include:

- Dust (including PM_{10} and $PM_{2.5}$), primarily from fugitive sources such as soil disturbance and vehicle travel over unpaved surfaces;

- Combustion emissions of air pollutants (including VOC, NO_X, PM_{10}, $PM_{2.5}$, CO, and SO_X), primarily from operation of heavy off-road equipment; portable generators, pumps, and air compressor; on-road worker commute vehicles traveling to and from the project site; and trucks hauling equipment, material, and debris to and from the project site; and

- Emissions of VOCs from the application of asphalt and pavement marking.

The results of the air pollutant emissions calculations for project construction activities are shown in Table 2, *Maximum Daily Air Pollutant Emissions*. The data are presented as the maximum anticipated daily emissions for comparison with the SDAPCD thresholds (refer also to Table 1, above).

Table 2
MAXIMUM DAILY AIR POLLUTANT EMISSIONS
(pounds per day)

Construction Stage	VOC	NO_X	CO	SO_X	PM_{10}	$PM_{2.5}$
Stage 1	4.0	35.2	43.4	<0.1	3.1	1.8
Stage 2	21.6	33.5	44.6	<0.1	3.6	1.8
Stage 3	21.6	33.4	46.4	<0.1	3.6	1.8
Stage 4	2.3	16.9	24.5	<0.1	2.0	1.0
Stage 5	7.7	10.1	11.8	<0.1	1.2	0.6
Maximum Daily Emissions	**21.6**	**35.2**	**46.4**	**0.1**	**3.6**	**1.8**
SDAPCD Thresholds	*137*	*250*	*550*	*250*	*100*	*67*
Exceed Thresholds?	***No***	***No***	***No***	***No***	***No***	***No***

Source: CalEEMod (output data is provided in Attachment A to Appendix A), HELIX 2021
VOC = volatile organic compound; NO_X = nitrogen oxides; CO = carbon monoxide; SO_X = sulfur oxides;
PM_{10} = particulate matter 10 microns or less in diameter; $PM_{2.5}$ = particulate matter 2.5 microns or less in diameter;
SDAPCD = San Diego County Air Pollution Control District

As shown in Table 2, project emissions would not exceed SDAPCD thresholds and would not result in a cumulatively considerable net increase of any criteria pollutant. Once operational, the new bridge would not result in an increase in traffic or associated changes to emissions compared to existing conditions. Therefore, impacts associated with air pollutant emissions would be less than significant.

c) Expose sensitive receptors to substantial pollutant concentrations?

Less Than Significant Impact. The closest sensitive receptors to the project site are single- and multi-family residences adjacent to Camino del Mar starting at the south end of the existing bridge near the lagoon. The closest school to the project site is the Saint James Academy, approximately 2,000 feet northeast of the intersection of Camino del Mar and Via de la Valle. There are no hospitals or day care centers within one mile of the project site.

Construction of the project would result in DPM associated with operation of construction equipment. The amount to which the receptors could be exposed, which is a function of concentration and duration of exposure, is the primary factor used to determine health risk. Current models and methodologies for conducting cancer health risk assessments are associated with longer-term exposure periods (typically 30 years for individual residents) and are best suited for evaluation of long duration TAC emissions with predictable schedules and locations. These assessment models and methodologies do not correlate well with the temporary and highly variable nature of construction activities. The total construction period would be approximately 27 months. The most intense use of heavy equipment is anticipated to occur around the bridge in the lagoon and would not occur adjacent to any individual residence for extended periods of time. In addition, the prevailing ocean breezes would rapidly disperse emissions. Due to the variable and sporadic nature of construction activity, and the relatively short, anticipated construction schedule, the project's construction activity would not expose sensitive receptors to substantial concentrations of DPM. Therefore, project construction activities would not result in the exposure of sensitive receptors to substantial pollutant concentrations and impacts would be less than significant.

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

Less Than Significant Impact. The State of California Health and Safety Code Sections 41700 and 41705, and SDAPCD Rule 51, commonly referred to as public nuisance law, prohibit emissions from any source whatsoever in such quantities of air contaminants or other material, which cause injury, detriment, nuisance, or annoyance to the public health or damage to property. It is generally accepted that the considerable number of persons requirement in Rule 51 is normally satisfied when 10 different individuals/households have made separate complaints within 90 days. Odor complaints from a "considerable" number of persons or businesses in the area would be a significant, adverse odor impact.

The project could produce odors during construction activities resulting from heavy diesel equipment exhaust and VOC released during application of paint or asphalt. Standard Best Management Practices (BMPs) to minimize equipment idling and maintain equipment would minimize the odor emissions from equipment exhaust and their associated impacts. The increase of construction odors would be minimal, as vehicle exhaust is already prevalent in the area due to vehicle traffic on Camino del Mar. Furthermore, odors emitted during construction activities would be temporary, short-term, and intermittent in nature, and would cease upon completion of construction. In addition, the prevailing ocean breezes would rapidly disperse odors. Operation of the project is not anticipated to result in

emissions of objectionable odors. Therefore, odor impacts from implementation of the project would be less than significant.

IV. Biological Resources

		Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:					
a)	Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife 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, regulations, or by the California Department of Fish and Wildlife or US 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 nursery sites?	☐	■	☐	☐
e)	Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	☐	■	☐	☐
f)	Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?	☐	■	☐	☐

The following discussion is based on the Biological Resources Letter Report (BLR) prepared by HELIX (HELIX 2022a) and included as Appendix B to this IS/MND.

Discussion

The biological study area evaluated in the technical analyses consists of a 200-foot-wide radius surrounding the proposed project work area (project site/boundary). The study area consists of developed lands in its northern and southern portions, including roadways and residential development. The western extent of the San Dieguito River occurs within the central portion of the study area, crossing underneath Camino del Mar Bridge prior to flowing into the Pacific Ocean. The bridge is located approximately 500 feet inland of the beach and extends over the mouth of the San Dieguito River.

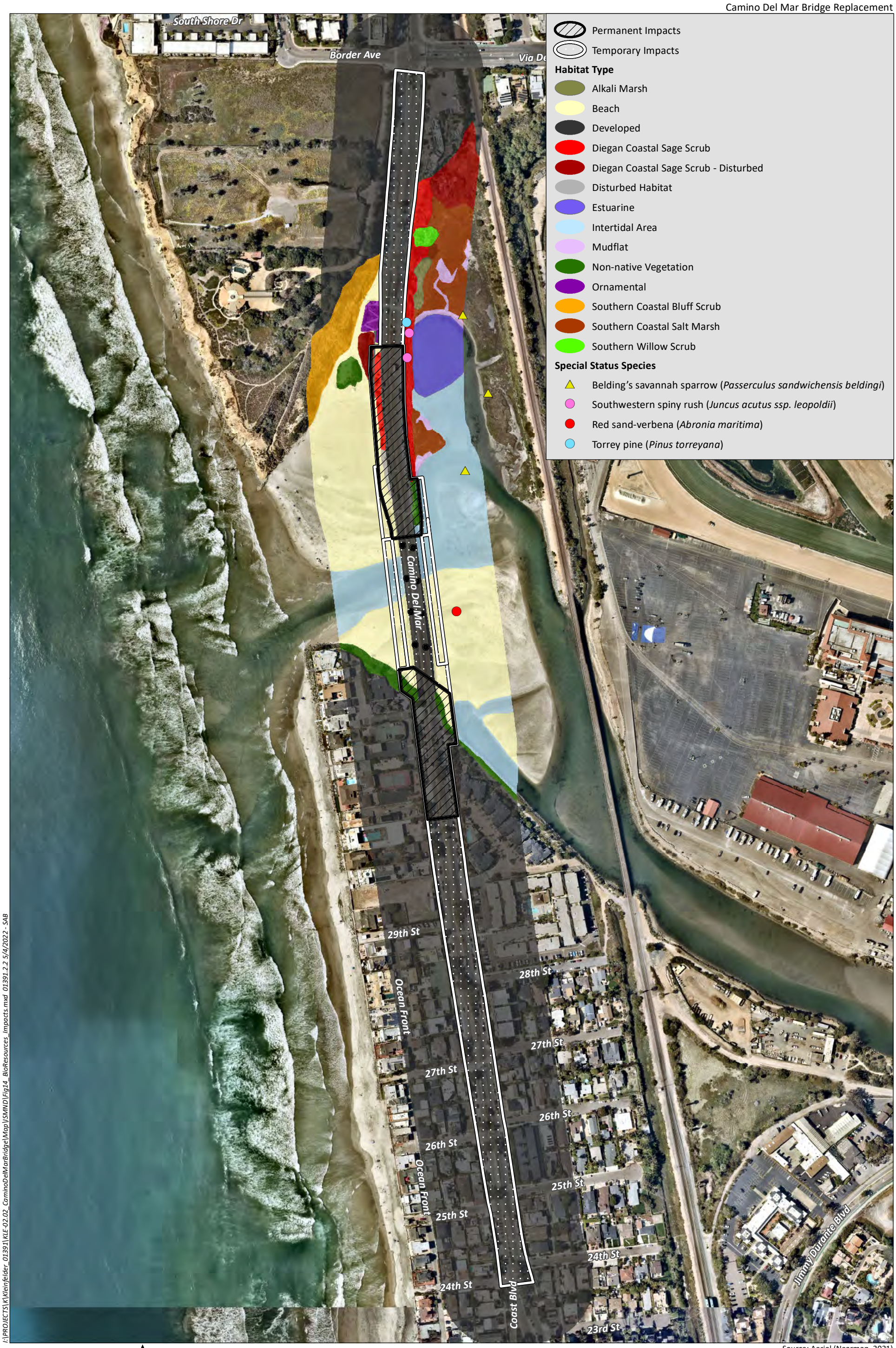
Lower elevation areas within the study area are subject to tidal influence based on elevation and proximity to the Pacific Ocean. This includes all marsh, estuarine and mudflat areas, and portions of beach adjacent to the San Dieguito River.

The following studies have been conducted within the study area: vegetation mapping; general botanical and zoological surveys; jurisdictional delineation; rare plant survey; and surveys for eelgrass (*Zostera marina*), Belding's savannah sparrow (*Passerculus sandwichensis beldingi*), California least tern (*Sternula antillarum browni*), coastal California gnatcatcher (*Polioptila californica californica*), Ridgway's rail (*Rallus obsoletus*), and western snowy plover (*Charadrius nivosus* ssp. *nivosus*). Information on the focused surveys conducted for the project to date are presented in Table 1 of the BLR (HELIX 2022). In addition to conducting biological surveys, a review of existing literature, previous reports (HELIX 2012 and 2015), and biological databases was conducted to identify the existence or potential occurrence of special-status biological resources (e.g., plants, animals, and vegetation communities) in or within the vicinity of the study area. Special-status species are those that are federally and/or state-listed, proposed for listing, or candidate species (CDFW 2021a); species listed as species of concern by the CDFW Special Animals List (CDFW 2021b) and Special Plants List (CDFW 2021c); and/or those species with a California Rare Plant Ranking (CRPR). Additionally, the USFWS' Information, Planning, and Conservation (IPaC) System website was used to generate a list of species to be considered in the effects analysis for the project (USFWS 2021).

a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?

Less Than Significant with Mitigation Incorporated. The BLR investigated the potential impacts to special status plant and wildlife species in the vicinity of the project site resulting from implementation of the project. Special status species include those that have been afforded special status and/or recognition by federal or state resource agencies, as well as the California Native Plant Society (CNPS) for plant species (CNPS 2021). In general, the principal reason an individual taxon (species, subspecies, or variety) is given such recognition is the documented or perceived decline or limitations of its population size or geographical extent and/or distribution resulting in most cases from habitat loss. Comprehensive lists of sensitive plant and animal species observed or known to occur in the area is provided in the appendices to the BLR (HELIX 2022a; Appendix B to this IS/MND). A summary of the status of sensitive species within the project site and vicinity, as well as potential impacts to these species, is presented below.

Special Status Plant Species. As shown in Figure 14, *Vegetation Communities Within the Study Area*, three sensitive plant species were detected within the study area: red sand-verbena (*Abronia maritima*), southwestern spiny rush (*Juncus acutus* var. *leopoldii*), and Torrey pine (*Pinus torreyana* ssp. *torreyana*). Although found present in the study area, none of these three plant species were detected within the project temporary or permanent impact footprints. No federally or state listed endangered or threatened plant species were found to be present in the study area during project-specific surveys. One Torrey pine was detected in the northern portion of the study area in Diegan coastal sage scrub habitat, just outside and to the east of the project footprint. Five red sand-verbena were in beach habitat east of the bridge, outside the impact area. Two individuals of southwestern spiny rush were detected in Diegan coastal sage scrub habitat outside of the project footprint. No federally or state listed endangered or threatened or CRPR plant species were found to be present within the study area during project-specific surveys conducted in 2012, 2013, 2014, and 2018.



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0 300 Feet

Source: Aerial (Nearmap, 2021)

HELIX Environmental Planning

Vegetation Communities within the Study Area

Figure 14

Based on the species evaluations and results of focused rare plants surveys for the project, no additional sensitive plants are expected to occur on-site. Overall, special-status plant species were evaluated for potential to occur in the project study area based on the vegetation communities/habitat types present, soils and geographic location, sightings reported to the California Natural Diversity Database (CNDDB) and/or CNPS database, or documentation in nearby studies. Special-status plant species evaluated for the potential to occur at the project site are listed in the BLR (HELIX 2022a). Based on the species evaluations and results of focused rare plants surveys for the project, no additional sensitive plants are expected to occur on-site. No temporary or permanent impacts to special status plant species would occur.

Special Status Animal Species. Five special status animal species were determined to have potential to occur within the study area, based on the habitat types present, geographic location, sightings reported to the CNDDB and/or USFWS databases, or documentation in nearby studies. Sensitive animal species with high potential to occur are those that nest and/or forage in sandy beaches, coastal marshes, and tidal areas. Focused surveys were conducted for Belding's savannah sparrow, California least tern, Ridgway's rail, and western snowy plover in 2012 and 2013 by USFWS-permitted biologist John Konecny. Between March 8, 2018 and April 27, 2018, focused surveys for the Belding's savannah sparrow and Ridgway's rail were conducted at the study area (Konecny Biological Services 2018). Between March 2018 and April 2018, HELIX conducted focused surveys for the coastal California gnatcatcher. Additional focused surveys for special status animals have been conducted in 2022 and are currently in progress. One special-status animal species was detected on-site during surveys for the project; Belding's savannah sparrow. No other sensitive animal species were found to be present on site during project-specific surveys conducted in 2012, 2013, and 2018. Three territories of the Belding's savannah sparrow were found east of the bridge during the 2013 surveys and two were observed east of the bridge in 2022; however, no individuals were observed during either surveys. Other than Belding's savannah sparrow, no other special-status animal species have been detected during focused surveys in 2022, which are currently in progress.

Implementation of the project is not anticipated to result in direct impacts to the State listed endangered Belding's savannah sparrow or its habitat/territory, as suitable nesting and foraging habitat for this species does not occur within the impact area. No other direct impacts to sensitive animal species are expected as a result of the project. Indirect impacts to Belding's savannah sparrow may occur if the species is present within suitable habitat adjacent to project construction activities. Specicially, construction-related noise could cause breeding birds to temporarily or permanently leave their territories to avoid disturbances from hunman activities, which could lead to reduced reproductive success and increased mortality. Noise effects would be considered potentially significant if noise levels generated during construction exceed a level of 60 A-weighted decibels (dBA) hourly average (L_{EQ}) or ambient (whichever is greater) adjacent to sensitive nesting bird species such as Belding's savannah sparrow. During construction, up to 12 temporary night closures of the bridge during the 27-month construction period are expected during which lighting would be needed. Night lighting that extends onto adjacent wildlife habitat can discourage use of the habitat by nocturnal wildlife and can also provide nocturnal predators with an unnatural advantage over their prey, resulting in a potentially significant impact. Temporary lighting would be required to be oriented downward (toward the bridge deck) and the lighting source would be required to be shielded in order to minimize light spill and avoid adverse effects on adjacent wildlife habitat. With the implementation of mitigation measures BIO-1 and BIO-2 potential indirect impacts to Belding's savannah sparrow would be avoided or reduced to below a level of significance.

Given the location of the project within the San Dieguito River, there are a variety of birds that migrate seasonally through the project area on the Pacific flyway, as well as certain birds that permanently reside locally. Pursuant to the Migratory Bird Treaty Act (MBTA), development of the proposed project could disturb or destroy active migratory bird nests if vegetation clearing occurs during the general bird nesting season (February 15 through September 30) and/or raptor nesting season (January 15 through July 31). Disturbance to or destruction of migratory bird nests are in violation of the MBTA and are, therefore, considered to be a potentially significant impact. Implementation of mitigation measure BIO-3 would ensure that potential impacts to birds protected under the MBTA and California Fish and Game Code are avoided during construction.

Mitigation Measures

BIO-1 **Pre-construction Protocol Surveys and Listed Species Avoidance.** If construction activities are scheduled to start during the breeding season for Belding's savannah sparrow (February 15 to June 30), a qualified biologist shall conduct pre-construction surveys to determine the presence or absence of this species. The final survey shall not be completed more than three days prior to the beginning of construction or grading activities. If it is determined at the completion of pre-construction surveys that active nests belonging to this species are absent within 300 feet of construction, construction shall be allowed to proceed. If Belding's savannah sparrow is detected within the project impact footprint during pre-construction surveys, the City shall notify CDFW, and if required by CDFW, shall prepare and submit an application for a Section 2081(b) Incidental Take Permit for impacts to Belding's savannah sparrow.

If pre-construction surveys determine the presence of active nests belonging to this species within 300 feet of construction, then construction shall: (1) be postponed until a qualified biologist determines the nest(s) is no longer active or until after the respective breeding season; or (2) not occur until a temporary noise barrier or berm is constructed at the edge of the development footprint and/or around construction equipment to ensure that noise levels are reduced to below 60 dBA L_{EQ} (one hour average) or ambient. Decibel output shall be confirmed by a qualified noise specialist, and intermittent monitoring by a qualified biologist shall be required to ensure that conditions have not changed.

BIO-2 **Construction Noise Abatement.** If noise-generating construction activities are not completed prior to the breeding season for Belding's savannah sparrow (February 15 through June 30) and this species is found present during the pre-construction surveys completed in accordance with **BIO-1**, then appropriate noise attenuation measures shall be implemented to reduce construction noise levels at the edge of occupied habitat to below 60 dBA L_{EQ} (one hour average).Such measures shall include, but not be limited to, the following:

- Construction equipment shall be properly outfitted and maintained with manufacturer-recommended noise-reduction devices.
- Diesel equipment shall be operated with closed engine doors and equipped with factory-recommended mufflers.
- Mobile or fixed "package" equipment (e.g., arc-welders and air compressors) shall be equipped with shrouds and noise control features that are readily available for that type of equipment.

- Electrically powered equipment shall be used instead of pneumatic or internal- combustion powered equipment, where feasible.

- Unnecessary idling of internal combustion engines (e.g., in excess of 5 minutes) shall be prohibited.

- The use of noise-producing signals, including horns, whistles, alarms, and bells, shall be for safety warning purposes only.

- No project-related public address or music system shall be audible at any adjacent sensitive receptor.

- Temporary sound barriers or sound blankets shall be installed between construction operations and adjacent noise-sensitive habitat. The project Contractor shall construct a temporary noise barrier at least 6 feet in height meeting the specifications listed below (or of a Sound Transmission Class 19 rating or better) to attenuate noise.

- All barriers shall be solid and constructed of wood, plastic, fiberglass, steel, masonry, or a combination of those materials, with no cracks or gaps through or below the wall. Any seams or cracks must be filled or caulked. If wood is used, it can be tongue and groove or close butted seams and must be at least 3⁄4-inch thick or have a surface density of at least 3.5 pounds per square-foot. Sheet metal of 18-gauge (minimum) may be used if it meets the other criteria and is properly supported and stiffened so that it does not rattle or create noise itself from vibration or wind. Noise blankets, hoods, or covers also may be used, provided they are appropriately implemented to provide the required sound attenuation.

BIO-3 **Nesting Bird and Raptor Avoidance**. In order to avoid violation of the federal MBTA and California Fish and Game Code, site-preparation activities (removal of trees and vegetation) shall be avoided during the general avian breeding season (January 15 to July 30 for raptors; February 15 to September 30 for other avian species).

If site-preparation activities are to occur during the general avian or raptor breeding season, a pre-construction nesting survey shall be conducted within 30 days prior to the commencement of construction. A qualified biologist shall perform the nesting survey to ascertain whether there are active raptor nests or sensitive avian species nesting within 500 feet of the project footprint and/or other bird nests within 300 feet of the project footprint. This survey shall identify the species of nesting bird and to the degree feasible, nesting stage (e.g., incubation of eggs, feeding of young, near fledging). Nests shall be mapped (not by using GPS because close encroachment may cause nest abandonment). A follow-up nesting survey shall be conducted no more than three days prior to clearing. If an active nest is observed, the nest location shall be fenced off surrounding an adequate radius buffer zone as determined by biological monitor. This nest avoidance buffer zone shall not be disturbed until a qualified biologist has verified that the young have fledged or the nest has otherwise become inactive.

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

Less Than Significant with Mitigation Incorporated. Sensitive vegetation communities/habitat types are defined as land that supports unique vegetation communities, or the habitats of rare or endangered species or subspecies of animals or plants as defined by CEQA Guidelines Section 15380. They are considered sensitive because they have been depleted, are naturally uncommon, or support sensitive species. Within the project study area, nine sensitive vegetation communities and habitat types were identified: alkali marsh, beach, Diegan sage scrub (including disturbed), estuarine, intertidal area, mudflat, southern coastal bluff scrub, southern coastal marsh, and southern willow scrub. Developed land, disturbed habitat, ornamental, and non-native vegetation are not considered sensitive vegetation/ habitat under CEQA. A full description of each vegetation community is provided in the BLR. Existing vegetation communities within the study area are shown in Figure 14 and Table 3, *Existing Vegetation Communities and Land Use Cover Types Within the Study Area*.

Table 3
EXISTING VEGETATION COMMUNITIES AND HABITAT TYPES WITHIN THE STUDY AREA (acre)*

Vegetation Community or Habitat Type[2]	Acreage
Sensitive	
Alkali Marsh 52300	0.12
Beach 64400	7.26
Diegan Coastal Sage Scrub (including disturbed) 32500	1.69
Estuarine 64130	0.93
Intertidal Area (Open Water) 64112	4.39
Mudflat 64300	0.26
Southern Costal Bluff Scrub 31200	1.24
Southern Coastal Salt Marsh 52120	1.02
Southern Willow Scrub 63320	0.10
Subtotal	17.01
Non-Sensitive	
Developed 12000	34.72
Disturbed Habitat 11300	0.05
Non-native Vegetation 11000	0.68
Ornamental N/A	0.15
Subtotal	35.60
TOTAL	**52.61**

Source: HELIX 2022a

*Rounded to the nearest 0.01; thus, total reflects rounding.

[1] Vegetation categories and numerical codes are from Holland (1986) and Oberbauer (2008) and are listed by Habitats and Tiers within the County Multiple Species Conservation Program (County MSCP; County 1998).

No impacts to riparian habitat would occur as a result of the project; however, temporary and permanent direct impacts to other sensitive natural communities/habitats would occur, including beach, Diegan coastal sage scrub (including disturbed), intertidal (open water), and mudflat. Permanent impacts by the project would consist of direct effects resulting from bridge replacement and associated structures that would alter the pre-construction condition permanently, whereas temporary impacts reflect areas of the project that would be directly impacted but replaced to a pre-construction condition

following construction. Table 4, *Project Impacts to Sensitive Natural Communities*, provides the quantities of proposed project impacts and Figure 14 presents the spatial distribution of project impacts.

Table 4
PROJECT IMPACTS TO SENSITIVE NATURAL COMMUNITIES (acre)*

Vegetation Community or Habitat Type	Temporary Impacts	Permanent Impacts	Total Impacts
Beach	0.88	0.36	1.24
Diegan Coastal Sage Scrub (including disturbed)	0.02	0.16	0.18
Intertidal (Open water)	0.41	0.04	0.45
Mudflat	0.00	<0.01	<0.01
TOTAL	**1.31**	**0.56**	**1.87**

Source: HELIX 2022a
*Acreages are rounded to the nearest 0.01.

While the project has been designed to minimize impacts to sensitive natural communities/habitats to the greatest extent practicable, direct impacts could not be completely avoided due to the location of the bridge structures in relation to existing natural resources. Direct impacts to intertidal open water, mudflat, and beach habitats would occur during the removal of the existing bridge pilings and replacement of new piers. However, removal of the existing pilling structures, which are greater in quantity and diameter than the piers proposed for the replacement bridge, would result in a net environmental benefit due to the expected uplift and improvement on tidal circulation and related functions. Additionally, the ebb and flow of tidal current under the bridge would be enhanced due to the fewer number and smaller size of piers being installed for the replacement bridge, which would result in more natural tidal flows compared to that which currently exists. In addition, the construction activities within the intertidal open water habitat are temporally and spatially a minor undertaking and would not entail a long-term construction phase. Tidal flow beneath the bridge would be maintained during construction. Ultimately, such direct impacts to intertidal open water are considered less than significant and no mitigation is proposed. Additionally, direct impacts to less than 0.01-acre of mudflat (approximately 40 square feet) adjacent/below the bridge are considered less than significant. Because the beach habitat is primarily unvegetated, the proposed direct impacts would result in relatively minor surface disturbance, and impacted areas of the beach would be rehabilitated and recontoured to restore it to natural sand grade and pre-construction conditions. Impacts are considered less than significant and no mitigation to beach is proposed.

Direct impacts (permanent and temporary) to relatively narrow strips/patches of Diegan coastal sage scrub located alongside Camino del Mar, north of the bridge, would occur as a result of the project. Permanent impacts to Diegan coastal sage scrub would be considered significant and would require mitigation. A 2:1 mitigation ratio is proposed for permanent impacts to Diegan coastal sage scrub. Mitigation would occur through on-site or off-site restoration, enhancement, and/or establishment/re-establishment with a minimum 1:1 establishment/re-establishment component (due to Coastal Zone requirements and to ensure no-net-loss), or the purchase of credits at an approved mitigation bank.

Temporary impacts to Diegan coastal sage scrub would be replaced/restored to previous (pre-construction) condition or better (biologically equivalent or superior in function). By restoring this habitat to pre-construction condition or better, the temporary impacts would be considered less than significant; thus, no mitigation is proposed. If restoration to pre-construction condition or better is not completed, the impacts by the project would be considered significant. To ensure replacement of

temporary impact areas, a conceptual habitat restoration plan would be required for the project to address/replace temporary impacts to Diegan coastal sage scrub.

Potential indirect impacts to natural communities as a result of the project are not expected. Appropriate and typical construction BMPs would be selected and installed for the project per compliance with NPDES and Storm Water Quality Management Plan (SWQM) requirements prior to the on-set of construction activities and throughout construction to reduce potential water quality impacts. These may include, but not limited to: (1) installing erosion and sediment control devices such as silt fences, fiber rolls, bonded fiber matrix, and gravel bags in appropriate locations; (2) placing temporary filters at storm drain inlets (e.g., gravel bags/filter fabric); (3) designating containment areas for material storage (e.g., covering/berming of soil stockpiles); and (4) providing containment areas for solid waste storage and concrete washout.

Mitigation for permanent impacts to 0.16 acre of Diegan coastal sage scrub may occur on- or off-site using habitat mapped as disturbed, non-native vegetation, and/or ornamental. A total of 0.37 acre of these habitat types was identified in the study area and could be available for potential Diegan coastal sage scrub establishment/re-establishment, which would meet the 1:1 establishment/re-establishment requirement. Potential Diegan coastal scrub enhancement is also available, totaling approximately 0.75 acre. This is greater than the 0.32-acre mitigation required. Implementation of mitigation measure BIO-4 would ensure that impacts to sensitive natural vegetation communities would be reduced to less than significant.

Mitigation Measures

BIO-4 **Habitat Restoration Plan.** The City shall prepare and implement a habitat restoration plan. Temporary impacts to 0.02 acre of Diegan coastal sage scrub shall be restored to a pre-construction or superior condition at a 1:1 replacement within the area impacted. Permanent impacts to 0.16 acre of Diegan coastal sage scrub shall be mitigated at a 2:1 ratio. Mitigation shall occur through on- or off-site restoration, enhancement, and/or establishment with a minimum 1:1 establishment component, or the purchase of credits at an approved mitigation bank. Mitigation may occur on- or off-site by converting habitat that has been mapped as disturbed, non-native vegetation, and/or ornamental into native habitat.

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

Less Than Significant with Mitigation Incorporated. A field-based jurisdictional delineation was conducted by HELIX within an approximately 52.6-acre study area in order to identify and map the approximate extent of existing aquatic resources potentially subject to the regulatory jurisdiction of the USACE pursuant to Section 404 of the Clean Water Act (CWA; 33 USC 1344); waters of the state potentially subject to the regulatory jurisdiction of the RWQCB pursuant to Section 401 of the CWA and the Porter Cologne Water Quality Control Act; stream and riparian habitats potentially subject to the jurisdiction of CDFW pursuant to Section 1602 of the Fish and Game Code; and coastal wetlands potentially subject to the jurisdiction of the CCC pursuant to the California Coastal Act. The descriptions and maps provided in the project ARDR represent HELIX's recommendation based on the information available at the time of the delineation; the final determination on the extent of features subject to

jurisdiction are subject to USACE, RWQCB, CDFW, and/or CCC regulation would be made by the regulatory agencies during permitting.

Approximately 12.83 acres of potentially jurisdictional waters of the U.S. were identified in the project study area (Figure 15, *Waters of the United States*), consisting of 1.71 acres of wetlands/special aquatic sites and 11.12 acres of non-wetland waters. Areas considered waters of the U.S. may be subject to USACE and RWQCB jurisdiction. These 12.83 acres as well as an additional 0.01-acre are also considered potentially jurisdictional habitats and coastal wetlands, under jurisdiction of CDFW and California Coastal Commission, respectively (Figure 16, *CDFW Jurisdiction*, and Figure 17, *California Coastal Commission Wetlands*). Specifically, these areas consist of 1.72 acres of wetlands/special aquatic sites and 11.12 acres of non-wetland waters. Potentially jurisdictional aquatic resources are presented below in Table 5, *Potentially Jurisdictional Aquatic Resources Summary.* No isolated waters potentially subject to RWQCB jurisdiction were detected in the study area; thus, no areas of jurisdiction that are exclusively regulated by the RWQCB under the Porter-Cologne Water Quality Control Act are present. The final determination on the extent of features subject to jurisdiction are subject to USACE, RWQCB, CDFW, and/or Coastal Commission regulation would be made by these agencies during regulatory permitting for the project.

Table 5
POTENTIALLY JURISDICTIONAL AQUATIC RESOURCES SUMMARY

Vegetation Community or Habitat Type	USACE Waters of the U.S.[1,2]	CDFW Jurisdiction and Coastal Wetlands[1]
Special Aquatic Sites including Wetlands		
Alkali Marsh	0.12	0.12
Mudflat	0.26	0.26
Southern Coastal Salt Marsh	1.23	1.24
Southern Willow Scrub	0.10	0.10
Subtotal	**1.71**	**1.72**
Non-wetland Waters		
Beach	5.60	5.60
Estuarine	0.92	0.92
Intertidal	4.60	4.60
Subtotal	**11.12**	**11.12**
TOTAL	**12.83**	**12.84**

Source: HELIX 2022a
1 Acreage rounded to the nearest 0.01.
2 Potentially subject to RWQCB jurisdiction.

The project would result in impacts to wetlands defined by Section 404 of the CWA. Approximately 2.21 acres of direct impacts to intertidal open water, mudflat, and adjacent beach would occur as a result of the project. These direct impacts consist of approximately 1.90 acres of temporary impacts and approximately 0.31-acre permanent impacts during the removal of existing bridge components and replacement with a new bridge (Table 6, *Project Impacts to Potentially Jurisdictional Aquatic Resources*). Although permanent impacts would occur, ultimately the project would result in a smaller footprint within the jurisdictional area through the removal of existing bridge components and replacement with fewer piers. As a result, there would be a net gain in open intertidal water upon completion of the project and enhanced aquatic functions (e.g., improved tidal/flood processes, increased water column, expansion of benthic habitat, etc.).

Direct temporary impacts would primarily be for construction access and would be restored to pre-project conditions; permanent impacts would be negligible to these unvegetated habitats. The localized nature of the activities means that the temporal and spatial impacts to the surrounding environment from the replacement of the pilings are negligible. In addition, as stated above, the removal of the larger diameter existing pilings and replacement with structures with lesser girth is expected to improve tidal circulation and create a better tidal circulation, thus offsetting temporary impacts. The beach environment is unvegetated and impacts from project activities are expected to be surficial. Replacement of the beach environment to pre-project condition by stabilizing it and contouring as a part of project design is expected to offset temporary impacts. Overall, because the project would result in a smaller development footprint and provides increased function and value, project impacts are considered less than significant.

Although the project was designed and sited to avoid and minimize impacts to jurisdictional resources to the extent practicable, the project would impact potentially protected wetlands and waters under Section 404 of the CWA subject to the jurisdiction of the USACE. The project would also result in impacts to potentially jurisdictional waters of the state subject to jurisdiction by the RWQCB under Section 401 of the CWA and protected streambed and associated riparian habitat under the jurisdiction of the CDFW per Section 1602 of the California Fish and Game Code. Lastly, project construction would result in impacts to wetlands subject to the permit authority of the CCC. Table 6 depicts the potential impacts to jurisdictional waters under the purview of the USACE, RWQCB, CDFW, and CCC.

Table 6
PROJECT IMPACTS TO POTENTIALLY JURISDICTIONAL AQUATIC RESOURCES[1]

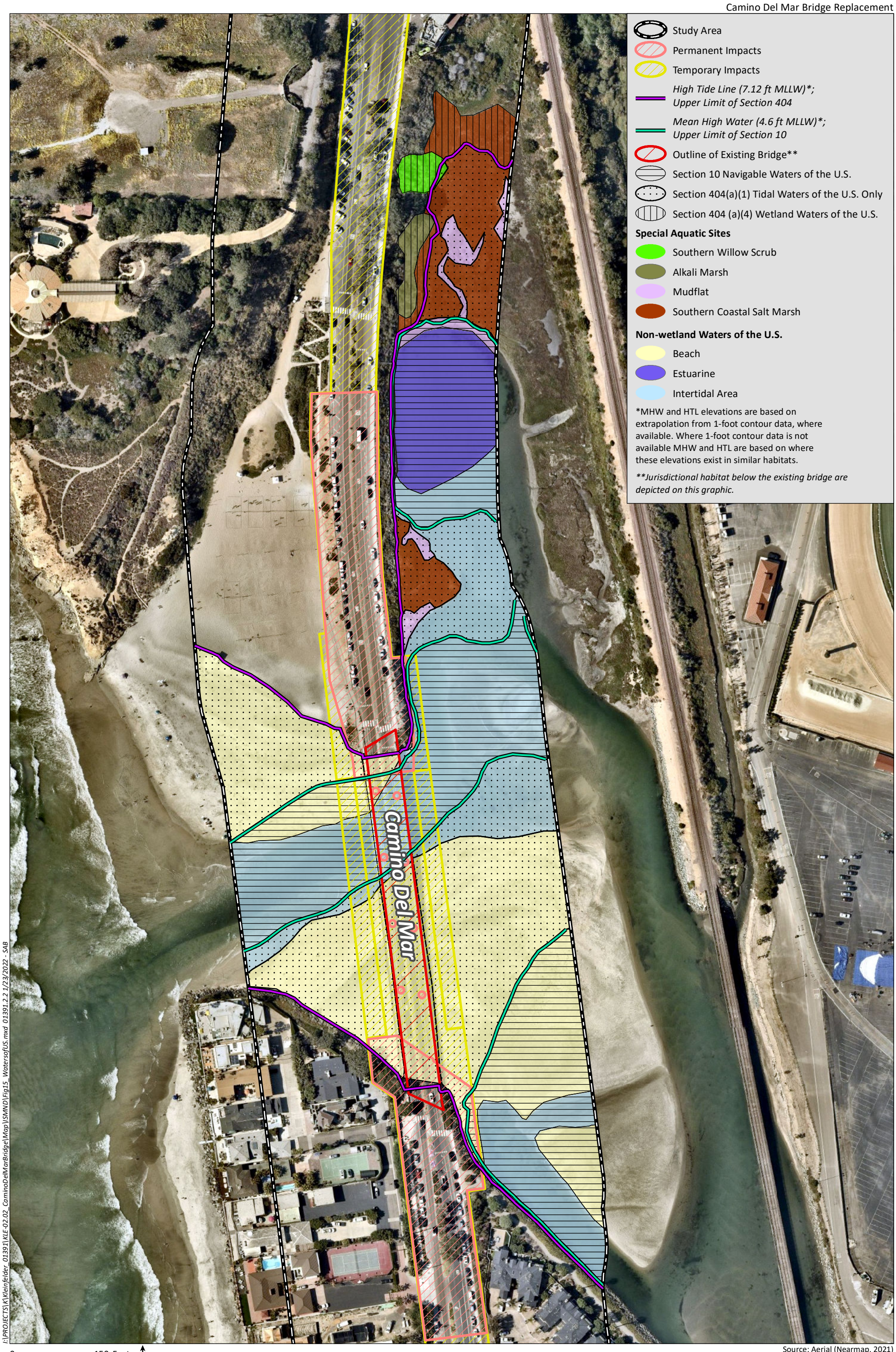
Vegetation Community or Habitat Type	USACE / RWQCB / CDFW / CCC Jurisdiction		
	Temporary Impacts	Permanent Impacts	Total Impacts
Beach	1.28	0.29	1.57
Intertidal (Open Water)	0.60	0.05	0.65
Mudflat	0.00	<0.01	<0.01
TOTAL	**1.90**	**0.31**	**2.21**

[1] Acreages rounded to the nearest 0.01.

Impacts to areas regulated under the CWA could require regulatory permitting by the USACE under Section 404 of the CWA and are expected to be authorized by the USACE under Nationwide Permit 14 (Linear Transportation Projects). In addition to a USACE Nationwide Permit, the RWQCB may require a Water Quality Certification pursuant to Section 401 of the CWA. Impacts to areas under the jurisdictional authority of the RWQCB would be the same as that of the USACE. Additionally, such impacts to intertidal open water, mudflat, and adjacent beach would be under jurisdictional authority of CDFW pursuant to the CFGC, and CDFW could require a Streambed Alteration Agreement.

Furthermore, these project impacts would also include CCC jurisdictional areas, and CCC would require the issuance of a CDP from the CCC and/or the City. Coordination between the City and CCC has occurred during regularly scheduled interagency meetings; topics of discussion for this project have included conducting pre-construction exploratory borings at future abutment locations and review of bridge design scenarios accounting for projected flooding and sea level rise.

Final requirements for regulatory permits for impacts to open water and jurisdictional beach habitat would be determined in consultation with the resource agencies (i.e., USACE, RWQCB, CDFW, and CCC).



HELIX Environmental Planning

Waters of the United States

Figure 15

Study Area
Permanent Impacts
Temporary Impacts
*High Tide Line (7.12 ft MLLW)**
*Mean High Water (4.6 ft MLLW)**
Outline of Existing Bridge**

Vegetated CDFW Habitat

Southern Willow Scrub
Alkali Marsh
Mudflat
Southern Coastal Salt Marsh

Non-vegetated CDFW Habitat

Beach
Estuarine
Intertidal Area

*MHW and HTL elevations are based on extrapolation from 1-foot contour data, where available. Where 1-foot contour data is not available MHW and HTL are based on where these elevations exist in similar habitats.

**Jurisdictional habitat below the existing bridge are depicted on this graphic.

Camino Del Mar

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0 150 Feet

Source: Aerial (Nearmap, 2021)

HELIX Environmental Planning

CDFW Jurisdiction

Figure 16

Study Area
Permanent Impacts
Temporary Impacts
*High Tide Line (7.12 ft MLLW)**
*Mean High Water (4.6 ft MLLW)**
Outline of Existing Bridge**

CCC Vegetated Wetlands

Southern Willow Scrub
Alkali Marsh
Mudflat
Southern Coastal Salt Marsh

CCC Non-vegetated Wetlands

Beach
Estuarine
Intertidal Area

*MHW and HTL elevations are based on extrapolation from 1-foot contour data, where available. Where 1-foot contour data is not available MHW and HTL are based on where these elevations exist in similar habitats.

**Jurisdictional habitat below the existing bridge are depicted on this graphic.

Camino Del Mar

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0 150 Feet

Source: Aerial (Nearmap, 2021)

HELIX Environmental Planning

California Coastal Commission Wetlands

Figure 17

In addition to permits, the resource agencies may require mitigation for project impacts Implementation mitigation measure BIO-5 would verify whether regulatory permits and/or mitigation would be required by the resource agencies and ensure that potential temporary and permanent impacts to jurisdictional aquatic resources would be less than significant.

Mitigation Measures

BIO-5 Regulatory Permits. Prior to project impacts to potentially jurisdictional resources, demonstration that regulatory permits from USACE, RWQCB, CDFW, and CCC, have been issued or that no such permits are required shall be provided to the City. Implementation of permit requirements, including additional mitigation, shall be required.

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

Less Than Significant with Mitigation Incorporated. The San Dieguito River lagoon outlets into the Pacific Ocean approximately 400 feet west of the bridge. The San Dieguito River and the associated lagoon area is mapped as a Biological Core Area in the Final County Multiple Species Conservation Plan (MSCP), which are defined as areas generally supporting high concentrations of sensitive biological resources which, if lost or fragmented, could not be replaced or mitigated elsewhere (County 1998). The San Dieguito River and San Dieguito Lagoon provide regionally important feeding and resting areas for migratory birds along the Pacific Flyway, as well as tidal, open water, mudflat, and salt marsh habitats that support a variety of birds, fishes, and invertebrates. Eastward movement of terrestrial wildlife from the study area is constrained by the State Fairgrounds and developed areas around it. The river is highly constrained for the approximately 0.5-mile reach situated between Camino del Mar, eastward past the railroad tracks to Jimmy Durante Boulevard. More extensive areas of native habitat occur east of Jimmy Durante Boulevard on both sides of I-5.

While the project site and immediately adjacent native habitats associated with the lagoon support localized use by wildlife, particularly birds, the project site does not function as a wildlife corridor/habitat linkage for non-avian terrestrial wildlife due to its relatively small size and constrained connectivity to larger habitat areas (i.e., narrow river connection with development abutting both edges of the open water).

Relative to potential interference with the movement of native resident or migratory fish, construction of the replacement bridge would temporarily disturb benthic and aquatic habitats within the lagoon. Construction impacts would occur to primarily unvegetated soft-bottom habitat, which typically recovers faster than more sensitive benthic environments. Although impacts would occur as a result of bridge replacement, the project ultimately provides a net increase of subtidal habitat via the reduction of pilings/piers from twelve associated with the existing bridge to four proposed for the new bridge. Construction would result in temporary and short-term impacts to tidal areas beneath and adjacent to the bridge; however, substantial impacts to tidal flow are not anticipated.

Although substantial impacts would not occur, the presence of subtidal and intertidal marine vegetation within the lagoon provides habitat for fish species and fish movement. To evaluate potential impacts to fish movement and habitat, waters within 150 feet of the bridge were surveyed by Merkel & Associates in September 2018 for the presence of eelgrass (*Zostera marina*). Eelgrass within the survey area consisted of narrow marginal eelgrass beds extending along the shoreline between the deeper water

areas and the beach and revetted shoreline northwest and southwest of the bridge (Merkel & Associates 2018). Eelgrass identified during the surveys was located in areas that would be avoided and protected in place during construction, thus avoiding potential impacts to fish or other aquatic species. Because eelgrass is a dynamic habitat type that is continuously changing in density, biomass, and distribution and has the potential to occur within the project footprint at the time of construction, preconstruction eelgrass surveys would be conducted and applicable mitigation per the Southern California Eelgrass Mitigation Policy would be implemented should eelgrass be impacted by the project. With implementation of mitigation measure BIO-6, the project would not interfere with wildlife movement or impede the use of nursery sites and impacts would be less than significant.

BIO-6 Eelgrass Avoidance and Mitigation. A pre-construction eelgrass survey shall be conducted in accordance with NOAA Fisheries California Eelgrass Mitigation Policy and Implementation Guidelines. If the pre-construction survey demonstrates eelgrass presence within the 100 feet of the construction footprint, then a mitigation plan to achieve no net loss in eelgrass function shall be developed and conducted in accordance with the California Eelgrass Mitigation Policy and Implementation Guidelines. The mitigation plan shall be reviewed and approved in consultation with NOAA Fisheries prior to project impacts to eelgrass. Mitigation options include (1) development of comprehensive management plans that protect eelgrass resources within the context of broader ecosystem needs and management objectives; (2) in-kind compensatory mitigation (e.g., creation, restoration, or enhancement of the same habitat type to mitigate for adverse impacts) that achieves a minimum final mitigation ratio of 1.38:1 once mitigation is complete (3) credits purchased through a mitigation bank or in-lieu fee program at a 1:1 ratio where the credits have been established for a full three-year period prior to use (or higher ratio should the bank credits have been in place for a period less than three years); (4) out-of-kind compensatory mitigation (e.g., creation, restoration, or enhancement of another habitat type to mitigate for adverse impacts) that demonstrates to the satisfaction of NOAA Fisheries such that it can be demonstrated that the proposed mitigation will compensate for the loss of eelgrass habitat function within the ecosystem; or (5) alternate mitigation recommendations provided by NOAA Fisheries that will achieve no net loss.

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

Less Than Significant with Mitigation Incorporated. The project is located within the City's Lagoon Overlay Zone (LO-Z), which guides development within areas identified as "wetlands" and "wetland buffer areas." To the extent practicable, the project has been sited and designed to occur within and immediately adjacent to the existing roadway/edge, outside of areas in which plant or animal life and their habitats are rare or especially valuable because of their special nature or role in an ecosystem, and in areas currently subject to disturbance or degradation by human activities and developments. The biological resources within the project site are in narrow strips of vegetation (native and non-native uplands) directly adjacent to the existing Camino del Mar Bridge and are currently subject to disturbance from vehicle traffic, noise, and pedestrian/bicycle activities. Project consistency with the City's Municipal Code and LO-Z was considered as a guide for the proposed design and project design was modified to avoid wetland areas to the extent practicable. As described in IV.d, the project would result in temporary and permanent impacts to jurisdictional resources, which would conflict with the permitted activities within the City's LO-Z as development in wetland habitat is prohibited. Although the project would conflict with the City's LO-Z that protects biological resources in the Lagoon, physical

impacts on biological resources, including wetlands, would be less than significant with implementation of mitigation measure BIO-5.

The City's Municipal Code also includes a tree preservation/protection Ordinance. This ordinance protects Torrey pines, Monterey Cypress (*Cupressus macrocarpa*), and trees of any species that are located in the public right-of-way. Permits to remove protected trees are typically granted or denied by the Director of Planning and Community Development reflecting associated mitigation requirements within an approved Tree Removal Permit. Pursuant to Section 23.050.070, the Design Review Board is responsible for administering and enforcing this DMMC chapter when a request for a Tree Removal Permit is a direct result of a concurrent development permit application reviewed by the Design Review Board, with powers to grant or deny the permit, as well as determination of mitigation requirements. For City projects, the City Council is the decision maker. The affected trees located within the project footprint are isolated to a small area of the construction zone: one Torrey pine is located southwest of the southern bridge abutment and six trees (including one Torrey pine) are within the Camino del Mar roadway median south of the bridge, adjacent to residential plantings (including trees) on either side of the road. The trees are within public right-of-way and their removal is required in order to allow bridge removal and replacement. Consistent with DMMC Section 23.50.090, the impacts/loss of these trees would be mitigated. As proposed, two new street canopy trees would be installed within Greet Streets tree wells. Additional mitigation to cover the loss of street trees would be covered by the City's Public Tree/Landscape Management program that is administered by the City of Del Mar Public Works Department. With implementation of mitigation measure AES-1 addressing removal and replacement of on-site trees, and implementation of regulatory permitting with the resource agencies (BIO-5), impacts associated with policy and ordinance compliance would be less than significant.

f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?

Less Than Significant with Mitigation Incorporated. The project does not occur within the boundaries of an adopted Habitat Conservation Plan, Natural Conservation Community Plan, or other approved local, regional, or state habitat conservation plan. Therefore, no impact would occur.

The City of Del Maris located within the boundaries of the County MSCP (County 1998). The MSCP is a multi-jurisdictional planning program designed to develop an ecosystem preserve within San Diego's incorporated and unincorporated areas. While the MSCP has been adopted for the County, no subarea plan has been approved or adopted for Del Mar. Therefore, the draft policies and guidelines of these plans are not applicable to the project. The project, however, considered the context of such draft plans and implementation of the proposed project would not preclude or prevent finalizing and adopting the plan. Compliance with existing regulations and implementation of measures BIO-1 through BIO-6 would ensure consistency with the general conservation goals and objectives of the County MSCP.

V. Cultural Resources

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a) Cause a substantial adverse change in the significance of a historical resource pursuant to §15064.5?	☐	☐	☐	■
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?	☐	■	☐	☐
c) Disturb any human remains, including those interred outside of dedicated cemeteries?	☐	☐	■	☐

The following discussion is based on the Archaeological Survey Report prepared by HELIX (2022b) and included as Appendix C (Confidential) to this IS/MND.

Discussion

The Archaeological Survey Report prepared for the proposed project includes the results of a records search, Sacred Lands File search, Native American outreach, a review of historic aerial photographs and maps, and pedestrian survey of the project site. A records search was obtained from the South Coastal Information Center (SCIC) on September 11, 2018, with an update obtained on July 13, 2021. The records search included a one-mile radius around the Camino del Mar Bridge project area and potential staging areas; the 2021 update included a refined quarter-mile radius around the bridge and potential staging areas. The records search revealed that 67 studies have been conducted and 25 cultural resources have been documented within the search radius, none of which has been recorded within the Camino del Mar Bridge project footprint or potential staging areas.

The Area of Potential Effect (APE), shown in Figure 18, *Cultural Resources Area of Potential Effects*, was established as all areas in which the project has the potential to impact cultural resources directly or indirectly, and includes the extent of the project footprint, consisting of both permanent and temporary construction activities associated with the project, and potential staging areas for a total of 23.1 acres. A pedestrian archaeological field survey of the archaeological survey area was conducted by HELIX staff archaeologist James Turner and Kumeyaay Native American monitor Anthony LaChappa from Red Tail Environmental on July 21, 2021.

a) Cause a substantial adverse change in the significance of a historical resource pursuant to §15064.5?

No Impact. Cultural resources are defined as buildings, sites, structures, or objects, each of which may have historical, architectural, archaeological, cultural, and/or scientific importance. Significant cultural resources are defined as "historical resources," and include those resource(s) that are listed or determined eligible by the State Historical Resources Commission for listing in the California Register of Historical Resources (CRHR) (14 CCR Section 15064.5[a][1]); listed in the National Register of Historic Places (NRHP) or in a "local register of historical resources" or identified as significant in a historical resource survey meeting the requirements of Section 5024.1(g) of the PRC, unless "the preponderance of evidence demonstrates that it is not historically or culturally significant" (14 CCR Section

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0 600 Feet

Source: Aerial (SanGIS, 2017)

HELIX Environmental Planning

Cultural Resources Area of Potential Effects

Figure 18

15064.5[a][2]); or determined by the Lead Agency to meet the criteria for listing on the CRHR (14 CCR Section 15064.5[a][3]). For listing in the CRHR, a historical resource must be significant at the local, state, or national level under one or more of the following four criteria: (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; and/or (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. All resources that are eligible for listing in the NRHP or CRHR must have integrity, which is the authenticity of a historical resource's physical identity evidenced by the survival of characteristics that existed during the resource's period of significance. Resources, therefore, must retain enough of their historic character or appearance to be recognizable as historical resources and to convey the reasons for their significance. Integrity is evaluated with regard to the retention of location, design, setting, materials, workmanship, feeling, and association. A resource must also be judged with reference to the criteria under which it is proposed for nomination.

The project APE does not include built environment or archaeological cultural resources except for the bridge itself, Camino del Mar Bridge (Bridge No. 57C-0209), which is listed in the Caltrans historic bridge inventory as Category 5, *Not Eligible for Listing in the National Register*. No known historical resources per CEQA would be affected by the project, and no impact would occur.

b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?

Less Than Significant with Mitigation Incorporated. As discussed above, the project's Archeological Survey Report included a records search encompassing a one-mile radius around the project area and potential staging areas. Archaeological resources recorded within one mile of the project area consist of four prehistoric artifact scatters, two shell scatters, a prehistoric habitation site with an associated artifact scatter, and two isolates. Historic resources recorded within a mile of the project APE consist of seven historic structures, four historic sites consisting of building or construction remains, two historic bridges, a transmission line, and two historic isolates.

The Native American Heritage Commission (NAHC) was contacted on August 21, 2018, for a Sacred Lands File search and list of Native American contacts for the project area. The NAHC indicated in a response dated August 23, 2018, that no known sacred lands or Native American cultural resources have been identified within the project area. Outreach letters were sent by HELIX staff to tribal representatives specified by the NAHC on July 22, 2021. The Jamul Indian Village responded that there is a culturally sensitive area in close proximity to the project and would like to receive new information and field survey results for the project. The San Pasqual Band of Mission Indians responded that the project lies within the boundaries of the territory that the tribe considers its Traditional Use Area and indicated that they would like to engage in formal government-to-government consultation. The Viejas Band of Kumeyaay Indians (Viejas) responded on August 3, 2021, and indicated that they reviewed the proposed project area and determined that the project site has cultural significance or ties to Viejas and that cultural resources have been located within or adjacent to the project APE. Viejas requested that a Kumeyaay Cultural Monitor be on site for ground disturbing activities and to inform them of any new developments such as inadvertent discovery of cultural artifacts, cremation sites, or human remains. Two other tribes, Agua Caliente Band of Cahuilla Indians and Rincon Band of Luiseño Indians, deferred to

other tribes in the area. Native American consultation conducted pursuant to Public Resources Code Section 21080.3.1 is discussed in Section XVIII, *Tribal Cultural Resources*.

While no significant cultural resources have been identified within the APE, there are numerous and important cultural resources that have been identified in the project vicinity and there is potential for buried cultural resources to be present within the project footprint. If project construction activities were to encounter an unrecorded archaeological resource, potential impacts could be significant, and mitigation would be required. Mitigation measure CUL-1 would be implemented to avoid or minimize potential impacts on archaeological resources and would reduce impacts to less than significant.

CUL-1 A qualified archaeologist meeting the United States Secretary of the Interior's Professional Qualifications for prehistoric and historic archaeology and a Kumeyaay Native American monitor shall be retained to conduct a cultural resources monitoring program. The monitoring program shall include attendance by the archaeologist and Native American monitor at a pre-construction meeting with the construction contractor and the presence of an archaeological and Native American monitor during initial ground disturbance for the project. If it is determined by the archaeologist and Native American monitor that past grading and other disturbances have removed soils with a reasonable potential for containing cultural material, monitoring can be reduced and recommence when the ground-disturbing activities continue in native soil. If cultural material is encountered, the archaeologist and the Native American monitor shall have the authority to temporarily halt or redirect ground-disturbing activities while the cultural material is documented and assessed. If a cultural resource is determined to be significant, the archaeologist and Native American monitor shall coordinate with the City staff to develop and implement appropriate treatment measures. Artifacts collected (if any) shall be cataloged, analyzed, and curated with accompanying catalog to current professional repository standards and transferred to an appropriate curating facility within San Diego County. Alternatively, artifacts may be returned to the consulting tribe for reburial or for curation at a tribal facility. A report shall be completed by the qualified archaeologist describing the methods and results of the monitoring program.

c) Disturb any human remains, including those interred outside of dedicated cemeteries?

Less Than Significant Impact*.* There are no known grave sites within the project limits. While it is unlikely due to the previous disturbance that has occurred within the project site, there is the potential for unknown human remains to be discovered during construction. If this occurs, project construction activities would be required to comply with California Health and Safety Code Section 7050.5 and Public Resources Code Section 5097.98. Specifically, if human remains are discovered, the San Diego County Coroner shall be immediately contacted for a determination of origin and disposition pursuant to Public Resources Code Section 5097.98. If the remains are determined to be of Native American origin, the Coroner would notify the NAHC, which would determine and notify a Most Likely Descendant (MLD). With the permission of the City and/or its authorized representative, the MLD may inspect the site of the discovery, and shall complete the inspection within 24 hours of notification by the NAHC. The MLD would have the opportunity to make recommendations to the NAHC on the treatment and disposition of the remains. With the required adherence to the California Health and Safety Code Section 7050.5 and Public Resources Code Section 5097.98, impacts would be less than significant.

VI. Energy

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a) Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?	☐	☐	■	☐
b) Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?	☐	☐	■	☐

The following discussion utilizes the energy usage data presented in the Air Quality/Greenhouse Gas Assessment Letter prepared by HELIX (2021; Appendix A) to evaluate potential impacts associated with energy consumption and efficiency.

a) Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?

Less Than Significant Impact. Project construction activities would temporarily consume energy through the use of construction equipment and vehicles over an approximately 27-month period. Energy used for construction would primarily consist of fuels in the form of diesel and gasoline for the operation of construction equipment and construction worker vehicles. While construction activities would consume petroleum-based fuels, consumption of such resources would be temporary and would cease upon the completion of construction. The petroleum consumed during project construction would be typical of similar construction projects and would not require the use of new petroleum resources beyond what are typically consumed in California. No methods of construction that would result in inefficient or unnecessary use of energy resources are proposed.

Once construction has been completed, no increase in energy resources beyond existing energy use is anticipated. While energy resources would be consumed during periodic maintenance of the bridge facilities, maintenance activities are expected to be similar or less intensive than existing conditions and would not result in the additional use of energy resources. Based on these considerations, construction of the project would not result in wasteful, inefficient, or unnecessary consumption of energy resources, and impacts would be less than significant.

b) Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?

Less Than Significant Impact. The project is subject to a number of state plans for renewable energy and energy efficiency, including CARB's 2017 Climate Change Scoping Plan, the 2019 California Energy Efficiency Action Plan, and the California Renewables Portfolio Standard Program. These state plans do not include regulations that would apply to a bridge replacement project; therefore, the project would not conflict with or obstruct a state plan for renewable energy or energy efficiency.

Local plans addressing energy reduction and efficiency include the City's Municipal Code Chapter 23.70, which requires solid waste diversion for construction and demolition debris (City 2021a). On August 5, 2019, the City adopted the Construction and Demolition Waste Recycling Ordinance, which created a local process to demonstrate compliance with California Green Building Standards requirements. Projects are currently required to divert 65 percent of waste generated during construction from landfills. Construction activities associated with the project would be required to comply with applicable regulations, including mandatory requirements for construction and demolition debris in the City's Municipal Code that address energy efficiency. Accordingly, the project would not conflict with or obstruct a state or local plan for renewable energy or energy efficiency, and impacts would be less than significant.

VII. Geology and Soils

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a) Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:				
i. Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.	☐	☐	■	☐
ii. Strong seismic ground shaking?	☐	☐	■	☐
iii. Seismic-related ground failure, including liquefaction?	☐	☐	■	☐
iv. Landslides?	☐	☐	■	☐
b) Result in substantial soil erosion or the loss of topsoil?	☐	☐	■	☐
c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?	☐	☐	■	☐
d) 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?	☐	☐	■	☐
e) Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?	☐	☐	☐	■
f) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	☐	■	☐	☐

The following discussion is based on the Preliminary Geotechnical Design Report (Geotechnical Report) and Preliminary Foundation Report (Foundation Report) prepared by Kleinfelder (Kleinfelder 2020a and 2020b), attached to this IS/MND as Appendices D and E, respectively. The geotechnical investigations summarized in the Geotechnical Report and Foundation Report included review of available geotechnical information, exploratory borings and testing within proximity to existing bridge abutments, and laboratory testing of soil samples. The project site is generally underlain by an upper layer of Recent Alluvial Deposits (Qa) overlying successive strata of Young Alluvial Deposits (Qya), Young Estuarine Deposits (Qyes), Old Alluvial Deposits (Qoa), and the Del Mar Formation (Td).

a) Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:

    i. Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42?

Less Than Significant Impact. The City, like the rest of southern California, is located within a seismically active region as a result of being located near the active margin between the North American and Pacific tectonic plates. The major faults east of the site (from east to west) include the San Andreas, San Jacinto, and Elsinore faults. Major faults west of the site are all offshore and include the Rose Canyon-Newport-Inglewood, Palos Verdes-Coronado Bank, San Diego Trough, and San Clemente faults. The most dominant zone of active faulting within the San Diego region is the Rose Canyon Fault Zone (RCFZ). The RCFZ is composed of predominantly right-lateral strike-slip faults that extend north to northwest through the San Diego metropolitan area towards La Jolla; however, various fault strands display normal, oblique, or reverse components of displacement as well. The fault zone extends offshore at La Jolla and continues north-northwest subparallel to the coastline. To the south in the San Diego downtown area the fault zone appears to splay out into a group of generally right-normal oblique faults extending into San Diego Bay (Treiman 1993). The closest fault to the site is the off-shore portion of the Rose Canyon-Newport-Inglewood connected fault located approximately 2.2 miles west of the site.

According to the California Geologic Survey, there are no Alquist-Priolo Earthquake Fault Zones in the City and nearest zone is in the La Jolla Quadrangle approximately eight miles south of the project site. Due to the absence of active faults at or near the project site, the potential for ground rupture is very low and impacts are considered to be less than significant.

    ii. Strong seismic ground shaking?

Less Than Significant Impact. As described in VII.a.i, the project site is in a seismically active region. The most significant seismic event likely to affect the project site would be an earthquake resulting from rupture along the offshore Rose Canyon fault, which is located approximately 2.2 miles west of the site. Ground-shaking could affect the integrity of the project's components; however, recommendations in the project Geotechnical Report would be implemented during final design and construction to provide suitable subsurface conditions to support the new bridge. Specifically, the Geotechnical Report recommends that a minimum of 12 inches of existing subgrade soils should be over excavated and replaced with new, compacted engineered fill. The new, compacted engineered fill would be placed per ASTM International soil compaction standards, as described in further detail in the Geotechnical Report. Potential impacts related to strong seismic ground shaking would be less than significant.

iii. Seismic-related ground failure, including liquefaction?

Less Than Significant Impact. Liquefaction is the phenomenon where saturated granular soils develop high-pore water pressures during seismic shaking and behave like a heavy fluid. This phenomenon generally occurs in areas of high seismicity where groundwater is shallow and loose granular soils or hydraulic fill soils subject to liquefaction are present. The factors known to influence liquefaction potential include soil type, relative density, grain size, confinement, depth to groundwater, and the intensity and duration of the seismic ground shaking. For liquefaction to occur, loose granular sediments below the groundwater table must be present and shaking of sufficient magnitude and duration must occur.

Based on the results of the subsurface investigation for the project documented in the Geotechnical Report, previous subsurface investigations by others, and preliminary engineering analyses, the potential for liquefaction within the project area is considered high. Young or very recent sediments such as the young alluvial floodplain deposits underlaying the site are highly susceptible to liquefaction during a seismic event on a nearby fault. The old alluvial deposits at the project site are considered to have a low liquification susceptibility, since they are stronger and gain liquefaction resistance through aging. Based on the proposed construction methods, seismic loading, and site conditions, the calculated post-liquefaction vertical volumetric settlements within the upper 50 feet of the soil profile generally ranged from 3 to 7 inches. A site response analysis was performed to develop a site-specific design acceleration response spectrum to be used for the seismic design of the proposed replacement bridge and other ancillary structures at the site (refer to Appendix F of the Geotechnical Report; Kleinfelder 2020a, Appendix D to this IS/MND). Incorporation of the recommended seismic design considerations into the replacement bridge design would reduce potentially significant liquefaction impacts to less than significant.

Another type of seismically induced ground failure that can occur as a result of seismic shaking is dynamic compaction, or seismic settlement. This phenomenon typically occurs in unsaturated, loose to medium dense granular material or poorly compacted fill soils. The granular fill soils encountered above the groundwater table at the site were generally found to be in a medium dense condition. Seismic settlement potential of the existing artificial fill soils using the method of Tokimatsu and Seed (Tokimatsu 1987) was evaluated in the PGDR (see Appendix D). Based on the results of the borings and CPTs and the seismic loading, seismic compression settlement was calculated to be less than approximately 1/3-inch. In order to address potential impacts associated with seismic-related ground failure attributed to liquefaction and seismic settlement, the recommendations in the project Geotechnical Report and Foundation Report would be implemented during final design and construction of the bridge. Therefore, impacts associated with seismic-related ground failure would be less than significant.

iv. Landslides?

Less Than Significant Impact. Landslide activity generally occurs in areas where slopes are steep (typically 30 percent or more) and lack vegetation. Several formations within the San Diego region are particularly prone to landslides. These formations generally have high clay content and mobilize when they become saturated. Other factors, such as steeply dipping bedding that project out of the face of the slope and/or the presence of fracture planes, will also increase the potential for a landslide.

The nearest steep slope to the site is located approximately 400 feet to the northwest. This slope is part of the coastal bluff and is comprised of the Del Mar Formation. The Del Mar Formation is known for instability in steep slopes. However, due to the distance to the project site from these slopes and the relatively flat-lying site topography outside of the bridge footprint, the hazard with respect to a landslide impact at the site is low and impacts associated with landslides would be less than significant.

b) Result in substantial soil erosion or the loss of topsoil?

Less Than Significant Impact. During construction there is potential for temporary erosion impacts associated with grading activities. Potential short-term erosion and sedimentation impacts would be addressed through compliance with applicable regulations as specified by the RWQCB, including compliance with the National Pollutant Discharge Elimination System (NPDES) and the adoption and implementation of a Stormwater Quality Management Plan (SWQMP. The SWQMP would incorporate BMPs in accordance with the California Stormwater Best Management Practices Handbook to control erosion and protect the quality of surface water runoff during project construction. Due to the proximity to nearby wetlands and the lagoon, the use of sediment controls to prevent off-site sediment transport would be employed, which may include silt fencing, fiber rolls, and gravel bags; remedial measures to prevent erosion would be required. Based upon compliance with the NPDES permit and implementation of a SWQMP, construction impacts related to soil erosion would be less than significant.

The project would not result in long-term, operational impacts associated with soil erosion or loss of topsoil, but may be subject to long-term scour effects. Scour is the loss of ground by erosion in flowing water environments caused by changes in flow volume, velocity, or direction. Scour can occur over the width of the stream or riverbed and can be concentrated at locations in which hard protrusions occur in a riverbed, such as at bridge piers. The San Dieguito River channel may scour during high flow events along the existing embankment slopes to the north of the bridge outside of the proposed bridge footprint. The existing riprap slope protection would be maintained and augmented to protect these slopes from surficial erosion from high flow events, and impacts would be less than significant.

c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse?

Less Than Significant Impact. Refer to VII(a) regarding landslides, liquefaction, and collapse, which assessed a less than significant impact with implementation of design recommendations presented in the project Geotechnical Report and Foundation Report. An additional related hazard, lateral spreading, involves horizontal displacement on sloped surfaces as a result of underlying liquefaction, with this phenomenon potentially occurring on shallow slopes. Based on the described presence and thickness of potentially liquefiable soils within the study area, the potential for seismically induced lateral spreading is considered low. Potentially significant impacts related to an on-site or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse are not anticipated as a result of the project. As such, impacts would be less than significant.

d) 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?

Less Than Significant Impact. Expansive soils are characterized by their ability to undergo significant volume changes (shrink or swell) due to variations in moisture content. Changes in soil moisture content can result from precipitation, landscape irrigation, utility leakage, perched groundwater, drought, or

other factors and may result in unacceptable settlement or heave of structures or pavements supported on grade. Visual classification of the soils near anticipated subgrade elevations indicates that these soils primarily consist of non-plastic poorly graded sand with small amounts of silt. Based on the results of field investigations and review of existing information presented in the Geotechnical Report, soils near the ground surface generally have a very low to low expansion potential. Isolated zones of more expansive soil may also be encountered near the surface but are not anticipated. The project would implement applicable recommendations for soil preparation presented in the project Geotechnical Report. Implementation of these recommendations would ensure that project impacts associated with expansive soils would be less than significant.

e) Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?

No Impact. No septic tanks or alternative wastewater disposal systems are proposed; therefore, no impacts would occur.

f) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?

Less Than Significant with Mitigation Incorporated. The project is underlain by old paralic deposits and marine beach deposits, dating to the late to mid Pleistocene and late Holocene (Kennedy and Tan 2008). The Bay Point formation, of Pleistocene age, is also present in the adjacent bluffs adjacent to the project area (Kennedy 1975). This formation is mostly marine sedimentary in origin and variously consists of siltstone, sandstone, shale, and conglomerate (Kennedy 1975). Old Paralic deposits and marine beach deposits have the potential to contain fossils and are assigned high and moderate sensitivity ratings, respectively, by the County's paleontological guidelines. Ground-disturbing activities extending deep enough to encounter these geologic units have the potential to affect scientifically significant paleontological resources.

Based on the noted geologic and topographic information, there is a potential that unique paleontological resources may be discovered during ground disturbing activities, including pile installation. Implementation of mitigation measures GEO-1 and GEO-2 would reduce potentially significant impacts to paleontological resources to less than significant.

Mitigation Measures

GEO-1 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.

GEO-2 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.

VIII. Greenhouse Gas Emissions

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	☐	☐	■	☐
b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	☐	☐	■	☐

The following discussion is based on the Air Quality/Greenhouse Gas Assessment Letter prepared by HELIX (2021; Appendix A).

Discussion

Climate change is a complex phenomenon that has the potential to alter local climatic patterns and meteorology. Increases in anthropogenic GHG emissions have been unequivocally linked to recent warming and climate shifts (Intergovernmental Panel on Climate Change 2007). Although modeling indicates that climate change would result globally and regionally, there remains uncertainty about characterizing the precise local climate characteristics and predicting precisely how various ecological and social systems would react to changes in the existing climate at the local level. Regardless of this uncertainty in precise predictions, it is widely understood that some degree of climate change is expected as a result of past and future GHG emissions. Greenhouse gases, as defined under California's

Assembly Bill (AB) 32, the California Global Warming Solutions Act of 2006, include carbon dioxide (CO_2), methane (CH_4), nitrous oxide (N_2O), hydrofluorocarbons (HFC), perfluorocarbons (PFC), and sulfur hexafluoride (SF_6). Emissions of GHGs besides CO_2 are converted to their carbon dioxide equivalent (CO_2e), which is a consistent methodology for comparing GHG emissions achieved by normalizing various GHG emissions to a consistent measure. CO_2 has a global warming potential (GWP) of one. By comparison, the GWP of CH_4 is 25 and the GWP of N_2O is 298.

AB 32 recognizes that California is a source of substantial amounts of GHG emissions, which pose a serious threat to the economic wellbeing, public health, natural resources, and the environment of California. In order to help avert these potential consequences, AB 32 established a state goal of reducing GHG emissions to 1990 levels by the year 2020, which is a reduction of approximately 16 percent from forecasted emission levels, with further reductions to follow. In addition, AB 32 required CARB to develop a Scoping Plan to help the State achieve the targeted GHG emission reductions. In 2015, Executive Order (EO) B-30-15 established a California GHG emission reduction target of 40 percent below 1990 levels by 2030. As a follow-up to AB 32 and in response to EO-B-30-15, Senate Bill (SB) 32 was passed by the California legislature in 2016 to codify the EO's California GHG emission reduction target of 40 percent below 1990 levels by 2030.

The City adopted a Climate Action Plan (CAP) in June 2016, which sets targets for reducing GHG emissions by 2020 and 2035; identifies strategies to meet the targets; and formulates a plan for implementation. The CAP aims to reduce GHG emissions from baseline year (2015) levels 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 for total energy consumption within the City. Additional CAP strategies include reducing water consumption and waste generation, promoting energy efficiency, and encouraging sustainable transportation alternatives (City 2016).

a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?

Less Than Significant Impact. Construction of the project would result in GHG emissions generated by vehicle engine exhaust from construction equipment, haul trucks, and worker commuting trips. The City's CAP has established that GHG emissions impacts for projects which are consistent with the CAP would be less than significant; however, the GHG reduction strategies and actions contained in the CAP are not applicable to construction activities, nor are construction emissions included in the City GHG emissions inventory. An appropriate bright line threshold would be a more conservative approach to determining the significance of the project's GHG emissions. For the purpose of this report and as described in further detail in the Air Quality and Greenhouse Gas Assessment Letter, 540 metric tons (MT) of CO_2e is utilized as the screening level threshold for the project. The screening level threshold is intended to evaluate a project's long-term annual contribution to GHG emission inventories. To determine the project's contribution to future annual City GHG emissions inventories, the construction emissions are amortized (e.g., averaged) over the anticipated lifespan of the project.

Construction GHG emissions were calculated in the Air Quality/Greenhouse Gas Assessment Letter using CalEEMod, Version 2020.4.0 using the modeling assumptions presented the Methodology and Assumptions section, including Table 2, Construction Stage Activities, and Table 3, Off-road Equipment, and Table 4, Construction Trips, from the Letter (HELIX 2021; Appendix A). The estimated construction GHG emissions for the project are shown below in Table 7, *Construction Greenhouse Gas Emissions*.

Table 8
CONSTRUCTION GREENHOUSE GAS EMISSIONS

Stage/Year	MT CO_2e per year
Stage 1 2024	122.3
Stage 2 2024	432.7
Stage 2 2025	310.6
Stage 3 2025	545.4
Stage 3 2026	166.4
Stage 4 2026	87.8
Stage 5 2026	78.9
Total Construction Emissions[1]	1744.1
Amortized Emissions (30 years)	**58.1**
2030 Screening Threshold	540
Exceed Threshold?	**No**

Source: HELIX 2021, CalEEMod output data provided in Attachment A to Appendix A.
[1] Total may not sum due to rounding.
MT = metric tons; CO_2e = carbon dioxide equivalent; GHG= greenhouse gases

As shown in Table 8, construction of the project has been conservatively estimated to result in approximately 58 MT CO_2e annually, amortized over an estimated 30-year lifespan of the bridge.[2] Once operational, the new bridge would not result in changes to emissions from traffic on public roadways or from bridge maintenance activities, compared to existing conditions. Emissions resulting from implementation of the Program would not exceed the screening threshold of 540 MT CO_2e. Therefore, the implementation of the project would not generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment.

b) Conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases?

Less Than Significant Impact. The project would replace an existing bridge on a public roadway for public health and safety. The project would not generate growth in population or employment or require the alteration of an existing land use designation through amendment(s) to the City's Community/General Plan or changes to zoning. Long-term operation of the bridge would not result in changes to GHG emissions from traffic or maintenance activities, compared to the existing condition. Furthermore, as shown in Table 8, project construction would not result in a significant increase in GHG emissions. Therefore, the project would not conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of GHGs, including the City's CAP. The impact would be less than significant.

[2] Although prestressed concrete bridges may last 100 or more years, for the purposes of evaluating GHG emissions, the lifespan of the bridge is the shortest anticipated period before major repair or retrofit would be required.

IX. Hazards and Hazardous Materials

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	☐	■	☐	☐
b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	☐	■	☐	☐
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	☐	☐	☐	■
d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	☐	☐	☐	■
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard or excessive noise for people residing or working in the project area?	☐	☐	☐	■
f) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	☐	☐	■	☐
g) Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?	☐	☐	■	☐

The following discussion is based on the Initial Site Assessment prepared by Kleinfelder (Kleinfelder 2021b), attached to this Initial Study as Appendix F.

a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?

Less Than Significant with Mitigation Incorporated. During the 27-month construction period, there is the possibility of accidental release of hazardous substances such as spilling of hydraulic fluid or diesel fuel associated with construction equipment maintenance. According to the ISA, there is potential for polychlorinated biphenyl (PCB)-containing oils to be present in pole-mounted transformers. Mitigation measure HAZ-1 would be implemented to address potential impacts associated with disposal of on-site transformers.

The level of risk associated with the accidental release of other hazardous substances is not considered significant, due to the small volume and low concentration of these hazardous materials anticipated to be present on site. The construction contractor would be required to use standard construction controls and safety procedures to avoid or minimize the potential for accidental release of such substances into the environment.

Mitigation Measures

HAZ-1 Should removal of pole-mounted transformers be required as part of the project, the local utility company shall be notified for proper testing and removal. If such removal is required, a survey shall be conducted prior to demolition to determine the presence or absence of PCBs in applicable power pole transformers. These surveys shall be conducted by qualified/certified personnel, such as federal- and/or state-certified inspectors/assessors. Evidence of survey completion shall consist of a signed and stamped statement submitted to the City from the person certified to complete the facility survey, indicating that the survey has been completed and that either regulated PCBs are present or absent. If regulated PCBs are present, all related handling and disposal shall be conducted pursuant to applicable federal (e.g., 40 CFR Part 761) and state (e.g., Title 22). Verification that the specified procedures were followed shall be provided to the City.

b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?

Less Than Significant with Mitigation Incorporated. As discussed above, the proposed project would not result in the introduction of new hazardous materials at the project site as project construction would involve typical construction equipment. Operations would entail the same usage as currently. Elevated concentrations of lead (from use of leaded gasoline) and other metals are sometimes associated with older roadways. Based on a review of historical documentation for the site and surrounding area, aerially deposited lead (ADL) has the potential to be encountered during construction activities. Potential impacts associated with upset and/or accident conditions involving the release of ADL into the environment would be minimized through compliance with the July 1, 2016 Aerially Deposited Lead Agreement between Caltrans and the California Department of Toxic Substances Control. The Aerially Deposited Lead Agreement allows ADL-contaminated soils to be safely reused within the project limits assuming that all requirements of the Aerially Deposited Lead Agreement are met.

Additionally, due to the age of the bridge, the potential exists for asbestos containing materials (ACMs) and lead based paint (LBP) to be present. Demolition activities could result in the disturbance of ACMs and LPB. In accordance with SDAPCD Rule 1206, Asbestos Removal, Renovation, and Demolition, prior to commencement of renovation or demolition operations and prior to submitting the notifications required by Section I of Rule 1206, a facility survey should be performed to determine the presence or absence of ACM, regardless of the age of the facility (SDAPCD 2017). The ACM survey should be performed in conformance with the U.S. Environmental Protection Agency (USEPA) National Emission Standards for Hazardous Air Pollutants (NESHAP) 40 Code of Federal Regulation (CFR) Part 61, Subpart M, and SDCAPCD Rule 1206. An LBP survey shall be performed in accordance with California Department of Public Health (CDPH) guidelines (Kleinfelder 2021). In addition, airborne asbestos is regulated in accordance with the NESHAP. These regulations specify precautions and safe work practices that must be followed to minimize the potential for release of asbestos fibers. Completion of ACM and

LPB surveys, and adherence to SDAPCD and OSHA regulations for the identification, removal, and transport of ACMs and LBP would ensure the project's construction activity would not expose sensitive receptors to substantial pollutant concentrations of airborne asbestos and LBP (see mitigation measures HAZ-2 and HAZ-3).

The potential exists for treated wood waste to be present associated with guard rail posts or pedestrian walkway decking within the project area. Sampling of the sign, guard rail posts, or decking for the presence of wood-preserving chemicals would be conducted prior to demolition and treated wood waste would be handled consistent with Caltrans' Standard Special Provisions 14-11.14 (Kleinfelder 2021). Completion of sampling and adherence to Caltrans' Standard Special Provisions would ensure that construction activities would not create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of these hazardous materials into the environment. Implementation of mitigation measures HAZ-2 and HAZ-3 would reduce impacts to less than significant.

Mitigation Measures

HAZ-2 An ACM survey shall be conducted by a qualified individual in conformance with NESHAP 40 Code of Federal Regulation (CFR) Part 61, Subpart M, and San Diego County Air Pollution Control District (SDCAPCD) Rule 1206, prior to the start of construction. Evidence of survey completion shall consist of a signed and stamped statement submitted to the City from the person certified to complete the facility survey, indicating that the survey has been completed and that either regulated asbestos is present or absent. If regulated ACMs are present, the statement shall describe the procedures that will be taken to remediate the hazard, including applicable regulations for demolition methods and dust suppression SDAPCD Rule 1206, and proper handling and disposal under CCR Title 22, Division 4.5. Verification that the specified procedures were followed shall be provided to the City.

HAZ-3 An LBP survey shall be conducted by a qualified individual in accordance with CDPH guidelines, prior to the start of construction. Evidence of survey completion shall consist of a signed and stamped statement submitted to the City from the person certified to complete the facility survey, indicating that the survey has been completed and that either regulated LBP is present or absent. Lead containing materials shall be managed in accordance with applicable regulations including, at a minimum, the hazardous waste disposal requirements (CCR Title 22, Division 4.5); and the State Lead Accreditation, Certification and Work Practice Requirements (CCR Title 17, Division 1, Chapter 8). Verification that the specified procedures were followed shall be provided to the City.

c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?

No Impact. There are no schools within one-quarter mile of the proposed project, and the closest school is St. James Academy, located approximately 0.4-mile northeast of the northernmost extent of the project boundary. Impacts related to the handling of acutely hazardous materials are not anticipated, and no impact would occur.

d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?

No Impact. Pursuant to Government Code Section 65962.5 (Cortese List) requirements, the State Water Resource Control Board (SWRCB) GeoTracker database (SWRCB 2021) and the California Department of Toxic Substances Control (DTSC) EnviroStor database (DTSC 2021) were searched for hazardous materials sites within ¼ mile of the project area. Based on a review of these databases, there were no open sites identified within the project area and a ¼ mile buffer. As a result, the project site is not a listed hazardous materials site and would not create a significant hazard to the public or environment. No impact would occur.

e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard or excessive noise for people residing or working in the project area?

No Impact. The project site is not located within an airport influence area or within two miles of a public or public use airport and is not subject to the requirements of any airport land use compatibility plan, which means there are no locations with the City of Del Mar that have been identified as subject to aircraft-related safety or noise hazards. The closest public airport is McClellan-Palomar Airport, which is located approximately 13 miles northeast of the project site. The closest military use airport is Marine Corps Air Station (MCAS) Miramar, which is located approximately 7 miles south of the City. Accordingly, the mapped noise and safety hazard locations associated with these respective airports are not located within the City of Del Mar. Therefore, the proposed project would not result in a noise or safety hazard for people residing or working in the project area. No impact would occur.

f) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?

Less Than Significant Impact. Emergency response and evacuation is the responsibility of the law enforcement and fire service providers detailed in Section XV, *Public Services*. The proposed project would not impair or physically interfere with emergency response or evacuation. During the 27-month construction period, up to 12 temporary nighttime full bridge closures would occur. Traffic would be detoured around the bridge along Via de la Valle and Jimmy Durante Boulevard to allow continuous vehicle access within the project area. Potential impacts would be avoided or minimized through implementation of a TCP, as well as advanced noticing and coordination with emergency response services. Impacts related to impairment of an emergency response or evacuation plan would be less than significant.

g) Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?

Less Than Significant Impact. The proposed bridge replacement project is located in the northern part of the City, perpendicular to the San Dieguito River. Areas to the south and east of the project site are identified as within a “Very High Fire Hazard Severity Zone” as designed by the California Department of Forestry and Fire Protection (CAL FIRE). The proposed project would not involve the placement of new structures, nor would it be inconsistent with the City of Del Mar Urban Forest Management and Fire Safety Strategic Plan (City 1999). As such, the proposed bridge replacement would not expose people or

structures to a significant risk of loss, injury, or death involving wildland fires. Impacts would be less than significant.

X. Hydrology and Water Quality

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a) Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or groundwater 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 stormwater drainage systems or provide substantial additional resources of polluted runoff?	☐	☐	■	☐
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?	☐	☐	■	☐

The following discussion is based on the Hydraulics and Sediment Transport Report prepared by Chang Consultants (Chang 2020) and Preliminary Drainage Study prepared by San Dieguito Engineers (2022), included as Appendices G and H to this IS/MND, respectively. A Draft SWPMP has been prepared pursuant to the County of San Diego Green Streets Priority Development Project Exempt SWQMP form, to be implemented as a condition of project approval.

a) Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or groundwater quality?

Less Than Significant Impact. The project site is located at the downstream end of the 345-square-mile San Dieguito Watershed, within the Solana Beach Hydrologic Area (905.1). The project area accounts for approximately 0.156 percent of the local San Dieguito watershed area. The project site is located within the RWQCB San Diego Region Basin Plan (Basin Plan). Under Section 402 of the CWA, the RWQCB issues NPDES permits to regulate discharges to "waters of the nation," which include rivers, lakes, and their tributary waters. Waste discharges include discharges of stormwater and construction-related discharges. Potential impacts related to water quality could occur during construction, when the potential for erosion, siltation, sedimentation, and accidental release of hazardous materials would be the greatest. The project would implement standard temporary water pollution control, permanent design pollution prevention, and post-construction treatment BMPs to avoid substantial degradation to surface and groundwater quality. Implementation of a SWQMP would be required under the NPDES Construction General Permit (NPDES No. CAS000002, Order No. R9-2013-0001, as amended by Order Nos. R9-2015-0001 and R9-2015-0100), administered by the RWQCB. The SWQMP would include specific BMPs to avoid or reduce potential impacts related to the use and potential discharge of construction-related hazardous materials, including, but not limited to, the following:

- No demolition or construction materials, equipment, debris, or waste would be placed or stored where it may enter receiving waters or a storm drain or be subject to river, wind, rain, or tidal erosion and dispersion.

- All stockpiles and construction materials would be covered and enclosed on all sides, be located as far away as possible from drain inlets and waterways, and may not be stored in contact with soil.

- Machinery and equipment would be maintained and washed in confined areas specifically designed to control runoff. If thinners, petroleum products or solvents must be used on site, they would be properly recycled or disposed after use and may not be discharged into storm drains, sewers, receiving waters, or onto the unpaved ground.

- Spill prevention and control measures would be implemented to ensure the proper handling and storage of petroleum products and other construction materials. Measures would include a designated fueling and vehicle maintenance area with appropriate berms and protection to prevent spillage of gasoline or related petroleum products or contact with runoff. The designated area would be equipped with spill control materials and located to minimize the risk of spills reaching receiving waters, storm drains, sewers, or unpaved ground.

- Reasonable and prudent measures would be taken to prevent discharge of fuel or oily waste from heavy machinery or construction equipment into coastal waters. Adequate equipment would be available to contain such spills immediately.

The construction contractor would be required to comply with the NPDES and SWQMP requirements regarding the implementation of BMPs during construction. BMPs designed to prevent spillage and runoff of demolition or construction-related materials, and to contain sediment or contaminants associated with demolition or construction activity, would be implemented prior to the on-set of such activity and all BMPs would be maintained in a functional condition throughout the duration of construction activity. Compliance with these requirements would result in less than significant project

impacts relative to compliance with applicable water quality standards and waste discharge requirements.

Groundwater was encountered at depths ranging from 11 to 17 feet below ground surface during site investigations conducted for the Geotechnical Report (Kleinfelder 2020a). Due to the proximity of the site to the coast, groundwater levels are expected to fluctuate due to tidal and seasonal influences. Dewatering and/or shoring designed to resist hydrostatic pressures would be necessary to work 15 to 20 feet below the water surface level of the San Dieguito River for the removal/installation of bridge footings. With implementation of the applicable BMPs in compliance with NPDES requirements, construction of the project would not degrade groundwater quality. Therefore, impacts would be less than significant.

b) Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?

Less Than Significant Impact. Implementation of the project would not require the use of groundwater. The new bridge would only incrementally increase the surface area compared to the existing bridge, and drainage infrastructure would be provided within the bridge and approach roadway such that project would not result in a reduced capacity for groundwater recharge or generate significant runoff. Deck drains are required along the bridge to remove water from the surface of the bridge during rainstorm events. Drains would be placed along the edge of the walkway adjacent to the pedestrian railing.

As noted in I.a, excavations extending below the groundwater table would require dewatering and or shoring designed to resist hydrostatic pressures; however, the project would not result in the substantial depletion of groundwater supplies or substantially interfere with groundwater recharge as part of these construction activities. Impacts would be less than significant.

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?

Less Than Significant Impact. During construction of the project, there is potential for increased erosion or siltation resulting from construction activities. Implementation of erosion and sediment control BMPs prescribed in the SWQMP would minimize on- and off-site erosion, including from stormwater and non-stormwater discharges. BMPs may include, but not be limited to, temporary soil stabilization and sediment control (e.g., silt fencing, gravel bags, hay bales, fiber rolls, etc.) and non-stormwater management (refer to I.a, above). Conformance with required BMPs would reduce potential impacts related to erosion and siltation during construction to less than significant.

The Hydraulics and Sediment Transport Report evaluates stream hydraulics, sediment transport, and channel changes that may be attributed to the project (Chang 2020). The report concluded that with implementation of the recommended hydraulic bridge design measures, the abutment scour would not be altered by the project and the current abutment protection would be maintained. The abutments may be augmented with additional riprap to reduce hydraulic effects, in accordance with the recommendations of the technical report. Accordingly, the project has incorporated measures into the bridge design to address potential long-term erosion or siltation, particularly relative to changes in the sedimentation pattern in the lagoon and scour effects associated with changes in flow volume, velocity,

or direction from project implementation. The proposed abutments would be constructed behind the existing abutments and portions of the existing abutments would be retained in place as additional scour and erosion protection. Riprap slope protection would be placed at the abutment slopes to protect the abutment from surficial erosion and scour, as is the existing condition at the site. Rounded piers are recommended as they are more hydrodynamic, thus causing less scour. Implementation of these design measures would reduce operational erosion and siltation impacts within the river channel to less than significant.

As documented in the Preliminary Drainage Study, runoff from the project site would be over non-erodible surfaces from the roadway and sidewalks or would discharge at points with outlet protection such as riprap energy dissipation that would reduce stormwater flow velocities to non-erosive levels (San Dieguito Engineers, Inc. 2022). Therefore, operational impacts associated with erosion and sedimentation from the bridge would be less than significant.

ii. Substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off- site?

Less Than Significant Impact. The proposed project would involve the replacement of an existing bridge, which would not substantially alter the existing drainage pattern or increase the rate or amount of surface runoff in a manner that would cause on- or off-site flooding. In the existing condition, stormwater within the Camino del Mar roadway drains toward each side of the road and is channeled along the curb. Runoff north of the bridge is collected prior to draining onto the bridge. Flows on the eastern side of the road are collected by inlet and emptied into the San Dieguito Lagoon. Flows from the western side of the road drain overland to the west and are collected by a grated inlet then conveyed west and discharged over riprap into the Pacific Ocean. Runoff from the bridge flows south along the roadway before collecting within existing inlets in the vicinity of 28th Street and 29th Street. In the existing condition, areas south of the bridge experience flooding conditions during storm events.

While drainage patterns would temporarily be affected during construction due to changes in on-site impervious surfaces as the bridge is being replaced, construction activities occurring within the river channel would be conducted in a manner that would not impede the flow of the existing channel or increase effects associated with flooding.

As proposed, the replacement and widening of the bridge structure and construction of the associated roadway transition would increase the amount of impervious surfaces by approximately 6,700 square feet. The project proposes to remove or replace existing drainage improvements and storm drain infrastructure with new facilities that would be designed to convey 100-year storm event peak flows without causing flooding of the proposed bridge structure. The proposed project would slightly alter the existing drainage pattern due to the high point of the bridge creating a ridge line and reversing runoff toward the north side of the bridge. Drainage flow to the southern end of the bridge would be shortened in length due to the revised bridge profile. Peak stormwater flows were calculated to compare existing and proposed site conditions, as documented in the Preliminary Drainage Study (San Dieguito Engineering, Inc.). An overall increase in peak runoff flow rates of 5.31 cubic feet per second (cfs) was calculated for the project site compared to existing conditions. To reduce peak flow draining south of the bridge and help reduce existing flooding conditions, two new inlets are proposed to collect runoff from the east and west sides of the street immediately south of the southern bridge abutment. These inlets would collect bridge runoff and discharge at the San Dieguito River rather than flowing toward the existing southern downstream inlets along Camino del Mar. Relative to the change in flow

rates of runoff into the San Dieguito River, the project was calculated to increase the peak flow by 7.56 cfs; this represents an increase of less than 0.018 percent of the peak flows within the river during a 100-year storm event. Therefore, the increase in runoff would not substantively add to the overall peak flows within the San Dieguito River and would have a negligible effect on the water surface elevations. and impacts would be less than significant.

iii. Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional resources of polluted runoff?

Less Than Significant Impact. The proposed would not create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff (refer to X.c.iii, above). During construction, the contractor would comply with NPDES and SWQPM requirements and implement water quality/pollution control BMPs (refer to I.a). As described in I.c(i), they would not substantially alter the existing drainage pattern or increase the rate or amount of surface runoff in a manner that would exceed the capacity of storm drain infrastructure. The bridge design incorporates deck drains to remove water from the surface of the bridge during rainstorm events. A continuous 12-inch-wide curb/pedestal at the base of the pedestrian railing would be provided to support the railing and contain stormwater. Impacts would be less than significant.

iv. Impede or redirect flood flows?

Less Than Significant Impact. The hydraulics of the lagoon, tidal flow from the ocean, and scour patterns around the Camino del Mar Bridge are highly complex. The project is located within Federal Emergency Management Agency (FEMA) mapped 100-year Special Flood Hazard Area Zones AE and X, which means that the project location generally has an annual one percent chance of flooding on any given year, as well as an annual 0.02 percent chance of flooding every year (FEMA 2020). Since the proposed bridge would encroach into the FEMA floodplain and floodway, the project has been evaluated relative to FEMA's no-rise criteria (Chang 2020). FEMA standards allow encroachments within the floodplain; however, the FEMA standards discourage, and in most cases prohibit, encroachment in the floodway zone portion of the floodplain that would increase the 100-year flood event water surface elevation (WSE). Additionally, Caltrans requires that the bridge has sufficient height to clear the "Design Flood", which is a reference to a FEMA 50-year flood event with two feet of freeboard, and the "Base Flood", which is a reference to a FEMA 100-year flood event with zero freeboard elevation added. One of the primary design considerations for the project is that the proposed bridge must be high enough so that the bottom soffit (low chord) clears the controlling flood elevation, including future sea level rise elevations.

Three main WSE scenarios were considered to inform the bridge design. This includes 1) the 50-year flood event plus two feet of freeboard, 2) the 100-year flood event, and 3) the 100-year flood event plus 38 inches of sea level rise. Based on bridge design analysis, the 50-year flood event plus two feet of freeboard is the controlling elevation, or the highest of the three WSE scenarios (Kleinfelder 2022). It should be noted that the required vertical clearance for a 100-year flood event plus 38 inches of sea level rise scenario does not accommodate transportation access below the bridge (i.e., access for vehicular, pedestrian, or marine vessels), as none is currently provided.

During construction, temporary structures (e.g., trestles, falsework, cofferdams) would be placed within the San Dieguito River channel adjacent to and beneath the existing bridge to enable access to the work

areas for constructing the new bridge and dismantling the existing bridge. All work done in the channel would be constructed in a manner that would minimize temporary effects and allow hydraulic activities to continue as close to existing conditions as possible. Restrictive temporary obstructions within the floodplain, such as earthen berms, would not be permitted during construction of the project. Temporary obstructions within the floodplain would be minimized by using flow-through temporary (driven or screwed) piles and temporary trestle bridge to support construction equipment. While placement of the temporary trestle piles may lead to a short-term increase in water elevation upstream during major storm events, openings in the temporary trestle structure would be designed to convey river and tidal waters through the temporary structure. The structure openings would minimize temporary hydraulic impacts and would not negatively impact hydraulic conditions.

Through hydraulic modeling of the San Dieguito River floodplain, it was determined that the proposed project would have no permanent adverse effects to the floodplain or its ability to pass the design-year flood event. The proposed bridge has been designed with a vertical profile that clears the WSE for the 100-year flood event (plus capacity for clearance at 38-inches of sea level rise). The existing abutments would remain, so the overall opening width of the bridge would not change. The existing bridge contains 10 piers whose widths vary from 4 feet along the lower portion to 6 feet near the deck. Therefore, the reduction of piers with the proposed project would provide greater flow conveyance than the existing condition and a no-rise in WSE would be achieved. The project would not cause flood water to reach higher than existing conditions, including a 100-year flood event, and impacts would be less than significant.

d) In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?

Less Than Significant Impact. The proposed project is located within mapped potential tsunami and seiche inundation areas; however, as described in IX(a), pollutants associated with construction equipment would not pose a substantial threat to the environment. Also, the project would not involve the introduction of pollutants or contribute to the release of pollutants. Therefore, while the project site is subject to inundation, construction and operation of the project would not result in the release of pollutants due to project inundation. Impacts would be less than significant.

e) Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?

Less Than Significant Impact. The project site is located within the San Dieguito Creek groundwater basin in the South Coast Hydrologic region. In accordance with the Sustainable Groundwater Management Act (SGMA), the San Dieguito Creek groundwater basin is a very low priority basin. The RWQCB is responsible for the adoption and implementation of water quality control plans, issuance of discharge permits, and performance of other functions in relation to regulating the region's water quality. The Water Quality Control Plan for the San Diego Basin (RWQCB 2016) identifies the project site as within the Rancho Santa Fe hydrologic subarea (HSA) of the Solana Beach hydrologic area of the San Dieguito hydrologic unit (905.11). The San Dieguito River is listed as impaired on the Section 303(d) List and includes the lower basin of the San Dieguito Lagoon (for toxicity) and the San Dieguito Lagoon Mouth at Del Mar Dog Beach (for bacteria, high coliform count) (USEPA 2018). However, the project would not increase levels of pollutants outside of potential effects associated with temporary construction activities. Conformance with the Basin Plan water quality objectives would be demonstrated through compliance with applicable regulations and implementation of construction BMPs. Thus, the project would be consistent with the Basin Plan. In addition, the project would not

adversely impact a groundwater management plan because the project would not impede groundwater replenishment and there are no sustainable groundwater management plans within the project vicinity (the nearest is located in San Pasqual Valley, approximately 14 miles east of the project). Therefore, as noted above, project implementation would not have the potential to result in significant adverse impacts to surface water and groundwater quality or otherwise conflict with the Basin Plan.

XI. Land Use and Planning

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a) Physically divide an established community?	☐	☐	☐	■
b) 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?	☐	☐	■	☐

a) Physically divide an established community?

No Impact. The project would replace an existing bridge that serves as an important north-south connection for residents and visitors of the coastal communities of Del Mar and Solana Beach, as well as the greater San Diego region. The project would not physically divide an established community. No impact would occur.

b) 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?

Less Than Significant Impact. Federal, state, and local plans, policies, and ordinances that pertain to land use and transportation planning within the project area are contained in elements and policies of the following:

- Section 4(f) of the U.S. Department of Transportation (USDOT) Act of 1966
- Section 6(f) of the Land and Water Conservation Fund Act of 1965
- Coastal Zone Management Act of 1972
- Complete Streets Act of 2008 (AB 1358)
- Caltrans' Deputy Directive DD-64-R1 (Complete Streets – Integrating the Transportation System)
- SANDAG Regional Complete Streets Policy
- City of Del Mar Complete Streets Policy
- San Diego Forward: The Regional Plan
- Regional Transportation Improvement Program (RTIP)
- Riding to 2050: The San Diego Regional Bike Plan

- City of Del Mar Community Plan (General Plan)
- Multiple Species Conservation Program
- San Dieguito River Park Concept Plan
- California Coastal Act
- City of Del Mar Local Coastal Program Land Use Plan and Implementing Ordinances
- City of Del Mar Municipal Code

These policies and regulations address a variety of issues, including development of a comprehensive regional transportation plan, efficient growth patterns, development at appropriate densities in accordance with existing community character, provision of open space and recreational opportunities, meeting the region's transportation needs, and protection against incompatible land uses. A detailed evaluation of the project's consistency with relevant adopted land use plans, policies, and ordinances is summarized below.

Consistency with Federal Plans and Policies

Section 4(f) of the U.S. Department of Transportation Act of 1966 (49 U.S.C. 303) protects public parklands and recreation lands; wildlife refuges; and historic sites of national, state, or local significance. Compliance with Section 4(f) is required for transportation projects that are undertaken by an operating administration of the USDOT or that may receive federal funding and/or discretionary approvals from USDOT. Section 4(f) properties located within 0.5 mile of the project site, including Del Mar Beach, Scripps Bluff Preserve and path, 21st Street Tennis Courts (Court Park), River Path Del Mar, and wildlife areas (San Dieguito Lagoon), are evaluated in XV.d of this IS/MND. Section 6(f) of the Land and Water Conservation Fund Act of 1965 (36 CFR 59.3) prohibits the conversion of designated recreational properties to a non-recreational purpose without the approval of Department of Interior's National Park Service. No properties subject to the Section 6(f) of the Land and Water Conservation Fund Act are located within the project study area.

Project implementation would not result in a temporary, permanent, or constructive use of any 4(f) or 6(f) properties located within the project area. No direct or indirect impacts to wildlife refuges or historic properties would occur, as none is located within the project study area. As described in further detail in XV.d of this IS/MND, the project would result in a *de minimis* impact to identified parks and recreational facilities, including Del Mar Beach, Scripps Bluff Preserve and path, and River Path Del Mar, relative to potential parking loss impacts for recreational users accessing these facilities. The temporary loss of a maximum of 60 spaces for a total of 20 months (with lesser temporary losses during the overall construction period), as well as a permanent loss of 4 spaces, would not adversely affect the existing public coastal access to these resources. The project would not substantially impair activities, features, and attributes that qualify these resources for protection under Section 4(f) during construction or operation of the replacement bridge.

Consistency with Complete Streets Policies of the U.S., California, Caltrans, and the City

Complete Streets are designed to provide convenient routes and a variety of transportation options while enabling safe access for motorists, transit users, pedestrians, and bicyclists of all ages and abilities. The federal Complete Streets Act of 2009 defines Complete Streets policies and directs state departments of transportation and metropolitan planning organizations to adopt such policies and apply

them to federally funded transportation projects. State, regional, and local governments and organizations have also adopted related policies, including California's Complete Streets Act of 2008 (AB 1358), Caltrans' Deputy Directive DD-64-R1 (Complete Streets – Integrating the Transportation System), SANDAG's Regional Complete Streets Policy, and the City's Complete Streets Policy.

Pedestrian travel currently is limited to the westerly pedestrian walkway. The project proposes to provide two-way pedestrian and bicycle movement across the bridge. Safety would be enhanced through the separation of northbound and southbound traffic lanes and bike lanes by a buffer (striped), and separation of pedestrian sidewalks at the outer edges of the bridge from the bike lanes by bridge railings. Concrete curbs and metal hand railings are proposed to line the eastern and western edges of the replacement bridge. These design features would be consistent with the applicable complete streets policies and directives in addressing the safety and mobility needs of bicyclists, pedestrians, transit users, and motorists.

Consistency with Regional Transportation Plans

San Diego Forward: The Regional Plan (SANDAG 2015) is a comprehensive plan adopted by SANDAG in October 2015 that integrates the Regional Transportation Plan, Sustainable Communities Strategy, and Regional Comprehensive Plan. The Regional Plan 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 needs of the San Diego region through 2050. The 2021 RTIP is the program of proposed projects for major transportation improvements in the San Diego Region. It is consistent with San Diego Forward: The Regional Plan and incrementally implements the vision presented in the plan. The project is identified in the 2021 RTIP as part of a larger project identifying bridge retrofit projects receiving local match funds titled Camino Del Mar Bridge over San Dieguito River, Jimmy Durante Boulevard Bridge, Via de la Valley Bridge, Camino del Mar Overpass (Metropolitan Planning Organization [MPO] Identification number [ID] DM02). Riding to 2050: The San Diego Regional Bicycle Plan, adopted by SANDAG in 2010, encourages the development of a unified bicycle system throughout the San Diego region to serve the needs of all bicycle riders by implementing efficient and feasible connections to local and regional activity centers, transit facilities, and regional trail systems.

The project is consistent with the overall intent of the San Diego Forward: The Regional Plan, as well as the applicable goals and policies identified in Riding to 2050: The San Diego Regional Bike Plan, because it proposes to implement transportation improvements that would enhance regional pedestrian and bicycle access connections to neighboring jurisdictions including the City of San Diego and City of Solana Beach. Because the project would improve multi-modal functionality of existing Camino del Mar roadway and connectivity within the project area, the project would be compatible with existing local land use plans and land use designations. As noted above, the project is identified for funding in the 2021 RTIP and would be consistent with this plan.

Consistency with General Plan

City of Del Mar Community Plan (General Plan). The City of Del Mar Community Plan (City of Del Mar 1976, and as subsequently amended) is the City's General Plan that sets forth the comprehensive long-term plan for the physical development of the City of Del Mar, and provides a foundation for land use decisions within the City. In addition to the two General Plan elements that are published separately (i.e., Housing Element and Recreation Element), the Del Mar Community Plan (General Plan) is organized into three main sections that identify policies and components for each of the required General Plan

elements. The three main sections include Environmental Management (containing Conservation, Seismic Safety, Open Space, and Safety), Transportation (containing Circulation, Scenic Highways, and Noise), and Community Development (containing Land Use and Housing). Applicable overarching goals and policy objectives of the City of Del Mar Community Plan (General Plan) that are most relevant to the project are located within the Transportation section, and include a redesign of Camino del Mar to improve its appearance as a scenic coastal route and accommodate low-speed vehicular traffic; improvements to the safety of Camino del Mar pedestrian crossings, particularly in the north and south ends of the community; provision of a continuous north-south bicycle network through the City; and preservation and improvements to pedestrian access to and along beaches and the bluffs above the beach by use of all public rights-of-way and prescriptive public easements.

The project would be consistent with the relevant goals and objectives of the Community Plan (General Plan). The project would encourage pedestrian-oriented non-motorized modes of transportation through the provision of safe two-way pedestrian access and continued accommodation of bicycle movement across the bridge, which also would minimize air pollution. Pedestrian access to recreational areas, including beaches and cliffs, would be preserved throughout project construction and improved as part of project design. Accordingly, the project would be consistent with the relevant objectives of the Community Plan (General Plan).

Sea Level Rise Adaptation Plan. The City of Del Mar adopted a Sea Level Rise Adaptation Plan (Adaptation Plan) in May 2018 (Environmental Science Associates 2018) that is incorporated by reference with the City's General Plan Safety Element per City Council action taken on March 4, 2019 (City Council Resolution 2019-13). The Adaptation Plan addresses coastal risks related to projected sea level rise that were identified in the Del Mar Coastal Hazards, Vulnerability, and Risk Assessment (Environmental Science Associates 2016) and Addendum (Environmental Science Associates 2018), as accepted by the City Council in October 2018 (City Council Resolution 2018-67). The Adaptation Plan addresses potential coastal hazards including erosion, flooding, projected increases in frequency and intensity of storms, and projected sea level rise. Roads and bridges, including Camino del Mar roadway and bridge, are projected to be highly vulnerable to coastal flooding, and a range of adaptation options/recommendations are identified to provide mechanisms to protect Del Mar's low-lying areas from increased flood risk due to projected sea-level rise. The proposed additional approximately 29 feet in bridge length and 7.5 feet in bridge height near the center of the bridge would accommodate a mid-range sea level rise scenario of 38 inches by the year 2100 during a 100-year flood while maintaining safe roadway design and avoiding roadway conflicts with driveways and coastal access points. As discussed in the Project Description, other sea level rise scenarios were evaluated to determine the appropriate bridge height during the preliminary design process. The noted mid-range sea level rise scenario is the highest elevation where the bridge remains partially useable (in service) during a 100-year flood event. The proposed design would accommodate a practical amount of sea level rise, but not extreme conditions where the surrounding community would be submerged underwater and bridge use for vehicular mobility would be irrelevant. The project would be consistent with the recommendations in the Adaptation Plan.

Multiple Species Conservation Program. Project consistency with the MSCP is detailed in Section IV.f of this IS/MND. The project would not impact land identified in the MSCP for conservation, conflict with the goals of the MSCP, or prevent or hinder implementation of the MSCP.

San Dieguito River Park Concept Plan. The San Dieguito River Park Concept Plan (San Dieguito River Park Joint Powers Authority [JPA] 1994) was prepared to establish the vision and goals for the future use of

the San Dieguito River Valley. Although the project would result in temporary and permanent impacts to the San Dieguito River (lagoon), such impacts to be reduced to the extent feasible through implementation of avoidance, minimization, and mitigation measures. The project would not preclude the JPA from implementing the vision and major goals of the San Dieguito River Park Concept Plan.

Consistency with Coastal Zone Management Regulations and Plans

The CCA specifies California's coastal zone management program for purposes of complying with the Federal CZMA. The policies within Chapter 3 of the CCA 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 CCA. The California Coastal Act delegates power to each local jurisdiction along California's coastline to enact its own Local Coastal Program for the portion of its area within a specified Coastal Zone. LCPs determine the short- and long-term use of coastal resources in their jurisdiction consistent with the CCA goals.

The City'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 CCA. The LCP LUP was certified by the CCC in March 1993 and the Implementing Ordinances were certified in September 2001. This provided the City of Del Mar permit authority over coastal development within the City (City 1993a and 1993b). The LCP LUP 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 (General Plan); various policy reports; and the San Dieguito Lagoon Enhancement Program; as well as the implementing code regulations. The LUP addresses shoreline resources, hazards, and development policies and regulations, including the beach, coastal bluffs, runoff and erosion control, flood hazard areas, and coastal access.

Compliance with the federal CZMA and CCA is determined through the City's LCP process. To ensure development activity within the coastal zone complies with the CCA, projects are required to demonstrate compliance with the LCP policies and regulations. The project would be consistent with the CCA'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 ensure that new development does not create or significantly contribute to erosion. Implementation of the project would result in an increase of public access to and within the project area. The project would be consistent with applicable LUP goals and policies relative to protecting access to coastal recreation areas, including minimizing disturbance of natural topography and vegetation (Goal IV-A); prioritizing pedestrian and bicycle traffic over vehicular traffic (Goal IV-B); preserving existing views and view corridors (Goal IV-C); and maximizing beach access (Goal IV-D).

The LCP Implementing Ordinances identify zoning and regulatory controls to protect coastal resources and public access including specific overlay zone regulations (i.e., beach, bluff, lagoon, open space, and floodplain resource protection), seawall and shoreline protection permits, public access, coastal development permits, and parking regulations. Portions of the project site and surrounding properties are located within the Lagoon and Floodplain overlay zones; the specific zoning regulations/LCP regulations associated with these overlays are evaluated below.

Lagoon Overlay Zone (Chapter 30.53). Project impacts to wetlands, including CCC jurisdictional waters, have been evaluated in the BLR prepared for the project (HELIX 2022a). Temporary impacts to 1.90 acres

and permanent impacts to 0.31 acre of potential CCC wetlands were identified. The project has been designed to minimize impacts to open water and beach jurisdictional areas to the greatest extent practicable. Impacts, however, cannot be completely avoided due to the location of the existing facility and abutting roadway, which requires new bridge supports in proximity to the habitat. Portions of the temporary and permanent impacts are to areas that are below the current bridge span. The larger diameter existing pilings would be removed and replaced with fewer structures with lesser girth, which is expected to improve tidal circulation and create a better tidal circulation, thus offsetting temporary impacts. The localized nature of the activities means that the temporal and spatial impacts to the surrounding environment from the replacement of the pilings are minimal. As described in IV.d, mitigation for impacts to open water and jurisdictional beach habitat is not proposed, since these areas would return to pre-project conditions or better following construction of the bridge. To ensure that residual impacts remain negligible, final mitigation requirements for impacts to open water and jurisdictional beach habitat would be determined during the permit process, in consultation with the resource agencies.

Water quality could be adversely affected during construction by potential surface runoff, including sedimentation from disturbance areas. If it were to occur, decreased water quality could adversely affect vegetation, aquatic animals, and terrestrial wildlife that depend upon these resources. Appropriate BMPs would be implemented during construction to address potential water quality impacts. These may include, but are not limited to: (1) installing erosion and sediment control devices such as silt fences, fiber rolls, bonded fiber matrix, and gravel bags in appropriate locations; (2) placing temporary filters at storm drain inlets (e.g., gravel bags/filter fabric); (3) designating containment areas for material storage (e.g., covering/berming of soil stockpiles); and (4) providing containment areas for solid waste storage and concrete washout.

Based on the above considerations, the project would be consistent with the Lagoon Overlay Zone related to wetland habitat protection, retention of native habitats, and drainage and erosion control.

Floodplain Overlay Zone (Chapter 30.56). The project has been designed and would be constructed in compliance with applicable City requirements for development within the floodplain. The proposed additional bridge height near the center of the bridge would accommodate a mid-range sea level rise scenario of 38 inches by the year 2100 during a 100-year flood (National Research Council 2012), while maintaining safe roadway design and avoiding roadway conflicts with driveways and coastal access points. In scenarios where the projected sea level rise exceeds an increased water surface elevation of 38 feet, the bridge would cease to be connected to a functional roadway system due to flooding of the connecting roadway to the south. Therefore, the proposed design would accommodate a practical amount of sea level rise, consistent with the City's sea level rise adaptation recommendations and requirements for development within a floodplain overlay zone.

Public Access (Chapter 30.61). As discussed above, the project would be consistent with regulations related to public access that are contained in this chapter of the Implementing Ordinances. The intent of the public access provisions is to "ensure that physical access is provided to coastal recreation areas for the general public without creating a public safety concern, overburdening the City's public improvements, degrading the City's natural resources, or causing substantial adverse impacts to adjacent private properties."

Coastal Development Permits (Chapter 30.75). The project would be required to obtain a CDP issued by the City and the CCC. The permit process requires evaluation of project consistency with the City's

certified LCP, including the Public Access and Overlay Zone provisions of the Implementing Ordinances, as well as the Public View protection policies IV-22 through IV-27 of the LCP LUP.

Parking (Chapter 30.80). As evaluated in the Parking Study prepared for the project, the temporary loss of parking during construction would comprise 43 percent of identified available parking along Camino del Mar within the project impact footprint (Kleinfelder 2021). A maximum of 60 out of 140 spaces would be temporarily impacted for a total of 20 months during stages 2 and 3, with fewer impacts for the remaining 7 months of construction. This temporary loss of parking is unavoidable but would not affect the public's ability to continue to access coastal resources, including parks and recreational facilities, in the project study area.

While the project has the potential to result in temporary and/or permanent impacts to visual resources, biological resources including wetlands, and parking, it has been designed to avoid impacts to the maximum extent feasible while maintaining safe roadway design and avoiding conflicts with coastal access points. As noted above, measures are identified to address potential inconsistencies, and the project would be consistent with other policies because it provides critical public access to the coast (for residents, workers, and visitors), accommodates pedestrian and bicycle modes of transportation, maintains public coastal access and recreation opportunities, and would not adversely affect scenic vistas or substantially degrade the existing visual character or quality of public views of the site and surroundings post construction. Moreover, evaluation of project consistency with, and implementation of, the applicable provisions of the LCP Implementing Ordinances is required for the project to obtain a CDP. Based on the above considerations, potential environmental impacts due to a conflict with land use plans, policies, or regulations adopted for the purpose of avoiding or mitigating an environmental effect would be less than significant.

XII. Mineral Resources

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?	☐	☐	☐	■
b) Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?	☐	☐	☐	■

a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?

No Impact. The Surface Mining and Reclamation Act of 1975 required the classification of land into mineral resource zones (MRZ), according to known or inferred mineral resource potential. The process was based solely on geology, without regard to existing land use or land ownership. The proposed project is located in an area designated as MRZ-1 and MRZ-3, which includes areas where there are no significant mineral deposits present or likely to be present, as well as areas where mineral resource significance is undetermined, respectively (DOC 2015). No existing or planned future mining operations

occur within the project site or surrounding area, nor is it zoned or planned for such uses. Therefore, implementation of the project would not result in the loss of availability of a known mineral resource that would be of value to the region or the residents of the state. No impact would occur.

b) Result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan?

No Impact. There are no known mineral resources on site as designated by a local general plan, specific plan, or other land use plan. As described in XII.a, no existing or planned mining operations occur on site or in the immediate project vicinity. Therefore, implementation of the project would not result in the loss of availability of a locally important mineral resource recovery site. No impact would occur.

XIII. Noise

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project result in:				
a) 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) Generation of excessive groundborne vibration or groundborne noise levels?	☐	■	☐	☐
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 discussion below is based on Noise Study Report prepared by HELIX (2022c) and included as Appendix I to this IS/MND.

Discussion

All noise level or sound level values presented herein are expressed in terms of decibels (dB), with A-weighting (dBA) to approximate the hearing sensitivity of humans. Time-averaged noise levels are expressed by the symbol L_{EQ}, with a specified duration. Noise-sensitive land uses (NSLUs) are land uses that may be subject to stress and/or interference from excessive noise, such as sensitive habitat, residential dwellings, schools, transient lodging (hotels), hospitals, educational facilities, exterior recreational facilities, and libraries. Receptors are individual locations that may be affected by noise.

Land uses in which ground-borne vibration could potentially interfere with operations or equipment, such as research, manufacturing, hospitals, and university research operations (Caltrans 2013) are considered “vibration-sensitive.” The degree of sensitivity depends on the specific equipment that

would be affected by the ground-borne vibration. In addition, excessive levels of ground-borne vibration of either a regular or an intermittent nature can result in annoyance to residential uses or schools. The nearest land uses in the project area that are subject to annoyance from vibration include the single-family residences located directly south of the bridge. The closest residence is located approximately 30 feet west of the project site.

Noise-sensitive land uses that have the potential to be affected by changes in traffic noise levels from the proposed bridge replacement consist of single- and multi-family residential uses on both sides of Camino del Mar along the southern portion of the proposed bridge alignment (see Figure 10). Multi-family residential uses are located on the eastern side of the roadway; the closest residential structure is approximately 30 feet from the edge of the roadway. Two outdoor use areas associated with these multi-family residences, a patio and a pool area, are also located approximately 30 feet from the edge of the roadway. The multi-family residential building and outdoor use areas are at a slightly higher elevation than the roadway (approximately five feet).

Single-family residential uses are located on the western side of the roadway along the southern portion of the proposed bridge alignment. While the residential property boundaries are located approximately 50 feet from the edge of the roadway, most of the residences themselves are set back from the roadway at a distance of approximately 175 feet, with the exception of two residences slightly to the north that are located approximately 60 feet from the edge of the roadway. These residences on the western side of the roadway are generally at the same elevation as the roadway. A six-foot-tall concrete wall is located between the residential properties and the roadway, which currently provides attenuation from traffic noise based on the existing roadway elevation.

Heading north along Camino del Mar, the residential properties end at the start of the existing bridge. Beach and lagoon are present on either side of the existing bridge, which has an existing midpoint height of approximately 17 feet. North of the bridge and along the northern portion of the proposed bridge alignment, beach area is located to the west at a slightly lower elevation than the roadway. Specific topography for the roadways and the surrounding residential development was incorporated into noise modeling conducted for the project.

The Noise Study Report prepared for the proposed project includes the results of a site visit and ambient noise survey conducted on August 24, 2021 by HELIX. The short-term measurements were at two locations (ST-1 and ST-2) and the long-term measurements were taken at one location (ST-1; see Figure 19, *Noise Measurement Locations*). The primary ambient noise source in the project vicinity was documented to include traffic along nearby roadways, including I-5, San Dieguito Drive, and Racetrack View Drive. Noise levels observed ranged between 46.7 to 61.9 dBA L_{EQ} for the long-term measurement taken over a 24-hour period. Short-term noise measurements were 63.2 and 63.7 dBA L_{EQ} at ST-1 and ST-2, respectively.

Both Caltrans and the City have established standards for construction noise. Caltrans Traffic Noise Analysis Protocol for New Highway Construction, Reconstruction, and Retrofit Barrier Projects (Protocol) specifies the policies, procedures, and practices to be used by agencies that sponsor new construction or reconstruction of federal or federal-aid highway projects. The City's goals for transportation noise sources are published in the Community Plan (General Plan) Transportation Element, Noise Section. This section of the Community Plan (General Plan) identifies 65 Community Noise Equivalent Level (CNEL) as the maximum noise level compatible with residential land uses. The DMMC regulates noise produced by construction activities on any property that may affect occupants of nearby properties. Construction

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Source: Aerial (NearMap, 2019)

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Noise Measurement Locations

Figure 19

noise for the project is regulated by Section 9.20.050 of the DMMC, which identifies construction noise level limits and states:

> 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. 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."

Section 14-8.02 (Noise Control) of Caltrans standard specifications provides information that can be considered in determining whether construction would result in adverse noise impacts (Caltrans 2020b). The specification states that construction must not exceed maximum noise levels (L_{MAX}) of 86 dBA at 50 feet from the construction site from 9:00 p.m. to 6:00 a.m.; and must equip an internal combustion engine with the manufacturer-recommended muffler.

a) 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?

Less Than Significant with Mitigation Incorporated. The project has the potential to result in temporary and permanent increases in ambient noise levels during construction and operation of the replacement bridge.

Construction Noise

During construction of the project, noise from construction activities may intermittently dominate the noise environment in the immediate area of construction. Construction activities could temporarily produce elevated short-term noise levels at NSLUs. The project is estimated to be constructed over 27 months with five distinct construction stages: site preparation, demolition and replacement of east side of the bridge, demolition and replacement of west side of the bridge, bridge median improvements, and final improvements. A variety of standard construction equipment would be used, including, but not limited to, backhoes/loaders, excavators, tractors, dozers, concrete breakers, concrete saws, pile installation equipment, and miscellaneous trucks. Hourly average noise levels from construction at the project site were determined using the Roadway Construction Noise Model (RCNM) (FHWA 2008). Individually, these pieces of construction equipment generate noise levels ranging from approximately 77 to 100 dBA L_{MAX} and from approximately 73 to 94 dBA L_{EQ} at a distance of 50 feet. Noise produced by

construction equipment would be reduced over distance at a rate of about 6 dB per doubling of distance. It is likely that multiple pieces of equipment would be operating simultaneously near each other, thus having the potential to combine to generate hourly average noise levels exceeding the Caltrans construction noise standard of 86 dBA L_{MAX} at 50 feet during nighttime or early morning hours (before 6:00 a.m. or after 9:00 p.m.).

Noise levels would also potentially exceed the City's construction noise standard of 75 dBA L_{EQ} (1-hour) at nearby residences located within 50 feet of the construction work areas. The existing concrete walls between Camino del Mar and the residences on the western side of the roadway would partially reduce construction noise levels experienced at these residences; however, because the equipment that would be used would generally be taller than the wall, noise levels would still likely exceed the 75 dBA L_{EQ} (1-hour) standard. Further, there is no noise wall to provide attenuation for the residences on the eastern side of the roadway. In order to reduce noise levels at the nearby residences, project construction would be required to comply with standard construction noise BMPs. Implementation of mitigation measure NOI-1 would reduce construction noise levels to less than significant under standards established by both the City and Caltrans.

Operational Noise

Predicted traffic noise levels for conditions with and without the project were evaluated based on Caltrans and City criteria. The project would not result in increased traffic levels; rather, the potential for increased traffic noise levels at nearby receptors were evaluated due to the raised elevation of the bridge. Six receptors were evaluated, including four at single-family residential properties to the west of Camino del Mar (R1 to R4) and two at exterior use areas associated with multi-family residences to the east of Camino del Mar (R5 and R6). The receptor locations are shown on Figure 20, *Modeled Receptor Locations*.

To assess project impacts using Caltrans criteria, traffic noise levels with and without the project were calculated using traffic volumes that would be expected under LOS C conditions (which are considered to be the highest volume of traffic that a roadway can support under free-flowing conditions). As shown in Table 9, *LOS C Peak Hour Noise Levels*, the traffic noise modeling indicates that traffic noise levels at outdoor use areas of NSLUs southeast of the bridge (receptors R5 and R6) are predicted to be 66 dBA $L_{EQ(h)}$. Because the predicted noise level approaches Caltrans' 67-dBA $L_{EQ(h)}$ exterior noise abatement criteria (NAC) for residential uses, traffic noise impacts are predicted at these areas, and noise abatement must be considered.

Table 9
LOS C PEAK HOUR NOISE LEVELS

Receiver Number	Without Project Noise Level (dBA L_{EQ})	With Project Noise Level (dBA L_{EQ})	Increase due to Project	Approach 67 dBA L_{EQ} NAC?[1]
R-1	60	61	1	No
R-2	61	61	0	No
R-3	64	64	0	No
R-4	58	58	0	No
R-5	66	66	0	Yes
R-6	66	66	0	Yes

[1] Caltrans NAC for exterior noise levels in residential areas.

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Source: Aerial (NearMap, 2019)

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Modeled Receptor Locations

Figure 20

To assess project impacts using City criteria, traffic noise levels both without and with the project were estimated using existing and future (year 2040) traffic volumes. As shown in Table 10, *Existing and Existing Plus Project Noise Levels*, and Table 11, *Future and Future Plus Project Noise Levels*, noise levels in adjacent residential areas would range from 59 to 67 CNEL and would exceed the City's exterior noise standard of 65 CNEL at receivers R-5 and R-6. Noise abatement would be required for the project to be in compliance with City standards.

Table 10
EXISTING AND EXISTING PLUS PROJECT NOISE LEVELS

Receiver Number	Existing No Project (CNEL)	Existing Plus Project (CNEL)	Increase due to Project	Exceed 65 CNEL Limit?[1]
R-1	61	62	1	No
R-2	62	63	1	No
R-3	65	65	0	No
R-4	59	59	0	No
R-5	67	67	0	Yes
R-6	67	67	0	Yes

[1] City threshold for exterior noise levels in residential areas.

Table 11
FUTURE AND FUTURE PLUS PROJECT NOISE LEVELS

Receiver Number	Future No Project (CNEL)	Future Plus Project (CNEL)	Increase due to Project	Exceed 65 CNEL Limit?[1]
R-1	61	62	1	No
R-2	63	63	0	No
R-3	66	65	-1	No
R-4	60	59	-1	No
R-5	67	67	0	Yes
R-6	67	67	0	Yes

[1] City threshold for exterior noise levels in residential areas.

Detailed modeling analysis was conducted for a six-foot-high barrier with a length of approximately 87 feet and a seven-foot-high barrier with a length of 59 feet along the periphery of the affected outdoor use areas between the use areas and the roadway, which would provide attenuation for receptors R5 and R6 (refer to Figure 21, *Noise Barrier Location*). The noise barrier requirements were determined through CadnaA modeling, which considers the topography of the project site and surrounding areas. Mitigation measure NOI-2 shall be implemented to decrease traffic noise impacts associated with the project.

Mitigation Measures

NOI-1 Construction Noise Management Plan. Prior to the initiation of construction activities, a Construction Noise Management Plan shall be prepared that identifies measures to comply with the following:

1. The construction contractor shall be required to work in such a manner so as not to exceed a 1-hour average sound level of 75 dBA at any noise-sensitive land use (residential). Sound levels may be limited by sound control devices, limiting the number of equipment operating

at once, or installation of temporary noise barriers between the construction site and sensitive receptors.

2. Construction equipment shall be properly outfitted and maintained with manufacturer recommended noise-reduction devices to minimize construction-generated noise.

3. Stationary construction noise sources such as generators or pumps shall be located at least 100 feet from noise-sensitive land uses.

4. Laydown and construction vehicle staging areas shall be located as far from noise-sensitive land uses as feasible.

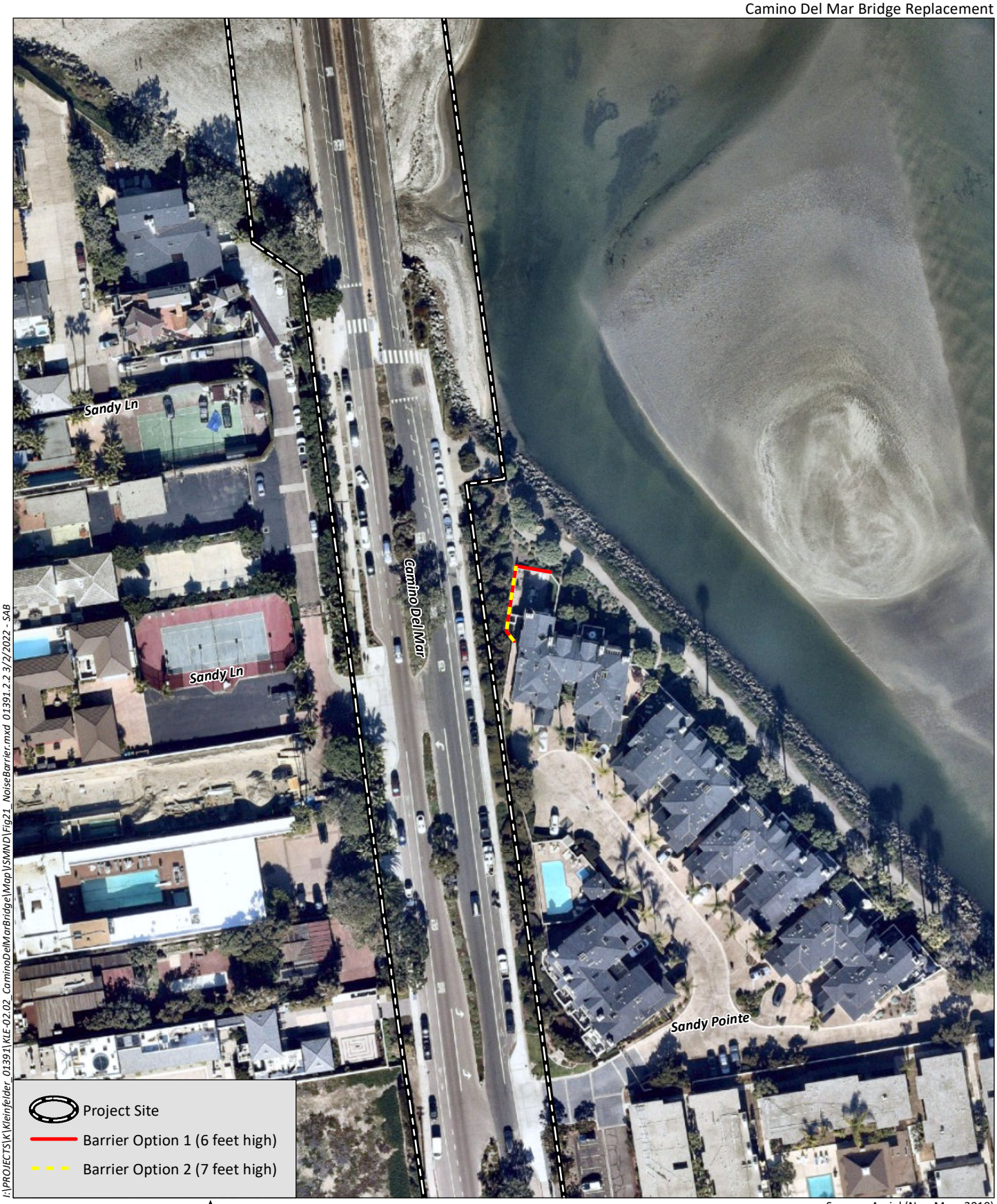
NOI-2 **Exterior Use Area Noise Barrier.** To reduce traffic noise levels at exterior use areas where Caltrans and City noise standards would be exceeded, either a six-foot-high, 87-foot-long noise barrier, or a seven-foot-high, 59-foot-long noise barrier shall be provided along the fence line of the exterior use area of NSLU R-5. Both are shown on Figure 21. The noise barrier must be solid. It can be constructed of masonry, wood, plastic, fiberglass, steel, or a combination of those materials, as long as there are no cracks or gaps, through or below the barrier. Any seams or cracks must be filled or caulked. If wood is used, it can be tongue and groove and must be at least one-inch total thickness or have a density of at least 3.5 pounds per square foot. Where architectural or aesthetic factors allow, glass or clear plastic 3/8 of an inch thick or thicker may be used, if it is desirable to preserve a view. Sheet metal of 18-gauge (minimum) may be used if it meets the other criteria and is properly supported and stiffened so that it does not rattle or create noise itself from vibration or wind. Any door(s) or gate(s) must be designed with overlapping closures on the bottom and sides and meet the minimum specifications of the materials described above. The gate(s) may be of wood with a thickness of at least one inch, solid-sheet metal of at least 18-gauge metal, or an exterior-grade solid-core steel door with prefabricated door jambs.

With implementation of mitigation measures NOI-1 and NOI-2, construction and operational noise levels would be less than significant under standards established by both the City and Caltrans.

b) Generation of excessive groundborne vibration or groundborne noise levels?

Less Than Significant with Mitigation Incorporated. The two primary vibration-generating components anticipated to be used during project construction include a vibratory pile driver for installation of pilings for the construction platforms and a vibratory roller for compaction and pavement of the new roadway. Per Caltrans' *Transportation and Construction Vibration Guidance Manual* (Caltrans 2020c), a vibratory pile driver typically generates a vibration level of 0.65 inch per second peak particle velocity (PPV) at a distance of 25 feet. Based on this vibration level, a vibratory pile driver could generate vibration levels in excess of Caltrans' 0.1-inch per second PPV strongly perceptible annoyance potential criteria for steady state sources (Caltrans 2020c) within a distance of 110 feet.[3] Two residential dwellings, both located near the southwestern corner of the project work area, could occur within this distance to the use of a vibratory pile driver; therefore, impacts are considered potentially significant and mitigation measure NOI-3 is required. It should be noted that while vibration levels may exceed the

[3] Equipment PPV = Reference PPV * (25/D)^n(in/sec), where Reference PPV is PPV at 25 feet, D is distance from equipment to the receptor in feet, and n (the value related to the attenuation rate through the ground) is 1.1 (for hard ground) or 1.3 (for sand; formula from Caltrans 2020c.



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Source: Aerial (NearMap, 2019)

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Noise Barrier Location

Figure 21

criteria, most use of a vibratory pile driver for project construction would occur outside of 110 feet from residential dwellings, and thus not result in excessive vibration levels.

A vibratory roller typically generates a vibration level of 0.21 inch per second PPV at a distance of 25 feet (Caltrans 2020c). Based on this vibration level, a vibratory roller could generate vibration levels in excess of Caltrans' 0.1-inch per second PPV strongly perceptible annoyance potential criteria for steady state sources within a distance of 50 feet. No residential dwellings would be located within 50 feet of the use of a vibratory roller for this project. In addition, a vibratory roller is a mobile piece of equipment that would only generate vibration at a given receptor for a short amount of time as it passes by. As such, vibration impacts from use of a vibratory roller would be less than significant.

Mitigation Measure

NOI-3 Vibratory Pile Driver Vibration Monitoring and Reduction. If a vibratory pile driver is used within 110 feet of a residential dwellings, vibration monitoring shall be conducted at the residential locations. If the measured vibration level exceeds Caltrans' 0.1-inch per second PPV strongly perceptible annoyance potential criteria for steady state sources, the power level of the pile driver shall be reduced or vibration shielding via a trench or alternative method shall be implemented to reduce vibration levels below the 0.1-inch per second PPV level.

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?

No Impact. The project is not located within two miles of a public airport or a public use airport. The closest public airport is McClellan-Palomar Airport, approximately 13 miles northeast of the project site. The nearest private, or non-public airport is the Marine Corps Air Station Miramar, located approximately 10 miles to the southeast. At this distance, no impacts related to airport noise would occur at the project site.

XIV. Population and Housing

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a) Induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?	☐	☐	☐	■
b) Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	■

a) Induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?

No Impact. The project would not result in the construction of homes or businesses or extension of a roadway or utilities; therefore, the project would not directly or indirectly induce population growth. No impact would occur.

b) Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?

No Impact. The project would not displace housing or people and would not require the construction of replacement housing elsewhere. No impact would occur.

XV. Public Services

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
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 public services:				
a) Fire protection?	☐	☐	■	☐
b) Police protection?	☐	☐	■	☐
c) Schools?	☐	☐	☐	■
d) Parks?	☐	☐	■	☐
e) Other public facilities?	☐	☐	☐	■

a) Fire protection?

Less Than Significant Impact. The Del Mar and Solana Beach Fire Departments (DMFD) provide fire and emergency protection services, including fire suppression and protection, emergency medical services, vehicle accident response, rescue, and hazardous material response, to residents and visitors of the cities of Del Mar and Solana Beach. The 2.5-square-mile service area of the DMFD includes Del Mar, as well as surrounding areas such as Solana Beach, Encinitas, and portions of San Diego (City 2021b). The Del Mar fire station is located on the Del Mar Fairgrounds at 2200 Jimmy Durante Boulevard, approximately 0.4 mile east of the project boundary. The Solana Beach fire station is located at 500 Lomas Santa Fe Drive, approximately one mile northeast of the northernmost extent of the project boundary. The project would not result in an increase in response times for fire protection or emergency services, since the project would not increase traffic or introduce new uses that would require such services. Existing emergency services provided by DMFD would continue to adequately serve the project site, and implementation of the project would not require construction of new or altered facilities in

order to maintain acceptable service ratios or response times. Response times may be temporarily impacted during the 12 nighttime full bridge closures when traffic would be detoured around the bridge. Impacts would be avoided or minimized through agency coordination and implementation of a TCP. The TCP would provide for adequate emergency vehicle access through the project area throughout the duration of the construction period. Therefore, impacts would be less than significant.

b) Police protection?

Less Than Significant Impact. The San Diego County Sheriff's Department (Sheriff's Department) provides contract law enforcement services, including patrol, traffic, and investigative services for the cities of Del Mar and Solana Beach, among other incorporated and unincorporated areas of the County. Overall, the Sheriff's Department serves an area of approximately 4,500 square miles, which includes incorporated cities and unincorporated areas of the County (San Diego County Sheriff's Department 2021). 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 site). 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.

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 (Ralph Anderson and Associates 2015). 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 approximately 2.5 miles of beach, area bluffs and preserves, and community parkland.

The project would not result in an increase in response times for emergency services, since the project would not increase traffic or introduce new uses that would require emergency services. Existing emergency services would continue to adequately serve the project site, and implementation of the project would not require construction of new or altered facilities in order to maintain acceptable service ratios or response times. Response times may be temporarily impacted during the 12 nighttime full bridge closures when traffic would be detoured around the bridge. Impacts would be avoided or minimized through agency coordination and implementation of a TCP. The TCP would provide for adequate emergency vehicle access through the project area throughout the duration of the construction period. Therefore, impacts would be less than significant.

c) Schools?

No Impact. The project site is within the boundary of the Del Mar Union School District (DMUSD). DMUSD schools within the project vicinity include the Del Mar Hills Academy Elementary School located approximately 1.8 mile southeast of the project site and Del Mar Heights Elementary School located approximately 2.2 miles southeast. There are no other public schools within two miles of the project site. One private school, St. James Academy, is located approximately 0.4-mile northeast of the northernmost extent of the project boundary. Physical impacts to school facilities and services are

usually associated with population in-migration and growth, which increase the demand for schools. The project would have no effect on population growth because the project does not involve any housing or other opportunity for population increase in the area. Therefore, the project would not result in an increased demand requiring the need for new or physically altered school facilities. No impact would occur.

d) Parks?

Less Than Significant Impact. Parks and recreational facilities identified within 0.5-mile of the project study area include areas of public beach, preserve, tennis courts, public trails, and the State Fairgrounds. Figure 22, *Del Mar Public Paths and Trails*, depicts the public paths, trails, and parks and recreational areas that are in the project's general vicinity. Potential impacts associated with temporary and permanent use of facilities identified within a 0.5-mile radius of the project site are summarized below. The next closest public park beyond this radius is Powerhouse Park, located in the 1600 block of Coast Avenue, approximately 0.85 mile from the southern edge of the bridge (City 2018). Powerhouse Park would be beyond reasonable direct or indirect effects of project construction, and no long-term adverse effects would occur.

Del Mar Beach

The City has public beach shoreline adjacent to its entire westerly boundary, which is collectively referred to as Del Mar Beach. Portions of the beach located immediately west of the bridge include areas both north and south of the lagoon outlet used for passive and active recreational activities. Potential impacts to the beach are associated with the bridge location on either side of the San Dieguito River where it enters the ocean. Approximately 0.21 acre north of the river mouth and 0.15 acre south of the river mouth are estimated to be incorporated into areas crossed by the expanded bridge. A total of 1.29 acres of temporary impacts to beach areas is conservatively estimated to occur during all construction phases combined. The temporary area of impact would be restricted to the area immediately adjacent to improvements. Engineering review shows that there is ample space to temporarily relocate and store clean beach sand moved during falsework installation and removal of existing bridge piers at beach level within the temporary construction footprint of the bridge until it can be reused. Loss of sand volume would be limited to the areas where new bridge piers would be installed. The minimal use of beach sands would be linear and incremental in nature and would not occur along the ocean front. It is a small percentage (approximately 18 percent) of the sand within the study area and an even smaller portion of the overall sand area available within Del Mar Beach. Bridge construction activity would be limited to the restricted construction area delineated on project plans and would not encroach into beach areas beyond that location delineated as an Environmentally Sensitive Area. All project-related activities would be prohibited within the delineated Environmentally Sensitive Area.

Scripps Bluff Preserve

The Scripps Bluff Preserve is a public park and open space preserve that is sited on a 4.3-acre mesa located northwest of the project alignment along the coastal bluff that is referred to as "North Bluff," above the ocean and north of the San Dieguito Lagoon river mouth. Public access to the Scripps Bluff Preserve is provided via a paved access path constructed into the east-facing slope of the bluff landform that connects to the beach. Recreational uses are "passive" with views of the ocean, coastline, and areas to the east. No organized sports/activities are allowed. The Scripps Bluff Preserve would not be

Del Mar (Area) Public Parks, Paths and Trails

Public Paths

- P1 Thousand Steps (Ocean View Ave to Torrey Point Rd)
- P2 Ocean Access (Pine Needles Extension, Ocean View to CDM)
- P3 Gunther's Alley (Crest Rd to Hoska Ln)
- P4 Hidden Gulch (Crest Rd to Klish Way)
- P5 Short Cut (City Alley - 10th to 11th)
- P6 Slim Lane (Cuchara Dr to Cuchara Dr)
- P7 Friendship Way (Upper Rimini Rd to Lower Rimini Rd)
- P8 Canyon Steps (15th to Forest Way)
- P9 Shady Lane (Serpentine Dr to Seaview Ave)
- P10 Luzon Footpath (Seaview Ave to Luzon Ln)
- P11 David Way (David Way to Seaview Ave)
- P12 CDM to RR Station
- P13 Ocean Avenue (10th to 9th)
- P14 DM Woods to Bluff
- P15 DM Canyon Preserve (Bike/Pedestrian Path West of CDM)
- P16 River Path Del Mar
- P17 James Scripps Bluff
- P18 Crest Rim
- P19 Hidden Pines (Torrey Pines Reserve)
- P20 West Del Mar River Path

Trails

- T1 Boardwalk
- T2 Crest Canyon Reserve Trail
- T3 Dust Devil Nature Trail East Loop
- T4 Dust Devil Nature Trail North Loop
- T5 Dust Devil Nature Trail West Loop
- T6 Lagoon Trail

Parks and Recreational Areas

- Crest Canyon Park
- Del Mar Canyon Preserve
- Powerhouse Park
- San Dieguito Lagoon
- Scripps Bluff Preserve
- Sea Cliff Park
- Seagrove Park
- Shores Park
- State Fairgrounds
- Tennis and Basketball Courts
- Torrey Pines State Reserve
- Railroad
- Del Mar City Limits

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HELIX Environmental Planning

Del Mar Public Paths and Trails

Figure 22

encroached upon by any of the bridge improvements or construction activities. No permanent or temporary conflicts with the existing or future use of the Preserve would occur.

21st Street Tennis Courts (Court Park)

The 21st Street Tennis Courts (201 Court Street), also referred to as Court Park, include two public tennis courts and a half-basketball court located near the intersection of 21st Street and Court Street. These courts are designated by the City as Public Parkland and are open to the public at no charge during daylight hours (the courts are not lighted for nighttime use). Water, restrooms, and parking are provided. The courts at their closest point are within 0.17 mile of the southernmost extent of the area identified for temporary impacts (potential restriping). They are just over 0.5 mile from the southernmost extent of bridge reconstruction. Residential uses and city streets intervene between the study corridor and the courts (City 2019b). The distance of the bridge reconstruction activities from the courts, combined with lack of visual access of any part of the project corridor, results in tennis court activities being unaffected by the footprint of potential construction activities.

State Fairgrounds

The State Fairgrounds, also referred to as the Del Mar Fairgrounds, are located just east of the project alignment and the NCTD rail bridge. The Fairgrounds comprise a regional assembly and entertainment destination that is the site of multiple large events held throughout the year that draw visitors from the San Diego and greater southern California region (Del Mar Fairgrounds 2022). Temporary impacts for proposed staging areas may occur within two areas of the State Fairgrounds, the practice track and surface parking areas at the western portion of the State Fairgrounds shown in Figure 7. If utilized for construction staging, these areas would revert to the previous use upon completion of the construction period. During project construction, access to, and use of, the State Fairgrounds would be maintained. No permanent impacts would occur.

Public Trails and Paths

Trails closest to the Camino Del Mar Bridge include the westerly segment of the River Path Del Mar along the San Dieguito Lagoon (City Path 20, extending from the east side of the Camino Del Mar Bridge eastward to the LOSSAN railroad), the easterly segment of the River Path Del Mar City Path 16 extending eastward from the east side of the railroad bridge along the San Dieguito Lagoon), and the Scripps Bluff Preserve path (City Path 17 located northwest of the bridge on the North Bluff and west of—and connecting to—Camino del Mar). The project would not result in a temporary or permanent use of the River Path Del Mar (Paths 16 and 20) or the Scripps Bluff Preserve path (Path 17). Path 20, the westerly segment of the River Path Del Mar, extends from the eastern edge of the existing Camino Del Mar Bridge to the LOSSAN railroad. Located on the south side of the lagoon, the trail area is specifically called out on project Site Preparation Plans as an area requiring maintenance of trail access during construction. Pedestrian access from the trail to the pedestrian crossing area over Camino del Mar would be maintained.

As summarized above, the project would not substantially impair activities, features, and attributes of parks and recreational facilities within the vicinity of the project. Physical impacts on parks are usually associated with population growth, which increases the demand for and use of parks; no population growth would occur from implementation of the project. While additional employees during construction are anticipated, they are not expected to use existing neighborhood or regional parks or other park facilities to a degree that would constitute the need for new or altered park facilities.

Therefore, the proposed project would not result in an increased demand requiring the need for new or physically altered park facilities and related impacts would be less than significant.

e) Other public facilities?

No Impact. Following bridge replacement, buffered bike lanes and sidewalks would be provided on both sides of the bridge, improving the current facilities provided on Camino del Mar along with access to existing community facilities within the project area. The proposed replacement of the Camino del Mar Bridge would occur almost entirely within the existing right-of-way. Apart from parks and recreational facilities discussed above, no community facilities are located within the immediate vicinity of the project site that would be adversely affected, either directly or indirectly, by the project. The closest libraries are located at 1309 Camino del Mar, approximately 0.8 mile south of the southernmost extent of the project boundary within Del Mar Village; and at 157 Stevens Avenue, approximately one mile north of the northernmost extent of the project boundary. As discussed above, physical impacts on public services are usually associated with population growth, which increases the demand for public services and facilities. The project would not increase the local population. While there may be a slight increase in demand for public services and facilities during construction due to the presence of construction workers, they are not expected to increase the use of existing public facilities such that new or expanded facilities are required or substantial adverse effects would occur from their use. Impacts would be less than significant.

XVI. Recreation

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a) Increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	☐	☐	■	☐
b) Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?	☐	☐	■	☐

a) Increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?

Less Than Significant Impact. Potential impacts associated with temporary and permanent use of facilities identified within a 0.5-mile radius of the project site are evaluated in XV.a(d), above. In addition to the temporary and permanent use impacts evaluated above, an increase in the use of existing parks and recreational facilities can also typically result from an increase in housing or population in an area. The project would not result in an increase in housing or residents in the project vicinity, nor would the project substantially impair activities, features, and attributes of parks and recreational facilities within the vicinity of the project. Therefore, impacts would be less than significant.

b) Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?

Less Than Significant Impact. Please refer to XVI.a. The project does not include recreational facilities or require the construction or expansion of existing recreational facilities. Impacts would be less than significant.

XVII. Transportation

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a) Conflict with a program plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?	☐	☐	☐	■
b) Would the project conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b)?	☐	☐	☐	■
c) Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	☐	☐	■	☐
d) Result in inadequate emergency access?	☐	☐	■	☐

The following discussion is based on the Transportation Impact Analysis Report prepared by STC Traffic, Inc. (STC; 2018) included as Appendix J to this IS/MND.

Discussion

Camino del Mar is a primary transportation route through the City that supports vehicular, bus, bicycle, and pedestrian circulation. Camino del Mar is a north-south roadway along the coast that spans the lagoon via the bridge, provides connections to coastal destinations in the area, and serves as a local bypass of I-5 for motorists travelling along the coastline. Camino del Mar is classified as a Two-Lane Collector roadway with a daily capacity of 15,000 vehicles. Observed traffic volumes along Camino del Mar between Via de la Valle and Coast Boulevard included 12,540 vehicles on a single "average weekday" day in April 2018 (STC 2018; Appendix J). The roadway configuration of Camino del Mar on the existing bridge includes two 7.5-foot-wide bicycle lanes and two 15-foot-wide traffic lanes separated by a 7-foot-wide raised median landscaped with ornamental vegetation. Two-foot-wide guard railings occur at the outer edges of the bicycle lanes and a 5-foot-wide steel bracket pedestrian walkway exists along the western edge of the bridge.

NCTD operates the local transit service within the City, which is referred to locally as "The Breeze." NCTD currently operates two fixed bus services routes that provide access to and from the City, including Routes 101 and 308. NCTD's Route 101 serves bus stops along Camino del Mar and currently travels along the stretch of Camino del Mar between Via de la Valle and Jimmy Durante Boulevard. It provides daily service from Oceanside to the University Towne Center area in the City of San Diego. Service is provided Monday through Friday and on weekends and holidays. No service along Camino del Mar is

provided between 10:00PM and 5:00AM. There are two bus stops on Highway 101 north of Via de la Valle. Along Camino del Mar, there are four bus stops, two on either side of the street between Via de la Valle and Coast Boulevard (NCTD 2021).

a) Conflict with a program plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?

No Impact. Plans, policies, and ordinances that pertain to transportation planning within the project area are contained in the following documents:

- Complete Streets Act of 2008 (AB 1358)
- Caltrans' Deputy Directive DD-64-R1 (Complete Streets – Integrating the Transportation System)
- SANDAG Regional Complete Streets Policy
- City of Del Mar Complete Streets Policy
- San Diego Forward: The Regional Plan
- Regional Transportation Improvement Program (RTIP)
- Riding to 2050: The San Diego Regional Bike Plan
- City of Del Mar Community Plan (General Plan)

Complete Streets are designed to provide convenient routes and a variety of transportation options while enabling safe access for motorists, transit users, pedestrians, and bicyclists of all ages and abilities. The federal Complete Streets Act of 2009 defines Complete Streets policies and directs state departments of transportation and metropolitan planning organizations to adopt such policies and apply them to federally funded transportation projects. State, regional, and local governments and organizations have also adopted related policies, including California's Complete Streets Act of 2008 (AB 1358), Caltrans' Deputy Directive DD-64-R1 (Complete Streets – Integrating the Transportation System), SANDAG's Regional Complete Streets Policy, and the City's Complete Streets Policy. San Diego Forward: The Regional Plan (SANDAG 2015) is a comprehensive plan adopted by SANDAG in October 2015 that integrates the Regional Transportation Plan, Sustainable Communities Strategy, and Regional Comprehensive Plan. The Regional Plan 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 needs of the San Diego region through 2050. The 2021 RTIP is the program of proposed projects for major transportation improvements in the San Diego Region, which is consistent with San Diego Forward: The Regional Plan and incrementally implements the vision presented in that plan. Riding to 2050: The San Diego Regional Bicycle Plan, adopted by SANDAG in 2010, encourages the development of a unified bicycle system throughout the San Diego region to serve the needs of all bicycle riders by implementing efficient and feasible connections to local and regional activity centers, transit facilities, and regional trail systems. The City of Del Mar Community Plan (City of Del Mar 1976, as amended) is the City's General Plan, which sets forth the comprehensive long-term plan for the physical development of the City, and includes objectives relevant to the project within the Transportation category. Project consistency with each of the applicable plans, policies, and ordinances is summarized below.

Consistency with Complete Streets Policies of the U.S., California, Caltrans, and the City

In the current condition, pedestrian travel currently is limited to the westerly pedestrian walkway. The project proposes to provide two-way pedestrian and bicycle movement across the bridge. Safety would be enhanced through the separation of northbound and southbound traffic lanes and bike lanes by a buffer (striped), and separation of pedestrian sidewalks at the outer edges of the bridge from the bike lanes by bridge railings. Concrete curbs and metal hand railings are proposed to line the eastern and western edges of the replacement bridge. These design features would be consistent with the applicable complete streets policies and directives in addressing the safety and mobility needs of bicyclists, pedestrians, transit users, and motorists.

Consistency with Regional Transportation Plans

The project is consistent with the overall intent of the San Diego Forward: The Regional Plan, as well as the applicable goals and policies identified in Riding to 2050: The San Diego Regional Bike Plan, because it proposes to implement transportation improvements that would enhance pedestrian and bicycle access. Because the project would improve multi-modal functionality of existing Camino del Mar roadway and connectivity within the project area, the project would be compatible with existing local land use plans and land use designations. The project is identified for funding in the 2021 RTIP and thus, would be consistent with this plan.

Consistency with City of Del Mar Community Plan (General Plan)

The project would be consistent with the relevant goals and objectives noted above in the City of Del Mar Community Plan (General Plan). The project would encourage pedestrian-oriented non-motorized modes of transportation through the provision of safe two-way pedestrian access and continued accommodation of bicycle movement across the bridge, which also would minimize air pollution. Pedestrian access to recreational areas, including beaches and cliffs, would be preserved throughout project construction and improved as part of project design. The NCTD bus route serving Camino del Mar between Via de la Valle and Jimmy Durante Boulevard would be maintained during construction and continue once bridge replacement has been completed. Accordingly, the project would be consistent with the relevant objectives of the City of Del Mar Community Plan (General Plan).

As demonstrated, the project would not conflict with a program plan, ordinance, or policy addressing the circulation system. No impact would occur.

b) Would the project conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b)?

No Impact. CEQA Guidelines Section 15064.3, subdivision (b) provides criteria to evaluate a project's potential impact on transportation and traffic depending on the type of project. Section 15064.3(b) establishes vehicle miles traveled (VMT) as the appropriate measure for transportation impacts and eliminates automobile delay as appropriate for the determination of potentially significant transportation and traffic impacts. VMT is defined as a measurement of miles traveled by vehicles within a specified region and for a specified time period. For transportation projects that reduce or have no impact on VMT (meaning there is no increase in demand for additional trips to be generated), CEQA Guidelines Section 15064.3 suggests that these projects be concluded to cause a less than significant impact. According to the City's Guidelines for Transportation Impact Analysis updated June 1, 2020, roadway and mobility projects included in the Del Mar Community Plan (General Plan) are "screened

out" with no VMT analysis required, as they are presumed to cause a less than significant impact on the environment associated with potentially significant levels of VMT (City 2020).

The project is included in the Del Mar Community Plan (General Plan), which identifies goals and policies associated with the redesign and replacement of the existing bridge. Moreover, VMT is not expected to increase during project construction, as continuous access would be allowed throughout construction aside from 12 temporary night closures during which time a detour would be provided. During project construction, worker commutes and equipment hauling vehicles would be traveling to and from the project site, causing an incremental increase in localized traffic; however, this would be temporary and would cease once construction is complete. Once operational, the bridge would provide local access to the areas of Del Mar and Solana Beach in the same capacity as the existing bridge. Based on these considerations, no impacts related to conflicts or inconsistencies with CEQA Guidelines Section 15064.3, subdivision (b) would occur.

c) Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?

Less Than Significant Impact. The project would not cause hazardous geometric design features or incompatible uses. The project proposes to retain the same number of lanes and the overall roadway geometry would be similar to the existing bridge. Apart from the bridge segment of Camino del Mar proposed for replacement, no changes to intersection and roadway segment geometry or increase in vehicular capacity would occur. During construction of the replacement bridge, vehicular, bicycle, and pedestrian access would remain throughout all phases. During Phase 2 of the staged construction, vehicular and bicycle traffic would be routed to the western side of the bridge and share one lane in each direction while work is performed on the eastern side. The existing travel way in each direction is approximately 22 feet, which would accommodate two temporary 11-foot-wide travel lanes. The existing pedestrian walkway located on the west side of the existing bridge would be maintained. During Phase 3, traffic would be switched to the replacement bridge while the western half is constructed. Pedestrian traffic would be rerouted to the newly completed bridge on the east side. Signage would be installed at pedestrian crossings on either side of the bridge construction to facilitate safe pedestrian crossing. Bicyclists would share the road with vehicular traffic during Phases 2 and 3. Traffic would be rerouted a third time during Phase 4 in order to place the closure pour and complete the transitions and median in the roadway. A TCP would be required and the City would oversee its implementation so that roadway safety is maintained during construction. While the project would temporarily remove 56 parking spaces within the project corridor during construction and permanently remove 4 additional parking spaces following project completion, the project has been designed to minimize impacts to parking to the extent practicable. Permanent removal of parking would occur only where spaces would contain angles that preclude parking or would be located on pedestrian crosswalks (an incompatible use). The other 56 spaces temporarily affected during construction would be returned to use. Upon completion of construction, the project would result in improved connectivity and safety for vehicles, bicycles, and pedestrians. As a result, impacts associated with roadway hazards or incompatible uses would be less than significant.

d) Result in inadequate emergency access?

Less Than Significant Impact. The construction methodology proposed for the project would allow for nearly continuous vehicular, bicycle, and pedestrian access through the project site, with the exception of 12 temporary night closures. A TCP would be implemented to identify temporary detours around the

project site during the closures. Once constructed, no changes to existing circulation or emergency access would occur during operation of the replacement bridge. Impacts associated with emergency access would be less than significant.

XVIII. Tribal Cultural Resources

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
a) 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:				
i. Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code Section 5020.1(k), or	☐	■	☐	☐
ii. A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code 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.	☐	■	☐	☐

The following discussion is based on the Archaeological Survey Report prepared by HELIX (HELIX 2022b) and included as Appendix C (Confidential) to this IS/MND.

a) 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:

   i. Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code Section 5020.1(k)?

   ii. A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code 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?

Less Than Significant with Mitigation Incorporated. As described in Section V, *Cultural Resources*, the NAHC was contacted to request a search of its Sacred Lands File and a list of Native American individuals and organizations that might have knowledge of, or concerns regarding, cultural resources within the project areas. The NAHC indicated in a response dated August 23, 2018, that, while the results of the search were negative, the absence of site-specific information does not indicate an absence of cultural resources within a given area. Initial outreach letters were sent by HELIX to tribal representatives and interested parties identified by the NAHC on July 22, 2021. Five responses were received, as summarized in Table 12, *Native American Contact Program Responses*.

Table 12
NATIVE AMERICAN CONTACT PROGRAM RESPONSES

Contact/Tribe	Response
Agua Caliente Band of Cahuilla Indians	Responded by email on August 3, 2021; the project site is not within the Tribe's Traditional Use Area. Therefore, they defer to other tribes in the area.
Jamul Indian Village of California	Responded by email on September 27, 2021; there is a culturally sensitive area in close proximity to the project. They would like to receive any new information and the results of the field survey.
Rincon Band of Luiseño Indians	Responded by letter dated August 2, 2021; the project site is not located within the Rincon Band's specific Area of Historic Interest. They recommend contacting a Tribe that is closer to the project and may have pertinent information.
San Pasqual Band of Mission Indians	Responded by letter dated July 14, 2021; project is within the boundaries of the territory that the tribe considers its Traditional Use Area, and they would like to engage in formal consultation to be involved with developing the measures that will be taken to protect these sites and mitigate any adverse impacts.
Viejas Band of Kumeyaay Indians	Responded by email on August 3, 2021; project site has cultural significance or ties to Viejas and cultural resources have been located within or adjacent to the APE of the proposed project. Request that a Kumeyaay Cultural Monitor be on site for ground disturbing activities to inform the Tribe of any new developments, such as inadvertent discovery of cultural artifacts, cremation sites, or human remains.

Pursuant to Public Resources Code Section 21080.3.1 (AB 52), California Native American tribes traditionally and cultural affiliated with the project area can request notification of projects in their traditional cultural territory. Consultation notification letters were sent by City staff to tribal representatives on September 28, 2021. Two responses were received from the San Pasqual Band of Mission Indians, dated November 3, 2021 and December 15, 2021. The response letters indicated that the project is located within the boundaries of the territory that the tribe considers its Traditional Use Area, and they would like to engage in consultation with the City to be involved in the development of the measures taken to mitigate potential temporary and permanent adverse impacts to the Traditional Use Area due to the project construction. The City has been in consultation with the San Pasqual Band of Mission Indians for their review of cultural resources mitigation measures and project components developed to reduce impacts to their Traditional Use Area. All cultural reports and surveys related to the project have been shared with the San Pasqual Band of Mission Indians' representatives. Input received during consultation has been incorporated into the analysis within this IS/MND, as well as mitigation measure CUL-1. No additional requests for consultation pursuant to AB 52 have been made.

Due to the sensitivity of the project vicinity and the potential for buried cultural resources, project construction would have the potential to result in a significant impact to a tribal cultural resource. However, these potential impacts would be reduced to a less than significant level with the implementation of mitigation measure CUL-1, as discussed in V.b. of this IS/MND.

XIX. Utilities and Service Systems

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the project:				
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) 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 has 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?	☐	☐	■	☐
e) Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?	☐	☐	■	☐

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?

Less Than Significant Impact. A total of nine existing utility conduits (pipes) have been identified within the existing bridge, two of which have been abandoned. They include one conduit for lifeguard communication (abandoned); one conduit for telecommunications; one 12-inch-diameter sewer force main; one 6-inch-diameter PVC recycled water line; two high-pressure natural gas lines (4-inch-diameter and 12-inch-diameter lines hung from the western and eastern sides of the bridge, respectively) operated by SDG&E and Southern California Edison, respectively; two 4-inch-diameter high-pressure iron pipe lines; and one 4-inch-diameter PVC pipe line (abandoned). These utilities would be temporarily relocated to the temporary work trestle during construction and installed on the replacement bridge during Stages 2 and 3. At least two spare 4-inch-diameter PVC conduits for future use would be provided per Caltrans bridge design standards.

As a bridge replacement project that would not generate additional population, no supporting utility infrastructure related to new or expanded water, wastewater treatment, storm water drainage, electric power, natural gas, or telecommunications facilities would be required. Potential impacts resulting from the temporary relocation of existing utilities are included in the overall bridge construction impacts evaluated in this IS/MND. Portable toilet(s) may be provided for use during the construction period; waste generated by use of the portable toilets would be hauled away and disposed of at an approved facility in accordance with solid waste laws. Therefore, impacts associated with relocation or construction of new or expanded utilities would be less than significant.

b) Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?

Less Than Significant Impact. The project proposes the replacement of an existing bridge, which would not create a significant demand for water supplies. A negligible, short-term increase in demand for water during construction, including associated with the on-site restoration/re-establishment of native habitat proposed to address potentially significant impacts to sensitive vegetation communities, would occur. These areas would be irrigated until the vegetation is established, which can take three to five years. The temporary nature of the required water service and the relatively minor amount required for irrigation purposes would not create a considerable demand for water or new water services particularly since water lines are present within the vicinity of the project. Therefore, impacts would be less than significant.

c) 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?

No Impact. The project would not generate wastewater or require the need for wastewater services or treatment. Therefore, the project would not result in inadequate capacity for the existing wastewater treatment provider and no impact would occur.

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?

Less Than Significant Impact. Project construction and demolition activities would generate solid waste. To replace the bridge, the existing foundations and superstructure must be removed, as well as existing trees and vegetation and concrete and asphalt medians. The tree and vegetation trimmings would be hauled off site to a green waste facility. The existing wood piles supporting the bridge would be removed to at least one foot below the general scour depth or entirely removed if they conflict with the proposed foundations of the replacement bridge. Existing abutments would be retained in place to avoid the effort and expense required to remove riprap, install cofferdams, excavate to abutment pile caps, demolish the existing abutment structures, remove piles, dewater, etc. The construction contractor would be responsible for removal of demolition and construction materials from the site, and would be required to comply with federal, state, and local statutes and regulations related to solid waste reduction, including waste management, reduction, and recycling of demolition and construction debris and waste. Such waste would be source separated on-site for reuse, recycling, or proper disposal. For construction waste that cannot be diverted or recycled, such as material packaging and food-related trash generated by employees, landfills in the region would have adequate capacity to fulfill the project's solid waste generation needs. Hazardous materials discussed in IX.a and IX.b of this IS/MND

would be properly disposed of pursuant to mitigation measures HAZ-1 through HAZ-3. Provisions would be included in the construction bid documents to ensure the proper removal and disposal of hazardous materials, such as treated wood waste material found on the existing bridge. The project is not likely to generate solid waste in amounts that would adversely affect the existing capacity of regional landfills. Once operational, the project would not generate waste. Therefore, impacts would be less than significant.

e) Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?

Less Than Significant Impact. As described above in XIX.d, the project would not generate excessive solid waste and would comply with all waste management and reduction statutes and regulations. Solid waste generated by the project would be collected and transported to an appropriate recycling, disposal, or processing facility that is properly equipped and capable of handling solid waste materials as required by City and Caltrans standards. Therefore, potential impacts related to compliance with applicable solid waste regulations would be less than significant.

XX. Wildfire

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project:				
a) Substantially impair an adopted emergency response plan or emergency evacuation plan?	☐	☐	■	☐
b) Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to, pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?	☐	☐	■	☐
c) Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?	☐	☐	■	☐
d) Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?	☐	☐	■	☐

Discussion

The project area is located within a Local Responsible area according to the maps prepared under the CAL FIRE and Resource Assessment Program (CAL FIRE 2020). The project is not located in a very high fire hazard severity zone (VHFHSZ); the closest area mapped as VHFHSZ is approximately 0.6 mile southeast of the project site along San Dieguito Drive in the southeastern portion of the City. According

to the City's Urban Forest Management and Fire Safety Strategic Plan, the objective of the City's fire safety planning is to "make a continuous effort to reduce the fuel load and heighten public understanding of the relationship between vegetation, local topography, fire behavior and 'defensible space'" (City 1999).

a) Substantially impair an adopted emergency response plan or emergency evacuation plan?

Less Than Significant Impact. The County of San Diego Emergency Operations Plan, Annex Q: Evacuation, was last updated in September 2018 and identifies I-5 as the primary regional evacuation route for San Diego County and Jimmy Durante Boulevard as a primary evacuation route for the City (County 2018). Jimmy Durante Boulevard connects the City to I-5 by way of Via de la Valle, north of the project site. Construction of the project would occur along Camino del Mar over a 27-month period, during which time a total of 12 temporary night closures of the bridge would be required. During the nighttime full bridge closures, vehicles would be temporarily detoured along Via de la Valle and Jimmy Durante Boulevard to allow continuous vehicle access within the project area. Advanced notice detour signage would be installed along Camino Del Mar and east of the intersection of Jimmy Durante Boulevard and Via de la Valle to notify roadway users of the detour. Maintaining access to Jimmy Durante Boulevard and I-5 during project construction would ensure that impacts related to the substantial impairment of the adopted County of San Diego Operations Plan, Annex Q: Evacuation would be less than significant.

b) Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to, pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?

Less Than Significant Impact. The City is subject to both wildland and urban fires due to its climate, topography, and native vegetation. The extended droughts characteristic of the region's Mediterranean climate and increasingly severe dry periods associated with global warming result in large areas of dry native vegetation that provide fuel for wildland fires. State law requires that all local jurisdictions identify VHFHSZs within their areas of responsibility (California Government Code Sections 51175–51189). Inclusion within these zones is based on vegetation density, slope severity, and other relevant factors that contribute to fire severity. The project site is not located within a state responsibility area. The project would not contribute to the exacerbation of fire risk as it would not result in additional long-term traffic and would not include habitable structures or other development that would exacerbate wildfire risk or exposure. As a result, project implementation would not exacerbate wildlife risk, and impacts would be less than significant.

c) Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?

Less Than Significant Impact. The project proposes to replace the existing Camino del Mar Bridge. No infrastructure is proposed that may exacerbate fire risk or result in temporary or ongoing impacts to the environment. Impacts would be less than significant.

d) Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?

Less Than Significant Impact. The project would not result in the addition of people or structures; therefore, project implementation would not increase exposure to risks associated with post-fire slope instability or drainage changes. Impacts would be less than significant.

XXI. Mandatory Findings of Significance

		Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a)	Does the project have the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?	☐	☐	☐	☐
b)	Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are significant when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of past, present and probable future projects)?	☐	☐	☐	☐
c)	Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?	☐	☐	☐	☐

a) Does the project have the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?

Less Than Significant with Mitigation Incorporated. As described under IS/MND Section IV, *Biological Resources*, and Section V, *Cultural Resources*, the proposed project has the potential to impact wildlife and California prehistory; however, impacts would be reduced to less than significant with the incorporation of mitigation measures. Specifically, the project has the potential to result in significant impacts on special status plant and animal species. Special status plant species identified within the study area include Torrey pine, woolly seablite, southwestern spiny rush, and red sand-verbena. One special-status animal species has been identified within the study area, Belding's savannah sparrow. Potential impacts to migratory birds, temporary and permanent impacts to vegetation communities (i.e., Diegan coastal sage scrub, beach, and open water), and potential wetland waters of the U.S./State. Potential impacts on major periods of California prehistory were identified due to the sensitivity of the project vicinity and the potential for buried cultural resources to be present within the project footprint. These impacts to biological and cultural resources were determined to be less than significant with incorporation of mitigation measures BIO-1 though BIO-6 and mitigation measure CUL-1, respectively.

Similarly, impacts related to the potential for the project to substantially degrade the quality of the environment would be reduced through the implementation of mitigation measures. Impacts would be reduced to less than significant.

b) Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are significant when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of past, present and probable future projects)?

Less Than Significant with Mitigation Incorporated. The analysis below discusses the project's potential to make a cumulatively considerable contribution to an environmental impact, by resource. Where it has been determined based on the analysis in this IS/MND that no impact would occur or a less-than-significant impact would occur in relation to specific resources (i.e., agriculture and forestry resources, air quality, energy, GHG emissions, hydrology and water quality, land use and planning, mineral resources, population and housing, public services, recreation, transportation, utilities and service systems, and wildfire), the project would inherently not result in a cumulatively considerable impact relative to those resources and no further discussion is provided below. As described in this IS/MND, the project would incrementally contribute to potentially significant environmental impacts related to aesthetics, biological resources, cultural resources, geology and soils (paleontological resources), hazards and hazardous materials, noise, and tribal cultural resources. The mitigation measures that would be implemented related to these environmental resources would reduce these impacts to a less-than-significant level.

Cumulative Projects

The project area is generally built out on lands available for development, or in open space set aside in perpetuity or state lands. Although it is possible that existing conditions could continue, two likely projects include the San Dieguito River Bridge Replacement, Double Track, and Del Mar Fairgrounds Special Events Platform project (San Dieguito River Bridge Replacement); and development on the North Bluff (private parcels located atop the bluff northwest of the bridge and north of the Scripps Bluff Preserve. The respective properties on the North Bluff are currently designated and zoned for low density and very low density housing and are also identified as a contingency plan in the 6th Cycle Housing Element to provide future multiple dwelling unit housing capacity in case the City is unable to timely implement its preferred State Fairgrounds housing program by December 2024. At this point, evaluation of future land use scenarios and potential impacts on the North Bluff is considered speculative and is not discussed further relative to potential cumulative impacts. Future development on the North Bluff would be subject to permit review and compliance with the policies and regulations of the City's certified LCP and compliance with the environmental review and processing requirements in accordance with CEQA or equivalent level of environmental review pursuant to the Coastal Act.

The San Dieguito Rail Bridge Replacement project proposes to construct rail improvements within portions of the cities of Solana Beach and Del Mar and provide a direct passenger connection to the Del Mar Fairgrounds. The project extends approximately 2.1 miles along the LOSSAN rail corridor between the rail undercrossing at Lomas Santa Fe Drive to just north of Coast Boulevard, approximately 500 feet east of the project site between Camino del Mar and the State Fairgrounds. Proposed rail improvements include: (1) construction of new double track bridge structures over the San Dieguito River; (2) 2.1 miles of track improvements, including the addition of 1.7 miles of new double track; (3) a special events rail platform at the Del Mar Fairgrounds; and (4) other rail improvements and modifications within the

project limits plus a new signal line that would extend south of CP Del Mar to reconnect an existing signal house just south of Coast Boulevard. Construction would be completed in several phases over a total duration of approximately three years, with some overlap between phases. Rail services would remain operational during all phases of construction and would be rerouted between the existing and new track as it is built. Construction of the new bridge over the San Dieguito River would involve removing the existing trestle bridge, which would be done from atop the trestle bridge itself. Demolition would start at one end and proceed to the other, removing one span and bent at a time. A Draft Environmental Assessment (EA) was circulated for public review in October 2014 by the Federal Transit Authority (FTA) as the NEPA lead agency, which evaluated the potential impacts resulting from implementation of that project, including evaluation of three potential build alternatives. The results and conclusions of the EA are summarized for each of the resource areas discussed below.

Cumulative Impact Evaluation

Aesthetics. As discussed in Section I, potentially significant visual effects evaluated for the project relate to the removal of seven trees within the road right-of-way in accordance with DMMC Chapter 23.50 (Trees). This impact would be addressed through use of existing credits from the City's Public Tree/Landscape Management program that is administered by the City of Del Mar Public Works Department. No vegetation or tree removal was discussed relative to potential visual affects assessed for the San Dieguito Rail Bridge Replacement project; therefore, the project impact associated with tree removal would be less than cumulatively considerable.

Based on a 2014 VIA prepared for the San Dieguito Rail Bridge Replacement project, primary visual elements of proposed double-tracking would result in an additional 1.7 miles of track that may be eight feet higher in places than the existing trestle bridge and would be lighter in color. Two new single-track bridge structures would replace the existing single track trestle bridge. "Special events" platform(s) a minimum of 16 feet in width and 1,000 feet in length would be included. The bridge structures also would have wider spaced (and parallel) concrete supports. These new features, in combination with the proposed project, would cause incrementally more visual change in the viewshed than the project would alone. Overall, however, implementation of both of these bridge replacement projects would not be expected to result in substantial adverse change for viewers in the vicinity of Camino del Mar, given the existing developed visual environment and the similarity between existing and proposed views. When located within a single view, the general consistency of the improvements in terms of color and scale, as well as the greater openness provided by both bridges, are expected to balance additional height of both bridges. Cumulative changes would be expected to be neutral overall rather than either detrimental or beneficial. Views and viewer response to the project would be similar to the existing condition since land uses and facility types would not substantially change. Therefore, the project's contribution to visual change within the viewshed would not be cumulatively considerable.

Biological Resources. Section IV of this IS/MND identified potentially significant impacts to biological resources resulting from construction of the proposed project, including indirect impacts to one special status species (Belding's savannah sparrow) and other nesting birds that may be present within the vicinity of the project; temporary impacts to 0.02 acre of Diegan coastal sage scrub; permanent impacts to 0.16 acre of Diegan coastal sage scrub (including 0.02 acre disturbed); and temporary impacts to 1.90 acres and 0.31 acre of permanent impacts to potential USACE, RWQCB, CDFW, and CCC jurisdictional areas. Implementation of mitigation measures BIO-1 through BIO-3 would ensure that potential impacts to Belding's savannah sparrow and other birds protected under the MBTA and California Fish and Game Code are avoided during construction. A conceptual mitigation plan would be

prepared for the project to address temporary and permanent impacts to Diegan coastal sage scrub (BIO-4). Native habitat that is subject to temporary impacts (i.e., 0.02 acre of Diegan coastal sage scrub, 0.61 acre of open water, and 1.29 acres of beach) would be restored to its previous state or better (biologically equivalent or superior in function and service). Temporary impacts to jurisdictional areas would be mitigated through implementation of a conceptual wetland mitigation plan that identifies no net loss of wetlands through a minimum 1:1 establishment/creation on-site or at an approved off-site location, prepared in consultation with the regulatory agencies (BIO-5).

The San Dieguito Rail Bridge Replacement project EA identified permanent impacts to up to 2.58 acres of sensitive upland habitats and associated species (although no federally listed or endangered species were identified). Implementation of the avoidance, minimization, and mitigation measures would reduce these impacts to less than significant. Additionally, potential impacts to up to 0.86 acre of potential USACE jurisdictional areas and up to 1.34 acres of potential CCC jurisdictional areas also were identified. Compensatory mitigation via a combination of off-site enhancement, preservation, and/or establishment was proposed such that no net loss of wetlands would occur. Therefore, project would not incrementally contribute to substantial cumulative impacts associated with the loss of habitat or sensitive vegetation communities region wide and impacts would be less than significant.

Cultural and Tribal Cultural Resources. As discussed in Section V, while no significant cultural resources have been identified within the APE, there are numerous and important cultural resources that have been identified in the project vicinity and there is potential for buried cultural resources and/or human remains to be present within the project footprint. Per mitigation measure CUL-1, a cultural resources monitoring program would be conducted during project construction to ensure that an archaeologist and Kumeyaay Native American monitor would be on site during ground disturbance. If previously unidentified cultural materials are unearthed during project construction activities, mitigation measure CUL-1 would require ground disturbing activities to be temporarily halted or redirected until the cultural material is documented and assessed for significance. Similarly, the San Dieguito River Bridge Replacement EA has identified mitigation to address potentially impacts to cultural resources, including construction worker training and on-site monitoring if sites are suspected of containing cultural materials or human remains. Accordingly, impacts to cultural resources and tribal cultural resources would be less than cumulatively considerable with incorporation of mitigation measures during construction.

Geology and Soils. Based on the noted geologic and topographic information, there is a potential that unique paleontological resources may be discovered during ground disturbing activities for the proposed project, as well as the San Dieguito River Bridge Replacement project. All potential impacts to paleontological resources associated with the two projects would be effectively avoided or addressed through identified avoidance and minimization measures (GEO-1 and GEO-2). The importance of individual paleontological resources is related to the inherent scientific data and associated research value. Information gained from implementation of paleontological monitoring would be presented in reports and filed with appropriate regulatory agencies and scientific institutions with permanent paleontological collections, such as the San Diego Natural History Museum, as applicable. Fossils collected during grading activities associated with the two projects would be curated at such a scientific institution and would be available to other paleontologists for further study. Based on the required compliance with monitoring, collection, and analysis requirements for paleontological resources, potentially significant project impacts to paleontological resources would be less than cumulatively considerable.

Hazards and Hazardous Materials. As discussed in Section IX, potentially significant impacts associated with release of hazardous materials during demolition of the existing bridge were identified relative to PCB-containing oils present in pole-mounted transformers, ACMs, and LBP. Completion of sampling and adherence to Caltrans' Standard Special Provisions, as well as implementation of mitigation measures HAZ-1 through HAZ-3, would ensure that construction activities would not create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of these hazardous materials into the environment. Similarly, impacts to hazardous waste/materials associated with the San Dieguito River Bridge Replacement project would be reduced through conformance with applicable regulatory requirements and implementation of appropriate avoidance, minimization, and mitigation measures. As a result, potentially significant impacts related to the increased exposure of people to public health and safety risks from hazardous materials would be less than cumulatively considerable.

Noise. As discussed in Section XII, noise associated with project construction would primarily affect the residential land uses adjacent to the bridge. Construction schedules and activities for the project and the San Dieguito River Bridge Replacement project are currently unknown; therefore, potential construction noise impacts associated with simultaneous projects are speculative; however, although multiple construction activities may occur simultaneously at the project site and LOSSAN rail site, given the distance between the two projects (500 feet) and the affected residences, as well as the noise attenuation created by intervening structures and other variables such as atmospheric absorption, the additional contribution to the ambient noise level would not be significant. Construction of the rail bridges and special events platform would generate noise and vibration at or above levels (daytime) established by the FTA as being likely to cause an adverse community reaction. Nighttime construction activities associated construction of double track could result in adverse impacts to residences along the project limits. These adverse impacts would not be substantial. Although not required to avoid a substantial impact, potential general noise reduction strategies for construction noise impacts were recommended, including temporary construction noise barriers between noisy activities and residential uses, avoiding nighttime construction when feasible, monitoring noise equipment levels, and minimizing the use of generators. Rail operations would generate noise level increases at some residences along the railroad tracks of approximately 1 dBA. This increase would not result in a substantial impact, nor would it affect the same residences that may also experience increased noise levels resulting from the proposed project. Therefore, impacts associated with noise and vibration would not be cumulatively considerable.

c) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?

Less Than Significant Impact. The proposed project would cause an increase in ambient noise levels during construction; however, impacts would be temporary and less than significant with implementation of mitigation measure NOI-1. Per mitigation measure NOI-2, a noise barrier is proposed to reduce the noise levels experienced at the two sensitive receptors for which operational noise levels would approach the applicable thresholds for acceptable noise levels, reducing potential impacts to less than significant. The temporarily increased noise levels would not cause substantial adverse impacts on human beings due to distance from sensitive human receptors (i.e., residences) and implementation of the Construction Noise Management Plan. As a result, the project is not anticipated to have a substantial adverse effect on human beings, either indirectly or directly, and impacts would remain less than significant.

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