# City of Del Mar
# Capital Improvement Program
# Streamlining Project

## Final
## Program Environmental Impact Report

## SCH No. 2025110661

**October 2026**


*Lead Agency:*

City of Del Mar
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## Table of Contents


**0.0 Preface ..... 0-1**

0.1. Introduction to the Environmental Analysis ..... 0-1
0.2. Organization of the PEIR ..... 0-1
0.3. CEQA Process Summary ..... 0-1
0.4. Changes to the Draft PEIR ..... 0-2
0.5. Comment Letters and Responses to Comments ..... 0-4

**Executive Summary ..... ES-1**

Introduction ..... ES-1
Purpose of the Program Environmental Impact Report ..... ES-1
Project Synopsis ..... ES-3
Background ..... ES-3
CIP Projects List ..... ES-3
Issues Raised During Scoping ..... ES-4
Summary of Significant Effects ..... ES-4
Significant and Unavoidable Environmental Effects ..... ES-5
Issues to be Resolved by the Decision-Making Body ..... ES-5
Summary Table ..... ES-5
Summary of Project Alternatives ..... ES-21
Alternatives to the Proposed Project ..... ES-21

**1.0 Introduction ..... 1-1**

1.1. Purpose of the PEIR ..... 1-1
1.2. Intended Uses of the PEIR ..... 1-2
1.2.1. Required Approvals ..... 1-2
1.2.2. Subsequent Approvals ..... 1-2
1.3. PEIR Scope, Issues, and Concerns ..... 1-2
1.3.1. Notice of Preparation of Environmental Impact Report ..... 1-3
1.3.2. Environmental Review Process ..... 1-4
1.4. Report Organization ..... 1-5
1.5. Incorporation by Reference ..... 1-7
1.5.1. City of Del Mar Community Plan ..... 1-7
1.5.2. City of Del Mar Municipal Code ..... 1-8
1.5.3. City of Del Mar Local Coastal Program ..... 1-8
1.5.4. City of Del Mar Climate Action Plan ..... 1-9

**2.0 Project Description ..... 2-1**

2.1. Project Location and Environmental Setting ..... 2-1
2.1.1. Regional Setting ..... 2-1

2.1.2. Local Setting ..... 2-1
2.2. Project Background ..... 2-7
2.3. Project Objectives ..... 2-7
2.4. Project Components ..... 2-8
2.4.1. Proposed Project Activities ..... 2-8
2.4.2. Representative CIP Projects ..... 2-15
2.4.3. Regulatory Requirements and Standard City Measures ..... 2-19
2.4.4. Activities Not Covered under this PEIR ..... 2-24
2.5. Required Approvals ..... 2-25

**3.0 Environmental Analysis ..... 3-1**

3.1. Air Quality ..... 3-9
3.1.1. Environmental Setting ..... 3-9
3.1.2. Regulatory Framework ..... 3-13
3.1.3. Significance Thresholds ..... 3-18
3.1.4. Project Impacts and Mitigation Measures ..... 3-19
3.2. Biological Resources ..... 3-27
3.2.1. Environmental Setting ..... 3-27
3.2.2. Regulatory Framework ..... 3-33
3.2.3. Significance Thresholds ..... 3-37
3.2.4. Project Impacts and Mitigation Measures ..... 3-38
3.3. Cultural Resources ..... 3-73
3.3.1. Environmental Setting ..... 3-74
3.3.2. Regulatory Framework ..... 3-77
3.3.3. Significance Thresholds ..... 3-81
3.3.4. Project Impacts and Mitigation Measures ..... 3-81
3.4. Geology and Soils ..... 3-107
3.4.1. Environmental Setting ..... 3-108
3.4.2. Regulatory Framework ..... 3-121
3.4.3. Significance Thresholds ..... 3-129
3.4.4. Project Impacts and Mitigation ..... 3-130
3.5. Greenhouse Gas Emissions ..... 3-157
3.5.1. Environmental Setting ..... 3-157
3.5.2. Regulatory Framework ..... 3-160
3.5.3. Significance Thresholds ..... 3-167
3.5.4. Project Impacts and Mitigation Measures ..... 3-167
3.6. Noise and Vibration ..... 3-173
3.6.1. Environmental Setting ..... 3-173
3.6.2. Regulatory Framework ..... 3-179
3.6.3. Significance Thresholds ..... 3-184
3.6.4. Project Impacts and Mitigation Measures ..... 3-184

3.7. Tribal Cultural Resources ..... 3-195
3.7.1. Environmental Setting ..... 3-195
3.7.2. Regulatory Framework ..... 3-197
3.7.3. Significance Thresholds ..... 3-199
3.7.4. Project Impacts and Mitigation Measures ..... 3-200

**4.0 Effects Found Not to Be Significant ..... 4-1**

4.1. Aesthetics ..... 4-1
4.2. Agriculture and Forestry Resources ..... 4-5
4.3. Energy ..... 4-6
4.4. Hazards and Hazardous Materials ..... 4-9
4.5. Hydrology and Water Quality ..... 4-15
4.6. Land Use and Planning ..... 4-21
4.7. Mineral Resources ..... 4-23
4.8. Population and Housing ..... 4-24
4.9. Public Services ..... 4-25
4.10. Recreation ..... 4-29
4.11. Transportation ..... 4-30
4.12. Utilities and Services ..... 4-33
4.13. Wildfire ..... 4-36

**5.0 Alternatives ..... 5-1**

5.1. Introduction ..... 5-1
5.2. Project Objectives ..... 5-1
5.3. Impacts of the Proposed Project ..... 5-2
5.4. Alternatives to the Proposed Project ..... 5-2
5.4.1. No Project Alternative (Alternative 1) ..... 5-3
5.4.2. Reduced Streamlining Alternative (Alternative 2) ..... 5-6
5.5. Alternatives Considered but Rejected as Infeasible ..... 5-9
5.5.1. No Project/No CIP Alternative ..... 5-9
5.5.2. Alternate Location for Utility Undergrounding Alternative ..... 5-10
5.5.3. Alternate Sites Alternative ..... 5-11
5.6. Environmentally Superior Alternative ..... 5-12

**6.0 Other CEQA Considerations ..... 6-1**

6.1. Significant and Irreversible Environmental Changes ..... 6-1
6.2. Growth-Inducing Impacts ..... 6-2
6.2.1. Removal of a Barrier to Growth ..... 6-3
6.2.2. Economic Growth ..... 6-3
6.2.3. Population Growth ..... 6-4

6.2.4. Establishment of a Precedent-Setting Action ..... 6-4
6.2.5. Encroachment on Open Space ..... 6-4

**7.0 Preparers and Persons Consulted ..... 7-1**

7.1. Program Environmental Impact Report ..... 7-1
7.1.1. Lead Agency – City of Del Mar ..... 7-1
7.1.2. Michael Baker International ..... 7-1
7.2. Technical Appendices ..... 7-1
7.2.1. Air Quality/Greenhouse Gas Data (Michael Baker International) ..... 7-1
7.2.2. Biological Resources Technical Report (Michael Baker International) ..... 7-1
7.2.3. Cultural and Paleontological Resources Technical Report (Michael Baker International) 7-2
7.2.4. Noise Data (Michael Baker International) ..... 7-2

**8.0 References ..... 8-1**

## List of Tables

Table 0-1 Summary of PEIR Text Changes ..... 0-4
Table 0-2 Comment Letters Received During 45-Day Public Review Period ..... 0-5
Table ES-1 Environmental Impact Summary ..... 6
Table ES-2 Comparison of Project Alternative Impacts to the Proposed Project ..... 21
Table 1-1 CEQA-Required Sections and Location in the PEIR ..... 1-6
Table 2-1 Status of Utilities Undergrounding Districts ..... 2-9
Table 2-2 FY 2026-2027 Work Plan CIP Projects ..... 2-26
Table 3-1 Cumulative Projects ..... 3-4
Table 3.1-1 Ambient Air Quality Standards ..... 3-14
Table 3.1-2 San Diego Air Basin Attainment Status by Pollutant ..... 3-15
Table 3.1-3 Screening Thresholds for Criteria Pollutants ..... 3-17
Table 3.1-4 Project No. 1: Maximum Daily Construction Emissions ..... 3-20
Table 3.1-5 Project No. 2: Maximum Daily Construction Emissions ..... 3-21
Table 3.1-6 Project No. 3: Maximum Daily Construction Emissions ..... 3-21
Table 3.1-7 Project No. 4: Maximum Daily Construction Emissions ..... 3-22
Table 3.2-1 Special-Status Plants with Potential to Occur in the Project Site ..... 3-30
Table 3.2-2 Special-Status Wildlife with Potential to Occur in the Project Site ..... 3-32
Table 3.3-1 Previously Recorded Resources Sites within the City ..... 3-74
Table 3.3-2 City of Del Mar Historic Preservation Landmarks ..... 3-77
Table 3.4-1 Paleontological Sensitivity of Underlying Geologic Units ..... 3-112
Table 3.5-1 Estimated Direct Construction-related GHG Emissions ($MTCO_2e$ /year) ..... 3-168
Table 3.5-2 2021 Regional Plan Consistency Analysis ..... 3-169
Table 3.5-3 Consistency with the 2022 Scoping Plan ..... 3-170
Table 3.6-1 Definitions of Acoustical Terms ..... 3-175
Table 3.6-2 Human Reaction and Damage to Buildings For Continuous or Frequent Intermittent Vibration Levels ..... 3-177
Table 3.6-3 Land Use Compatibility for Community Noise Environments ..... 3-179
Table 3.6-4 Project Nos. 1 and 2 Modeled Construction Noise Levels ..... 3-185
Table 3.6-5 Project No. 3 Modeled Construction Noise Levels ..... 3-186
Table 3.6-6 Project No. 1 Through 3 Construction Vibration Levels ..... 3-190

Table 3.6-7 Project No. 4 Construction Vibration Levels ..... 3-191
Table 5-1 Impact Comparison – Proposed Project Versus Project Alternatives ..... 5-13

## List of Figures

Figure 2-1 Regional Location Map ..... 2-3
Figure 2-2 Project Site Boundary ..... 2-5
Figure 2-3a Undergrounding Program Districts ..... 2-27
Figure 2-3b Existing Water Infrastructure ..... 2-29
Figure 2-3c Existing Wastewater Infrastructure ..... 2-31
Figure 2-3d Existing Storm Water Infrastructure ..... 2-33
Figure 2-3e Existing Streets Infrastructure ..... 2-35
Figure 2-3f Existing Municipal Facilities ..... 2-37
Figure 2-3g Existing Open Space ..... 2-39
Figure 2-4 Utilities Undergrounding District 2 Project Site ..... 2-41
Figure 2-5 Storm Water and Sewer Infrastructure Improvement Project Site ..... 2-43
Figure 2-6 Shores Park Improvements Project Site ..... 2-45
Figure 2-7 Shores Park Improvements Project Conceptual Site Plan ..... 2-47
Figure 3-1 Cumulative Project Locations ..... 3-7
Figure 3.2-1a Vegetation Communities Map ..... 3-51
Figure 3.2-1b Vegetation Communities Map ..... 3-53
Figure 3.2-2 Del Mar Sensitive Area Overlay Zones ..... 3-55
Figure 3.2-3 Biological Resources Sensitivity Zones ..... 3-57
Figure 3.2-4a Undergrounding Program Districts within Biological Resources Sensitivity Zones ..... 3-59
Figure 3.2-4b Existing Water Infrastructure within Biological Resources Sensitivity Zones ..... 3-61
Figure 3.2-4c Existing Wastewater Infrastructure within Biological Resources Sensitivity Zones ..... 3-63
Figure 3.2-4d Existing Storm Water Infrastructure within Biological Resources Sensitivity Zones ..... 3-65
Figure 3.2-4e Existing Streets Infrastructure within Biological Resources Sensitivity Zones ..... 3-67
Figure 3.2-4f Existing Municipal Facilities within Biological Resources Sensitivity Zones ..... 3-69
Figure 3.2-4g Existing Open Space within Biological Resources Sensitivity Zones ..... 3-71
Figure 3.3-1 SCIC Recorded Built Environment Resources ..... 3-87
Figure 3.3-2 Historic Preservation Landmarks ..... 3-89
Figure 3.3-3 Archaeological Sensitivity Zones ..... 3-91
Figure 3.3-4a Undergrounding Program Districts Within Archaeological Sensitivity Zones ..... 3-93
Figure 3.3-4b Existing Water Infrastructure Within Archaeological Sensitivity Zones ..... 3-95
Figure 3.3-4c Existing Wastewater Infrastructure Within Archaeological Sensitivity Zones ..... 3-97
Figure 3.3-4d Existing Storm Water Infrastructure Within Archaeological Sensitivity Zones ..... 3-99
Figure 3.3-4e Existing Streets Infrastructure Within Archaeological Sensitivity Zones ..... 3-101
Figure 3.3-4f Existing Municipal Facilities Within Archaeological Sensitivity Zones ..... 3-103
Figure 3.3-4g Existing Open Space Within Archaeological Sensitivity Zones ..... 3-105
Figure 3.4-1 USDA Soils ..... 3-113
Figure 3.4-2 Liquefaction Potential ..... 3-115
Figure 3.4-3 Landslide Potential ..... 3-117
Figure 3.4-4 Coastal Bluff Overlay Zone ..... 3-119
Figure 3.4-5 Paleontological Resources Sensitivity Zones ..... 3-141
Figure 3.4-6a Undergrounding Program Districts Within Paleontological Resources Sensitivity Zones ..... 3-143
Figure 3.4-6b Existing Water Infrastructure Within Paleontological Resources Sensitivity Zones ..... 3-145

Figure 3.4-6c Existing Wastewater Infrastructure Within Paleontological Resources Sensitivity Zones ..... 3-147
Figure 3.4-6d Existing Storm Water Infrastructure Within Paleontological Resources Sensitivity Zones ..... 3-149
Figure 3.4-6e Existing Streets Infrastructure Within Paleontological Resources Sensitivity Zones .. 3-151
Figure 3.4-6f Existing Municipal Facilities Within Paleontological Resources Sensitivity Zones..... 3-153
Figure 3.4-6g Existing Open Space Within Paleontological Resources Sensitivity Zones ..... 3-155

## List of Appendices

Appendix A Notice of Preparation (NOP) and NOP Responses
Appendix B City of Del Mar Work Plan for FY 2026-2027
Appendix C Del Mar CIP Streamlining Program Checklist
Appendix D Air Quality/Greenhouse Gas Emissions Data
Appendix E Biological Resources Technical Report
Appendix F Programmatic Cultural and Paleontological Resources Assessment
Appendix G Noise Data

## List of Acronyms and Abbreviations

°C .....degrees Celsius
AB .....Assembly Bill
ADA .....Americans with Disabilities Act
Adaptation Plan .....Sea Level Rise Adaptation Plan
APE .....Area of Potential Effects
ARPA .....Archaeological Resources Protection Act
Basin Plan .....Water Quality Control Plan for the San Diego Basin
BMP .....best management practice
BSC-OZ .....Bluff, Slope, and Canyon Overlay Zone
CAAQS .....California Ambient Air Quality Standards
CalEEMod.....California Emissions Estimator Model version 2022.1
CalFire.....California Department of Forestry and Fire Protection
Caltrans.....California Department of Transportation
CAFÉ .....Corporate Average Fuel Economy
CAP .....Climate Action Plan
CAPCOA .....California Air Pollution Control Officers Association
CARB .....California Air Resources Board
CBC .....California Building Code
CC .....Central Commercial
CCA .....California Coastal Act
CCC .....California Coastal Commission
CCR .....California Code of Regulations
CDC .....California Department of Conservation
CDFW .....California Department of Fish and Wildlife
CDP .....Coastal Development Permit
CEQA .....California Environmental Quality Act
CESA .....California Endangered Species Act
CFC .....chlorofluorocarbon
CFGC .....California Fish and Game Code
CGS .....California Geological Survey
$CH_4$ .....methane
CHRIS .....California Historical Resources Information System
CIP .....Capital Improvement Program
CIPP .....cured-in-place pipe
City.....City of Del Mar
CMP .....corrugated metal pipe
CNEL.....Community Noise Equivalent
CNPS .....California Native Plant Society
CO .....carbon monoxide
$CO_2$ .....carbon dioxide
CRHR .....California Register of Historical Resources
CRPR .....California Rare Plant Rank
CWA .....Clean Water Act
dB .....decibel

dBA .....A-weighted decibel sound level
DMMC .....Del Mar Municipal Code
DMUSD .....Del Mar Union School District
DOC .....California Department of Conservation
DPM.....diesel particulate matter
DTSC .....California Department of Toxic Substances Control
DWR .....California Department of Water Resources
EIR .....Environmental Impact Report
EPA .....Environmental Protection Agency
ESHA .....Environmentally Sensitive Habitat Area
FEMA .....Federal Emergency Management Agency
FHSZ.....Fire Hazard Severity Zone
FHWA .....Federal Highway Administration
FIRM .....Flood Insurance Rate Map
FTA .....Federal Transit Administration
FW .....Floodway Zone
FY .....fiscal year
GHG .....greenhouse gas
GWP .....global warming potential
$H_2O$ .....water vapor
HCFC .....hydrochlorofluorocarbon
HFC .....hydrofluorocarbon
HP-OZ .....Historic Preservation Overlay Zone
HVAC .....Heating, Ventilation, and Air Conditioning
Hz .....hertz
I-5 .....Interstate 5
inch/sec .....inches per second
IPCC .....Intergovernmental Panel on Climate change
ISO .....International Organization for Standardization
kWh .....kilowatt-hours
lbs .....pounds
LCFS .....Low Carbon Fuel Standard
LCI .....California Governor's Office of Land Use & Climate Innovation
LCP.....Local Coastal Program
$L_{dn}$ .....day-night average sound level
$L_{eq}$ .....equivalent continuous sound level
LF .....linear feet
LOSSAN .....Los Angeles–San Diego–San Luis Obispo rail corridor
LTS .....Less Than Significant
LTS+M .....Less Than Significant with Mitigation Incorporated
LUP .....Land Use Plan
MBTA .....Migratory Bird Treaty Act
$\mu g/m^3$ .....micrograms per cubic meter
mgd .....million gallons per day
MHMP .....Multi-Jurisdictional Hazard Mitigation Plan
MSCP .....Multiple Species Conservation Program

MMRP .....Mitigation Monitoring and Reporting Program
MRZ .....Mineral Resource Zone
MS4 .....municipal separate storm sewer system
$MTCO_2e$ .....metric tons of carbon dioxide equivalent
MWD .....Metropolitan Water District
$N_2O$ .....nitrous oxide
NAAQS .....National Ambient Air Quality Standards
NAGPRA .....Native American Graves Protection and Repatriation Act
NAHC .....Native American Heritage Commission
NCC .....Not Cumulatively Considerable
NHPA .....National Historic Preservation Act
NHTSA .....National Highway Traffic Safety Administration
NI .....No Impact
NOC .....Notice of Completion
NOD .....Notice of Determination
$NO_X$ .....nitrogen oxides
$NO_2$ .....nitrogen dioxide
NOP .....Notice of Preparation
NPDES .....National Pollutant Discharge Elimination System
NPPA .....Native Plant Protection Act
NRHP .....National Register of Historic Places
$O_3$ .....ozone
OES .....Office of Emergency Services
OPR .....California Governor's Office of Planning and Research
OS .....Open Space
OS-OZ .....Open Space Overlay Zone
PCH .....Pacific Coast Highway
PEIR .....Program Environmental Impact Report
PF .....Public Facilities Zone
PFC .....perfluorocarbon
$PM_{10}$ .....particulate matter (≤10 microns)
$PM_{2.5}$ .....particulate matter (≤2.5 microns)
PP .....Public Parkland Zone
pphm .....parts per hundred million
ppm .....parts per million
PPV .....peak particle velocity
PRC .....Public Resources Code
project .....City of Del Mar Capital Improvements Program Streamlining Project
proposed project .....City of Del Mar Capital Improvements Program Streamlining Project
PRPA .....Paleontological Resources Preservation, Omnibus Public Lands Act
PVC .....polyvinyl chloride
RAQS .....Regional Air Quality Strategy
RCNM .....Roadway Construction Noise Model
RCP .....reinforced concrete pipe
RMS .....root mean square
ROG .....reactive organic gas

RWQCB .....Regional Water Quality Control Board
§ .....Section
SAFE .....Safer Affordable Fuel-Efficient
SANDAG .....San Diego Association of Governments
SB .....Senate Bill
SCAQMD .....South Coast Air Quality Management District
SCIC .....South Coastal Information Center
SCS .....Sustainable Communities Strategy
SDAB .....San Diego Air Basin
SDAPCD .....San Diego Air Pollution Control District
SDCSD .....San Diego County Sheriff's Department
SDCWA .....San Diego County Water Authority
SDG&E .....San Diego Gas & Electric
SDUHSD .....San Dieguito Union High School District
$SF_6$ .....sulfur hexafluoride
SHPO .....State Historic Preservation Officer
SIP .....State Implementation Plan
SOI .....Secretary of the Interior
$SO_X$ .....sulfur oxides
SU .....Significant and Unavoidable
SVP .....Society of Vertebrate Paleontology
SWPPP .....Storm Water Pollution Prevention Plan
SWRCB .....State Water Resources Control Board
TAC .....Toxic Air Contaminant
Technical Advisory .....Technical Advisory on Evaluating Transportation Impacts in CEQA
UP .....Undergrounding Program
USACE .....United States Army Corps of Engineers
USC .....United States Code
USDA .....United States Department of Agriculture
USFWS .....United States Fish and Wildlife Service
UUD .....Utilities Undergrounding District
VdB .....vibration decibels
VCP .....vitrified clay pipe
VMT .....vehicle miles traveled
VMT Guidelines .....City of Del Mar Guidelines for Transportation Impact Analysis
VOC .....volatile organic compound

# 0.0 PREFACE

## 0.1. Introduction to the Environmental Analysis

The Final Program Environmental Impact Report (PEIR) for the City of Del Mar Capital Improvement Program Streamlining Project (project) has been prepared in accordance with the California Environmental Quality Act (CEQA) (California Public Resources Code Section 21000 et seq.), and the CEQA Guidelines (14 California Code of Regulations, Division 6, Chapter 3). CEQA Guidelines Section 15132 indicates that the contents of a Final PEIR shall consist of:

- The Draft PEIR or a revision of the Draft PEIR;
- Comments and recommendations received on the Draft PEIR, either verbatim or in summary;
- A list of persons, organizations, and public agencies commenting on the Draft PEIR;
- The responses of the lead agency to significant environmental points raised in the review and consultation process; and
- Any other information added by the lead agency.

## 0.2. Organization of the PEIR

This Final PEIR provides the requisite information required under CEQA and is organized as follows:

- **Introduction to the Environmental Analysis**. This section introduces the Final PEIR, including the requirements under CEQA, and organization of the document, as well as a summary of the CEQA process activities to date.
- **Comment Letters and Responses to Comments**. This section lists the public agencies, organizations, and individuals commenting on the Draft PEIR, provides a copy of each written comment received, and includes any response required pursuant to CEQA.
- **Final PEIR**. This section details changes to the Draft PEIR in a side-by-side table format.

The Draft PEIR and the Final PEIR, along with public comments, will be considered by the City of Del Mar (City) in determining whether to certify the Final PEIR and approve the project.

## 0.3. CEQA Process Summary

Pursuant to Section 15082 of the CEQA Guidelines, the discussion of potential effects on the environment is focused on those impacts that the lead agency determined could be potentially significant. The City distributed a Notice of Preparation (NOP) that was circulated for a 33-day public scoping period commencing on November 13, 2025, and ending on December 16, 2025. The NOP was distributed to state and local agencies, responsible and trustee agencies, and interested parties and organizations.

The Draft PEIR includes an in-depth evaluation of seven environmental resource areas and other CEQA mandated issues (e.g., cumulative impacts, growth-inducing impacts, alternatives, impacts that are less than significant). The seven environmental issue areas upon which the PEIR focuses include air quality, biological resources, cultural resources, geology and soils, greenhouse gas emissions, noise and vibration, and tribal cultural resources.

The City released a Notice of Availability (NOA) and the Draft PEIR on June 26, 2026, for a 49-day public review period ending on August 14, 2026. The NOA was distributed to state and local agencies, responsible and trustee agencies, and interested parties and organizations, including the agencies that commented during the scoping period. During the public review period, the Draft PEIR was available for review on the City's website at https://www.delmar.ca.us/954/Capital-Improvement-Program.

Comments received on the Draft PEIR have been incorporated into the Final PEIR document. The City will review and consider the Final PEIR. If the City finds that the Final PEIR is "adequate and complete," the City may certify the Final PEIR. The rule of adequacy generally holds that the PEIR can be certified if it: (1) shows a good-faith effort at full disclosure of environmental information; and (2) provides sufficient analysis to allow decisions to be made regarding the project in contemplation of its environmental consequences.

Upon review and consideration of the Final PEIR, the City may take action to adopt, revise, or reject the proposed project. A decision to approve the proposed project would be accompanied by written findings (Findings of Fact) in accordance with CEQA Guidelines Section 15091. Public Resources Code Section 21081.6 also requires lead agencies to adopt a Mitigation Monitoring and Reporting Program (MMRP) to describe measures that have been adopted or made a condition of project approval in order to mitigate or avoid significant effects on the environment. The Findings of Fact and the MMRP are available under separate cover.

## 0.4. Changes to the Draft PEIR

Changes have been made to the Draft PEIR in response to comments and to provide updates and clarifications to information provided herein. Consistent with CEQA Guidelines Section 15088.5(b), these revisions have been made to clarify text for consistency or revise punctuation as appropriate throughout the document, and these revisions do not result in what constitutes new significant information that would require recirculation of the document.

CEQA Guidelines Section 15088.5 describes when a PEIR requires recirculation prior to certification, stating in relevant part:

> *(a) A lead agency is required to recirculate an EIR when significant new information is added to the EIR after public notice is given of the availability of the draft EIR for public review under Section 15087 but before certification. As used in this section, the term "information" can include changes in the project or environmental setting as well as additional data or other information. New information added to an EIR is not "significant" unless the EIR is changed in a way that deprives the public of a meaningful opportunity to comment upon a substantial adverse environmental effect*

*of the project or a feasible way to mitigate or avoid such an effect (including a feasible project alternative) that the project's proponents have declined to implement.*

*(b) Recirculation is not required where the new information added to the EIR merely clarifies or amplifies or makes insignificant modifications in an adequate EIR.*

None of the changes made to the Draft PEIR or information provided in the comments received reflect a new significant environmental impact, a substantial increase in the severity of an environmental impact for which mitigation is not proposed, or a new feasible alternative or mitigation measure that would clearly lessen significant environmental impacts but is not adopted. Therefore, the Draft PEIR is not subject to recirculation prior to certification.

Table 0-1 below details the changes to the Draft PEIR in response to comments received from the California Department of Fish and Wildlife (CDFW). Changes to the Draft PEIR are listed by page to best guide the reader to the revision. Minor edits such as those made to correct punctuation or spelling are not included in Table 0-1.

**TABLE 0-1 SUMMARY OF PEIR TEXT CHANGES**

| Page | PEIR Location | Draft PEIR Text | Revised PEIR Text |
|---|---|---|---|
| ES-7 and 3-41 | Executive Summary, Table ES-1, under Biological Resources Impact 3.2-1 and Section 3.2, Biological Resources, under Impact 3.2-1 in Section 3.2.4 | **BIO-1, Biological Resources Technical Report.** Prior to clearing, grubbing, grading, or vegetation removal activities associated with CIP projects wholly and/or partially within moderate or high biological resource sensitivity zones as depicted in Figure 3.2-3, the City shall retain a qualified biologist to conduct a project-specific biological resources technical report. The report shall: (1) delineate vegetation communities and land covers, including riparian habitat or other sensitive natural communities; (2) identify aquatic resources including potential jurisdictional wetlands and non-wetlands waters of the US and/or State; (3) identify the extent or absence of habitat that may support special-status plants or wildlife; (4) evaluate the potential for direct and indirect impacts from proposed activities; (5) outline avoidance and minimization measures to avoid direct and indirect impacts; and (6) specify any additional compensatory mitigation measures to reduce direct and indirect impacts below a level of significance. | **BIO-1, Biological Resources Technical Report.** Prior to clearing, grubbing, grading, or vegetation removal activities associated with CIP projects wholly and/or partially within moderate or high biological resource sensitivity zones as depicted in Figure 3.2-3, Biological Resources Sensitivity Zones, the City shall retain a qualified biologist to conduct a project-specific biological resources technical report. Preparation of a project-specific biological resources technical report shall, at a minimum, include a comprehensive database and literature review, biological site survey, and consideration and evaluation for the habitat types and species occurrences identified in Table 2, Vegetation Communities and Land Cover Types; Table 3, Special Status Plants Expected to Occur within the City of Del Mar; and Table 5, Special-Status Wildlife Expected to Occur within the City of Del Mar, of Appendix E of the PEIR. Project-specific biological resources technical reports shall: (1) delineate vegetation communities and land covers, including riparian habitat or other sensitive natural communities; (2) identify aquatic resources including potential jurisdictional wetlands and non-wetlands waters of the US and/or State; (3) identify the extent or absence of habitat that may support special-status plants or wildlife; (4) evaluate the potential for direct and indirect impacts from proposed activities; (5) outline avoidance and minimization measures to avoid direct and indirect impacts; and (6) specify any additional compensatory mitigation measures to reduce direct and indirect impacts below a level of significance. |

## 0.5. Comment Letters and Responses to Comments

As indicated, the Draft PEIR for the proposed project was prepared and circulated for public review on June 26, 2026, for a 49-day period ending on August 14, 2026. During that time, the City received two comment letters from state agencies. No comment letters were received from federal or local agencies, organizations, or individuals. The comment letters have each been assigned an alphabetical label, and the individual comments within each letter are bracketed and numbered. For example, Comment Letter A (from CDFW) contains 36 bracketed comments that are numbered A-1 through A-36.

The City's responses to each comment on the Draft PEIR represent a good-faith, reasoned effort to address the environmental issues identified by the comments. Under the CEQA Guidelines, the City is not required to respond to all comments on the Draft PEIR, but only those comments that raise environmental issues. In accordance with CEQA Guidelines Sections 15088 and 15204, the City has independently evaluated the comments and prepared the attached written responses describing the disposition of any significant environmental issues raised. CEQA does not require the City to conduct every test or perform all research, study, and experimentation recommended by commenters.

Rather, CEQA requires the City to provide a good-faith, reasoned analysis supported by factual information. To fulfill these requirements, the City's Planning and Community Development Department staff consulted with and independently reviewed analysis responding to the Draft PEIR comments prepared by Michael Baker International (the City's environmental consultant that prepared the PEIR and associated Biological Resources Technical Report [Appendix E]), which include experts in planning and environmental and biological sciences, each of whom has years of educational and professional experience in these fields; is familiar with the project and the environmental conditions in the City; and is familiar with the federal, state, and local laws and regulations (including CEQA) applicable to the proposed project. Accordingly, the City's final analysis provided in the responses to comments is backed by substantial evidence, as appropriate to the specific issues raised.

Table 0-2, Comment Letters Received During 45-Day Public Review Period, below provides a list of those parties that submitted written comments on the Draft PEIR during the public review period. A copy of each comment letter is included in this section, along with the City's corresponding responses. Comments provided in each letter have been numbered for ease of reference to the City's corresponding response that follows.

**TABLE 0-2 COMMENT LETTERS RECEIVED DURING 45-DAY PUBLIC REVIEW PERIOD**

| Letter | Organization/Name | Date of Letter |
|---|---|---|
| A | California Department of Fish and Wildlife (CDFW) | August 13, 2026 |
| B | California Department of Transportation (Caltrans) | August 13, 2026 |

Docusign Envelope ID: 827029F1-FA6C-8B4C-800A-5338913ADEF6



STATE OF CALIFORNIA
DEPARTMENT OF FISH AND WILDLIFE

*GAVIN NEWSOM, Governor*
*MEGHAN HERTEL, Director*

South Coast Region
3883 Ruffin Road
San Diego, CA 92123
wildlife.ca.gov

August 13, 2026

Jennifer Gavin
City of Del Mar
1050 Camino del Mar
Del Mar, California 92014
jgavin@delmar.ca.us

**SUBJECT: DRAFT PROGRAM ENVIRONMENTAL IMPACT REPORT FOR THE CITY OF DEL MAR CAPITAL IMPROVEMENT PROGRAM, SCH NO. 2025110661, SAN DIEGO COUNTY, CA**

Dear Jennifer Gavin:

The California Department of Fish and Wildlife (CDFW) reviewed the Draft Program Environmental Impact Report (PEIR) from the City of Del Mar (City) for the City of Del Mar Capital Improvement Program (Project) pursuant to the California Environmental Quality Act (CEQA) and CEQA Guidelines[1].

Thank you for the opportunity to provide comments and recommendations regarding Project activities that may affect California fish and wildlife. Likewise, CDFW appreciates the opportunity to comment on those aspects of the Project that CDFW, by law, may be required to carry out or approve through the exercise of its own regulatory authority under the Fish and Game Code.

A-1

**CDFW ROLE**

CDFW is California's Trustee Agency for fish and wildlife resources and holds those resources in trust by statute for all the people of the state (Fish & G. Code, §§ 711.7, subd. (a) & 1802; Pub. Resources Code, § 21070; CEQA Guidelines § 15386, subd. (a)). CDFW, in its trustee capacity, has jurisdiction over the conservation, protection, and management of fish, wildlife, native plants, and habitat necessary for biologically sustainable populations of those

[1] CEQA is codified in the California Public Resources Code in section 21000 et seq. The "CEQA Guidelines" are found in Title 14 of the California Code of Regulations, commencing with section 15000.

Conserving California's Wildlife Since 1870

# Letter A – California Department of Fish and Wildlife, dated August 13, 2026

**A-1**

Comment Summary

This comment summarizes the role of the California Department of Fish and Wildlife (CDFW).

Response

This comment does not raise an environmental issue of concern relative to CEQA nor question the adequacy of the PEIR. Refer to subsequent responses to comments below for additional discussion.

Docusign Envelope ID: 827029F1-FA6C-8B4C-800A-5338913ADEF6



species (Fish & G. Code, § 1802). Similarly, for purposes of CEQA, CDFW is charged by law to provide, as available, biological expertise during public agency environmental review efforts, focusing specifically on projects and related activities that have the potential to adversely affect fish and wildlife resources.

A-1 cont'd

CDFW may also act as a Responsible Agency under CEQA. (Pub. Resources Code, § 21069; CEQA Guidelines, § 15381). CDFW expects that it may need to exercise regulatory authority as provided by the Fish and Game Code. As proposed, for example, the Project may be subject to CDFW's lake and streambed alteration regulatory authority (Fish & G. Code, § 1600 et seq.). Likewise, to the extent implementation of the Project as proposed may result in "take" as defined by State law[2] of any species protected under the California Endangered Species Act (CESA) (Fish & G. Code, § 2050 et seq.) or the Native Plant Protection Act (NPPA; Fish & G. Code, §1900 et seq.), the Project proponent may seek related take authorization as provided by the Fish and Game Code.

**PROJECT DESCRIPTION SUMMARY**

**Proponent:** City of Del Mar

A-2

**Objective:** As described in the Draft PEIR, the Capital Improvement Program is a 10-year strategic planning and budgeting tool for addressing the City of Del Mar's current and future capital infrastructure and facility needs, and it is revised over time in publicly noticed meetings of the City Council as conditions, City Council priorities, and funding change.

The stated objective of the PEIR is to help streamline the implementation of current and future individual Projects to ensure continued public health, safety and welfare for the City's residents, businesses, and visitors by establishing a clear procedural framework for CEQA compliance on a wide array of individual Project types.

The Project is intended to allow for the continued maintenance, refurbishment, repair, upgrade, and/or replacement of existing public infrastructure and facilities; allow for the construction and operation and maintenance of new capital Projects; and develop a mitigation framework to ensure consistent and effective implementation of environmental protections. Individual Projects to be evaluated in the PEIR include utility undergrounding;

[2] "Take" is defined in Section 86 of the Fish and Game Code as "hunt, pursue, catch, capture, or kill, or attempt to hunt, pursue, catch, capture, or kill."

**A-2**

Comment Summary

This comment summarizes the project description, objectives, and location.

Response

This comment does not raise an environmental issue of concern relative to CEQA nor question the adequacy of the PEIR. Refer to subsequent responses to comments below for additional discussion.

Docusign Envelope ID: 827029F1-FA6C-8B4C-800A-5338913ADEF6



A-2 cont'd water, wastewater, and stormwater infrastructure improvements; and improvements to streets, public facilities, and open space.

**Location:** City of Del Mar, County of San Diego

**Biological Setting:** As described in the Draft PEIR, the City of Del Mar is largely built out, with relatively few developable, vacant areas remaining. The City is surrounded on almost all sides by significant landforms and resources. The Pacific Ocean, beach, and coastal bluffs are located along the western City boundary, San Dieguito Lagoon and the San Dieguito River are located in the northern portion of the City, upland bluff, slope, and canyon hillside areas wrap around much of the City's northern and eastern boundaries, and the Los Peñasquitos Lagoon occurs just south of the City.

Natural habitat types that occur within the City include:

A-3

- Southern foredunes
- Southern coastal bluff scrub
- Maritime succulent scrub
- Diegan coastal sage scrub, including coastal form
- Southern mixed chaparral
- Southern maritime chaparral
- Southern coastal salt marsh
- Coastal and valley freshwater marsh
- Riparian scrub and forest
- Open water
- Intertidal
- Estuarine
- Saltpan/mudflats
- Beach
- Torrey pine forest

Special-status plant species listed in the Draft PEIR (Table 3.2-1) include: 15 plant species that are known to occur in the City, and 46 that may occur due to the presence of nearby known locations and potentially suitable habitat.

Special-status wildlife listed in the Draft PEIR (Table 3.2-2) include: 15 wildlife species known to occur in the City, and 14 that may occur due to the presence of nearby known locations and potentially suitable habitats.

**A-3**

Comment Summary

This comment summarizes the existing setting, including the on-site biological conditions and biological resource sensitivity zones described in the PEIR.

Response

The commenter summarizes the PEIR's thorough biological setting, as detailed in Section 3.2.1, Environmental Setting, including discussion of the project's physical setting and surrounding uses; natural habitat types; and special-status plant and wildlife species known to occur within the City of Del Mar (City) boundaries. The commenter also acknowledges the programmatic approach of the PEIR and summarizes the biological resources sensitivity zones defined in Section 3.2.4, Project Impacts and Mitigation Measures, and used in the PEIR to evaluate potential project effects resulting with future implementation of the individual CIP projects. This comment does not raise an environmental issue of concern relative to CEQA nor question the adequacy of the PEIR. Refer to subsequent responses to comments below for additional discussion.

Docusign Envelope ID: 827029F1-FA6C-8B4C-800A-5338913ADEF6



A-3 cont'd Included on those lists are plant and wildlife species that are threatened, endangered, or candidates for listing under CESA and/or threatened or endangered under the Federal Endangered Species Act (ESA).

For the purposes of the PEIR, the City has identified three biological resources sensitivity zones.

- High Sensitivity Zone: These areas contain the highest concentration of sensitive biological resources, such as wetlands, riparian habitats, rare vegetation communities, designated Environmentally Sensitive Habitat Areas, and known occurrences of special-status species. High Sensitivity Zones often overlap with regulatory overlays (e.g., Lagoon Overlay Zone, Bluff/Slope/Canyon Overlay Zone) and may include critical habitat, wildlife corridors, or protected tree species.
- Moderate Sensitivity Zone: This zone is mapped as a 100-foot buffer surrounding the High Sensitivity Zone. Its primary purpose is to provide an added layer of protection for the most sensitive biological resources by minimizing indirect impacts from adjacent development activities. This buffer helps to maintain ecological integrity, reduce edge effects, and support habitat connectivity adjacent to high-value areas.
- Low Sensitivity Zone: This zone is generally characterized by developed or disturbed areas with limited biological resource value, such as urbanized parcels, maintained landscapes, or areas lacking native vegetation. Due to the presence of the Moderate Sensitivity Zone buffer, these areas are not expected to overlap with High Sensitivity Zones. While these areas generally have limited habitat value, they may still contain biological resources that could support nesting birds and listed species that may occur in developed areas (e.g., monarch butterfly or Crotch's bumble bee).

**COMMENTS AND RECOMMENDATIONS**

A-4 CDFW offers the comments and recommendations below to assist the City in adequately identifying and/or mitigating the Project's significant, or potentially significant, direct and indirect impacts on fish and wildlife (biological) resources. Additional comments or other suggestions are also included to improve the document.

**COMMENT # 1: Impacts to Sensitive Species**

A-5 **Issue:** Individual Projects under the Project could have a substantial effect, either directly or through habitat modification, on sensitive species.

**Specific impact:** The Draft PEIR does not include species-specific analysis of potential impacts, nor does it include species-specific mitigation measures that would be employed if

**A-4**

Comment Summary

The comment indicates that CDFW is providing comments and recommendations to assist the City as CEQA lead agency in identifying potential project impacts and adequate mitigation to improve the PEIR.

Response

As demonstrated in the responses to comments below, the City has reviewed the comments provided by CDFW and has incorporated the appropriate changes to enhance the impact analyses in the PEIR as well as enhancing mitigation measures, as appropriate, to reduce potentially significant impacts. Thus, the City acknowledges the comments provided and has taken CDFW's recommendations into consideration.

**A-5**

Comment Summary

The commenter states that the PEIR does not include species-specific analysis of potential impacts resulting with project implementation, nor does it include species-specific mitigation measures that would be implemented if sensitive species are identified on future individual CIP project sites. The commenter indicates that, because the PEIR identifies the potential for sensitive resources to be present, analysis of potential project impacts on the species identified should be included in the PEIR, and that specific mitigation measures for potential impacts to each species should be provided.

Response

As indicated in Section 1.3, PEIR Scope, Issues, and Concerns, the PEIR is intended to evaluate potential impacts associated with implementation of future individual CIP projects, based upon information known at the time of the PEIR's preparation. Specific project locations and types of activities typically associated with the CIP projects were evaluated in the PEIR at a programmatic level based on information available to City staff

Docusign Envelope ID: 827029F1-FA6C-8B4C-800A-5338913ADEF6



A-5 cont'd: focal species are encountered during Project-specific or species-specific surveys. Since potentially-occurring biological resources have been identified in the Draft PEIR, as has a range of construction activities, the Draft PEIR should include analysis of the impacts of the proposed activities on the identified species, and should identify specific mitigation measures for each species that would reduce those impacts to less-than-significant.

A-6: **Why impact would occur:** Future individual Projects could occur in locations containing sensitive plants or wildlife species. The Draft PEIR identifies 41 special-status plant species and 25 special-status wildlife species that could be directly or indirectly impacted during construction activities and acknowledges the impacts could be potentially significant. Moreover, biological surveys have not been conducted to support the Draft PEIR. Mitigation Measure BIO-1 in the Draft PEIR calls for the City to retain a biologist to conduct a Project-specific biological resources technical report for ground- or vegetation-disturbing Projects that will occur wholly or partially within moderate or high biological resource sensitivity zones. The measure requires the report to include an evaluation of the potential for direct and indirect impacts and an outline of avoidance and minimization measures to avoid those impacts. The report is also required to specify any additional compensatory measures to reduce impacts to below a level of significance. The measure does not indicate whether surveys would be conducted, or if the report would be based on literature review alone. Furthermore, the measure does not require any review for individual Projects within the low sensitivity zone, despite the acknowledgement that sensitive species, such as Crotch's bumble bee (*Bombus crotchii*), could occur.

A-7: If ground disturbance or vegetation removal associated with individual Project activities occurs without appropriate surveys, then impacts to sensitive species could occur. Grading, excavation, installation of structures, and vegetation removal may result in injury or mortality to individual species and habitat destruction. Measures requiring biological surveys for all sensitivity zones, as well as measures for avoidance and minimization of and, if necessary, compensation for impacts are warranted.

A-8: Ground disturbance and vegetation removal associated with individual Project activities occurring during the bird breeding season could result in nest abandonment or otherwise lead to the incidental loss of breeding success of birds. Requirements to conduct all Project activities outside of bird nesting season, or measures requiring surveys to detect nesting birds and a protective buffer between Project activities and nests, are warranted.

A-9: Vegetation in and adjacent to individual Project sites may provide cover and habitat for wildlife, especially small reptiles and amphibians. Ground disturbing activities may result in habitat destruction for sensitive wildlife, causing the death or injury of adults, juveniles, eggs,

where reasonably foreseeable direct and indirect physical changes in the environment could occur.

As is typical of PEIRs, no site-specific analysis was conducted for certain environmental topics where information was unavailable or where analysis of potential impacts from future CIP projects would be too speculative. Potential changes beyond those analyzed in the PEIR are therefore considered speculative or unlikely to occur.

All future CIP projects undertaken by the City would be subject to subsequent evaluation pursuant to CEQA, utilizing the framework established in the PEIR. Upon certification of the Final PEIR, the City will be able to rely on the environmental impact analyses contained in the document to streamline CEQA review for future individual CIP projects.

Evaluation of individual CIP projects at the project level would determine site-specific conditions at the time a project is to be implemented. As conditions of a specific site may change over time, and individual CIP projects considered in the PEIR would be implemented over a span of multiple years, conducting a general biological survey of the extent of all future CIP sites at the time of preparation of the PEIR is not practical or feasible. As it may be years before a specific CIP project is implemented, conducting site-specific biological surveys as part of preparation of the PEIR may result in such surveys becoming outdated by the time a CIP project is implemented, thus rendering such survey results void and requiring the City to conduct additional surveys of project sites to obtain that site's existing biological conditions.

As indicated in PEIR Section 1.2.2, Subsequent Approvals, a CIP CEQA Streamlining Checklist was prepared to evaluate future CIP projects (see PEIR Appendix C, Del Mar CIP Streamlining Program Checklist). Before any given CIP project can be implemented, City staff will complete the checklist with project-specific details—such as project type, location, construction duration, and construction equipment—and will review all mitigation measures included in the PEIR to determine which measures are applicable to individual CIP projects. Future CIP projects would also be evaluated under CEQA Guidelines Section 15168 with consideration of the certified PEIR. Such evaluations would be undertaken to

determine whether a specific CIP project was adequately analyzed under the certified PEIR, or if a subsequent environmental document, addendum to the PEIR, or additional evaluation is required pursuant to CEQA regulations.

Per CEQA Guidelines Sections 15152 and 15168, when significant environmental effects of a project or project component are adequately evaluated in a certified PEIR, it is recommended that subsequent projects tier off of the certified PEIR to streamline any further environmental review, as appropriate. Implementation of all future CIP projects would be subject to the performance standards identified in the mitigation measures provided in the PEIR (under Biological Resources, mitigation measures BIO-1 through BIO-7), as appropriate to the specific project type and physical improvements being undertaken.

To further support the application of the biological resources sensitivity zones, Table 8 of the Biological Resources Technical Report (BRTR) provides a summary of key requirements, survey needs, and avoidance/ minimization or mitigation actions associated with common project locations and resource triggers within the City. This table outlines how overlay zones, ordinances, and local policies interact with the sensitivity zones to determine the level of biological review and regulatory compliance required for individual CIP projects.

Section 5.2, Biological Resources Sensitivity Zones, of the BRTR defines each biological resources sensitivity zone. Projects located within the High Sensitivity Zone—which includes areas containing the highest concentration of sensitive biological resources, such as wetlands, riparian habitats, rare vegetation communities, designated Environmentally Sensitive Habitat Areas (ESHAs), and known occurrences of special-status species— or the Moderate Sensitivity Zone—which is mapped as a 100-foot buffer surrounding the High Sensitivity Zone— would likely be subject to more rigorous project-specific assessments and mitigation requirements, including a general biological survey, species-specific surveys, and avoidance measures, and potentially agency consultation to obtain take permits if impacts to special-status species cannot be avoided.

In contrast, projects in the Low Sensitivity Zone may require less intensive review, including a site visit to confirm and photo-document absence of on-site or adjacent protected habitat, desktop assessments, and standard construction best management practices (BMPs). The CIP CEQA Streamlining Checklist is intended to guide the City in identifying the appropriate protocols and protections and ensuring that biological resources are adequately considered throughout the planning and environmental review process of all individual CIP projects. As impacts and mitigation are addressed programmatically in the PEIR, the BRTR and accompanying matrix provide the foundational background for future individual CIP project-specific evaluations and compliance with applicable environmental regulations.

The Low Sensitivity Zone is characterized by developed or disturbed areas with limited or no biological resource value, such as urbanized parcels, maintained landscapes, or areas lacking native vegetation. Due to the presence of the Moderate Sensitivity Zone buffer, these areas are not expected to overlap with High Sensitivity Zones. While these areas generally have limited habitat value, the PEIR acknowledges the potential for such areas to contain biological resources that could support nesting birds and listed and candidate species that may occur in developed areas (e.g., monarch or Crotch's bumble bee).

In summary, the City understands that, while not reasonably foreseeable, it is possible that a project in the Low Sensitivity Zone may have potential for direct or indirect impacts to biological resources, and will therefore evaluate all subsequent projects in accordance with its duties as lead agency under CEQA Guidelines Section 15168.

Docusign Envelope ID: 827029F1-FA6C-8B4C-800A-5338913ADEF6



A-5 cont'd focal species are encountered during Project-specific or species-specific surveys. Since potentially-occurring biological resources have been identified in the Draft PEIR, as has a range of construction activities, the Draft PEIR should include analysis of the impacts of the proposed activities on the identified species, and should identify specific mitigation measures for each species that would reduce those impacts to less-than-significant.

A-6 **Why impact would occur:** Future individual Projects could occur in locations containing sensitive plants or wildlife species. The Draft PEIR identifies 41 special-status plant species and 25 special-status wildlife species that could be directly or indirectly impacted during construction activities and acknowledges the impacts could be potentially significant. Moreover, biological surveys have not been conducted to support the Draft PEIR. Mitigation Measure BIO-1 in the Draft PEIR calls for the City to retain a biologist to conduct a Project-specific biological resources technical report for ground- or vegetation-disturbing Projects that will occur wholly or partially within moderate or high biological resource sensitivity zones. The measure requires the report to include an evaluation of the potential for direct and indirect impacts and an outline of avoidance and minimization measures to avoid those impacts. The report is also required to specify any additional compensatory measures to reduce impacts to below a level of significance. The measure does not indicate whether surveys would be conducted, or if the report would be based on literature review alone. Furthermore, the measure does not require any review for individual Projects within the low sensitivity zone, despite the acknowledgement that sensitive species, such as Crotch's bumble bee (*Bombus crotchii*), could occur.

A-7 If ground disturbance or vegetation removal associated with individual Project activities occurs without appropriate surveys, then impacts to sensitive species could occur. Grading, excavation, installation of structures, and vegetation removal may result in injury or mortality to individual species and habitat destruction. Measures requiring biological surveys for all sensitivity zones, as well as measures for avoidance and minimization of and, if necessary, compensation for impacts are warranted.

A-8 Ground disturbance and vegetation removal associated with individual Project activities occurring during the bird breeding season could result in nest abandonment or otherwise lead to the incidental loss of breeding success of birds. Requirements to conduct all Project activities outside of bird nesting season, or measures requiring surveys to detect nesting birds and a protective buffer between Project activities and nests, are warranted.

A-9 Vegetation in and adjacent to individual Project sites may provide cover and habitat for wildlife, especially small reptiles and amphibians. Ground disturbing activities may result in habitat destruction for sensitive wildlife, causing the death or injury of adults, juveniles, eggs,

## A-6

Comment Summary

The commenter indicates that future individual projects may have the potential to be located on sites where direct or indirect impacts to special-status plant or wildlife species may occur, and that biological surveys for such species were not conducted to support the PEIR analysis. The commenter also states that PEIR mitigation measure BIO-1, to address such potential impacts, does not indicate whether site surveys would be conducted; whether the required site-specific BRTR would be based on literature review alone; or whether review of individual projects located within Low Sensitivity Zones would be required.

Response

Refer to Response A-5, above, for discussion. As indicated, the PEIR has evaluated potential effects resulting from implementation of the City's CIP at a programmatic level. The PEIR provides a framework for how subsequent site-specific evaluations would occur in order to ensure the appropriate level of analysis and the effective identification of required mitigation measures applicable to a particular CIP project and site.

As discussed throughout the PEIR, the City would consider the biological sensitivity assignments identified in the PEIR to evaluate individual CIP projects, prior to implementation. Pursuant to CEQA, the PEIR has been prepared to demonstrate a good faith effort to evaluate reasonably foreseeable effects of anticipated CIP projects based on project details known at the time of PEIR preparation.

The sensitivity zones were identified based on a variety of available data, as discussed in Response A-5. Based on such information, mitigation measures BIO-1 through BIO-7 in the PEIR aim to reduce anticipated potentially significant impacts to biological resources to below a level of significance. To assume that sensitive resources may be present in areas designated as having a low biological sensitivity level would be speculative and not the intent of the PEIR analysis in understanding potential environmental effects.

Similarly, areas assumed to have a moderate or high sensitivity level (per the PEIR) may be determined to not support sensitive biological habitat or species when a CIP project is planned to be implemented and a site-specific evaluation is conducted.

Additionally, there may be sites of unique land use or site conditions (e.g., crossing of natural creek) where application of the PEIR framework and mitigation measures identified would not be appropriate, and a subsequent CEQA document would be prepared for consideration by the affected agencies.

As described in the PEIR, areas of low sensitivity are considered to have minimal or no biological resource value and are not anticipated to require preparation of a project-specific BRTR. However, if, based upon site-specific characteristics, it is determined that a site identified as being in a Low Sensitivity Zone would require a project-specific BRTR, then one would be prepared.

Further, clear performance measures for compensation ratios, regulatory permitting requirements, and other such measures that would be required on a project-level basis have been identified in mitigation measures BIO-1 through BIO-7 and would be applied to future CIP projects, as appropriate.

Discussion provided under Impact 3.2-1 defines the Low Sensitivity Zone as those areas generally characterized by developed or disturbed areas with limited biological resource value, such as urbanized parcels, maintained landscapes, or areas lacking native vegetation. However, the PEIR also acknowledges that areas designated as a Low Sensitivity Zone may still contain biological resources that could support nesting birds and listed and candidate species that may occur in developed areas (e.g., monarch or Crotch's bumble bee). Thus, such conditions are recognized and would require site-specific assessment at the time when an individual project is undertaken; conditions at the time of undertaking would be evaluated to confirm the presence or absence of sensitive habitats and/or species, whether direct or indirect impacts would result, and whether mitigation would be required to reduce potentially significant impacts. Accordingly, PEIR Appendix C, Del Mar

CIP Streamlining Program Checklist, has been revised to make clear that the presence of biological habitat on a CIP project site is an example of something that could be considered a potentially unique circumstance, prompting the to determine if subsequent CEQA review or additional mitigation is required.

To provide further clarification, mitigation measure BIO-1 has been revised to explicitly state that preparation of a project-specific BRTR shall, at a minimum, include a comprehensive database and literature review, biological site survey, and consideration and evaluation for the habitat types and species occurrences identified in Table 2, Vegetation Communities and Land Cover Types; Table 3, Special Status Plants Expected to Occur within the City of Del Mar; and Table 5, Special-Status Wildlife Expected to Occur within the City of Del Mar, of Appendix E of the PEIR.

Specifically, mitigation measure BIO-1 in the Draft PEIR stated:

**BIO-1** **Biological Resources Technical Report.** Prior to clearing, grubbing, grading, or vegetation removal activities associated with CIP projects wholly and/or partially within moderate or high biological resource sensitivity zones as depicted in Figure 3.2-3, the City shall retain a qualified biologist to conduct a project-specific biological resources technical report. The report shall: (1) delineate vegetation communities and land covers, including riparian habitat or other sensitive natural communities; (2) identify aquatic resources including potential jurisdictional wetlands and non-wetlands waters of the US and/or State; (3) identify the extent or absence of habitat that may support special-status plants or wildlife; (4) evaluate the potential for direct and indirect impacts from proposed activities; (5) outline avoidance and minimization measures to avoid direct and indirect impacts; and (6) specify any additional compensatory mitigation measures to reduce direct and indirect impacts below a level of significance.

Revised mitigation measure BIO-1 in the Final PEIR states:

| | |
|---|---|
| **BIO-1** | **Biological Resources Technical Report.** Prior to clearing, grubbing, grading, or vegetation removal activities associated with CIP projects wholly and/or partially within moderate or high biological resource sensitivity zones as depicted in Figure 3.2-3, Biological Resources Sensitivity Zones, the City shall retain a qualified biologist to conduct a project-specific biological resources technical report. Preparation of a project-specific biological resources technical report shall, at a minimum, include a comprehensive database and literature review, biological site survey, and consideration and evaluation for the habitat types and species occurrences identified in Table 2, Vegetation Communities and Land Cover Types; Table 3, Special Status Plants Expected to Occur within the City of Del Mar; and Table 5, Special-Status Wildlife Expected to Occur within the City of Del Mar, of Appendix E of the PEIR. Project-specific biological resources technical reports shall: (1) delineate vegetation communities and land covers, including riparian habitat or other sensitive natural communities; (2) identify aquatic resources including potential jurisdictional wetlands and non-wetlands waters of the US and/or State; (3) identify the extent or absence of habitat that may support special-status plants or wildlife; (4) evaluate the potential for direct and indirect impacts from proposed activities; (5) outline avoidance and minimization measures to avoid direct and indirect impacts; and (6) specify any additional compensatory mitigation measures to reduce direct and indirect impacts below a level of significance. |

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A-5 cont'd: focal species are encountered during Project-specific or species-specific surveys. Since potentially-occurring biological resources have been identified in the Draft PEIR, as has a range of construction activities, the Draft PEIR should include analysis of the impacts of the proposed activities on the identified species, and should identify specific mitigation measures for each species that would reduce those impacts to less-than-significant.

A-6: **Why impact would occur:** Future individual Projects could occur in locations containing sensitive plants or wildlife species. The Draft PEIR identifies 41 special-status plant species and 25 special-status wildlife species that could be directly or indirectly impacted during construction activities and acknowledges the impacts could be potentially significant. Moreover, biological surveys have not been conducted to support the Draft PEIR. Mitigation Measure BIO-1 in the Draft PEIR calls for the City to retain a biologist to conduct a Project-specific biological resources technical report for ground- or vegetation-disturbing Projects that will occur wholly or partially within moderate or high biological resource sensitivity zones. The measure requires the report to include an evaluation of the potential for direct and indirect impacts and an outline of avoidance and minimization measures to avoid those impacts. The report is also required to specify any additional compensatory measures to reduce impacts to below a level of significance. The measure does not indicate whether surveys would be conducted, or if the report would be based on literature review alone. Furthermore, the measure does not require any review for individual Projects within the low sensitivity zone, despite the acknowledgement that sensitive species, such as Crotch's bumble bee (*Bombus crotchii*), could occur.

A-7: If ground disturbance or vegetation removal associated with individual Project activities occurs without appropriate surveys, then impacts to sensitive species could occur. Grading, excavation, installation of structures, and vegetation removal may result in injury or mortality to individual species and habitat destruction. Measures requiring biological surveys for all sensitivity zones, as well as measures for avoidance and minimization of and, if necessary, compensation for impacts are warranted.

A-8: Ground disturbance and vegetation removal associated with individual Project activities occurring during the bird breeding season could result in nest abandonment or otherwise lead to the incidental loss of breeding success of birds. Requirements to conduct all Project activities outside of bird nesting season, or measures requiring surveys to detect nesting birds and a protective buffer between Project activities and nests, are warranted.

A-9: Vegetation in and adjacent to individual Project sites may provide cover and habitat for wildlife, especially small reptiles and amphibians. Ground disturbing activities may result in habitat destruction for sensitive wildlife, causing the death or injury of adults, juveniles, eggs,

**A-7**

Comment Summary

The commenter indicates that direct or indirect impacts to sensitive species and/or their habitat may occur if ground disturbance or vegetation removal associated with future individual CIP project activities occurs without appropriate biological surveys. The commenter suggests that measures requiring biological surveys for all resource sensitivity zones, and avoidance and minimization of and/or compensation for impacts, are warranted.

Response

Refer to Responses A-5 and A-6, above. As indicated, all future CIP projects, including those planned for land areas identified as being within a Low Sensitivity Zone, would be evaluated at a project level at the time when an individual CIP project is to be implemented, applying the criteria in the CIP Streamlining Program Checklist provided as Appendix C of the PEIR.

Site sensitivity has been identified at a programmatic level based on the best available information to date. Because conditions may change over time and individual CIP projects may not be implemented for several years into the future, all future CIP project sites would be evaluated for site-specific conditions when project details are better known. If deemed appropriate, based on consideration for site conditions at the time, mitigation measure BIO-1 would require preparation of a BRTR, supported by a site-specific biological survey, to evaluate potential project effects.

To assume the same level of disturbance for all CIP project sites, and that a BRTR would be required for all CIP projects, including improvements to previously developed roadways, would be speculative and is not supported by substantial evidence provided in the PEIR. Rather, when a specific CIP project is initiated, the type of project, location, existing conditions, project effects, degree of potential physical impacts, and other such factors would be considered to allow for

Docusign Envelope ID: 827029F1-FA6C-8B4C-800A-5338913ADEF6

Jennifer Gavin
City of Del Mar
Page 5

A-5 cont'd: focal species are encountered during Project-specific or species-specific surveys. Since potentially-occurring biological resources have been identified in the Draft PEIR, as has a range of construction activities, the Draft PEIR should include analysis of the impacts of the proposed activities on the identified species, and should identify specific mitigation measures for each species that would reduce those impacts to less-than-significant.

A-6: **Why impact would occur:** Future individual Projects could occur in locations containing sensitive plants or wildlife species. The Draft PEIR identifies 41 special-status plant species and 25 special-status wildlife species that could be directly or indirectly impacted during construction activities and acknowledges the impacts could be potentially significant. Moreover, biological surveys have not been conducted to support the Draft PEIR. Mitigation Measure BIO-1 in the Draft PEIR calls for the City to retain a biologist to conduct a Project-specific biological resources technical report for ground- or vegetation-disturbing Projects that will occur wholly or partially within moderate or high biological resource sensitivity zones. The measure requires the report to include an evaluation of the potential for direct and indirect impacts and an outline of avoidance and minimization measures to avoid those impacts. The report is also required to specify any additional compensatory measures to reduce impacts to below a level of significance. The measure does not indicate whether surveys would be conducted, or if the report would be based on literature review alone. Furthermore, the measure does not require any review for individual Projects within the low sensitivity zone, despite the acknowledgement that sensitive species, such as Crotch's bumble bee (*Bombus crotchii*), could occur.

A-7: If ground disturbance or vegetation removal associated with individual Project activities occurs without appropriate surveys, then impacts to sensitive species could occur. Grading, excavation, installation of structures, and vegetation removal may result in injury or mortality to individual species and habitat destruction. Measures requiring biological surveys for all sensitivity zones, as well as measures for avoidance and minimization of and, if necessary, compensation for impacts are warranted.

A-8: Ground disturbance and vegetation removal associated with individual Project activities occurring during the bird breeding season could result in nest abandonment or otherwise lead to the incidental loss of breeding success of birds. Requirements to conduct all Project activities outside of bird nesting season, or measures requiring surveys to detect nesting birds and a protective buffer between Project activities and nests, are warranted.

A-9: Vegetation in and adjacent to individual Project sites may provide cover and habitat for wildlife, especially small reptiles and amphibians. Ground disturbing activities may result in habitat destruction for sensitive wildlife, causing the death or injury of adults, juveniles, eggs,

identification of project-appropriate biological mitigation measures, as provided in the PEIR.

**A-8**

Comment Summary

The commenter indicates that ground disturbance and vegetation removal associated with individual project activities during the bird breeding season could potentially affect avian nesting or breeding activities. The commenter suggests that measures to conduct such project-related activities outside the bird nesting season; perform surveys to detect nesting birds; and/or provide adequate construction buffers are warranted.

Response

As indicated in PEIR Section 3.2.4 under Impact 3.2-4, construction of all future individual CIP projects would be subject to conformance with requirements of the Migratory Bird Treaty Act (MBTA) and California Fish and Game Code (CFGC), pursuant to federal and state regulations in place. If an active bird nest is destroyed or if construction activities result in indirect impacts to nesting birds (e.g., nest abandonment, loss of reproductive effort), it is considered "take" and is potentially punishable by fines and/or imprisonment.

The PEIR acknowledges that trees and other vegetation within any of the CIP project sites' biological resources sensitivity zones may provide suitable nesting opportunities for a variety of bird species, and that construction of all future CIP projects would require compliance with the MBTA and CFGC, regardless of the resource sensitivity zone where any given project occurs. As such, no change to the PEIR is required. To provide further clarification, however, PEIR Appendix C, Del Mar CIP Streamlining Program Checklist, has been revised to make clear that the presence of biological habitat on a CIP project site is an example of something that could be considered a potentially unique circumstance, prompting the City to determine if subsequent CEQA review or additional mitigation is required.

Docusign Envelope ID: 827029F1-FA6C-8B4C-800A-5338913ADEF6



A-9 cont'd or hatchlings. In addition, the Project may remove habitat by eliminating native vegetation that may support essential foraging and breeding habitat. Measures to avoid impacts to special status wildlife are warranted.

A-10 There is potential for Crotch's bumble bee to occur within Project sites. Crotch's bumble bee are generalist foragers and can be found throughout most of southwestern California in areas that have suitable nesting habitat and floral resources. Crotch's bumble bee primarily nest in late February through late September underground in abandoned small mammal burrows but may also nest under perennial bunch grasses or thatched annual grasses, beneath brush piles, in old bird nests, and in dead trees or hollow logs (Williams et al. 2014; Hatfield et al. 2012). Overwintering sites utilized by Crotch bumble bee mated queens include soft, disturbed soil (Goulson 2010) or under leaf litter or other debris (Williams et al. 2014).

Without appropriate avoidance and minimization measures for Crotch's bumble bee and their habitat, Project-related activities involving ground and vegetation disturbance could result in potential significant impacts, including loss of foraging resources, changes in foraging behavior, burrow collapse, nest abandonment, reduced nest success, reduced health and vigor of eggs, young, and/or queens, and direct mortality. Measures requiring Crotch's bumble bee surveys, as well as measures for avoidance and minimization of and, if necessary, compensation for impacts are warranted.

A-11 The analysis of impacts and formulation of mitigation measures should not be left to the biological report. The Draft PEIR should contain the full range of potentially-applicable mitigation measures. The Project-specific and species-specific biological reports should be used to determine which of the impacts and mitigation measures that were analyzed in the PEIR are applicable for an individual Project.

A-12 **Evidence impact may be significant:** Public agencies have a duty under CEQA to prevent significant, avoidable damage to the environment by requiring changes in a Project through the use of feasible alternatives or mitigation measures (CEQA Guidelines, §§ 15002(a)(3), 15021). All phases of Project planning, implementation, and operation must be considered in the Initial Study of the Project (CEQA Guidelines § 15063(a)(1)). The Initial Study requires an analysis of the Project's potential to have a substantial adverse effect, either directly or through habitat modifications, on any species identified as candidate, sensitive, or special status species in local or regional plans, policies, or regulations or by CDFW or the U.S. Fish and Wildlife Service. Additionally, impacts to CESA-listed species and their habitat meet the definition of endangered, rare, or threatened under CEQA (CEQA Guidelines § 15380). Impacts to CESA listed species and their habitats may result in a mandatory finding of

**A-9**

Comment Summary

The commenter indicates that vegetation in and/or adjacent to individual CIP project sites may provide cover and habitat for wildlife, and therefore, ground disturbance may result in habitat destruction for sensitive wildlife. The commenter states that measures to avoid impacts to special-status wildlife are therefore warranted.

Response

Refer to Responses A-5 and A-6, above. As stated, site-specific evaluation would occur at the time when a future CIP project is initiated. Implementation of all future CIP projects would be subject to the performance standards identified in the mitigation measures provided in the PEIR (under Biological Resources, mitigation measures BIO-1 through BIO-7), as appropriate to the specific project type and physical improvements being undertaken.

Specifically, future CIP projects may have the potential to remove habitat by eliminating native vegetation that may support essential foraging and breeding habitat and mitigation may be warranted. If sensitive habitat or species (or other conditions) requiring further evaluation are determined to be present on a specific CIP project site, appropriate mitigation measures and performance standards (e.g., survey requirements, reporting) as identified in the PEIR would be applied to ensure that potential effects are evaluated as reduced to less than significant.

**A-10**

Comment Summary

The commenter indicates that there is potential for Crotch's bumble bee (CBB) to occur within the CIP project sites and provides additional detail as to the characteristics of this species. The commenter states that, without proper avoidance and minimization measures, project-related activities including ground or vegetation disturbance may result in potentially significant direct and/or indirect impacts to CBB and its

habitat. The commenter states that measures for impact avoidance or minimization, and/or compensation, are warranted.

Response

Refer to Responses A-5 and A-6, above. As discussed in Sections 3.2.1 and 3.2.4 of the PEIR, the potential for future CIP projects to impact special-status species, including CBB, is identified, as CBB is considered to have "at least a moderate potential to occur" within the project area. However, as the PEIR has been prepared at a programmatic level and all lands affected by implementation of the proposed project were not specifically surveyed, confirmation of existing physical conditions at the time when an individual CIP project is undertaken would be required.

If, during evaluation of a particular CIP project site, the potential for suitable CBB habitat (e.g., grasses, brush piles, dead trees, logs) is identified, that would constitute a habitat type identified in the PEIR as requiring further evaluation (and possible protocol surveys) for sensitive species. To provide further clarification, PEIR Appendix C, Del Mar CIP Streamlining Program Checklist, has been revised to make clear that the presence of biological habitat on a CIP project site is an example of something that could be considered a potentially unique circumstance, prompting the City to determine if subsequent CEQA review or additional mitigation is required.

Potential impacts to the species are addressed in mitigation measure BIO-1, which requires preparation of a BRTR prior to ground or vegetation disturbance for CIP projects wholly or partially within Moderate or High Sensitivity Zones, as depicted in PEIR Figure 3.2-3.

As provided in mitigation measure BIO-1, project-specific BRTRs would be required to identify the extent or absence of habitat that may support special-status plants and/or wildlife; evaluate the potential for direct and indirect impacts from proposed activities; outline avoidance and minimization measures to avoid direct and indirect impacts; and specify any additional compensatory mitigation measures to reduce direct and indirect impacts to below a level of significance.

Docusign Envelope ID: 827029F1-FA6C-8B4C-800A-5338913ADEF6



A-9 cont'd: or hatchlings. In addition, the Project may remove habitat by eliminating native vegetation that may support essential foraging and breeding habitat. Measures to avoid impacts to special status wildlife are warranted.

A-10: There is potential for Crotch's bumble bee to occur within Project sites. Crotch's bumble bee are generalist foragers and can be found throughout most of southwestern California in areas that have suitable nesting habitat and floral resources. Crotch's bumble bee primarily nest in late February through late September underground in abandoned small mammal burrows but may also nest under perennial bunch grasses or thatched annual grasses, beneath brush piles, in old bird nests, and in dead trees or hollow logs (Williams et al. 2014; Hatfield et al. 2012). Overwintering sites utilized by Crotch bumble bee mated queens include soft, disturbed soil (Goulson 2010) or under leaf litter or other debris (Williams et al. 2014).

Without appropriate avoidance and minimization measures for Crotch's bumble bee and their habitat, Project-related activities involving ground and vegetation disturbance could result in potential significant impacts, including loss of foraging resources, changes in foraging behavior, burrow collapse, nest abandonment, reduced nest success, reduced health and vigor of eggs, young, and/or queens, and direct mortality. Measures requiring Crotch's bumble bee surveys, as well as measures for avoidance and minimization of and, if necessary, compensation for impacts are warranted.

A-11: The analysis of impacts and formulation of mitigation measures should not be left to the biological report. The Draft PEIR should contain the full range of potentially-applicable mitigation measures. The Project-specific and species-specific biological reports should be used to determine which of the impacts and mitigation measures that were analyzed in the PEIR are applicable for an individual Project.

A-12: **Evidence impact may be significant:** Public agencies have a duty under CEQA to prevent significant, avoidable damage to the environment by requiring changes in a Project through the use of feasible alternatives or mitigation measures (CEQA Guidelines, §§ 15002(a)(3), 15021). All phases of Project planning, implementation, and operation must be considered in the Initial Study of the Project (CEQA Guidelines § 15063(a)(1)). The Initial Study requires an analysis of the Project's potential to have a substantial adverse effect, either directly or through habitat modifications, on any species identified as candidate, sensitive, or special status species in local or regional plans, policies, or regulations or by CDFW or the U.S. Fish and Wildlife Service. Additionally, impacts to CESA-listed species and their habitat meet the definition of endangered, rare, or threatened under CEQA (CEQA Guidelines § 15380). Impacts to CESA listed species and their habitats may result in a mandatory finding of

Further, based on the results of the project-specific BRTR, mitigation measure BIO-3 may apply and would require that a focused survey be conducted during the appropriate seasonal survey window prior to any clearing, grubbing, grading, or vegetation removal activities, if it is determined that habitat suitable for special-status wildlife species is present within the construction area.

Implementation of individual CIP projects would therefore follow adopted protocols, and appropriate mitigation measures have been identified in the PEIR to address potential impacts to CBB and other special-status wildlife species on a project-specific basis.

**A-11**

Comment Summary

The commenter recommends that the analysis of potential impacts and mitigation measures should not be limited to the BRTR; rather, the PEIR should provide a full range of potentially applicable mitigation measures. The commenter further recommends that project-specific and species-specific biological reports be prepared to determine which impacts and mitigation measures identified in the PEIR would apply to individual CIP projects.

Response

Refer to Responses A-5 and A-6, above. The PEIR has been prepared at a programmatic level and considers potential effects that may result with implementation of anticipated future CIP projects. As indicated in PEIR Section 1.2.2, at the time when a specific CIP project is proposed for implementation, City staff will complete the Del Mar CIP Streamlining Program Checklist (PEIR Appendix C) with project-specific details—such as project type, location, construction duration, and construction equipment—to help determine which mitigation measures included in the PEIR are applicable to individual CIP projects. Future CIP projects would also be evaluated under CEQA Guidelines Section 15168 with consideration of the certified PEIR. Such evaluations would be undertaken to determine whether a specific CIP project was adequately analyzed under the certified PEIR, or if a subsequent environmental

Docusign Envelope ID: 827029F1-FA6C-8B4C-800A-5338913ADEF6

Jennifer Gavin
City of Del Mar
Page 6

A-9 cont'd or hatchlings. In addition, the Project may remove habitat by eliminating native vegetation that may support essential foraging and breeding habitat. Measures to avoid impacts to special status wildlife are warranted.

A-10 There is potential for Crotch's bumble bee to occur within Project sites. Crotch's bumble bee are generalist foragers and can be found throughout most of southwestern California in areas that have suitable nesting habitat and floral resources. Crotch's bumble bee primarily nest in late February through late September underground in abandoned small mammal burrows but may also nest under perennial bunch grasses or thatched annual grasses, beneath brush piles, in old bird nests, and in dead trees or hollow logs (Williams et al. 2014; Hatfield et al. 2012). Overwintering sites utilized by Crotch bumble bee mated queens include soft, disturbed soil (Goulson 2010) or under leaf litter or other debris (Williams et al. 2014).

Without appropriate avoidance and minimization measures for Crotch's bumble bee and their habitat, Project-related activities involving ground and vegetation disturbance could result in potential significant impacts, including loss of foraging resources, changes in foraging behavior, burrow collapse, nest abandonment, reduced nest success, reduced health and vigor of eggs, young, and/or queens, and direct mortality. Measures requiring Crotch's bumble bee surveys, as well as measures for avoidance and minimization of and, if necessary, compensation for impacts are warranted.

A-11 The analysis of impacts and formulation of mitigation measures should not be left to the biological report. The Draft PEIR should contain the full range of potentially-applicable mitigation measures. The Project-specific and species-specific biological reports should be used to determine which of the impacts and mitigation measures that were analyzed in the PEIR are applicable for an individual Project.

A-12 **Evidence impact may be significant:** Public agencies have a duty under CEQA to prevent significant, avoidable damage to the environment by requiring changes in a Project through the use of feasible alternatives or mitigation measures (CEQA Guidelines, §§ 15002(a)(3), 15021). All phases of Project planning, implementation, and operation must be considered in the Initial Study of the Project (CEQA Guidelines § 15063(a)(1)). The Initial Study requires an analysis of the Project's potential to have a substantial adverse effect, either directly or through habitat modifications, on any species identified as candidate, sensitive, or special status species in local or regional plans, policies, or regulations or by CDFW or the U.S. Fish and Wildlife Service. Additionally, impacts to CESA-listed species and their habitat meet the definition of endangered, rare, or threatened under CEQA (CEQA Guidelines § 15380). Impacts to CESA listed species and their habitats may result in a mandatory finding of

document, addendum to the PEIR, or additional evaluation is required pursuant to CEQA regulations.

The PEIR incorporates the impact evaluations from the BRTR, as appropriate. Additionally, mitigation measures BIO-1 to BIO-7 have been identified to reduce potential biological effects of the proposed project to below a level of significance.

**A-12**

Comment Summary

The commenter indicates that "all phases of Project planning, implementation, and operation must be considered in the Initial Study of the Project," including "directly or through habitat modifications, on any species identified as candidate, sensitive, or special status species." Additionally, the commenter indicates that impacts to California Endangered Species Act (CESA) listed and candidate species and their habitats may result in a mandatory finding of significance as the project has the potential to substantially reduce the number or restrict the range of endangered, rare, or threatened species.

Response

Refer to Responses A-5 and A-6, above. Before any given CIP project can be implemented, City staff will complete the Del Mar CIP Streamlining Program Checklist (PEIR Appendix C) with project-specific details—such as project type, location, construction duration, and construction equipment—and will review all mitigation measures included in the PEIR to determine which measures are applicable to individual CIP projects. During evaluation of a particular CIP project site, the potential for special-status species to occur will be evaluated to determine if a project requires further evaluation (and possible protocol surveys) for sensitive species. Potential impacts to special-status species are addressed in mitigation measure BIO-1, which requires preparation of a BRTR prior to ground or vegetation disturbance for CIP projects wholly or partially within Moderate or High Sensitivity Zones, as depicted in PEIR Figure 3.2-3. Further, based on the results of the project-specific BRTR, mitigation measure BIO-3 may be applied, which requires that a focused

Docusign Envelope ID: 827029F1-FA6C-8B4C-800A-5338913ADEF6



A-12 cont'd significance because the Project has the potential to substantially reduce the number or restrict the range of an endangered, rare, or threatened species (CEQA Guidelines § 15065).

A-13 The potential of the Project to impact special status species has not been evaluated in the Draft PEIR. These effects have not been disclosed, evaluated, or mitigated. Instead, the document acknowledges that impacts could occur from individual Projects and defers the evaluation and mitigation of impacts to a later time. The Draft PEIR states, "[w]here potentially significant impacts are identified, the PEIR specifies mitigation to be adopted as conditions of approval or incorporated into the individual planned and future projects to avoid or minimize the significance of impacts resulting from the project." While CEQA allows for deferred analysis, it requires evaluation of known impacts in a comprehensive fashion, and provision for further environmental review where warranted. Likewise, certain aspects of mitigation may be deferred, but the Draft PEIR must include the specific criteria and performance standards that future mitigation will meet. (Center for Biological Diversity et al. v. Department of Fish and Wildlife (2015) 234 Cal. App. 4th 214; 183 Cal. Rptr. 3d 736; CEQA Guidelines §§ 15126.4, 15146, 15168)

A-14 The City intends to use this PEIR to streamline the CEQA process for individual Projects. The Draft PEIR states, "[i]n accordance with CEQA Guidelines Section 15168, this PEIR may serve as the environmental document for individual Projects, provided it contemplates and adequately analyzes the potential environmental impacts of those future actions." It is CDFWs view that the document does not adequately analyze the potential environmental impacts to biological resources, and therefore individual Projects that could impact biological resources will require additional CEQA review.

A-15 Furthermore, if any individual Project, Project construction, or any Project-related activity during the life of the Project will result in take of a species designated as endangered or threatened, or a candidate for listing under CESA, the City will be required to obtain appropriate take authorization from CDFW, which may include an incidental take permit (ITP) or a consistency determination in certain circumstances, among other options (Fish and Game Code §§ 2080.1, 2081, subds. (b), (c)). Unless the PEIR addresses all Project impacts to CESA-listed species and specifies a mitigation monitoring and reporting program that will meet the requirements of an ITP, CDFW may be required to issue a separate CEQA document for the issuance of take authorization. For these reasons, biological mitigation monitoring and reporting proposals should be of sufficient detail and resolution to satisfy the requirements for a CESA ITP.

survey be conducted during the appropriate seasonal survey window prior to any clearing, grubbing, grading, or vegetation removal activities, if it is determined that habitat suitable for special-status wildlife species is present within the construction area. As such, mitigation measures have been identified in the PEIR to require further site evaluation to determine potential site-specific impacts and protective measures to ensure that potential impacts are appropriately reduced to less than significant.

**A-13**

Comment Summary

The commenter states that potential impacts to special-status species have not been disclosed, evaluated, or mitigated for in the PEIR—rather, that the PEIR acknowledges the potential for such impacts yet defers evaluation and mitigation to a later time. The commenter notes that, although CEQA allows for deferred analysis, comprehensive evaluation of known impacts and provision for further environmental review is required where warranted. Similarly, the commenter indicates that the PEIR must include specific criteria and performance standards that future mitigation would be required to meet.

Response

Refer to Responses A-5 and A-6, above. The project as evaluated meets the PEIR standards identified by the commenter. As discussed in PEIR Sections 1.1 through 1.3, and as defined in CEQA Guidelines Section 15168, the PEIR is intended to address a series of actions that are characterized as one large project through reasons of geography, similar rules or regulations, or where individual activities will occur under the same regulatory process with similar environmental impacts that can be mitigated in similar ways. Because the proposed project evaluated in the PEIR includes future CIP projects to be implemented within the City boundaries and the PEIR includes a mitigation framework that would be implemented by future CIP projects, a programmatic approach to environmental review was deemed appropriate.

The intent of the PEIR is to address potential impacts associated with implementation of CIP projects using information known at the time of PEIR preparation. The potential CIP project locations and types of activities typically associated with City CIP projects were evaluated in the PEIR at a programmatic level based on information available to the City where reasonably foreseeable direct and indirect physical changes in the environment could be considered.

As is typical of PEIRs, site-specific analysis was not conducted for certain environmental topics where information was not available or would be too speculative on which to base an analysis of potential impacts resulting from future CIP projects. As such, potential changes beyond those that were analyzed are considered speculative or unlikely to occur, and therefore not reasonably foreseeable.

As indicated in PEIR Section 1.3, implementation of the CIP projects would involve using the Del Mar CIP Streamlining Program Checklist (PEIR Appendix C) to evaluate project-specific details and reviewing all mitigation measures included in the PEIR for applicability. Using the CIP Streamlining Program Checklist, City staff would identify which mitigation measures apply to each project and determine whether any additional environmental technical studies are required based on the project type or site conditions.

This process will ensure that future CIP projects satisfy CEQA compliance requirements before they are implemented. If additional analysis is required, it can be streamlined by tiering from the PEIR pursuant to CEQA Guidelines Sections 15152, 15153, and 15168 (e.g., through preparation of a Mitigated Negative Declaration, an Addendum to the PEIR, or a Supplemental or Subsequent EIR).

Further, specific criteria and performance standards are explicitly detailed in mitigation measures BIO-1 through BIO-7 of the PEIR, inclusive of the requirement to conduct protocol surveys for special-status species; notification of CDFW if regulatory permits are required; and identification of mitigation ratios should compensatory mitigation be required, among other performance standards intended to reduce potential effects of project implementation. Mitigation measures BIO-1

Docusign Envelope ID: 827029F1-FA6C-8B4C-800A-5338913ADEF6



A-12 cont'd significance because the Project has the potential to substantially reduce the number or restrict the range of an endangered, rare, or threatened species (CEQA Guidelines § 15065).

A-13 The potential of the Project to impact special status species has not been evaluated in the Draft PEIR. These effects have not been disclosed, evaluated, or mitigated. Instead, the document acknowledges that impacts could occur from individual Projects and defers the evaluation and mitigation of impacts to a later time. The Draft PEIR states, "[w]here potentially significant impacts are identified, the PEIR specifies mitigation to be adopted as conditions of approval or incorporated into the individual planned and future projects to avoid or minimize the significance of impacts resulting from the project." While CEQA allows for deferred analysis, it requires evaluation of known impacts in a comprehensive fashion, and provision for further environmental review where warranted. Likewise, certain aspects of mitigation may be deferred, but the Draft PEIR must include the specific criteria and performance standards that future mitigation will meet. (Center for Biological Diversity et al. v. Department of Fish and Wildlife (2015) 234 Cal. App. 4th 214; 183 Cal. Rptr. 3d 736; CEQA Guidelines §§ 15126.4, 15146, 15168)

A-14 The City intends to use this PEIR to streamline the CEQA process for individual Projects. The Draft PEIR states, "[i]n accordance with CEQA Guidelines Section 15168, this PEIR may serve as the environmental document for individual Projects, provided it contemplates and adequately analyzes the potential environmental impacts of those future actions." It is CDFWs view that the document does not adequately analyze the potential environmental impacts to biological resources, and therefore individual Projects that could impact biological resources will require additional CEQA review.

A-15 Furthermore, if any individual Project, Project construction, or any Project-related activity during the life of the Project will result in take of a species designated as endangered or threatened, or a candidate for listing under CESA, the City will be required to obtain appropriate take authorization from CDFW, which may include an incidental take permit (ITP) or a consistency determination in certain circumstances, among other options (Fish and Game Code §§ 2080.1, 2081, subds. (b), (c)). Unless the PEIR addresses all Project impacts to CESA-listed species and specifies a mitigation monitoring and reporting program that will meet the requirements of an ITP, CDFW may be required to issue a separate CEQA document for the issuance of take authorization. For these reasons, biological mitigation monitoring and reporting proposals should be of sufficient detail and resolution to satisfy the requirements for a CESA ITP.

through BIO-7 have been identified to effectively achieve avoidance and/or minimization of potential project effects.

The PEIR therefore provides an evaluation of potential impacts at the program level based upon current known conditions and best available information and does not defer either the appropriate analysis required, or the identification of mitigation measures and performance standards, to reduce potential project effects to less than significant.

**A-14**

Comment Summary

The commenter acknowledges the City's intent to use the PEIR to streamline the CEQA process in implementing future individual CIP projects; however, the commenter states that the PEIR does not adequately analyze potential environmental impacts to biological resources and, therefore, individual future projects that could impact biological resources would require additional CEQA review.

Response

Refer to Responses A-5, A-6, and A-13, above. As noted, the PEIR provides a framework for analyzing potential effects resulting from implementation of the City's CIP program. In accordance with CEQA Guidelines Section 15168, the PEIR may serve as the environmental document for individual CIP projects, provided it contemplates and adequately analyzes the potential environmental impacts of those future actions. If, in examining individual CIP projects for implementation, the City finds no new effects could occur or no new mitigation measures would be required other than those analyzed and/or required in the PEIR, the City can approve the activity as being within the scope covered by the PEIR and no new environmental documentation would be required. If additional analysis is required, it can be streamlined by tiering from the PEIR.

It should be noted that none of the anticipated CIP projects have been approved by the City or have the authority to proceed with any design or physical improvements. As previously discussed, all future

Docusign Envelope ID: 827029F1-FA6C-8B4C-800A-5338913ADEF6

Jennifer Gavin
City of Del Mar
Page 7

A-12 cont'd significance because the Project has the potential to substantially reduce the number or restrict the range of an endangered, rare, or threatened species (CEQA Guidelines § 15065).

A-13 The potential of the Project to impact special status species has not been evaluated in the Draft PEIR. These effects have not been disclosed, evaluated, or mitigated. Instead, the document acknowledges that impacts could occur from individual Projects and defers the evaluation and mitigation of impacts to a later time. The Draft PEIR states, "[w]here potentially significant impacts are identified, the PEIR specifies mitigation to be adopted as conditions of approval or incorporated into the individual planned and future projects to avoid or minimize the significance of impacts resulting from the project." While CEQA allows for deferred analysis, it requires evaluation of known impacts in a comprehensive fashion, and provision for further environmental review where warranted. Likewise, certain aspects of mitigation may be deferred, but the Draft PEIR must include the specific criteria and performance standards that future mitigation will meet. (Center for Biological Diversity et al. v. Department of Fish and Wildlife (2015) 234 Cal. App. 4th 214; 183 Cal. Rptr. 3d 736; CEQA Guidelines §§ 15126.4, 15146, 15168)

A-14 The City intends to use this PEIR to streamline the CEQA process for individual Projects. The Draft PEIR states, "[i]n accordance with CEQA Guidelines Section 15168, this PEIR may serve as the environmental document for individual Projects, provided it contemplates and adequately analyzes the potential environmental impacts of those future actions." It is CDFWs view that the document does not adequately analyze the potential environmental impacts to biological resources, and therefore individual Projects that could impact biological resources will require additional CEQA review.

A-15 Furthermore, if any individual Project, Project construction, or any Project-related activity during the life of the Project will result in take of a species designated as endangered or threatened, or a candidate for listing under CESA, the City will be required to obtain appropriate take authorization from CDFW, which may include an incidental take permit (ITP) or a consistency determination in certain circumstances, among other options (Fish and Game Code §§ 2080.1, 2081, subds. (b), (c)). Unless the PEIR addresses all Project impacts to CESA-listed species and specifies a mitigation monitoring and reporting program that will meet the requirements of an ITP, CDFW may be required to issue a separate CEQA document for the issuance of take authorization. For these reasons, biological mitigation monitoring and reporting proposals should be of sufficient detail and resolution to satisfy the requirements for a CESA ITP.

CIP projects undertaken would require subsequent environmental review to determine whether further evaluation is required and how the mitigation framework identified in the PEIR would be applied with respect to CEQA Guidelines Section 15168.

**A-15**

Comment Summary

The commenter states that if an individual CIP project would result in take of a candidate, endangered, or threatened species, the City would be required to obtain appropriate take authorization from CDFW. The commenter indicates that, unless the PEIR addresses all potential impacts to CESA-listed and candidate species and identifies a mitigation monitoring and reporting program (MMRP) to meet the requirements of an individual take permit (ITP), CDFW may be required to issue a separate CEQA document for issuance of take authorization. Thus, the commenter recommends that the PEIR's biological resources mitigation measures provide sufficient detail to address CESA ITP requirements.

Response

Refer to Responses A-5, A-6, and A-14, above. The PEIR evaluates potential impacts to CESA-listed and candidate species at a programmatic level and identifies mitigation measures to meet the requirements of an ITP. The City acknowledges that take authorization from CDFW would be required if an individual CIP project would result in potential take of a State of California candidate, endangered, or threatened species and would comply with the requirements set forth in the CFGC. Mitigation measures BIO-1 through BIO-7 are identified in the PEIR and provide specific performance measures to reduce potential project effects to below a level of significance. See Response A-6 for revisions made to mitigation measure BIO-1.

Docusign Envelope ID: 827029F1-FA6C-8B4C-800A-5338913ADEF6

Jennifer Gavin
City of Del Mar
Page 8

**Recommended Potentially Feasible Mitigation Measure(s)**

A-16 CDFW recommends the City re-evaluate the effects of the Project on sensitive species and formulate appropriate mitigation measures to reduce impacts to less-than-significant. CDFW further recommends the City consult with CDFW to discuss potential impacts to fish and wildlife resources and develop mitigation measures that will reduce Project impacts to a less than significant level.

To evaluate and mitigate potential impacts of the Project on sensitive species, CDFW recommends the following mitigation measures, at a minimum, as conditions of approval in the PEIR.

**Recommendation 1: Botanical Surveys**

A-17 Prior to authorizing any individual project under the Project, the City should require a thorough, floristic-based assessment of special status plants and natural communities following CDFW's Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Sensitive Natural Communities (CDFW 2018). Botanical field surveys should be comprehensive over the entire Project site, including areas that will be directly or indirectly impacted by the Project. Adjoining properties should also be surveyed where direct or indirect Project effects could occur, such as those from fuel modification, herbicide application, invasive species, and altered hydrology. Botanical field surveys should be conducted in the field at the times of year when plants will be both evident and identifiable. Usually, this is during flowering or fruiting. Botanical field survey visits should be spaced throughout the growing season to accurately determine what plants exist in the Project site. This usually involves multiple visits to the Project site (e.g., in early, mid, and late season) to capture the floristic diversity at a level necessary to determine if special status plants are present.

The City should fully disclose any impacts on rare plants, which should include at a minimum where impacts would occur, number of individual plants impacted, population size and density, and acres of habitat/plant communities impacted.

**Recommendation 2: Sensitive Plant Avoidance**

A-18 CDFW recommends the City provide measures to fully avoid impacts to sensitive plant species. If adverse impacts to sensitive plants cannot be avoided during Project activities or during the life of the Project, the City should provide measures to compensate for those impacts.

## A-16

Comment Summary

The commenter recommends that the City reevaluate potential project effects on sensitive species and reconsider the mitigation measures to reduce impacts to less than significant. The commenter further recommends that the City consult with CDFW to discuss potential impacts and develop mitigation measures to reduce potential impacts to less than significant.

The commenter provides subsequent discussion in Recommendations 1 through 8 for the City's consideration as conditions of project approval.

Response

Refer to Responses A-5 and A-6, above. The City appreciates CDFW's diligent review of the PEIR and subsequent comments and recommendations and has made modifications in the Final EIR reflecting them where appropriate. As detailed above, the City respectfully does not concur that the PEIR requires a reevaluation of project effects. The PEIR contains a thorough assessment of the project setting, potential effects, and specific, feasible performance standards as mitigation—at a programmatic level appropriate for the programmatic nature of the proposed project.

As stated, the PEIR analyzes the area affected by the proposed project at a programmatic level, based upon the best available information at this time. At the time when initiated, each CIP project would be evaluated utilizing the CIP Streamlining Program Checklist (PEIR Appendix C) and/or other means consistent with lead agency duties under CEQA Guidelines Section 15168. City staff will complete the checklist with project-specific details—such as project type, location, construction duration, and construction equipment—and will review all mitigation measures included in the PEIR. Using the CIP Streamlining Program Checklist, City staff will identify which mitigation measures apply to each project and determine whether any additional environmental technical studies are required based on the project type or site conditions.

Docusign Envelope ID: 827029F1-FA6C-8B4C-800A-5338913ADEF6

Jennifer Gavin
City of Del Mar
Page 8

**Recommended Potentially Feasible Mitigation Measure(s)**

CDFW recommends the City re-evaluate the effects of the Project on sensitive species and formulate appropriate mitigation measures to reduce impacts to less-than-significant. CDFW further recommends the City consult with CDFW to discuss potential impacts to fish and wildlife resources and develop mitigation measures that will reduce Project impacts to a less than significant level. A-16

To evaluate and mitigate potential impacts of the Project on sensitive species, CDFW recommends the following mitigation measures, at a minimum, as conditions of approval in the PEIR.

**Recommendation 1: Botanical Surveys**

Prior to authorizing any individual project under the Project, the City should require a thorough, floristic-based assessment of special status plants and natural communities following CDFW's Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Sensitive Natural Communities (CDFW 2018). Botanical field surveys should be comprehensive over the entire Project site, including areas that will be directly or indirectly impacted by the Project. Adjoining properties should also be surveyed where direct or indirect Project effects could occur, such as those from fuel modification, herbicide application, invasive species, and altered hydrology. Botanical field surveys should be conducted in the field at the times of year when plants will be both evident and identifiable. Usually, this is during flowering or fruiting. Botanical field survey visits should be spaced throughout the growing season to accurately determine what plants exist in the Project site. This usually involves multiple visits to the Project site (e.g., in early, mid, and late season) to capture the floristic diversity at a level necessary to determine if special status plants are present. A-17

The City should fully disclose any impacts on rare plants, which should include at a minimum where impacts would occur, number of individual plants impacted, population size and density, and acres of habitat/plant communities impacted.

**Recommendation 2: Sensitive Plant Avoidance**

CDFW recommends the City provide measures to fully avoid impacts to sensitive plant species. If adverse impacts to sensitive plants cannot be avoided during Project activities or during the life of the Project, the City should provide measures to compensate for those impacts. A-18

**A-17**

Comment Summary

The commenter recommends that, prior to authorizing any individual CIP project, the City require a comprehensive assessment of special-status plants and natural communities, following CDFW protocols, and provides specific measures for conducting such assessments. The commenter recommends that the City fully disclose any potential impacts on rare plants, including location; the number of individual plants impacted; population size and density; and acreage of habitat/ plant communities impacted.

Response

Refer to Responses A-5 and A-6, above. The intent of this recommendation is addressed in mitigation measures BIO-1 and BIO-2, which would require an assessment of special-status plant species and natural communities and the provision of compensation for those resources disturbed by proposed improvements at a specific CIP project site. At the programmatic level, the specific location of special-status plants, number of individual plants impacted, population size and density, and acreage of habitat/plant communities impacted cannot be determined at this time.

Rather, all future CIP projects would be evaluated on a site-specific basis to determine existing conditions at the time the project is initiated, and at a time when specific project details are known to allow for an effective evaluation of potential impacts and identification of project-specific mitigation measures, as appropriate. All such evaluations would follow applicable CDFW protocols.

**A-18**

Comment Summary

The commenter recommends that the City provide avoidance measures for potential impacts to sensitive plant species or measures to compensate for such impacts if avoidance cannot be achieved.

Docusign Envelope ID: 827029F1-FA6C-8B4C-800A-5338913ADEF6

Jennifer Gavin
City of Del Mar
Page 9

A-18 cont'd

For unavoidable impacts, onsite habitat restoration or enhancement should be discussed in detail. If onsite mitigation is not feasible or would not be biologically viable and therefore does not adequately mitigate the loss of biological functions and values, offsite mitigation through habitat creation and/or acquisition and preservation in perpetuity should be addressed. The City should prepare a restoration plan, to be approved by CDFW prior to any ground disturbance. The restoration plan should include restoration and monitoring methods, annual success criteria, contingency actions should success criteria not be met, long-term management and maintenance goals, and a funding mechanism to assure in-perpetuity management and reporting. Areas proposed as mitigation should have a recorded conservation easement and be dedicated to an entity which has been approved to hold/manage lands (Government Code §§ 65965-65968).

**Recommendation 3: Wildlife Surveys**

A-19

Prior to authorizing any individual Project under the Project, the City should require a complete assessment of endangered, rare, or threatened species and other sensitive species within the Project site and adjacent areas as a condition of approval. Focused species-specific surveys, conducted at the appropriate time of year and time of day when the sensitive species are active or otherwise identifiable, may be required if suitable habitat is present. See CDFW's Survey and Monitoring Protocols and Guidelines available at https://wildlife.ca.gov/Conservation/Survey-Protocols for established survey protocols. Acceptable species-specific survey procedures may be developed in consultation with CDFW.

**Recommendation 4: Sensitive Wildlife Avoidance**

A-20

CDFW recommends the City provide measures to fully avoid impacts to sensitive wildlife species. Mitigation measures should be feasible, effective, implementable, and fully enforceable. Mitigation measures should emphasize avoidance and minimization of Project-related impacts.

Measures such as pre-Project surveys, onsite biological monitors, plans for capture and relocation of reptiles and amphibians (including necessary take authorizations), fencing to preclude wildlife from entering the Project site during construction, and workforce education should all be considered by the City as methods to reduce the Project impacts to a less than significant level. The City should consult with CDFW to further discuss appropriate mitigation measures.

The commenter recommends that, for unavoidable impacts, on-site habitat restoration or enhancement be further discussed in the PEIR; if on-site mitigation is infeasible, off-site mitigation should be further addressed. The commenter also recommends preparation of a restoration plan for CDFW approval prior to any ground disturbance and recommends that lands proposed as project mitigation be protected through a recorded conservation easement and dedicated to an approved entity for long-term management.

Response

Refer to Responses A-5, A-6, and A-17, above. The intent of this recommendation is already addressed in mitigation measures BIO-1 and BIO-2, which would require site-specific evaluation for sensitive plant species and vegetation communities to determine whether such species or communities are present, and to inform the project design to avoid or minimize potential impacts, as feasible.

As appropriate to an individual CIP project site, mitigation measure BIO-1 would require a general biological resources survey and preparation of a BRTR, and, if required, focused special-status plant surveys. The project-specific BRTR would include any mitigation measures required to avoid or reduce impacts to special-status plants. Specific performance measures, including a replacement and success ratio of 1:1 for impacted individuals or populations, are identified in mitigation measures BIO-1 and BIO-2 to ensure that potential impacts are effectively reduced to less than significant, if avoidance cannot be achieved.

**A-19**

Comment Summary

The commenter recommends that, prior to authorizing any individual CIP project, the City should require an assessment of sensitive wildlife species on a particular site and adjacent areas as a condition of approval and indicates that focused species-specific surveys may be required if suitable habitat is present. The commenter also provides a link to relevant CDFW guidelines for established survey protocols.

Response

Refer to Responses A-5 and A-6, above. The intent of the commenters' recommendations is addressed under Impact 3.2-1 of the PEIR and in mitigation measures BIO-1, BIO-3, and BIO-4.

As discussed in PEIR Sections 3.2.1 and 3.2.4, the potential for future CIP projects to impact special-status wildlife species is identified. During site-specific evaluation of an individual CIP project site, the potential for suitable habitat types identified in the PEIR as requiring further evaluation for sensitive species would be determined.

Mitigation measure BIO-1 would require preparation of a BRTR prior to ground or vegetation disturbance for CIP projects wholly or partially within Moderate or High Sensitivity Zones (or as otherwise determined), as depicted in PEIR Figure 3.2-3. Per mitigation measure BIO-1, the project-specific BRTR would be required to identify the extent or absence of habitat that may support special-status plants or wildlife; evaluate the potential for direct and indirect impacts from proposed activities; outline avoidance and minimization measures to avoid direct and indirect impacts; and specify any additional compensatory mitigation measures to reduce direct and indirect impacts to below a level of significance.

Further, based on the results of the project-specific BRTR, mitigation measure BIO-3 may apply and would require that a focused survey be conducted during the appropriate seasonal survey window prior to any clearing, grubbing, grading, or vegetation removal activities, if it is determined that habitat suitable for special-status wildlife species is present within the proposed construction area.

As defined in mitigation measure BIO-3, focused species shall include wildlife species listed as threatened or endangered, or as candidate species for listing under the federal Endangered Species Act and/or CESA. Consistent with that identified by the commenter, the City acknowledges that all protocol surveys performed would adhere to established CDFW guidelines, as applicable.

Docusign Envelope ID: 827029F1-FA6C-8B4C-800A-5338913ADEF6

Jennifer Gavin
City of Del Mar
Page 9

A-18 cont'd

For unavoidable impacts, onsite habitat restoration or enhancement should be discussed in detail. If onsite mitigation is not feasible or would not be biologically viable and therefore does not adequately mitigate the loss of biological functions and values, offsite mitigation through habitat creation and/or acquisition and preservation in perpetuity should be addressed. The City should prepare a restoration plan, to be approved by CDFW prior to any ground disturbance. The restoration plan should include restoration and monitoring methods, annual success criteria, contingency actions should success criteria not be met, long-term management and maintenance goals, and a funding mechanism to assure in-perpetuity management and reporting. Areas proposed as mitigation should have a recorded conservation easement and be dedicated to an entity which has been approved to hold/manage lands (Government Code §§ 65965-65968).

A-19

**Recommendation 3: Wildlife Surveys**

Prior to authorizing any individual Project under the Project, the City should require a complete assessment of endangered, rare, or threatened species and other sensitive species within the Project site and adjacent areas as a condition of approval. Focused species-specific surveys, conducted at the appropriate time of year and time of day when the sensitive species are active or otherwise identifiable, may be required if suitable habitat is present. See CDFW's Survey and Monitoring Protocols and Guidelines available at https://wildlife.ca.gov/Conservation/Survey-Protocols for established survey protocols. Acceptable species-specific survey procedures may be developed in consultation with CDFW.

A-20

**Recommendation 4: Sensitive Wildlife Avoidance**

CDFW recommends the City provide measures to fully avoid impacts to sensitive wildlife species. Mitigation measures should be feasible, effective, implementable, and fully enforceable. Mitigation measures should emphasize avoidance and minimization of Project-related impacts.

Measures such as pre-Project surveys, onsite biological monitors, plans for capture and relocation of reptiles and amphibians (including necessary take authorizations), fencing to preclude wildlife from entering the Project site during construction, and workforce education should all be considered by the City as methods to reduce the Project impacts to a less than significant level. The City should consult with CDFW to further discuss appropriate mitigation measures.

**A-20**

Comment Summary

The commenter recommends that the PEIR identify mitigation measures that would avoid potential impacts to sensitive wildlife species, or that emphasize minimization of impacts, and suggests specific means to achieve this, including preconstruction surveys, monitoring, species relocation, fencing, and/or employee education to reduce impacts to less than significant. The commenter also recommends that the City further consult with CDFW to discuss appropriate mitigation.

Response

Refer to Responses A-5 and A-6, above. As indicated in PEIR Section 1.2.2, the PEIR analyzes the anticipated future CIP improvements at a programmatic level and provides clear and appropriate mitigation measures to reduce potential project impacts identified to below a level of significance.

Mitigation measures BIO-1 through BIO-7 have been identified to achieve avoidance and/or minimization of potential project effects and, as recommended by the commenter, include identifying the extent or absence of habitat that may support special-status plants or wildlife (BIO-1), conducting preconstruction wildlife surveys (BIO-4), special-status species avoidance and construction monitoring (BIO-5), and installation of exclusion fencing (BIO-5), among other means.

Docusign Envelope ID: 827029F1-FA6C-8B4C-800A-5338913ADEF6

Jennifer Gavin
City of Del Mar
Page 10

**Recommendation 5: Crotch's Bumble Bee Surveys**

A habitat assessment should be conducted prior to individual Project implementation. A qualified biologist should determine if the Project area or its immediate vicinity contains habitat suitable to support Crotch's bumble bee. The assessment should include historical and current species occurrences as well as proximity to the last known sighting. The habitat assessment should include data from site visits to observe and document potential habitat including potential foraging, nesting, and/or overwintering resources. The habitat assessment should quantify which plant species are in bloom along with percent area cover of land cover types. General plant diversity should also be assessed and documented. The foraging resources should be quantified across multiple site visits, corresponding with the Colony Active Season (April - August). Foraging resources recorded should not be limited to the preferred plant species known to be favored by Crotch's bumble bee but should include all flowering plants including non-natives and invasives. Nesting resources quantified can include bare ground, rodent burrows, and other potential nesting sites that may support bumble bee colonies. Leaf litter and woody forest edge that could provide overwintering habitat should also be described.

A-21

Surveys should be designed to follow the methodology described in Survey Considerations for California Endangered Species Act Candidate Bumble Bee Species (CDFW 2023)[3]. The results of the assessment should be provided to CDFW prior to initiating Project activities. Please note that even the best survey may fail to detect the presence of the species.

Surveys involving capture and handling of Crotch's bumble bee should only be conducted by individuals who possess a CESA Memorandum of Understanding authorizing take of the species for scientific, educational, or management purposes.

**Recommendation 6: Crotch's Bumble Bee Habitat Compensation**

Any floral resources associated with Crotch's bumble bee that are removed or damaged by Project implementation should be replaced at a 1:1 ratio at a minimum. Floral resources should be replaced as close to their original location as is feasible. If active Crotch's bumble bee nests have been identified and floral resources cannot be replaced within 200 meters of their original location, floral resources should be planted in the most centrally available location relative to identified nests. This location should be no more than 1.5 kilometers from any identified nest. Replaced floral resources may be split into multiple patches to meet

A-22

[3] https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=213150&inline

**A-21**

Comment Summary

The commenter recommends that a habitat assessment for CBB be conducted by a qualified biologist prior to implementation of individual CIP projects to determine whether the affected site or vicinity provides habitat that is suitable to support the species. The commenter further provides specific actions and requirements for preparation of the CBB assessment.

The commenter states that surveys for CBB should be designed to follow the methodology described in CDFW's *Survey Considerations for California Endangered Species Act Candidate Bumble Bee Species* and that the results should be provided to CDFW prior to project ground-disturbing activities.

The commenter also states that surveys involving capture and handling of CBB should only be conducted by individuals who possess CESA authorization for take of the species related to scientific, educational, or management purposes.

Response

Refer to Response A-10, above. The PEIR identifies the potential for CBB to be present on future CIP project sites. The intent of the commenter's recommendation is addressed in mitigation measures BIO-1 and BIO-3 of the PEIR. All future CIP projects would be evaluated for site-specific conditions to determine whether a project-specific BRTR is required. Preparation of a BRTR would include a site-specific habitat assessment to determine whether suitable habitat for CBB is present on a particular CIP project site, at the time when such evaluation is warranted (e.g., at project initiation and as seasonally appropriate).

All such surveys would occur in accordance with applicable protocols involving procedures and personnel, and results would be provided to CDFW for consideration. In accordance with state regulations, the City understands that all surveys involving capture and handling of CBB can only be conducted by authorized individuals.

Docusign Envelope ID: 827029F1-FA6C-8B4C-800A-5338913ADEF6



A-22 cont'd distance requirements for multiple nests. These floral resources should be maintained in perpetuity and should be replanted and managed as needed to ensure the habitat is preserved.

**Recommendation 7: Nesting Bird Avoidance**

A-23 To protect nesting birds that could occur on or near individual Project sites, the City should include a measure that precludes ground- and vegetation-disturbing Project activities between February 15 and August 31. If Project activities during this period must occur, the City should conduct a complete survey for nesting bird activity within a 500-foot radius of the Project site. If any nests are found, they should be protected by a protective buffer between Project activities and the nest. The buffer should be adequately large to prevent disturbance to the breeding birds. The City should have a biological monitor onsite to evaluate the effectiveness of the buffer and increase its width as needed.

**Recommendation 8: CESA Take Authorization**

A-24 Take of any endangered, threatened, candidate species, or NPPA-listed plant species that results from the Project is prohibited, except as authorized by state law (Fish & G. Code §§ 2080, 2085; Cal. Code Regs., tit. 14, §786.9). Consequently, if the Project or any Project-related activity will result in take of a species designated as endangered, threatened, or rare, or a candidate for listing under CESA, CDFW recommends that the City seek appropriate take authorization under CESA prior to implementing the Project. Appropriate authorization from CDFW may include an Incidental Take Permit (ITP) or, in certain circumstances, a consistency determination, among other options [Fish & G. Code, §§ 2080.1, 2081, subds. (b) and (c)]. Early consultation is encouraged, as significant modification to a Project and mitigation measures may be required to obtain a CESA Permit. The PEIR should addresses all Project impacts to CESA-listed species and specify a mitigation monitoring and reporting program that will meet the requirements of an ITP.

**ADDITIONAL COMMENTS**

A-25 **Mitigation and Monitoring Reporting Plan**. CDFW recommends the Project's environmental document include mitigation measures recommended in this letter. CDFW has provided comments via a mitigation monitoring and reporting plan to assist in the development of feasible, specific, detailed (i.e., responsible party, timing, specific actions, location), and fully enforceable mitigation measures (CEQA Guidelines, § 15097; Pub. Resources Code, § 21081.6). The Lead Agency is welcome to coordinate with CDFW to further review and refine the Project's mitigation measures. Per Public Resources Code section 21081.6(a)(1), CDFW

**A-22**

Comment Summary

The commenter indicates that any floral resources associated with CBB that are removed or damaged as a result of project implementation should be replaced at a minimum 1:1 ratio and provides specific recommendations for how such replacement should occur.

Response

Refer to Response A-10, above. As discussed under Impact 3.2-1 of the PEIR, potential impacts to special-status species, including CBB, have been evaluated, based on the best available data, and mitigation measures have been identified to reduce impacts to less than significant. Mitigation measure BIO-2 addresses potential impacts on special-status plants and provides performance standards, including a required replacement and minimum success ratio of 1:1 for impacted individuals or populations. Adherence to appropriate protocols and regulatory compliance would be required for any future replacement activities if undertaken.

**A-23**

Comment Summary

The commenter requests that a mitigation measure be provided for nesting bird avoidance to preclude ground- and vegetation-disturbing project activities between February 15 and August 31 and provides specific recommendations for projects that cannot avoid ground disturbance during this time. Such recommendations include a preconstruction survey, buffering of any nests identified for breeding birds to prevent disturbance, and biological monitoring to ensure that disturbance is avoided or minimized to the extent feasible.

Response

Refer to Response A-8, above. The intent of this recommendation is already included in mitigation measure BIO-4, which requires preconstruction surveys (appropriate to confirmed on-site habitat)

Docusign Envelope ID: 827029F1-FA6C-8B4C-800A-5338913ADEF6

Jennifer Gavin
City of Del Mar
Page 11

A-22 cont'd distance requirements for multiple nests. These floral resources should be maintained in perpetuity and should be replanted and managed as needed to ensure the habitat is preserved.

**Recommendation 7: Nesting Bird Avoidance**

A-23 To protect nesting birds that could occur on or near individual Project sites, the City should include a measure that precludes ground- and vegetation-disturbing Project activities between February 15 and August 31. If Project activities during this period must occur, the City should conduct a complete survey for nesting bird activity within a 500-foot radius of the Project site. If any nests are found, they should be protected by a protective buffer between Project activities and the nest. The buffer should be adequately large to prevent disturbance to the breeding birds. The City should have a biological monitor onsite to evaluate the effectiveness of the buffer and increase its width as needed.

**Recommendation 8: CESA Take Authorization**

A-24 Take of any endangered, threatened, candidate species, or NPPA-listed plant species that results from the Project is prohibited, except as authorized by state law (Fish & G. Code §§ 2080, 2085; Cal. Code Regs., tit. 14, §786.9). Consequently, if the Project or any Project-related activity will result in take of a species designated as endangered, threatened, or rare, or a candidate for listing under CESA, CDFW recommends that the City seek appropriate take authorization under CESA prior to implementing the Project. Appropriate authorization from CDFW may include an Incidental Take Permit (ITP) or, in certain circumstances, a consistency determination, among other options [Fish & G. Code, §§ 2080.1, 2081, subds. (b) and (c)]. Early consultation is encouraged, as significant modification to a Project and mitigation measures may be required to obtain a CESA Permit. The PEIR should addresses all Project impacts to CESA-listed species and specify a mitigation monitoring and reporting program that will meet the requirements of an ITP.

**ADDITIONAL COMMENTS**

A-25 **Mitigation and Monitoring Reporting Plan**. CDFW recommends the Project's environmental document include mitigation measures recommended in this letter. CDFW has provided comments via a mitigation monitoring and reporting plan to assist in the development of feasible, specific, detailed (i.e., responsible party, timing, specific actions, location), and fully enforceable mitigation measures (CEQA Guidelines, § 15097; Pub. Resources Code, § 21081.6). The Lead Agency is welcome to coordinate with CDFW to further review and refine the Project's mitigation measures. Per Public Resources Code section 21081.6(a)(1), CDFW

to determine the potential presence of habitat suitable for sensitive wildlife species.

**A-24**

Comment Summary

The commenter recommends that the City seek appropriate take authorization under CESA prior to implementing the proposed project if any activity would result in take of a species designated as endangered, threatened, or rare, or a candidate for listing under CESA, and encourages early consultation, as design modifications and/or mitigation measures may be required to obtain a CESA permit. The commenter indicates that the PEIR should address all potential impacts to CESA-listed and candidate species and prepare an MMRP to meet ITP requirements.

Response

Refer to Responses A-5 and A-6, above. As applicable to specific future CIP projects, the City would comply with requirements for appropriate take authorization under CESA. The City acknowledges CDFW's recommendation to initiate early consultation to avoid or minimize the potential for adverse effects on project design and/or the potential need for mitigation prior to permit approval.

The PEIR addresses potential impacts to special-status species associated with implementation of anticipated future CIP projects, using all available information known at the time of PEIR preparation. The potential CIP project locations and types of activities typically associated with CIP projects were evaluated in the PEIR at a programmatic level based on information available to the City where reasonably foreseeable direct and indirect physical changes in the environment could be considered.

As is typical of PEIRs, site-specific analysis was not conducted for certain environmental topics where information was not available or would be too speculative on which to base an analysis of potential impacts resulting from future CIP projects. As such, potential changes beyond

Docusign Envelope ID: 827029F1-FA6C-8B4C-800A-5338913ADEF6



A-25 cont'd has provided a summary of our suggested mitigation measures and recommendations in the form of an attached Draft Mitigation Monitoring and Reporting Plan (Attachment A).

**ENVIRONMENTAL DATA**

CEQA requires that information developed in environmental impact reports and negative declarations be incorporated into a database which may be used to make subsequent or supplemental environmental determinations. (Pub. Resources Code, § 21003, subd. (e).) Accordingly, please report any special status species and natural communities detected during Project surveys to the California Natural Diversity Database (CNDDB). The CNDDB website[4] provides direction regarding the types of information that should be reported and allows on-line submittal of field survey forms. A-26

In addition, information on special status native plant populations and sensitive natural communities should be submitted to CDFW's Vegetation Classification and Mapping Program using the Combined Rapid Assessment and Relevé Form[5].

The City should ensure data collected for the preparation of the PEIR is properly submitted.

**FILING FEES**

The Project, as proposed, would have an impact on fish and/or wildlife, and assessment of environmental document filing fees is necessary. Fees are payable upon filing of the Notice of Determination by the Lead Agency and serve to help defray the cost of environmental review by CDFW. Payment of the environmental document filing fee is required in order for the underlying Project approval to be operative, vested, and final. (Cal. Code Regs, tit. 14, § 753.5; Fish & G. Code, § 711.4; Pub. Resources Code, § 21089.) A-27

**CONCLUSION**

CDFW appreciates the opportunity to comment on the Draft PEIR to assist the City in identifying and mitigating Project impacts on biological resources. CDFW requests an opportunity to review and comment on any response that the City has to our comments and to receive notification of any forthcoming hearing date(s) for the Project (CEQA Guidelines, § 15073(e)). A-28

[4] https://wildlife.ca.gov/Data/CNDDB
[5] https://wildlife.ca.gov/Data/VegCAMP/Natural-Communities/Submit

those that were analyzed are considered speculative or unlikely to occur, and therefore not reasonably foreseeable. Mitigation measures BIO-1 through BIO-7 were identified in the PEIR to appropriately reduce potential impacts to less than significant. An MMRP has been prepared as part of the Final PEIR to ensure compliance with the mitigation identified, as applicable to each future CIP project.

**A-25**

Comment Summary

The commenter refers to the MMRP, provided as Attachment A of the comment letter, which identifies recommended mitigation measures for inclusion in the PEIR. The commenter also expresses willingness to coordinate with the City to further review and refine the mitigation language provided.

Response

The City has reviewed and considered the recommended mitigation measures provided by the commenter. Minor edits have been incorporated into the mitigation measures identified in the PEIR, as appropriate, to reflect the recommendations provided. The specific mitigation measures provided are acknowledged in Responses A-29 through A-36, below (commenter's Recommendations 1 through 8).

**A-26**

Comment Summary

The commenter notes that special-status species and natural communities encountered during project surveys are to be reported to the California Natural Diversity Database per CEQA requirements and provides information on how such data can be submitted.

The commenter also indicates that information on special-status native plant populations and sensitive natural communities should be submitted to CDFW's Vegetation Classification and Mapping Program.

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A-25 cont'd has provided a summary of our suggested mitigation measures and recommendations in the form of an attached Draft Mitigation Monitoring and Reporting Plan (Attachment A).

**ENVIRONMENTAL DATA**

CEQA requires that information developed in environmental impact reports and negative declarations be incorporated into a database which may be used to make subsequent or supplemental environmental determinations. (Pub. Resources Code, § 21003, subd. (e).) Accordingly, please report any special status species and natural communities detected during Project surveys to the California Natural Diversity Database (CNDDB). The CNDDB website[4] provides direction regarding the types of information that should be reported and allows on-line submittal of field survey forms. A-26

In addition, information on special status native plant populations and sensitive natural communities should be submitted to CDFW's Vegetation Classification and Mapping Program using the Combined Rapid Assessment and Relevé Form[5].

The City should ensure data collected for the preparation of the PEIR is properly submitted.

**FILING FEES**

The Project, as proposed, would have an impact on fish and/or wildlife, and assessment of environmental document filing fees is necessary. Fees are payable upon filing of the Notice of Determination by the Lead Agency and serve to help defray the cost of environmental review by CDFW. Payment of the environmental document filing fee is required in order for the underlying Project approval to be operative, vested, and final. (Cal. Code Regs, tit. 14, § 753.5; Fish & G. Code, § 711.4; Pub. Resources Code, § 21089.) A-27

**CONCLUSION**

CDFW appreciates the opportunity to comment on the Draft PEIR to assist the City in identifying and mitigating Project impacts on biological resources. CDFW requests an opportunity to review and comment on any response that the City has to our comments and to receive notification of any forthcoming hearing date(s) for the Project (CEQA Guidelines, § 15073(e)). A-28

[4] https://wildlife.ca.gov/Data/CNDDB
[5] https://wildlife.ca.gov/Data/VegCAMP/Natural-Communities/Submit

Response

The City acknowledges the information and direction provided. The City and/or its contracted subconsultants would be subject to all such requirements for any surveys conducted for the project to date, as well as for resources documented during any future site surveys. All data collected to support preparation of the PEIR has been provided in the form of supporting technical appendices or incorporated, as appropriate, in the PEIR; refer also to PEIR Appendix E for the BRTR.

This comment does not raise any environmental concerns nor address the adequacy of the PEIR. No further response is required.

**A-27**

Comment Summary

This comment discusses the environmental document filing fees required by CDFW.

Response

The information provided by CDFW is acknowledged. The City would comply with applicable filing procedures and would make payment of required fees at the time when the Notice of Determination is filed. This comment does not raise an environmental concern nor address the adequacy of the PEIR. No further response is required.

**A-28**

Comment Summary

This comment is a conclusion to the comment letter and requests that CDFW be notified of any forthcoming hearing dates for the project. Contact information for CDFW staff is also provided for any questions or further coordination that may be required.

Response

This comment is in conclusion to the comment letter. No further response is required.

Docusign Envelope ID: 827029F1-FA6C-8B4C-800A-5338913ADEF6



A-28 cont'd Questions regarding this letter or further coordination should be directed to Kelly Fisher[6], Environmental Scientist.

Sincerely,

Signed by:
Glen Lubcke
AD7D070BCB66466...

Glen M. Lubcke
Environmental Program Manager
South Coast Region

ec: California Department of Fish and Wildlife
Glen M. Lubcke, Environmental Program Manager
Melanie Burlaza, Senior Environmental Scientist (Supervisor)
Kelly Fisher, Environmental Scientist

**REFERENCES**

California Department of Fish and Wildlife [CDFW]. 2018. Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Sensitive Natural Communities. https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=18959&inline

California Department of Fish and Wildlife [CDFW]. 2023. Survey Considerations for California Endangered Species Act (CESA) Candidate Bumble Bee Species. https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=213150&inline.

Goulson, D. 2010. Bumblebees: behavior, ecology, and conservation. Oxford University Press, New York, New York.

Hatfield, R., S. Jepsen, E. Mader, S. H. Black, and M. Shepherd. 2012. Conserving Bumble Bees Guidelines for Creating and Managing Habitat for America's Declining Pollinators. Portland, OR: The Xerces Society for Invertebrate Conservation.

Williams, P. H., R. W. Thorp, L. L. Richardson, and S. R. Colla. 2014. Bumble Bees of North America: An Identification Guide. Princeton University Press.

[6] Phone: 858-354-5083; Email: kelly.fisher@wildlife.ca.gov

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**Attachment A: Draft Mitigation Monitoring and Reporting Program (MMRP)**

CDFW provides the following language to be incorporated into the MMRP for the Project.

| Mitigation Measure/Recommendation | Timing | Responsible Party |
|---|---|---|
| **Recommendation 1: Botanical Surveys**<br>Prior to authorizing any individual project under the Project, the City should require a thorough, floristic-based assessment of special status plants and natural communities following CDFW's Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Sensitive Natural Communities (CDFW 2018). Botanical field surveys should be comprehensive over the entire Project site, including areas that will be directly or indirectly impacted by the Project. Adjoining properties should also be surveyed where direct or indirect Project effects could occur, such as those from fuel modification, herbicide application, invasive species, and altered hydrology. Botanical field surveys should be conducted in the field at the times of year when plants will be both evident and identifiable. Usually, this is during flowering or fruiting. Botanical field survey visits should be spaced throughout the growing season to accurately determine what plants exist in the Project site. This usually involves multiple visits to the Project site (e.g., in early, mid, and late season) to capture the floristic diversity at a level necessary to determine if special status plants are present.<br>The City should fully disclose any impacts on rare plants, which should include at a minimum where impacts would occur, number of individual plants impacted, population size and density, and acres of habitat/plant communities impacted. | | |

A-29

## A-29

Comment Summary

The commenter provides recommendations (Recommendation 1) for mitigation pertaining to botanical surveys.

Response

Refer to Response A-17, above.

Docusign Envelope ID: 827029F1-FA6C-8B4C-800A-5338913ADEF6



| Mitigation Measure/Recommendation | Timing | Responsible Party |
|---|---|---|
| **Recommendation 2: Sensitive Plant Avoidance**<br>CDFW recommends the City provide measures to fully avoid impacts to sensitive plant species. If adverse impacts to sensitive plants cannot be avoided during Project activities or during the life of the Project, the City should provide measures to compensate for those impacts.<br>For unavoidable impacts, onsite habitat restoration or enhancement should be discussed in detail. If onsite mitigation is not feasible or would not be biologically viable and therefore not adequately mitigate the loss of biological functions and values, offsite mitigation through habitat creation and/or acquisition and preservation in perpetuity should be addressed. The City should prepare a restoration plan, to be approved by CDFW prior to any ground disturbance. The restoration plan should include restoration and monitoring methods, annual success criteria, contingency actions should success criteria not be met, long-term management and maintenance goals, and a funding mechanism to assure in-perpetuity management and reporting. Areas proposed as mitigation should have a recorded conservation easement and be dedicated to an entity which has been approved to hold/manage lands (Government Code §§ 65965-65968). | | |
| **Recommendation 3: Wildlife Surveys**<br>Prior to authorizing any individual Project under the Project, the City should require a complete assessment of endangered, rare, or threatened species and other sensitive species within the Project site and adjacent areas as a condition of approval. Focused species-specific surveys, conducted at the appropriate time of year and time of day when the sensitive species are active or otherwise identifiable, may be required if suitable habitat is present. See CDFW's Survey and Monitoring Protocols and Guidelines available at https://wildlife.ca.gov/Conservation/Survey-Protocols for established survey | | |

A-30

A-31

**A-30**

Comment Summary

The commenter provides recommendations (Recommendation 2) for mitigation pertaining to sensitive plant avoidance.

Response

Refer to Response A-18, above.

**A-31**

Comment Summary

The commenter provides recommendations (Recommendation 3) for mitigation pertaining to wildlife surveys.

Response

Refer to Response A-19, above.

Docusign Envelope ID: 827029F1-FA6C-8B4C-800A-5338913ADEF6



| | Mitigation Measure/Recommendation | Timing | Responsible Party |
|---|---|---|---|
| A-31 cont'd | protocols. Acceptable species-specific survey procedures may be developed in consultation with CDFW. | | |
| A-32 | **Recommendation 4: Sensitive Wildlife Avoidance**<br>CDFW recommends the City provide measures to fully avoid impacts to sensitive wildlife species. Mitigation measures should be feasible, effective, implementable, and fully enforceable. Mitigation measures should emphasize avoidance and minimization of Project-related impacts.<br>Measures such as pre-Project surveys, onsite biological monitors, plans for capture and relocation of reptiles and amphibians (including necessary take authorizations), fencing to preclude wildlife from entering the Project site during construction, and workforce education should all be considered by the City as methods to reduce the Project impacts to a less than significant level. The City should consult with CDFW to further discuss appropriate mitigation measures. | | |
| A-33 | **Recommendation 5: Crotch's Bumble Bee Surveys**<br>A habitat assessment should be conducted prior to individual Project implementation. A qualified biologist should determine if the Project area or its immediate vicinity contains habitat suitable to support Crotch's bumble bee. The assessment should include historical and current species occurrences as well as proximity to the last known sighting. The habitat assessment should include data from site visits to observe and document potential habitat including potential foraging, nesting, and/or overwintering resources. The habitat assessment should quantify which plant species are in bloom along with percentage area cover of land cover types. General plant diversity should also be assessed and documented. The foraging resources should be quantified across multiple site visits, corresponding with the Colony Active Season (April - August). Foraging resources recorded should not be limited to the preferred plant species known to | | |

**A-32**

Comment Summary

The commenter provides recommendations (Recommendation 4) for mitigation pertaining to sensitive wildlife avoidance.

Response

Refer to Response A-20, above.

**A-33**

Comment Summary

The commenter provides recommendations (Recommendation 5) for mitigation pertaining to CBB surveys.

Response

Refer to Response A-21, above.

Docusign Envelope ID: 827029F1-FA6C-8B4C-800A-5338913ADEF6



| Mitigation Measure/Recommendation | Timing | Responsible Party |
|---|---|---|
| be favored by Crotch's bumble bee but should include all flowering plants including non-natives and invasives. Nesting resources quantified can include bare ground, rodent burrows, and other potential nesting sites that may support bumble bee colonies. Leaf litter and woody forest edge that could provide overwintering habitat should also be described.<br><br>Surveys should be designed to follow the methodology described in Survey Considerations for California Endangered Species Act Candidate Bumble Bee Species (CDFW 2023). The results of the assessment should be provided to CDFW prior to initiating Project activities. Please note that even the best survey may fail to detect the presence of the species.<br><br>Surveys involving capture and handling of Crotch's bumble bee should only be conducted by individuals who possess a CESA Memorandum of Understanding authorizing take of the species for scientific, educational, or management purposes. | | |
| **Recommendation 6: Crotch's Bumble Bee Habitat Compensation**<br><br>Any floral resources associated with Crotch's bumble bee that are removed or damaged by Project implementation should be replaced at a 1:1 ratio at a minimum. Floral resources should be replaced as close to their original location as is feasible. If active Crotch's bumble bee nests have been identified and floral resources cannot be replaced within 200 meters of their original location, floral resources should be planted in the most centrally available location relative to identified nests. This location should be no more than 1.5 kilometers from any identified nest. Replaced floral resources may be split into multiple patches to meet distance requirements for multiple nests. These floral resources should be maintained in perpetuity and should be replanted and managed as needed to ensure the habitat is preserved. | | |

A-33 cont'd

A-34

## A-34

Comment Summary

The commenter provides recommendations (Recommendation 6) for mitigation pertaining to CBB habitat compensation.

Response

Refer to Response A-22, above.

Docusign Envelope ID: 827029F1-FA6C-8B4C-800A-5338913ADEF6



| | Mitigation Measure/Recommendation | Timing | Responsible Party |
|---|---|---|---|
| A-35 | **Recommendation 7: Nesting Bird Avoidance**<br>To protect nesting birds that could occur on or near individual Project sites, the City should include a measure that precludes ground- and vegetation-disturbing Project activities between February 15 and August 31. If Project activities during this period must occur, the City should conduct a complete survey for nesting bird activity within a 500-foot radius of the Project site. If any nests are found, they should be protected by a protective buffer between Project activities and the nest. The buffer should be adequately large to prevent disturbance to the breeding birds. The City should have a biological monitor onsite to evaluate the effectiveness of the buffer and increase its width as needed. | | |
| A-36 | **Recommendation 8: CESA Take Authorization**<br>Take of any endangered, threatened, candidate species, or NPPA-listed plant species that results from the Project is prohibited, except as authorized by state law (Fish & G. Code §§ 2080, 2085; Cal. Code Regs., tit. 14, §786.9). Consequently, if the Project or any Project-related activity will result in take of a species designated as endangered, threatened, or rare, or a candidate for listing under CESA, CDFW recommends that the City seek appropriate take authorization under CESA prior to implementing the Project. Appropriate authorization from CDFW may include an Incidental Take Permit (ITP) or, in certain circumstances, a consistency determination, among other options [Fish & G. Code, §§ 2080.1, 2081, subds. (b) and (c)]. Early consultation is encouraged, as significant modification to a Project and mitigation measures may be required to obtain a CESA Permit. The PEIR should address all Project impacts to CESA-listed species and specify a mitigation monitoring and reporting program that will meet the requirements of an ITP. | | |

**A-35**

Comment Summary

The commenter provides recommendations (Recommendation 7) for mitigation pertaining to nesting bird avoidance.

Response

Refer to Response A-23, above.

**A-36**

Comment Summary

The commenter provides recommendations (Recommendation 8) for mitigation pertaining to CESA take authorization.

Response

Refer to Response A-24, above.

CALIFORNIA STATE TRANSPORTATION AGENCY GAVIN NEWSOM, GOVERNOR

**California Department of Transportation**

DISTRICT 11
4050 TAYLOR STREET, MS-240
SAN DIEGO, CA 92110
(619) 985-1587 | FAX (619) 688-4299 TTY 711
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August 13, 2026

11-SD-5, 56
PM VAR
City of Del Mar Capital Improvement Program (CIP) EIR
EIR/SCH#2025110661

Ms. Jennifer Gavin
Associate Planner
City of Del Mar
1050 Camino Del Mar
Del Mar, CA, 92014

Dear Ms. Gavin:

Thank you for including the California Department of Transportation (Caltrans) in the environmental review process for the Draft Environmental Impact Report (EIR) for the City of Del Mar Capital Improvement Program (CIP) located near Interstate 5 & State Route 56 (I-5, SR-56). The mission of Caltrans is to provide a safe and reliable transportation network that serves all people and respects the environment. The Local Development Review (LDR) Program reviews land use projects and plans to ensure consistency with our mission and state planning priorities.

B-1

Safety is one of Caltrans' strategic goals. Caltrans strives to make the year 2050 the first year without a single death or serious injury on California's roads. We are striving for more equitable outcomes for the transportation network's diverse users. To achieve these ambitious goals, we will pursue meaningful collaboration with our partners. We encourage the implementation of new technologies, innovations, and best practices that will enhance the safety on the transportation network. These pursuits are both ambitious and urgent, and their accomplishment involves a focused departure from the status quo as we continue to institutionalize safety in all our work.

Caltrans is committed to prioritizing projects that are equitable and provide meaningful benefits to historically underserved communities, to ultimately improve transportation accessibility and quality of life for people in the communities we serve.

We look forward to working with the City of Del Mar in areas where the City and Caltrans have joint jurisdiction to improve the transportation network and connections between various modes of travel, with the goal of improving the experience of those who use the transportation system.

"Improving lives and communities through transportation."

# Letter B – California Department of Transportation, dated August 13, 2026

**B-1**

Comment Summary

The comment summarizes the mission and goals of the California Department of Transportation (Caltrans).

Response

This comment is an introductory statement and does not raise any environmental concerns pursuant to the provisions of CEQA, nor does it address the adequacy of the PEIR. No further response is required.

Ms. Jennifer Gavin, Associate Planner
August 13, 2026
Page 2

Caltrans has the following comments:

**Traffic Impact Study**

B-2 Please reference the Caltrans "*Local Development Review (LDR) Safety Review Practitioner's Guidance*" https://dot.ca.gov/-/media/dot-media/programs/safety-programs/documents/202402-ldr-safety-review-practitioners-guidance-a11y.pdf to determine if any future projects meet both of the screening criteria. If both screening criteria are not met, then a safety review will be needed.

**Design/FHWA**

B-3 In reviewing the DEIR and CIP project list it does not look like any impact to I-5 or SR-56 will occur. However, if any modifications occur to impact I-5 because it is a federal highway, any proposed changes to I-5 will need approval by Federal Highway Administration (FHWA).

**Hauling**

B-4 The California Department of Transportation (Caltrans) has discretionary authority with respect to highways under its jurisdiction and may, upon application and if good cause appears, issue a special permit to operate or move a vehicle or combination of vehicles or special mobile equipment of a size or weight of vehicle or load exceeding the maximum limitations specified in the California Vehicle Code. The Caltrans Transportation Permits Issuance Branch is responsible for the issuance of these special transportation permits for oversize/overweight vehicles on the State Highway network. Additional information is provided online at: https://dot.ca.gov/programs/traffic-operations/transportation-permits.

**Right-of-Way**

Per Business and Profession Code 8771, perpetuation of survey monuments by a licensed land surveyor is required, if they are being destroyed by any construction.

Any work performed within Caltrans' Right-of-Way (R/W) will require discretionary review and approval by Caltrans and an encroachment permit will be required for any work within the Caltrans' R/W prior to construction.

B-5 Additional information regarding encroachment permits may be obtained by visiting the website at https://dot.ca.gov/programs/traffic-operations/ep. Projects with the following:

- require a Caltrans Encroachment Permit
- have completed the Caltrans Local Development Review (LDR) process
- have an approved environmental document

need to have documents submitted for Quality Management Assessment Process (QMAP) process via email to D11.QMAP.Permits@dot.ca.gov. Early coordination with Caltrans is strongly advised for all encroachment permits.

"Improving lives and communities through transportation."

**B-2**

Comment Summary

The commenter recommends that the City refer to the Caltrans *Local Development Review Safety Review Practitioner's Guidance* to determine whether any future projects meet established screening criteria. If screening criteria is not met, then a safety review will be needed.

Response

The comments provided are acknowledged and the project would comply with applicable screening criteria requirements. This comment does not raise any environmental concerns pursuant to the provisions of CEQA, nor does it address the adequacy of the PEIR. No further response is required.

**B-3**

Comment Summary

This comment states that it does not appear that impacts to Interstate 5 or State Route 56 would occur with project implementation. The commenter states that if modifications occur that would have the potential to impact Interstate 5, such modifications would require approval from the Federal Highway Administration.

Response

The City acknowledges the comments provided. However, as analyzed in the PEIR, it is not anticipated that the project would result in any actions or modifications that would impact Interstate 5 or State Route 56; refer to Section 4.11, Transportation. Further, the City does not have adjacent jurisdiction with Interstate 5 or State Route 56—both are within the City of San Diego. This comment does not question the adequacy of the PEIR. No further response is required.

Ms. Jennifer Gavin, Associate Planner
August 13, 2026
Page 2

Caltrans has the following comments:

**Traffic Impact Study**

B-2 Please reference the Caltrans "*Local Development Review (LDR) Safety Review Practitioner's Guidance*" https://dot.ca.gov/-/media/dot-media/programs/safety-programs/documents/202402-ldr-safety-review-practitioners-guidance-a11y.pdf to determine if any future projects meet both of the screening criteria. If both screening criteria are not met, then a safety review will be needed.

**Design/FHWA**

B-3 In reviewing the DEIR and CIP project list it does not look like any impact to I-5 or SR-56 will occur. However, if any modifications occur to impact I-5 because it is a federal highway, any proposed changes to I-5 will need approval by Federal Highway Administration (FHWA).

**Hauling**

B-4 The California Department of Transportation (Caltrans) has discretionary authority with respect to highways under its jurisdiction and may, upon application and if good cause appears, issue a special permit to operate or move a vehicle or combination of vehicles or special mobile equipment of a size or weight of vehicle or load exceeding the maximum limitations specified in the California Vehicle Code. The Caltrans Transportation Permits Issuance Branch is responsible for the issuance of these special transportation permits for oversize/overweight vehicles on the State Highway network. Additional information is provided online at: https://dot.ca.gov/programs/traffic-operations/transportation-permits.

**Right-of-Way**

Per Business and Profession Code 8771, perpetuation of survey monuments by a licensed land surveyor is required, if they are being destroyed by any construction.

Any work performed within Caltrans' Right-of-Way (R/W) will require discretionary review and approval by Caltrans and an encroachment permit will be required for any work within the Caltrans' R/W prior to construction.

B-5 Additional information regarding encroachment permits may be obtained by visiting the website at https://dot.ca.gov/programs/traffic-operations/ep. Projects with the following:

- require a Caltrans Encroachment Permit
- have completed the Caltrans Local Development Review (LDR) process
- have an approved environmental document

need to have documents submitted for Quality Management Assessment Process (QMAP) process via email to D11.QMAP.Permits@dot.ca.gov. Early coordination with Caltrans is strongly advised for all encroachment permits.

"Improving lives and communities through transportation."

**B-4**

Comment Summary

The commenter states that Caltrans has discretionary authority with respect to highways under its jurisdiction and may issue a special permit to operate or move certain vehicles, including oversized/overweight vehicles, on the state highway network. The commenter provides a weblink for additional information pertaining to such permits.

Response

The City acknowledges the information provided. The project would comply with applicable Caltrans requirements for the use or operation of any oversized/overweight vehicles during project construction. This comment does not address the adequacy of the PEIR; no further response is required.

**B-5**

Comment Summary

The commenter states that any work performed within Caltrans' right-of-way will require discretionary review and approval by Caltrans, and an encroachment permit will be required for any work within Caltrans' right-of-way prior to construction.

Response

No such encroachment work within Caltrans' right-of-way is anticipated by the proposed project. Nonetheless, if required, the City and the project applicant would coordinate with Caltrans to obtain the necessary encroachment permits for work in any state-owned right-of-way.

Ms. Jennifer Gavin, Associate Planner
August 13, 2026
Page 3

B-6 If you have any questions or concerns, please contact Shannon Aston, LDR Coordinator, at (619) 992-0628 or by e-mail sent to shannon.aston@dot.ca.gov.

Sincerely,

*Kimberly D. Dodson*

KIMBERLY D. DODSON, GISP
Branch Chief
Local Development Review

**B-6**

Comment Summary

This comment provides contact information for Caltrans staff.

Response

The comment is informational and does not raise an environmental concern relative to CEQA, nor address the adequacy of the PEIR. No further response is required.

# EXECUTIVE SUMMARY

## Introduction

Pursuant to California Environmental Quality Act (CEQA) Guidelines Section 15123, this section summarizes the proposed project, significant impacts, and proposed mitigation measures. The summary is organized around the following topics:

- Purpose of the Program Environmental Impact Report
- Project Synopsis
- Issues Raised During Scoping
- Summary of Project Alternatives

## Purpose of the Program Environmental Impact Report

This Program Environmental Impact Report (PEIR) has been prepared for the City of Del Mar (City), acting as the lead agency under CEQA Guidelines Sections 15050, 15367, and 15168, to analyze the potential environmental effects associated with implementation of the City of Del Mar Capital Improvements Program (CIP) Streamlining Project (hereafter referred to as "proposed project" or "project").

This document is a PEIR, as defined in CEQA Guidelines Section 15168. A PEIR is prepared for a series of actions that are characterized as one large project through reasons of geography, similar rules or regulations, or where individual activities will occur under the same regulatory process with similar environmental impacts that can be mitigated in similar ways. Because the project includes future CIP projects within the City, and this PEIR includes a mitigation framework that would be implemented by future CIP projects, a programmatic approach to environmental review is deemed appropriate.

A PEIR is a public informational document used in the planning and decision-making process. The purpose of the PEIR is to demonstrate that the City has made a good faith effort at disclosing the potential for a project to result in significant impacts to the physical environment. As such, the PEIR does not consider potential fiscal impacts, cost-benefit assessment, or social impacts. Nor does the PEIR present recommendations to the decision-making bodies for approval or denial of the project based on the environmental findings. Rather, the PEIR is intended to provide additional information to help consider proposed CIP projects at a future date when, if, and at which time they are reviewed and considered by the City in its discretionary decision-making for the project (i.e., City Council, Planning Commission, Design Review Board, Planning and Community Services Director, Public Works Director).

It should be noted that this PEIR addresses potential impacts associated with implementation of CIP projects using all available information known at the time of its preparation. The potential CIP project locations and types of activities typically associated with CIP projects were evaluated in this PEIR at a programmatic level based on information available to the City where reasonably foreseeable direct and indirect physical changes in the environment could be considered. As is typical of PEIRs, further site-specific analysis was not conducted for certain environmental topics where information was not available or would be too speculative on which to base an analysis of potential impacts resulting from future CIP projects. As such, potential changes beyond those that were analyzed are considered speculative or

unlikely to occur, and therefore not reasonably foreseeable. However, to evaluate the potential environmental impacts associated with future CIP projects, four individual CIP projects are included as representative projects, which utilize quantified construction air pollutant and noise emissions.

In accordance with CEQA Guidelines Section 15168, this PEIR may serve as the environmental document for individual CIP projects, provided it contemplates and adequately analyzes the potential environmental impacts of those future actions. If, in examining individual CIP projects for implementation, the City finds no new effects could occur or no new mitigation measures would be required other than those analyzed and/or required in this PEIR, the City can approve the activity as being within the scope covered by this PEIR and no new environmental documentation would be required. If additional analysis is required, it can be streamlined by tiering from this PEIR pursuant to CEQA Guidelines Sections 15152, 15153, 15168, and 15183 (e.g., through preparation of a Mitigated Negative Declaration, an Addendum to the PEIR, or a Supplemental or Subsequent EIR).

The purpose of a PEIR is to identify:

- Significant impacts of the proposed project on the environment and indication of the manner in which those significant impacts can be avoided or mitigated.
- Any unavoidable adverse impacts that cannot be mitigated.
- Reasonable and feasible alternatives to the proposed project that would eliminate any significant adverse environmental impacts or reduce the impacts to a less than significant level.

A PEIR also discloses cumulative impacts, growth-inducing impacts, and impacts found not to be significant. CEQA requires that a PEIR reflect the independent judgment of the lead agency regarding the impacts, disclose the level of significance of the impacts both without and with mitigation, and discuss the mitigation measures proposed to reduce the impacts.

The PEIR is circulated to the public and other agencies that may have jurisdiction over affected lands or resources, such as the San Diego Regional Water Quality Control Board. The purposes of public and agency review of an EIR include sharing expertise, disclosing agency analyses, checking for accuracy, detecting omissions, discovering public concerns, and soliciting counter proposals.

This Draft PEIR is being distributed to agencies, organizations, and interested groups and persons for a 45-day review period in accordance with CEQA Guidelines Section 15087. The lead agency will consider and respond to all written comments received during the review period prior to any action being taken on the project. Public review comments on the Draft PEIR will be incorporated and addressed in the Final PEIR. The Del Mar Planning Commission will review the Final PEIR at a future noticed public hearing to provide a recommendation prior to City Council consideration of the Final PEIR for adoption at a future noticed public hearing.

# Project Synopsis

## Background

The CIP is a strategic planning and budgeting tool for addressing the City's current and future capital infrastructure and facility needs and is revised over time in noticed public meetings of the City Council in consideration of City Council goals and priorities and funding availability. The CIP outlines plans for capital projects, major maintenance, refurbishments, and substantial equipment purchases. Every year, the City undertakes multiple CIP projects involving work on City properties, within City rights-of-way, and within public easements. This PEIR will continue to apply to future CIP projects, beyond the current 10-year CIP program, to the extent proposed projects are deemed consistent with the types of projects evaluated herein, that environmental conditions established in this PEIR have not changed substantially, and that the mitigation requirements in this PEIR are still deemed applicable and effective.

Currently, the City has no programmatic approach to completing environmental review pursuant to CEQA for its CIP projects, and therefore must undergo environmental review on a project-by-project basis. Timely implementation of the CIP projects is necessary to ensure continued public health, safety, and efficiency for the City. This PEIR will help streamline the implementation of current and future CIP projects to facilitate timely approvals for projects by establishing a clear procedural framework for CEQA compliance on a wide array of CIP project types.

## CIP Projects List

On an ongoing basis, the City maintains a 10-year CIP program that includes a comprehensive list of CIP facility and infrastructure needs that are anticipated to be completed by the City over the next 10 years. Each year, the City Council adopts a two-year budget that allocates budget for specific projects from the CIP project list.

The PEIR applies to the CIP projects listed in the City Council-approved City Work Plan for fiscal year (FY) 2026-2027 (included as Appendix B of this PEIR), which includes a list of the CIP projects the City intends to process during the next fiscal year, and the City 10-year CIP project list (FY 2025-2035). The PEIR can also be applied to future CIP projects not included on the current CIP list to the extent that individual future projects are reviewed and considered as follows:

- The project is deemed consistent with the types of projects evaluated herein as described further in the Project Description;
- The environmental conditions analyzed in this PEIR have not changed substantially; and
- The PEIR mitigation requirements identified are still deemed applicable and effective.

The project components analyzed in this PEIR include the typical construction and operation protocols for various types of individual CIP projects. The CIP projects covered under the PEIR have been divided into seven categories. These seven categories are listed below and are discussed in detail in Chapter 2.0, Project Description:

- Undergrounding Program (UP)
- Water

- Wastewater
- Storm Water
- Streets
- Facilities
- Open Space

## Issues Raised During Scoping

In accordance with CEQA Guidelines Section 15082, the City prepared and distributed a Notice of Preparation (NOP) of a PEIR for the proposed project that was circulated for public review for a 33-day period commencing on November 13, 2025, and ending on December 16, 2025. The NOP comment period is intended to notify responsible agencies, trustee agencies, and the public that the City, acting as the lead agency, is preparing a PEIR for the project. The City determined the scope of the analysis for this PEIR as a result of initial project review and consideration of agency and public comments received in response to the NOP. For more information regarding the NOP process, refer to Chapter 1.0, Introduction. The NOP and the NOP comments received are included as Appendix A, Notice of Preparation/Public Comments Received, of this PEIR.

Pursuant to CEQA Guidelines Section 15082(c), a scoping meeting is not required except for projects of statewide, regional, or areawide significance, or projects that may affect highways or other facilities under the jurisdiction of the California Department of Transportation. The City has determined that the proposed project does not meet the criteria of statewide, regional, or area-wide significance, pursuant to CEQA Guidelines Section 15206. Additionally, the project does not involve impacts to highways or other California Department of Transportation facilities. Accordingly, the City did not host a public scoping meeting for the PEIR. However, as part of the NOP, the City offered to hold a scoping presentation, upon request, to any public agency, but the City did not receive any such requests.

Key areas of environmental concern, as conveyed during the public scoping process, include, but are not limited to:

- Biological resources
- Greenhouse gas (GHG) emissions
- Land use and planning
- Transportation, including vehicle miles traveled and maintaining bicycle, pedestrian, and public transit access during construction
- Tribal cultural resources

### Summary of Significant Effects

Based on the analyses in this PEIR, impacts related to noise levels generated during project-related construction activities cannot be mitigated to less than significant levels. Therefore, construction noise impacts associated with non-linear CIP projects were determined to be significant and unavoidable. No other significant and unavoidable impacts were identified. Refer to Table ES-1, Environmental Impact Summary.

## Significant and Unavoidable Environmental Effects

Section 15126.2(a) of the CEQA Guidelines requires that a PEIR identify and discuss the significant effects of the proposed project on the environment. Chapter 3.0, Environmental Analysis, of this PEIR describes the potential environmental impacts of the proposed project and identifies mitigation measures to reduce impacts to less than significant levels, where feasible. The executive summary (Chapter ES) includes Table ES-1, which summarizes the potential environmental impacts of the proposed project, mitigation measures, and levels of significance after mitigation is incorporated.

CEQA Guidelines Section 15126.2(c) requires that a PEIR describe any significant impacts that cannot be avoided, even with the implementation of feasible mitigation measures. The effects of the proposed project on various aspects of the environment are discussed in detail in Section 3.1 through Section 3.7 and Chapter 4.0 of this PEIR. This PEIR concludes that temporary and intermittent noise from certain construction activities may result in significant and unavoidable impacts, depending on the setting, type and duration of construction work, and proximity to noise-sensitive properties (see Section 3.6, Noise and Vibration).

## Issues to be Resolved by the Decision-Making Body

A PEIR is an informational document intended to inform decision-makers and the public of the significant effects of a project, identify possible ways to minimize the significant effects, and describe reasonable alternatives to the proposed project. As the lead agency, the City must respond to each significant effect identified in this PEIR by making "findings" for each significant effect. As part of the decision-making process, the lead agency must determine whether or how to mitigate the associated significant effects of the project, including whether to implement a project alternative. Approval of the project despite identified significant and unavoidable environmental impacts would require a Statement of Overriding Considerations, explaining why the benefits of the project outweigh the environmental effects, as set forth in this document.

## Summary Table

Table ES-1, Environmental Impact Summary, identifies the areas of environmental impact the project will generate, and when feasible, mitigation measures to reduce those potential impacts.

**TABLE ES-3 ENVIRONMENTAL IMPACT SUMMARY**

| Topic | Impact | Level of Significance without Mitigation | Mitigation Measure(s) | Resulting Level of Significance |
|---|---|---|---|---|
| Air Quality | Impact 3.1-1: Conflict with air quality plan | Less than Significant Impact | No mitigation measures are required. | Less than Significant Impact |
| Air Quality | Impact 3.1-2: Cumulatively considerable net increase of criteria pollutant | Less than Significant Impact | No mitigation measures are required. | Less than Significant Impact |
| Air Quality | Impact 3.1-3: Expose sensitive receptors to substantial pollutant concentrations | Less than Significant Impact | No mitigation measures are required. | Less than Significant Impact |
| Air Quality | Impact 3.1-4: Other emissions such as objectionable odors | Less than Significant Impact | No mitigation measures are required. | Less than Significant Impact |
| Air Quality | Impact 3.5-3: Project's contribution to cumulative air quality impacts | Not Cumulatively Considerable | No mitigation measures are required. | Not Cumulatively Considerable |
| Biological Resources | Impact 3.2-1: Substantial adverse effect on candidate, sensitive, or special status species | Potentially Significant Impact | **BIO-1, Biological Resources Technical Report.** Prior to clearing, grubbing, grading, or vegetation removal activities associated with CIP projects wholly and/or partially within moderate or high biological resource sensitivity zones as depicted in Figure 3.2-3, Biological Resources Sensitivity Zones, the City shall retain a qualified biologist to conduct a project-specific biological resources technical report. Preparation of a project-specific biological resources technical report shall, at a minimum, include a comprehensive database and literature review, biological site survey, and consideration and evaluation for the habitat types and species occurrences identified in Table 2, Vegetation Communities and Land Cover Types; Table 3, Special Status Plants Expected to Occur within the City of Del Mar; and Table 5, Special-Status Wildlife Expected to Occur within the City of Del Mar, of Appendix E of the PEIR. Project-specific biological resources technical reports shall: (1) | Less than Significant Impact |

**TABLE ES-1, CONTINUED**

| Topic | Impact | Level of Significance without Mitigation | Mitigation Measure(s) | Resulting Level of Significance |
|---|---|---|---|---|
| | | | delineate vegetation communities and land covers, including riparian habitat or other sensitive natural communities; (2) identify aquatic resources including potential jurisdictional wetlands and non-wetlands waters of the US and/or State; (3) identify the extent or absence of habitat that may support special-status plants or wildlife; (4) evaluate the potential for direct and indirect impacts from proposed activities; (5) outline avoidance and minimization measures to avoid direct and indirect impacts; and (6) specify any additional compensatory mitigation measures to reduce direct and indirect impacts below a level of significance.<br><br>**BIO-2, Focused Special-Status Plant Surveys and Compensation.** Based on the results of the project-specific biological resources technical report conducted pursuant to BIO-1, if it is determined that there is a moderate or high potential for special-status plant species to occur in the construction area, a qualified biologist shall conduct a focused botanical survey for special-status plants during the appropriate bloom period for each species following the California Department of Fish and Wildlife's (CDFW) "*Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations*." Focal species shall include plant species that are listed as threatened or endangered or are candidate species for listing under the federal and/or California Endangered Species Act, and/or are assigned as CRPR 1A, 1B, 2B, or 2B. If special-status species are not detected, no further surveys or mitigation would be necessary. If any individuals or populations are detected, the location(s) shall be mapped, and a mitigation and monitoring plan focused on compensating for impacts to special-status plants shall be developed and include the following elements and criteria:<br><br>• A description of any areas of habitat occupied by special-status plants to be preserved and/or removed by the project; | |

**TABLE ES-1, CONTINUED**

| Topic | Impact | Level of Significance without Mitigation | Mitigation Measure(s) | Resulting Level of Significance |
|---|---|---|---|---|
| | | | • Identification and evaluation of the suitability of on-site or off-site areas for preservation, restoration, enhancement or translocation;<br>• Analysis of species-specific requirements and considerations and specific criteria for success relative to the project's impact on this species and restoration, enhancement or translocation;<br>• A description of proposed methods of preservation, restoration, enhancement, and/or translocation;<br>• A description of specific performance standards, including a required replacement ratio and minimum success standard of 1:1 for impacted individuals or populations;<br>• A monitoring and reporting program to ensure mitigation success; and<br>• A description of adaptive management and associated remedial measures to be implemented in the event that performance standards are not achieved.<br>**BIO-3, Focused Special-Status Wildlife Surveys.** Based on the results of the project-specific biological resources technical report conducted pursuant to BIO-1, if it is determined that there is habitat suitable for special-status wildlife species in the construction area, a qualified biologist shall conduct a focused survey for special-status wildlife during the appropriate seasonal survey window for each species prior to any clearing, grubbing, grading, or vegetation removal activities. Focal species shall include wildlife species that are listed as threatened or endangered, or are candidate species for listing under the federal and/or California Endangered Species Acts.<br>If special-status species are not detected, no further surveys or mitigation is necessary. If any individuals are detected, the location(s) shall be mapped, and a mitigation and monitoring | |

**TABLE ES-1, CONTINUED**

| Topic | Impact | Level of Significance without Mitigation | Mitigation Measure(s) | Resulting Level of Significance |
|---|---|---|---|---|
| | | | plan focused on compensating for impacts to special-status wildlife shall be developed and include the elements and criteria included in BIO-2.<br><br>**BIO-4, Preconstruction Wildlife Surveys.** Based on the results of the project-specific biological resources technical report conducted pursuant to BIO-1, if it is determined that there is habitat suitable for special-status wildlife species in the construction area, a qualified biologist shall conduct pre-construction surveys to determine if special-status wildlife species are present no more than two weeks prior to the beginning of clearing, grubbing, grading, or vegetation removal activities.<br><br>If special-status wildlife species are observed within the construction area prior to or during construction activities, the biologist shall relocate such individuals out of the area affected by construction activities to nearby habitat that has equivalent value to support the species. The biologist shall identify suitable habitats as potential release sites prior to start of construction activities. If the special-status species is a federally- or state-listed as threatened or endangered, the biologist shall notify the United States Fish and Wildlife Service (USFWS) and/or CDFW, as appropriate, prior to capture and relocation to obtain approval.<br><br>Species-specific survey requirements include:<br><br>• Coastal California Gnatcatcher: If construction activities occur within the coastal California gnatcatcher nesting season (February 15 to August 31), a qualified biologist shall survey for active nests within a 500-foot radius (or as practicable due to surrounding conditions, as determined by the biologist) within two weeks of noise-producing activity (including mobilization of construction equipment). If an active gnatcatcher nest is identified, the biologist shall notify the City and coordinate with the USFWS within 48 hours to | |

**TABLE ES-1, CONTINUED**

| Topic | Impact | Level of Significance without Mitigation | Mitigation Measure(s) | Resulting Level of Significance |
|---|---|---|---|---|
| | | | determine if additional avoidance measures are necessary to prevent take. Such measures may include establishing buffers or delaying construction activities until nests are no longer occupied, as determined by a qualified biologist (DMMC § 30.92.050.B.5.d).<br><br>**BIO-5, Special-Status Species Avoidance and Construction Monitoring**. Based on the results of the project-specific biological resources technical report conducted pursuant to BIO-1, if it is determined that there is habitat suitable for special-status species in the construction area, prior to any clearing, grubbing, grading, or vegetation removal activities, high-visibility exclusion fencing shall be installed around all adjacent special-status species habitat identified during the preconstruction surveys within the project work areas and surrounding 300 feet, as feasible (if 300 feet is not feasible, then at a distance deemed appropriate by the qualified biologist). Exclusion fencing shall be located so as to preclude encroachment within the root-zone of any special-status plants by construction crews or vehicles. Exclusion fencing shall be retained during project construction. A biological monitor shall accompany the work crew during installation of fencing to prevent harm to species that may be active present and moving along the fence route.<br><br>A qualified biologist shall monitor vegetation removal and ground-disturbing activities (i.e., clearing, grubbing, grading) during all work hours for off-pavement work or once a week for all other construction activities. During the avian breeding season (February 1 through August 31), the monitor shall check the exclusion fencing and buffers for active nesting birds once a week, and shall verify when juveniles have fledged if found present prior to the start of construction (see BIO-6). The biologist shall have stop-work authority in the event that a special-status species is found within the active construction footprint. During construction, the biological monitor shall keep a daily observation log and a photo log to | |

**TABLE ES-1, CONTINUED**

| Topic | Impact | Level of Significance without Mitigation | Mitigation Measure(s) | Resulting Level of Significance |
|---|---|---|---|---|
| | | | describe monitoring activities, remedial actions, non-compliance, and other issues and actions taken.<br><br>**BIO-6, Sensitive Vegetation Communities Compensation.** Based on the results of the project-specific biological resources technical report conducted pursuant to BIO-1, if direct impacts to sensitive vegetation communities occur, the City shall mitigate via on-site and/or off-site measures. On-site measures shall include rehabilitation for areas temporarily impacted at a 1:1 mitigation ratio, and enhancement for areas permanently impacted at a 2:1 mitigation ratio. Areas temporarily impacted shall be returned to conditions similar to those that existed prior to grading and/or ground-disturbing activities. Areas permanently impacted shall be mitigated through on-site enhancement activities including removal of non-native and invasive species for a minimum of three years. If additional area is needed to compensate for permanent impacts at a 2:1 ratio, then an off-site location will be identified and evaluated. A Habitat Mitigation and Monitoring Plan shall be prepared and implemented to compensate for the loss of all sensitive vegetation communities (see below).<br><br>The Habitat Mitigation and Monitoring Plan shall detail the habitat restoration activities and shall specify the criteria and standards by which the revegetation and restoration actions will compensate for impacts of the proposed project on sensitive vegetation communities and shall at a minimum include discussion of the following:<br><br>• The rehabilitation and enhancement objectives, type, and amount of revegetation to be implemented taking into account enhanced areas where non-native invasive vegetation is removed and replanting specifications that take into account natural regeneration of native species when applicable.<br><br>• The specific methods to be employed for revegetation. | |

**TABLE ES-1, CONTINUED**

| Topic | Impact | Level of Significance without Mitigation | Mitigation Measure(s) | Resulting Level of Significance |
|---|---|---|---|---|
| | | | • Success criteria, monitoring requirements, and adaptive management strategies to ensure vegetation community restoration success. | |
| Biological Resources | Impact 3.2-2: Substantial adverse effect on riparian habitat or sensitive natural communities | Potentially Significant Impact | BIO-1 and BIO-6 (see above). | Less than Significant Impact |
| Biological Resources | Impact 3.2-3: Substantial adverse effect on jurisdictional wetlands | Potentially Significant Impact | BIO-5 and BIO-6 (above), in addition to BIO-7.<br>**BIO-7, Aquatic Resources Delineation, Avoidance, and Compensation.** Based on the results of the project-specific biological resources technical report conducted pursuant to BIO-1, if it is determined that there are aquatic resources in the construction area, a qualified biologist shall conduct a formal aquatic resources jurisdictional delineation to determine the extent of jurisdictional aquatic resources regulated by the US Army Corps of Engineers, Regional Water Quality Control Board, and/or CDFW within the impact area.<br>CIP projects shall be designed to avoid jurisdictional aquatic resources regulated by the US Army Corps of Engineers, Regional Water Quality Control Board, and CDFW through design changes or implementation of alternative construction methodologies. Staking, flagging, and/or fencing shall be established to demarcate no-work areas, which shall include Jurisdictional aquatic resources plus the required buffer established by the applicable regulatory agencies (typically, a minimum 100-foot buffer), to be avoided.<br>For CIP projects that will directly or indirectly impact jurisdictional aquatic resources, the City shall obtain the required federal and/or state permits from the US Army Corps of Engineers, Regional Water Quality Control Board, and/or CDFW, pursuant to Sections 404 and 401 of the Clean Water Act and Section 1600 et seq. of the California Fish and Game Code, respectively. Permits are required to be obtained by the City before the impact to the resources. Permits may | Less than Significant Impact |

**TABLE ES-1, CONTINUED**

| Topic | Impact | Level of Significance without Mitigation | Mitigation Measure(s) | Resulting Level of Significance |
|---|---|---|---|---|
| | | | include additional conditions of approval, such as compensatory mitigation. | |
| Biological Resources | Impact 3.2-4: Interfere substantial with wildlife movement or impede use of wildlife nursery sites | Less than Significant Impact | No mitigation measures are required. | Less than Significant Impact |
| Biological Resources | Impact 3.2-5: Conflict with local policies or ordinances protecting biological resources | Less than Significant Impact | No mitigation measures are required. | Less than Significant Impact |
| Biological Resources | Impact 3.2-6: Conflict with an adopted habitat conservation plan | Less than Significant Impact | No mitigation measures are required. | Less than Significant Impact |
| Biological Resources | Impact 3.2-7: Project's contribution to cumulative biological resources impacts | Not Cumulatively Considerable | No mitigation measures are required. | Not Cumulatively Considerable |
| Cultural Resources | Impact 3.3-1: Cause a substantial adverse change in the significance of a historical resource | Potentially Significant Impact | **CUL-1, Evaluation for Listing in the CRHR.** Prior to construction activities for CIP projects located on sites containing structures 50 years of age or older that has not previously been evaluated, a qualified architectural historian shall conduct a formal survey, recordation, and CRHR evaluation of the subject resource to determine if it is a historical resource under CEQA (CEQA Section 15064.5[a]). The architectural historian shall prepare comprehensive documentation of the evaluation, including methodology, analysis, and findings. This documentation must provide a clear determination of the site's eligibility for listing in the CRHR and be submitted to the appropriate regulatory agencies for review and concurrence.<br>Where development would involve the alteration or demolition of a structure greater than 50 years old, a historic evaluation by a Secretary of Interior's Standards for Architectural Historian or Historic Architect shall be provided | Less than Significant Impact |

**TABLE ES-1, CONTINUED**

| Topic | Impact | Level of Significance without Mitigation | Mitigation Measure(s) | Resulting Level of Significance |
|---|---|---|---|---|
| | | | to determine if the resource meets the definition of a historic resource as defined in CEQA Guidelines Section 15064.5.<br>For properties that have already been formally evaluated and determined to be historical resources, no additional CRHR eligibility evaluation is required. These resources shall be treated as historical resources for the purposes of CEQA.<br>If the structure is determined to be a historic resource, any proposed alteration shall follow mitigation guidelines contained in CEQA Guidelines Section 15126.4(b). Mitigation standards may include, but are not limited to avoidance and preservation, conducting alterations in a manner consistent with the Secretary of the Interior's Standards for the Treatment of Historic Properties (including as applicable, standards for Preservation, Rehabilitation, Restoration and Reconstruction), and documenting resources. The approach to comply with these standards shall be prepared by an Architectural Historian or Historic Architect and provided to the City.<br>Demolition and/or significant diminution of designated historic landmarks shall be prohibited. | |
| Cultural Resources | Impact 3.3-2: Cause a substantial adverse change in the significance of an archaeological resource | Potentially Significant Impact | **CUL-2, Archaeological Surveys.** For CIP project locations where no previous archaeological survey data is available, prior to ground-disturbing construction activities in previously undisturbed soils for CIP projects wholly and/or partially within moderate or high archaeological sensitivity zones as depicted in Figure 3.3-3, Archaeological Sensitivity Zones, the City shall retain a qualified archaeologist to conduct an archaeological survey to evaluate the presence of cultural resources and the need for project-specific impact mitigation by preservation, relocation, or other methods. An archaeological resource report shall include the methods used to determine the presence or absence of archaeological resources, identify potential impacts from the proposed project, and evaluate the significance of any archaeological | Less than Significant Impact |

**TABLE ES-1, CONTINUED**

| Topic | Impact | Level of Significance without Mitigation | Mitigation Measure(s) | Resulting Level of Significance |
|---|---|---|---|---|
| | | | resources identified. If there are potentially significant impacts to an identified archaeological/cultural resource, the report shall also recommend appropriate mitigation required during ground-disturbing activities to reduce impacts to below a level of significance.<br><br>**CUL-3, Cultural Resources Monitoring Program.** During ground-disturbing construction activities in previously undisturbed soils for CIP projects wholly and/or partially within moderate or high archaeological sensitivity zones as depicted in Figure 3.3-3, Archaeological Sensitivity Zones, a Cultural Resource Mitigation Monitoring Program shall be conducted to provide for the identification, evaluation, treatment, and protection of any cultural resources that are affected by or may be discovered during the construction of the proposed project. The monitoring shall consist of the full-time presence of a qualified archaeologist and a traditionally and culturally affiliated Native American monitor shall be retained to monitor all ground-disturbing activities associated with project construction, including vegetation removal, clearing, grading, trenching, excavation, or other activities that may disturb the ground.<br><br>The qualified archaeologist and/or Native American monitor may halt ground-disturbing activities if archaeological artifact deposits or cultural features are discovered. In general, ground disturbing activities shall be directed away from these deposits for a short time to allow a determination of potential significance, the subject of which shall be determined by the qualified archaeologist and the Native American monitor. Ground-disturbing activities shall not resume until the qualified archaeologist, in consultation with the Native American monitor, deems the cultural resource or feature has been appropriately documented and/or protected. At the qualified archaeologist's discretion, the location of ground disturbing activities may be relocated | |

**TABLE ES-1, CONTINUED**

| Topic | Impact | Level of Significance without Mitigation | Mitigation Measure(s) | Resulting Level of Significance |
|---|---|---|---|---|
| | | | elsewhere on the project site to avoid further disturbance of cultural resources.<br>The City shall relinquish ownership of all tribal cultural resources, including associated with burial and/or funerary goods, collected during the cultural resource mitigation monitoring program to the Most Likely Descendant as determined by the Native American Heritage Commission per California Public Resources Code Section 5097.98 for respectful and dignified treatment and disposition, including reburial, in accordance with the affiliated tribe's cultural and spiritual traditions.<br>Upon completion of construction monitoring, a Monitoring Report and/or Evaluation Report, which describes the results, analysis and conclusions of the cultural resource mitigation monitoring efforts (such as, but not limited to, the Research Design and Data Recovery Program) shall be submitted by the qualified archaeologist, along with the Native American monitor's notes and comments, to the City's Planning & Community Development Director. | |
| Cultural Resources | Impact 3.3-3: Disturb human remains | Less than Significant Impact | No mitigation measures are required. | Less than Significant Impact |
| Cultural Resources | Impact 3.3-4: Project's contribution to cumulative cultural resources impacts | Not Cumulatively Considerable | No mitigation measures are required. | Not Cumulatively Considerable |
| Geology and Soils | Impact 3.4-1a: Substantial adverse effects involving rupture of a known earthquake fault | Less than Significant Impact | No mitigation measures are required. | Less than Significant Impact |
| Geology and Soils | Impact 3.4-1b: Substantial adverse effects involving strong seismic ground shaking | Less than Significant Impact | No mitigation measures are required. | Less than Significant Impact |

**TABLE ES-1, CONTINUED**

| Topic | Impact | Level of Significance without Mitigation | Mitigation Measure(s) | Resulting Level of Significance |
|---|---|---|---|---|
| Geology and Soils | Impact 3.4-1c: Substantial adverse effects involving seismic-related ground failure, including liquefaction | Less than Significant Impact | No mitigation measures are required. | Less than Significant Impact |
| Geology and Soils | Impact 3.4-1d: Substantial adverse effects involving landslides | Less than Significant Impact | No mitigation measures are required. | Less than Significant Impact |
| Geology and Soils | Impact 3.4-2: Substantial erosion or loss of topsoil | Less than Significant Impact | No mitigation measures are required. | Less than Significant Impact |
| Geology and Soils | Impact 3.4-3: Unstable geologic unit or soil resulting in landslide, lateral spreading, subsidence, liquefaction, or collapse | Less than Significant Impact | No mitigation measures are required. | Less than Significant Impact |
| Geology and Soils | Impact 3.4-4: Expansive soils, creating substantial risks to life or property | Less than Significant Impact | No mitigation measures are required. | Less than Significant Impact |
| Geology and Soils | Impact 3.4-5: Soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems | No Impact | No mitigation measures are required. | No Impact |
| Geology and Soils | Impact 3.4-6: Destroy a unique paleontological resource/site or geologic feature | Potentially Significant Impact | **GEO-1, Paleontological Resources Monitoring Program.** For CIP project locations where no previous paleontological survey data is available that are wholly and/or partially within moderate or high paleontological sensitivity zones as depicted in Figure 3.4-5, Paleontological Resources Sensitivity Zones, that could encounter sensitive formations during grading or excavation at depths of 5 feet below ground surface or more in previously undisturbed soils, the City shall retain a Society of Vertebrate Paleontology (SVP)-qualified paleontologist (i.e., possesses a graduate degree in paleontology, geology, or related field, with demonstrated experience in the vertebrate, invertebrate, or botanical paleontology of California, as well as at least one year of full-time professional experience or equivalent specialized | Less than Significant Impact |

**TABLE ES-1, CONTINUED**

| Topic | Impact | Level of Significance without Mitigation | Mitigation Measure(s) | Resulting Level of Significance |
|---|---|---|---|---|
| | | | training in paleontological research and at least four months of supervised field and analytic experience in general North American paleontology) to provide or supervise a paleontological sensitivity training to all personnel involved with earth-moving activities. The training session shall focus on how to identify paleontological resources, such as fossils that may be encountered, and the procedures to follow if encountered during construction.<br>The qualified paleontologist shall monitor earthwork affecting the aforementioned geological units or supervise the monitoring of these activities by a paleontological monitor. If any paleontological resources are encountered on the project site, the qualified paleontologist or the paleontological monitor shall halt all ground-disturbing activities within 50 feet of the find until a significance determination is made. If the fossils are determined to be significant, the qualified paleontologist shall prepare and implement a data recovery plan. The plan shall include, but not be limited to, the following measures:<br>• The paleontologist shall ensure that all significant fossils collected are cleaned, identified, catalogued, and permanently curated with an appropriate institution with a research interest in the materials (such as the San Diego Natural History Museum);<br>• The paleontologist shall ensure that specialty studies are completed, as appropriate, for any significant fossil collected; and<br>• The paleontologist shall ensure that curation of fossils is completed in consultation with the City. A letter of acceptance from the curation institution shall be submitted to the City.<br>The qualified paleontologist will determine when work within the immediate vicinity of the find may resume, or otherwise expand or reduce the construction exclusion buffer as | |

**TABLE ES-1, CONTINUED**

| Topic | Impact | Level of Significance without Mitigation | Mitigation Measure(s) | Resulting Level of Significance |
|---|---|---|---|---|
| | | | warranted to ensure proper treatment of resources. The qualified paleontologist may reduce the frequency of monitoring, or cease monitoring altogether if observations of specific site conditions warrant. | |
| Geology and Soils | Impact 3.4-7: Project's contribution to cumulative geology and soils impacts | Potentially Cumulatively Considerable | GEO-1 (see above). | Not Cumulatively Considerable |
| Greenhouse Gas Emissions | Impact 3.5-1: Generate GHG emissions that may have a significant impact on the environment | Less than Significant Impact | No mitigation measures are required. | Less than Significant Impact |
| Greenhouse Gas Emissions | Impact 3.5-2: Conflict with an applicable plan, policy, or regulation to reduce GHG emissions | Less than Significant Impact | No mitigation measures are required. | Less than Significant Impact |
| Greenhouse Gas Emissions | Impact 3.5-3: Project's contribution to cumulative GHG emissions impacts | Not Cumulatively Considerable | No mitigation measures are required. | Not Cumulatively Considerable |
| Noise and Vibration | Impact 3.6-1: Generate substantial increase in ambient noise exceeding noise standards | Potentially Significant Impact | **NOI-1, Temporary Noise Barriers.** For non-linear projects with the center of the site located within 260 feet of a noise-sensitive use, temporary noise barriers shall be required if use of heavy construction equipment will occur for more than five consecutive days at any given work location unless infeasible due to physical site constraints. Noise barriers shall be positioned to break the line-of-sight between the noise sources and the receptors and shall be made of materials with a Sound Transmission Class rating 30 or higher in accordance with ASTM International Test Method E90, or at least 2 pounds per square foot. | Significant and Unavoidable Impact |
| Noise and Vibration | Impact 3.6-2: Generate excessive groundborne vibration or noise | Potentially Significant Impact | **NOI-2, Structural Vibration Evaluation.** For non-linear CIP projects utilizing large bulldozers/excavators, loaded trucks, concrete breakers, vibratory rollers/compactors, and/or pile drivers within 5 feet of a building, a preconstruction survey of all buildings within 5 feet of the maximum construction limits | Less than Significant Impact |

**TABLE ES-1, CONTINUED**

| Topic | Impact | Level of Significance without Mitigation | Mitigation Measure(s) | Resulting Level of Significance |
|---|---|---|---|---|
| | | | shall be conducted to document (both photographically and in writing) existing conditions of exterior fixtures and finishes prior to demolition, grading, or building permit approval. Any damage shall be repaired/restored to its preexisting condition. | |
| Noise and Vibration | Impact 3.6-3: Expose people to excessive airport noise | No Impact | No mitigation measures are required. | No Impact |
| Noise and Vibration | Impact 3.6-4: Project's contribution to cumulative noise and vibration impacts | Not Cumulatively Considerable | No mitigation measures are required. | Not Cumulatively Considerable |
| Tribal Cultural Resources | Impact 3.7-1: Substantial adverse change in significance of listed or eligible resource identified in PRC Section 5020.1(k) or significant resource pursuant to subdivision (c) of PRC Section 5024.1 | Potentially Significant Impact | CUL-2 and CUL-3 (see above). | Less than Significant Impact |
| Tribal Cultural Resources | Impact 3.7-2: Project's contribution to cumulative tribal cultural resources impacts | Not Cumulatively Considerable | No mitigation measures are required. | Not Cumulatively Considerable |

## Summary of Project Alternatives

CEQA Guidelines Section 15126.6 requires that a PEIR describe a range of reasonable alternatives to a project that could feasibly attain the basic objectives of a project and avoid or lessen the environmental effects of a project. Further, CEQA Guidelines Section 15126.6(e) requires that a "no project" alternative be evaluated in a PEIR as well as any alternatives that were considered by the lead agency but were rejected as infeasible during the scoping process. Chapter 5.0, Alternatives, of this PEIR includes a detailed discussion and a qualitative analysis of alternatives that have been rejected by the lead agency, as well as the following scenarios considered to be feasible alternatives to the project as proposed.

### Alternatives to the Proposed Project

Potential environmental impacts associated with two alternatives are compared below to assess impacts from the proposed project. The following alternatives have been identified for analysis in compliance with CEQA:

- Alternative 1: No Project Alternative
- Alternative 2: Reduced Streamlining Alternative

Table ES-2, Comparison of Project Alternative Impacts to the Proposed Project, summarizes the potential impact of each alternative on the environmental resources evaluated in the PEIR that require mitigation as compared to the proposed project.

**TABLE ES-4 COMPARISON OF PROJECT ALTERNATIVE IMPACTS TO THE PROPOSED PROJECT**

| Topic | Proposed Project | No Project Alternative (Alternative 1) | Reduced Streamlining Alternative (Alternative 2) |
|---|---|---|---|
| Biological Resources | LTS+M | = | < |
| Cultural Resources | LTS+M | = | < |
| Geology and Soils (Paleontological Resources) | LTS+M | = | < |
| Noise and Vibration | SU | = | < |
| Tribal Cultural Resources | LTS+M | = | < |

Notes:
LTS+M Less than Significant with Mitigation Incorporated
SU Significant and Unavoidable
= Impact is equivalent to impact of proposed project.
< Impact potential is marginally less than impact of proposed project.

### No Project Alternative (Alternative 1)

The City's CIP identifies numerous public infrastructure and facilities improvement projects that the City proposes to undertake over the next 10 years. The CIP analyzed in this PEIR includes through FY 2035-2036. While the City's current CIP programs run through FY 2035-2036, this PEIR will continue to apply to CIP projects post FY 2035-2036 to the extent that future projects are deemed consistent with the types of projects evaluated herein; environmental conditions established in this PEIR have not changed substantially; and mitigation requirements are still deemed applicable and effective.

As described in Chapter 2.0, Project Description, the City does not currently have a programmatic approach to completing environmental review pursuant to CEQA for its CIP projects, and individual projects must therefore undergo environmental review on a project-by-project basis. This PEIR is intended to streamline implementation of current and future CIP projects by establishing a clear procedural framework for CEQA compliance on a wide array of CIP project types.

Under the No Project Alternative (Alternative 1), the CIP PEIR would not be certified and the CEQA streamlining process evaluated herein would not be achieved. Without certification of this CIP PEIR, the City would continue to implement the improvements identified in its adopted CIP for the next 10 years, evaluating each improvement project on a project-by-project basis, pursuant to applicable CEQA requirements, as presently occurs. CIP projects would still be able to be undertaken with the No Project Alternative (Alternative 1), at the same locations, and with the same construction and operational characteristics. However, without certification of the CIP PEIR, a mitigation framework to ensure consistent and effective implementation of environmental protections would not be provided. Effectively, this would result in decreased efficiency in implementing the CIP and increased costs and project schedules.

As shown in Table ES-2, the No Project Alternative (Alternative 1) would result in similar impacts related to biological resources, cultural and tribal cultural resources, geology and soils (paleontological resources), and construction noise and vibration as compared to the proposed project, as the PEIR assumes the same CIP projects would be undertaken. The No Project Alternative (Alternative 1) would therefore neither avoid nor reduce any significant impacts that would occur with the proposed project.

### Alternative 2: Reduced Streamlining Alternative

Land cover in Del Mar is dominated by urban and developed uses; however, the City retains several ecologically important open space areas. Sensitive natural communities and aquatic resources within the City boundaries are generally located within the San Dieguito Lagoon in the northwestern area of the City; along the City boundary to the south adjacent to Torrey Pines State Natural Reserve Extension; along the City boundary to the east adjacent to Crest Canyon Open Space Park; along the hillsides between Crest Road and San Dieguito Drive; and along the coastline to the west (refer to Figure 3.2-2, Del Mar Sensitive Area Overlay Zones, and Figure 3.2-3, Biological Resources Sensitivity Zones, in Section 3.2, Biological Resources).

Additionally, much of the City has potential for undiscovered (buried) cultural and paleontological resources due to underlying geologic formations (refer to Figure 3.3-4, Archaeological Sensitivity Zones in Section 3.3, Cultural Resources, and Figure 3.4-5, Paleontological Resources Sensitivity Zones, in Section 3.4, Geology and Soils).

As the sensitivity of the lands described above constitutes the bulk of the potential for impacts to the physical environment in Del Mar, the Reduced Streamlining Alternative (Alternative 2) contemplates excluding CIP projects located in sensitive physical settings from the provisions of the streamlining program. In practice, this means that CIP projects proposed in sensitive environments would proceed in a "business as usual" manner of CEQA compliance. This would effectively limit the streamlining program to only the most benign CIP projects exhibiting little to no potential to result in the need for further study

and potential mitigation as prescribed in the proposed streamlining program. It is estimated this would result in an approximately 85 percent reduction in CIP projects eligible for streamlining under the program.

It is important to emphasize that CIP projects excluded from the CIP streamlining program would not be eliminated from the City's CIP. Rather, projects excluded from the CIP streamlining program would be required to undergo standalone CEQA analysis as occurs under the City's current environmental clearance process. This lessens efficiency by imparting redundant processes, extending processing timelines, and increasing paperwork – all specifically discouraged in CEQA Guidelines Section 15006, *Reducing Delay and Paperwork*.

As shown in Table ES-2, it is anticipated that the Reduced Streamlining Alternative (Alternative 2) could result in marginally reduced impacts related to biological, cultural, and paleontological resources as compared to the proposed project. While the proposed project contains mechanisms such as required subsequent review of CIP projects and implementation of prescribed impact-avoiding or reducing mitigation measures, the Reduced Streamlining Alternative (Alternative 2) would necessitate standalone review that, by proper application of CEQA, would ultimately result in similar studies and impact avoidance or minimization measures.

While speculative, there is potential, however slight, that this standalone review on occasion could result in a project redesign that results in marginally reduced impacts. Thus, the Reduced Streamlining Alternative (Alternative 2) is identified as the environmentally superior alternative for purposes of this PEIR.

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# 1.0 INTRODUCTION

## 1.1. Purpose of the PEIR

This Program Environmental Impact Report (PEIR) addresses potential environmental effects resulting with implementation of the proposed City of Del Mar (City) Capital Improvements Program (CIP) Streamlining Project (hereafter referred to as "proposed project" or "project"). The California Environmental Quality Act (CEQA) requires that government agencies consider the environmental consequences of projects over which they have discretionary approval authority.

The City is the lead agency under CEQA and has determined that a PEIR is appropriate for the proposed project. A PEIR is an informational document that provides both government decision-makers and the public with an analysis of the potential environmental consequences of a program or policy. This PEIR has been prepared in accordance with the requirements of CEQA as set forth in Public Resources Code Section 21000 et seq. and 14 California Code of Regulations Section 15000 et seq. (CEQA Guidelines).

This PEIR addresses the proposed project's environmental effects in accordance with CEQA Guidelines Section 15168. As referenced in CEQA Guidelines Section 15121(a), the primary purpose of an EIR is to inform decision-makers and the public generally of the significant environmental effects of a broad program of actions, identify possible ways to minimize those significant effects, and describe reasonable alternatives to the program. Pursuant to CEQA Guidelines Section 15168, a PEIR offers advantages in that it can allow the lead agency to consider broad policy alternatives and program-wide mitigation measures at an early time when the agency has greater flexibility to deal with basic problems or cumulative impacts; provide a more exhaustive consideration of effects and alternatives than would be practical in an EIR on an individual action; avoid duplicative reconsideration of basic policy considerations; allow a reduction in paperwork; and/or ensure consideration of cumulative impacts that might be slighted in a case-by-case analysis.

This document analyzes the proposed project's environmental effects to the degree of specificity appropriate to the proposed actions. The analysis addresses the range of activities encompassed by the proposed project, including potential construction and operational components, to evaluate both short- and long-term environmental impacts. This PEIR also considers the proposed project's direct and indirect effects, as well as cumulative impacts, in conjunction with other past, present, and reasonably foreseeable future actions.

Where potentially significant impacts are identified, the PEIR specifies mitigation to be adopted as conditions of approval or incorporated into the individual planned and future CIP projects to avoid or minimize the significance of impacts resulting from the project. In addition, this PEIR is the primary reference document in the formulation and implementation of the project's Mitigation Monitoring and Reporting Program (MMRP).

Per CEQA Guidelines Section 15168, subsequently proposed CIP projects would be examined in the light of the PEIR to determine whether an additional environmental document must be prepared, as well as which PEIR mitigation measures apply, if any. If the City finds that no subsequent CEQA document would

be required, the City would approve the project as being within the scope of the CIP Streamlining Program covered by the PEIR. If it is determined that a CIP project would have effects that were not examined in the PEIR and the project isn't otherwise exempt from CEQA, a new Initial Study would need to be prepared leading to either an EIR or a Negative Declaration.

In making the determination, the CEQA Guidelines recommend agencies use a written checklist or similar device to document the evaluation of the site and the activity to determine whether the environmental effects of the operation were within the scope of the PEIR (CEQA Guidelines Section 15168[c][4]). To that end, the City has developed the *Del Mar CIP Streamlining Program Checklist* to achieve and document this evaluation (see Appendix C).

## 1.2. Intended Uses of the PEIR

This document is identified as a PEIR and will serve as an informational document intended to inform public agency decision-makers and the public of significant environmental effects of the proposed project; identify ways to minimize potential significant effects; and describe reasonable alternatives to the project, as appropriate. Pursuant to CEQA, "the purpose of an environmental impact report is to identify the significant effect on the environment of a project, to identify alternatives to the project, and to indicate the manner in which those significant effects can be mitigated or avoided" (Public Resources Code Section 21002.1[a]).

### 1.2.1. Required Approvals

The City of Del Mar is the lead agency for the project, as it is the agency with primary authority over the proposed CIP's discretionary approvals. As the lead agency, the City will be responsible for certification of the Final PEIR, as well as adoption of the associated Mitigation Monitoring and Reporting Program.

### 1.2.2. Subsequent Approvals

Upon certification of the Final PEIR, the City will be able to rely on the environmental impact analyses contained in the document to streamline CEQA review for individual CIP projects. A CEQA Streamlining Checklist has been prepared for CIP projects (refer to Appendix C, Del Mar CIP Streamlining Program Checklist). City staff will complete this checklist with project-specific details—such as project type, location, construction duration, and construction equipment—and will review all mitigation measures included in the PEIR. Future CIP projects would also be evaluated under CEQA Guidelines Section 15168 with consideration of the certified PEIR. Such evaluations would be undertaken to determine whether a specific CIP project was adequately analyzed under the certified PEIR, or if a subsequent environmental document, addendum to the PEIR, or additional evaluation is required pursuant to CEQA regulations. Per CEQA Guidelines Sections 15152 and 15168, when significant environmental effects of a project or project component are adequately evaluated in a certified PEIR, it is recommended that subsequent projects tier off of the certified PEIR to streamline any further environmental review, as appropriate.

## 1.3. PEIR Scope, Issues, and Concerns

This document is a PEIR, as defined in CEQA Guidelines Section 15168. A PEIR is prepared for a series of actions that are characterized as one large project through reasons of geography, similar rules or

regulations, or where individual activities will occur under the same regulatory process with similar environmental impacts that can be mitigated in similar ways. Because the project includes future CIP projects within the City, and this PEIR includes a mitigation framework that would be implemented by future CIP projects, a programmatic approach to environmental review is deemed appropriate.

In accordance with CEQA Guidelines Section 15168, this PEIR may serve as the environmental document for individual CIP projects, provided it contemplates and adequately analyzes the potential environmental impacts of those future actions. If, in examining individual CIP projects for implementation, the City finds no new effects could occur or no new mitigation measures would be required other than those analyzed and/or required in this PEIR, the City can approve the activity as being within the scope covered by this PEIR and no new environmental documentation would be required. This will be achieved via completion of a CEQA Streamlining Checklist for each CIP project (refer to Appendix C, Del Mar CIP Streamlining Program Checklist). City staff will complete this checklist with project-specific details—such as project type, location, construction duration, and construction equipment—and will review all mitigation measures included in the PEIR. Using the CEQA Streamlining Checklist, City staff will identify which mitigation measures apply to each project and determine whether any additional environmental technical studies are required based on the project type or site conditions. This process will ensure that future CIP projects satisfy CEQA compliance requirements before they are implemented. If additional analysis is required, it can be streamlined by tiering from this PEIR pursuant to CEQA Guidelines Sections 15152, 15153, and 15168 (e.g., through preparation of a Mitigated Negative Declaration, an Addendum to the PEIR, or a Supplemental or Subsequent EIR).

The intent of this PEIR is to address potential impacts associated with implementation of CIP projects using information known at the time of its preparation. The potential CIP project locations and types of activities typically associated with CIP projects were evaluated in this PEIR at a programmatic level based on information available to the City where reasonably foreseeable direct and indirect physical changes in the environment could be considered. As is typical of PEIRs, site-specific analysis was not conducted for certain environmental topics where information was not available or would be too speculative on which to base an analysis of potential impacts resulting from future CIP projects. As such, potential changes beyond those that were analyzed are considered speculative or unlikely to occur, and therefore not reasonably foreseeable. However, to evaluate the potential environmental impacts associated with future CIP projects, four individual CIP projects are included as representative projects, which provided quantified construction air pollutant and noise emissions.

This PEIR will be used by the City as the lead agency, other responsible and trustee agencies, interested parties, and the general public to evaluate the potential environmental impacts of CIP project implementation.

### 1.3.1. Notice of Preparation of Environmental Impact Report

To determine the appropriate scope of this PEIR, the City, acting as the lead agency, distributed a Notice of Preparation (NOP) for the proposed project to request input from the public and public agencies on the scope of the evaluation to be undertaken. Pursuant to CEQA Guidelines Section 15082(c), a scoping meeting is not required except for projects of statewide, regional, or areawide significance, or projects that may affect highways or other facilities under the jurisdiction of the California Department of

Transportation. While the proposed project does not meet the above criteria, the City nevertheless invited public agencies to participate in scoping meetings. No public agencies accepted the City's invitation to participate in scoping, beyond the written correspondence received in response to the NOP (see Appendix A).

Pursuant to Section 15082 of the CEQA Guidelines, the City prepared and distributed the NOP for the proposed project that was circulated for public review for a 33-day public review period commencing on November 13, 2025, and ending on December 16, 2025. The NOP was circulated to the California Governor's Office of Land Use and Climate Innovation (State Clearinghouse), the San Diego County Clerk, trustee agencies, and responsible agencies. The NOP was also posted in "The Coast News," a local newspaper, on November 14, 2025. Written comment letters received during the NOP public review period were sent by the California Department of Transportation, the Native American Heritage Commission, and the City of Solana Beach, and are included in Appendix A. An Initial Study Checklist was not required as part of the initial CEQA scoping process for the proposed project because a PEIR was determined to be the appropriate environmental document.

Key environmental concerns received during the public review period were related to:

- Biological resources
- Greenhouse gas (GHG) emissions
- Land use and planning
- Transportation, including vehicle miles traveled and maintaining bicycle, pedestrian, and public transit access during construction
- Tribal cultural resources

### 1.3.2. Environmental Review Process

This Draft PEIR, with an accompanying Notice of Completion (NOC), is being circulated to the State Clearinghouse, trustee agencies, responsible agencies, other government agencies, and interested members of the public for a 45-day review period in accordance with CEQA Guidelines Sections 15087 and 15105. During this period, public agencies and members of the public may submit written comments on the analysis and content of the Draft PEIR. In reviewing a Draft PEIR, readers should focus on the sufficiency of the document in identifying and analyzing the possible effects of the proposed project on the environment and on ways in which any significant effects resulting with project implementation may be avoided or mitigated.

Comment letters should be sent to:

City of Del Mar
Planning and Community Development
1050 Camino del Mar
Del Mar, CA 92014
Contact: Jennifer Gavin
Phone: 858.793.6148
Email: jgavin@delmar.ca.us

Following the close of the public comment period, a Final PEIR will be prepared to respond to all substantive comments related to environmental issues pertaining to the proposed project. The Final PEIR will be completed prior to a public hearing to consider certification of the PEIR and approval of the proposed project.

## 1.4. Report Organization

The PEIR is organized as follows:

- **ES, Executive Summary**. Summarizes the description and background of the proposed project, addresses the format of this PEIR, discusses alternatives, and discloses the potential environmental impacts and mitigation measures identified for the proposed project.

- **Chapter 1.0, Introduction**. Describes the purpose of the PEIR, the background of the proposed project, the NOP and scoping process, the use of incorporation by reference, and the PEIR certification process.

- **Chapter 2.0, Project Description**. Describes the proposed project and its objectives, the project site and location, discretionary approvals and actions anticipated to be required for the project, and the intended uses of the PEIR.

- **Chapter 3.0, Environmental Analysis**. Provides a detailed environmental analysis of the existing (baseline) conditions, potential project impacts, recommended mitigation measures, and possible unavoidable adverse impacts for the following environmental issue areas:

    - Air Quality (Section 3.1)
    - Biological Resources (Section 3.2)
    - Cultural Resources (Section 3.3)
    - Geology and Soils (Section 3.4)
    - Greenhouse Gas Emissions (Section 3.5)
    - Noise and Vibration (Section 3.6)
    - Tribal Cultural Resources (Section 3.7)

- **Chapter 4.0, Effects Found Not to Be Significant**. Summarizes effects found not to be significant (less than significant impact or no impact).

- **Chapter 5.0, Alternatives to the Proposed Project**. Analyzes a reasonable range of alternatives to the proposed project, including the CEQA-mandated “No Project” alternative. The alternatives seek to achieve the basic project objectives while reducing potential environmental effects that may result with project implementation.

- **Chapter 6.0, Other CEQA Considerations**. Summarizes the project’s significant and unavoidable impacts, energy conservation, and significant irreversible environmental changes. This section also includes a discussion of growth-inducing impacts, analyzing the potential environmental

consequences of the foreseeable growth and development that could be induced by implementation of the proposed project.

- **Chapter 7.0, Preparers and Persons Consulted**. Identifies the preparers of the PEIR, including the lead agency and persons consulted during document preparation.
- **Chapter 8.0, References**. Includes the reference resources used during preparation of the PEIR.
- **Appendices**. Provides supporting technical documentation used in preparation of the PEIR.

Table 1-1, CEQA-Required Sections and Location in the PEIR, lists the required sections of the PEIR and their location in the document.

**TABLE 1-1 CEQA-REQUIRED SECTIONS AND LOCATION IN THE PEIR**

| CEQA Requirements | CEQA Guidelines Section | Location in PEIR |
|---|---|---|
| Table of Contents | 15122 | Table of Contents |
| Executive Summary | 15123 | ES |
| Introduction | -- | Chapter 1.0 |
| Project Description | 15124 | Chapter 2.0 |
| Environmental Setting | 15125 | Chapters 2.0 and 3.0 |
| Significant Environmental Effects of the Proposed Project | 15126[a] | Chapter 3.0 |
| Mitigation Measures | 15126[3] | Chapter 3.0 |
| Cumulative Impacts | 15130 | Chapter 3.0 |
| Effects Found Not to Be Significant | 15128 | Chapter 4.0 |
| Alternatives to the Proposed Project | 15126[f] | Chapter 5.0 |
| Significant Unavoidable Environmental Effects of the Proposed Project | 15126[b] | Chapter 6.0 |
| Significant Irreversible Environmental Changes of the Proposed Project | 15126[c] | Chapter 6.0 |
| Growth-Inducing Impacts of the Proposed Project | 15126[d] | Chapter 6.0 |
| Preparers and Persons Consulted | 15129 | Chapter 7.0 |
| Technical Appendices and other materials, including public comments received | -- | Appendices |

Based on established thresholds of significance, the impacts of the proposed project have been categorized as “no impact,” “less than significant,” “less than significant with mitigation,” or “significant and unavoidable.” Mitigation measures are recommended for potentially significant impacts to avoid or lessen those impacts. In the event the proposed project results in significant impacts even after implementation of all feasible mitigation measures, CEQA Guidelines Section 15093 enables decision-makers to nonetheless approve the proposed project with adoption of a Statement of Overriding Considerations. This determination would require the decision-makers to discuss how the benefits of the proposed project outweigh identified unavoidable impacts.

The CEQA Guidelines provide, in part:

> *CEQA requires the decision-making agency to balance, as applicable, the economic, legal, social, technological, or other benefits, including region-wide or statewide environmental benefits, of a proposed project against its unavoidable environmental risks when determining whether to approve the project. If the specific economic, legal, social, technological, or other benefits, including region-wide or statewide environmental benefits, of a proposal project outweigh the unavoidable adverse environmental effects, the adverse environmental effects may be considered "acceptable."*

Where the decision of the public agency allows the occurrence of significant effects that are identified in the Final PEIR but are not mitigated, the agency must state in writing the reasons to support its action based on the Final PEIR and/or other information in the record. This statement may be necessary if the agency also makes the finding under Section 15091(a)(2) or (a)(3) of the CEQA Guidelines.

If an agency makes a Statement of Overriding Considerations, the statement should be included in the record of the project approval and should be mentioned in the Notice of Determination (CEQA Guidelines Section 15093).

## 1.5. Incorporation by Reference

In accordance with Section 15150 of the CEQA Guidelines, the following documents are incorporated by reference into this PEIR and available for public review at the City of Del Mar, Planning and Community Development Department, 1050 Camino del Mar, Del Mar, California, 92014, and are also accessible online at www.delmar.ca.us. A brief synopsis of each document is provided below.

### 1.5.1. City of Del Mar Community Plan

The City of Del Mar Community Plan serves as its General Plan with an overall goal to "preserve and enhance the special character of Del Mar, the elements of which are a village-like community of substantially single-unit residential character, a picturesque and rugged site, and a beautiful beach." As the City is largely built out, the Community Plan identifies specific goals, policies, and objectives to guide future development consistent with the City's vision. Since March 1976, when the Community Plan was adopted by the Del Mar voters as the City's General Plan, few plan amendments have been processed because the Plan's goals, policies, and objectives to preserve the unique environment, low-density character and quality of life have remained the same over time. The Community Plan is in the process of being amended to update the Safety Element in accordance with State law. Additionally, a new Environmental Justice Element is being added to the Community Plan as committed to in the City's certified 6$^{th}$ Cycle Housing Element. The draft Environmental Justice Element identifies that the City is committed to maintaining a healthy, inclusive, and accessible community for all residents and visitors. The draft Safety and Environmental Justice Elements will be presented to the City Council for adoption in the spring of 2026.

### 1.5.2. City of Del Mar Municipal Code

The Del Mar Municipal Code (DMMC) was adopted to promote and protect public health, safety, and welfare through the orderly regulation of land uses in the City. The DMMC identifies regulations pertaining to the use of real property and the buildings, structures, and improvements located thereon. The Zoning Code (DMMC Title 30) serves as the primary means of implementing the goals, objectives, and policies identified in the City's Community Plan. Other key elements of the DMMC include Title 23 (Building Construction) and DMMC Title 24 (Subdivisions), which provide specific regulations for development activities within the City.

### 1.5.3. City of Del Mar Local Coastal Program

The California Coastal Act is intended to protect the natural and scenic resources of the Coastal Zone. All local governments located wholly or partially within the Coastal Zone are required to prepare a Local Coastal Program (LCP) for those areas of the Coastal Zone within its jurisdiction. The state's goals for the Coastal Zone include the following:

a) Protect, maintain, and where feasible, enhance and restore the overall quality of the Coastal Zone environment and its natural and artificial resources.

b) Ensure orderly, balanced utilization and conservation of Coastal Zone resources taking into account the social and economic needs of the people of the state.

c) Maximize public access to and along the coast and maximize public recreational opportunities in the Coastal Zone consistent with sound resource conservation principles and constitutionally protected rights of private property owners.

d) Ensure priority for coastal-dependent and coastal-related development over other development on the coast.

e) Encourage state and local initiatives and cooperation in preparing procedures to implement coordinated planning and development for mutually beneficial uses, including educational uses, in the Coastal Zone.

f) Anticipate, assess, plan for, and, to the extent feasible, avoid, minimize, and mitigate the adverse environmental and economic effects of sea level rise within the Coastal Zone.

All lands within the City's boundaries lie within the Coastal Zone and are therefore regulated by the City's LCP as certified by the California Coastal Commission. The City's LCP has two main components to meet the Coastal Act. This includes the LCP Land Use Plan (policies) initially certified in 1993 and LCP Implementation Ordinances (zoning regulations) initially certified in 2001, each with multiple amendments subsequently adopted by the City Council and certified by the Coastal Commission, which apply to proposed development in the Coastal Zone. The City's Zoning Regulations include base zone regulations, overlay zone regulations for protection of sensitive resources, and other implementing measures to ensure the protection of coastal resources, public access, recreation, and public scenic views. With a certified LCP, the City has the authority to process and issue coastal development permits for most new development projects proposed within its local permit jurisdiction boundaries as identified on the official post-certification maps approved by the Coastal Commission in 2025. For the remaining

properties, the California Coastal Commission retains jurisdiction over approvals, which generally includes public trust lands, tidelands, and submerged lands along the shoreline.

### 1.5.4. City of Del Mar Climate Action Plan

Climate action plans (CAPs) serve as comprehensive road maps that outline the specific activities that a community or municipality will take to reduce greenhouse gas (GHG) emissions and the potential impacts of climate change within its borders. In developing a CAP, jurisdictions evaluate the volume of GHGs emitted during a baseline year and determine the amount of emissions that need to be reduced to achieve statewide GHG reduction targets.

The City of Del Mar CAP (2016) commits to implementing specific programs and projects aimed at reducing and mitigating the impacts of GHG-emitting activities by targeted dates. The CAP identifies goals and strategies tied to various emissions sources and means to reduce GHG emissions through increased energy efficiency, reliance on renewable energy technologies, solid waste reduction, and sustainable modes of transportation. The City is initiating an updated GHG inventory and CAP in 2026.

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# 2.0 PROJECT DESCRIPTION

This chapter provides a description of the proposed City of Del Mar Capital Improvements Program (CIP), which includes planned public improvement and public facility projects to be carried out by the City of Del Mar (City),[1] the environmental effects of which are evaluated in Section 3.1 through Section 3.7 of this Program Environmental Impact Report (PEIR). While individual CIP projects within the overall CIP program are analyzed in the PEIR, all uses of the term "proposed project" or "project" in the PEIR refer to the CIP program as a whole for the purposes of CEQA, unless otherwise noted. The project location, background, and objectives are described immediately below, followed by a description of project characteristics and a summary of the discretionary actions that would be required.

## 2.1. Project Location and Environmental Setting

This section describes the physical environmental conditions of the City of Del Mar (i.e., the project site), as they exist at the time the Notice of Preparation was published, from both a local and a regional perspective, pursuant to CEQA Guidelines Section 15125(a). The environmental setting provides the baseline physical conditions from which the lead agency determines the significance of environmental impacts resulting from the project. Section 3.1 through Section 3.7 provide more detailed environmental setting descriptions relevant to each environmental resource topic.

### 2.1.1. Regional Setting

Implementation of the CIP would occur within the majority of the City, located in San Diego County. The project site encompasses approximately 2.2 square miles (1,408 acres). The City is a coastal city located north of Torrey Pines State Beach, directly south of the City of Solana Beach, and generally west of adjacent properties within the City of San Diego and County of San Diego jurisdictions. Regional access to the City is provided by Interstate 5 (I-5), which traverses the City in a north-south orientation, and Camino del Mar, which runs in a north-south orientation along the City's coastline. The Los Angeles–San Diego–San Luis Obispo (LOSSAN) rail corridor also runs along the top of the coastal bluffs in the City. Figure 2-1, Regional Location Map, shows the location of the City at a regional scale.

### 2.1.2. Local Setting

The City is approximately 2 miles in length (north-south) and up to 0.75 miles wide (east-west) (refer to Figure 2-2, Project Site Boundary). It contains roughly 5,000 separate, assessed parcels of property, and has a population level that remains constant around 4,000 persons (SANDAG 2025).

The City is largely built out, predominantly with single-dwelling unit and multi-dwelling unit residences and commercial uses, with relatively few developable, vacant areas remaining. The City is distinct in that it is surrounded on almost all sides by significant natural landforms and resources. The Pacific Ocean, beach, and coastal bluffs are located along the western City boundary. San Dieguito Lagoon and San Dieguito River are located in the northern portion of the City. Floodplains and floodways as designated by

[1] The term "City" hereafter refers to the City of Del Mar. If another municipality is discussed, such as the City of San Diego, it is written out to avoid reader confusion.

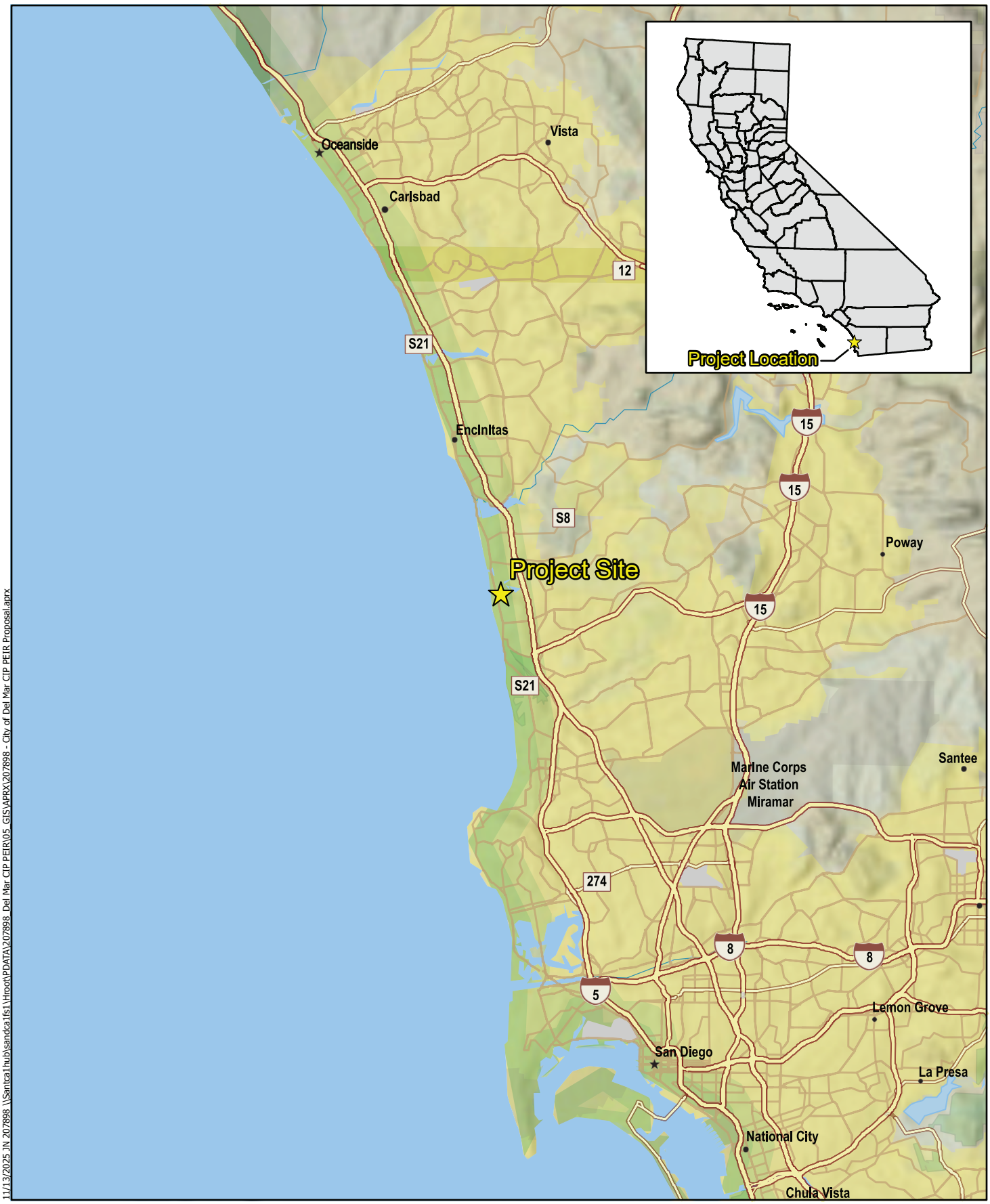
the Federal Emergency Management Agency (FEMA) surround the beach area, lagoon, and river. Upland bluff, slope, and canyon hillside areas wrap around much of the City's northern and eastern boundaries, adjacent to the lagoon and Crest Canyon open space, located south of the San Dieguito River and Lagoon. It is noted that Crest Canyon open space is located in and maintained by the City of San Diego.

The Los Peñasquitos Lagoon occurs just south of Del Mar, in the City of San Diego. The environmentally sensitive habitat areas associated with the Los Peñasquitos watershed and floodplain affect City of Del Mar roadways and properties along the southerly boundary of Del Mar.

The City has three major parks: Seagrove Park located at the terminus of 15th Street; Powerhouse Park, including the Powerhouse Community Center and a "Tot Lot" with playground equipment, located off Coast Boulevard; and Shores Park, including the Del Mar Community Connections Building, located off Camino del Mar and 9th Street. A recreation area including tennis and basketball courts is located off of Court Street. Other natural open space areas are located throughout Del Mar, including the public sandy beach along the westerly boundary of the City; the Scripps Bluff Preserve on the North Bluff and the Del Mar Canyon Preserve on the South Bluff, which are located along the City's coastal bluffs and shoreline; the Crest Rim Preserve adjacent to the Crest Canyon open space, and various pedestrian trails throughout the City.

Within the northern portion of the City's boundary, the Del Mar Fairgrounds makes up approximately one third of the City's land area. The property is owned and operated by the State of California 22nd District Agricultural Association, a state institution, and not by the City of Del Mar. The Del Mar Fairgrounds is a 340-acre regional commercial entertainment venue that spans the City of Del Mar, City of San Diego, and unincorporated San Diego County. Approximately 80 percent of the 340-acre Del Mar Fairgrounds is in the City of Del Mar. The Del Mar Fairgrounds host millions of visitors each year at a variety of events, including the San Diego County Fair and two Del Mar Racetrack seasons operated by the Del Mar Thoroughbred Club.

The City owns and maintains several facilities including the Beach and Safety Center located at 1700 Coast Boulevard, City Hall located at 1050 Camino del Mar, the Community Connections Building located at 225 9th Street, the Del Mar Branch of the San Diego County Library located at 1309 Camino del Mar, Powerhouse Community Center located at 1658 Coast Boulevard, and the Public Works Corporation Yard located at 2240 Jimmy Durante Boulevard.

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Michael Baker INTERNATIONAL

Source: Esri, ArcGIS Online, USGS, San Diego County

CITY OF DEL MAR CIP STREAMLINING PROJECT
PROGRAM ENVIRONMENTAL IMPACT REPORT

# Regional Location Map

Figure 2-1

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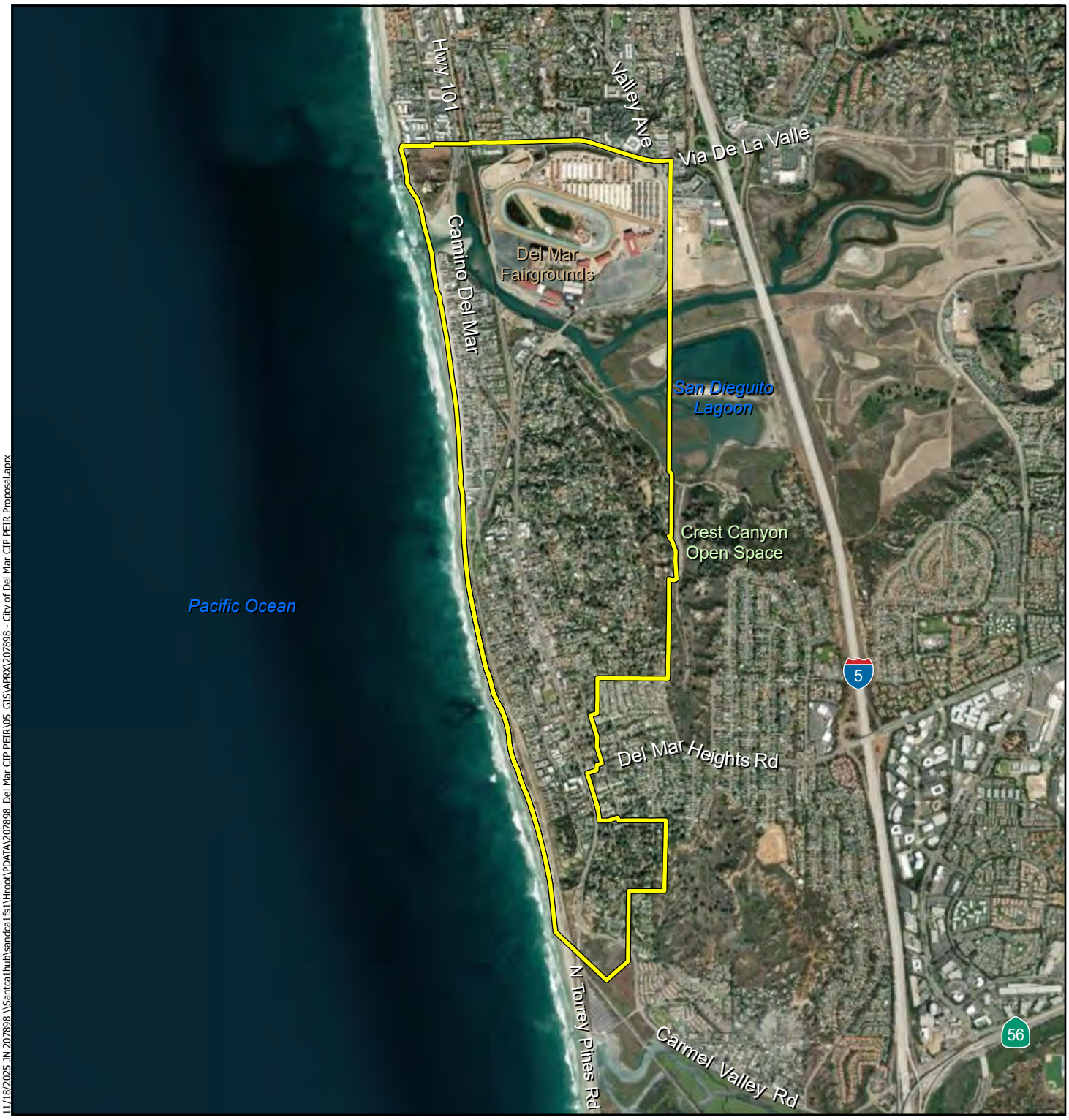


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**Legend**

Project Site

Michael Baker INTERNATIONAL

0 0.25 0.5 Miles

Source: Esri, ArcGIS Online, City of Del Mar, San Diego County

CITY OF DEL MAR CIP STREAMLINING PROJECT
PROGRAM ENVIRONMENTAL IMPACT REPORT

# Project Site Boundary

Figure 2-2

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## 2.2. Project Background

The CIP is a 10-year strategic planning and budgeting tool for addressing the City's current and future capital infrastructure and facility needs, and it is revised over time in noticed public meetings of the City Council as conditions, City Council priorities, and funding change. The CIP outlines plans for capital projects, major maintenance, refurbishments, and substantial equipment purchases as described further in Section 2.4.1 of this document. Every year, the City plans for two-year work plans including multiple CIP projects involving work within City rights-of-way and public easements. The Representative CIP Projects analyzed in this PEIR are those from the City Council approved Work Plan for FY 2026-2027. While the City's current 10-year CIP program runs through FY 2035-2036, this PEIR will continue to apply to CIP projects post FY 2035-2036 to the extent that future projects are deemed consistent with the types of projects evaluated herein, environmental conditions established in this PEIR have not changed substantially, and mitigation requirements are still deemed applicable and effective.

Currently, the City has no programmatic approach to completing environmental review pursuant to CEQA for its CIP projects, and therefore must undergo environmental review on a project-by-project basis. Timely implementation of the CIP projects is necessary to ensure continued public health, safety, and welfare for the City's residents and visitors. This PEIR will help streamline the implementation of current and future CIP projects to ensure continued public health, safety, and welfare for the City's residents, businesses, and visitors by establishing a clear procedural framework for CEQA compliance on a wide array of CIP project types.

## 2.3. Project Objectives

Pursuant to the requirements of CEQA Guidelines Section 15124(b), an EIR must contain a statement of objectives that includes the underlying purpose of the proposed project. The objectives of the proposed project are to:

- Streamline implementation of current and future CIP projects to ensure continued public health, safety, and welfare for the City's residents and visitors.
- Allow for the continued maintenance, refurbishment, repair, upgrade, and/or replacement of existing public infrastructure and facilities.
- Allow for the construction and operation and maintenance of new capital projects.
- Develop a mitigation framework to ensure consistent and effective implementation of environmental protections.

## 2.4. Project Components

### 2.4.1. Proposed Project Activities

#### Overview

This PEIR will apply to the CIP projects listed in the City Work Plan for FY 2026-2027 and the City 10-year CIP project list (2025-2035), as well as future CIP projects post 2035 not included on the current CIP list to the extent that individual future projects are reviewed and considered as follows:

- The project is deemed consistent with the types of projects evaluated herein;
- The environmental conditions analyzed in this PEIR have not changed substantially; and
- The PEIR mitigation requirements identified are still deemed applicable and effective.

Once the Final PEIR is certified, the City will be able to rely on the environmental impact analyses contained in the document to streamline CEQA review for individual CIP projects. A CEQA Streamlining Checklist has been prepared for CIP projects (refer to Appendix C, Del Mar CIP Streamlining Program Checklist). City staff will complete this checklist with project-specific details—such as project type, location, construction duration, and construction equipment—and will review all mitigation measures included in the PEIR. Using the CEQA Streamlining Checklist, City staff will identify which mitigation measures apply to each project and determine whether any additional environmental technical studies are required based on the project type or site conditions. This process will ensure that future CIP projects satisfy CEQA compliance requirements before they are implemented.

The proposed project components analyzed in this PEIR include the construction and operation of individual CIP projects. The CIP projects covered under this PEIR have been divided into the following categories:

- Undergrounding Program
- Water
- Wastewater
- Storm Water
- Streets
- Facilities
- Open Space

A general overview of each category is provided below, which briefly discusses the types of proposed activities and individual CIP projects.

#### Undergrounding Program

In 2016, the City began a citywide Undergrounding Program (UP). The UP is designed to remove unsightly utility poles and replace overhead cables for electricity and telecommunications with underground lines.

This program provides for essential services benefitting the entire UP across multiple Utilities Undergrounding Districts (UUD) throughout the City. Table 2-1, Status of Utilities Undergrounding Districts, indicates the status of utility undergrounding in each UUD. Figure 2-3a, Undergrounding Program

Districts, shows the location of each UUD in the City. Refer to Table 2-2, FY 2026-2027 Work Plan CIP Projects, at the end of this chapter for UP CIP projects included in the City's approved FY 2026-2027 Work Plan.

**TABLE 2-1 STATUS OF UTILITIES UNDERGROUNDING DISTRICTS**

| Utility Undergrounding District | Status |
|---|---|
| Tewa Court/10th Street | Completed 2023 |
| 1A (Stratford Court South) | Completed 2026 |
| X1A (Crest Canyon) | Construction in Process |
| 1B (Stratford Court North) | Design in Process |
| 2 (Beach Colony) | District Formed |
| 25th Street (20A) | District Formed |
| 3 (South Hill) | Future Project |
| 4 (North Hill) | Future Project |
| 5 (Lagoon) | Future Project |

Source: City of Del Mar 2026c

In addition to improving views by removal of the utility poles and overhead lines, the UP reduces fire hazards and other safety risks caused by downed lines and increases the reliability of utility systems. The UP is identified as a community priority that is consistent with the goals and policies included throughout the Community Plan.

Environmental compliance pursuant to CEQA has been completed for Tewa Court/10$^{th}$ Street, 1A (Stratford Court South), X1A (Crest Canyon), and 1B (Stratford Court North). Accordingly, these individual projects are not evaluated in this PEIR.

**General Construction Overview**

Construction for the City's UP would generally include trenching, installation of utility lines and conduit in the trenches, backfilling trenches, resurfacing pavement and replacement of vegetation that is disturbed during construction, installation of utility structures, and the removal of utility poles and associated equipment. Other construction activities may include retaining walls to support the installation of aboveground utility structures. The majority of construction activities would occur within public rights-of-way or along existing roadways. Installation of underground utility lines would also occur outside public rights-of-way at locations where overhead services currently exist in order to maintain service connections to existing residences and businesses. Similarly, most utility poles are located in or immediately adjacent to public rights-of-way. However, in certain instances, poles may be located outside public rights-of-way, for which work crews would need to traverse existing vegetation to access and remove poles.

Typical construction equipment for utility undergrounding would include backhoes, skid steer loaders, and dump trucks for excavation activities; milling machines, sweepers, asphalt pavers, roller compactors, and dump trucks for asphalt resurfacing; and concrete mixer trucks, dump trucks, and hand tools for

concrete resurfacing. Hand digging with an arborist on standby is planned for trenching within 20 feet of protected tree species where work near the tree is unavoidable.

Construction activities associated with utility undergrounding would occur at an average rate of approximately 100 linear feet (LF) per day, with a maximum rate per day of 400 LF. The maximum length of individual CIP utility undergrounding projects would be up to 32,000 LF, but would be an average length of approximately 15,000 LF. Average trench widths for these projects would be approximately 2 feet, with a maximum trench width of approximately 3 feet. Average trench depth would be approximately 3 feet, and maximum trench depth would be no greater than 10 feet.

Pole removals are typically performed using a digger derrick truck or bucket truck when accessible from the street. Pole removals in sensitive areas are to be completed via hand; crews would walk in to hand-cut the pole at ground level, fell the pole, cut to manageable pieces, and haul out with a small rubber-tired tractor-trailer or wheelbarrow or use a "boom truck" when close enough to the City right-of-way. Alternately, in rare cases, the utility company may choose to hand-cut the pole at ground level and helicopter the pole out of hard-to-access areas.

**General Operation Overview**

After construction, ongoing activities would include regular inspection and, as necessary, maintenance activities, similar to existing underground utility lines maintained by the utility agencies.

## Water

The Del Mar Public Works Department provides potable water service to nearly 1,900 metered accounts, including residential, commercial, public facilities, and the Del Mar Fairgrounds. The City's potable water system includes approximately 30 miles of water mains, four storage reservoirs totaling 4 million gallons of capacity, 664 valves, and 278 fire hydrants. Figure 2-3b, Existing Water Infrastructure, shows the location of existing water pipelines throughout the City.

The CIP includes water infrastructure improvement projects to continue to provide a reliable water supply that supports the health and quality of life of the City's residents, businesses, and visitors. The City's water facilities are also essential for safety via fire protection services. The proposed water infrastructure improvements in the CIP are consistent with the goals and policies in the Environmental Management and Transportation sections of the Community Plan. Refer to Table 2-2 at the end of this chapter for water CIP projects included in the City's approved FY 2026-2027 Work Plan.

**General Construction Overview**

Construction related to improvements, repairs, and rehabilitation of existing or future potable and recycled water pipelines, valves, pressure reducing stations, pressure relief stations, water pumping stations, water meters, backflow preventers, and fire hydrants would generally include trenching, backfilling, and resurfacing activities. In situ pipeline repairs and interior lining would not require excavation. The majority of such construction activities would occur within public rights-of-way or along existing roadways. Typical construction equipment for water infrastructure would include backhoes, skid steer loaders, and dump trucks for excavation activities; small excavators, dump trucks, and small paving

equipment for pipe lining activities; milling machines, sweepers, asphalt pavers, roller compactors, and dump trucks for asphalt resurfacing; and concrete mixer trucks, dump trucks, and hand tools for concrete resurfacing.

Construction activities associated with water pipelines would occur at an average rate of approximately 200 LF per day, with a maximum rate per day of 400 LF. The maximum length of individual CIP water infrastructure projects would be up to 5,000 LF, but would be an average length of approximately 1,000 LF. Average trench widths for these projects would be approximately 2.5 feet, with a maximum trench width of approximately 4.5 feet. Average trench depth would be approximately 4 feet, and maximum trench depth would be no greater than 10 feet.

Construction related to water reservoir improvements and rehabilitation would generally include mechanical and electrical improvements.

**General Operation Overview**

After construction, ongoing activities would include regular inspection and, as necessary, maintenance activities, similar to existing water infrastructure maintained by the City.

## Wastewater

The City owns and operates a sanitary sewer collection system, which provides service via approximately 1,800 sewer connections. The collection system consists of approximately 21 miles of sewer mains, 3 miles of force main, one pump station, and one lift station. Figure 2-3c, Existing Wastewater Infrastructure, shows the location of existing City sewer pipelines within Del Mar. It is noted that within the City's jurisdiction, there are sewer lines that are owned and operated by either the City of Solana Beach or the City of San Diego. The City's collection system conveys an annual average flow of 0.4 million gallons per day (mgd) that is normally sent to the San Elijo Water Reclamation Facility for treatment via City of Solana Beach collection system, with a secondary connection available to send wastewater to the Point Loma Wastewater Treatment Plant if needed.

The City's Sewer System Management Plan presents the City's policies and procedures to manage, operate, and maintain its sanitary sewer system and comply with requirements of the State Water Resources Control Board's Statewide General Waste Discharge Requirements for Sanitary Sewer Systems Order No. 2006-0003 DWQ and the Order's subsequent updates (City of Del Mar 2026b).

The CIP includes wastewater (sewer) infrastructure improvement projects to address maintenance needs for the City's wastewater system, including repair needs for failing pipelines. The proposed wastewater improvements in the CIP are consistent with the goals and policies in the Environmental Management and Transportation sections of the Community Plan. Refer to Table 2-2 at the end of this chapter for wastewater CIP projects included in the City's approved FY 2026-2027 Work Plan.

**General Construction Overview**

Construction related to improvements, repairs, and rehabilitation of existing or future sewer gravity and force main pipelines, pump stations, manholes, and cleanouts would generally include trenching,

backfilling, and resurfacing activities. The majority of such construction activities would occur within public rights-of-way or along existing roadways. Typical construction equipment for wastewater infrastructure would be the same as the typical CIP water infrastructure construction equipment.

Construction activities associated with sewer pipelines would occur at an average rate of approximately 200 LF per day, with a maximum rate per day of 400 LF, similar to water pipelines. The maximum length of individual CIP wastewater infrastructure projects would be up to 6,000 LF, but would be an average length of approximately 1,250 LF. Average trench widths for these projects would be approximately 2.5 feet, with a maximum trench width of approximately 3.5 feet. Average trench depth would be approximately 8 feet, and maximum trench depth would be no greater than 15 feet.

Construction related to sewer pump station improvements and rehabilitation would generally include mechanical and electrical improvements.

**General Operation Overview**

After construction, ongoing activities would include regular inspection and, as necessary, maintenance activities, similar to existing wastewater infrastructure maintained by the City.

## Storm Water

The City maintains storm water drainage facilities throughout its jurisdiction, including pipelines, curb inlets, and trash capture devices in public rights-of-way. Figure 2-3d, Existing Storm Water Infrastructure, shows the location of existing storm water infrastructure in Del Mar. The CIP includes storm water infrastructure improvement projects, in consultation with the Clean Water Program consultant when needed, to address maintenance needs for the City's storm water system. These projects would address a combination of short-term and long-term storm water infrastructure needs and include emergency repair projects and improvement projects relating to storm drains and storm water permit compliance to ensure ongoing compliance with applicable federal and state laws relating to water quality. The proposed storm water improvements in the CIP are consistent with the goals and policies in the Environmental Management and Transportation sections of the Community Plan. Refer to Table 2-2 at the end of this chapter for storm water CIP projects included in the City's approved FY 2026-2027 Work Plan.

**General Construction Overview**

Construction related to improvements, repairs, and rehabilitation of existing or future storm water pipelines/culverts, manholes, cleanouts, inlets, outlets, catch basins, headwalls, open channel, cobble/hardscape open swales, infiltration pits, and low flow diverters would generally include trenching, excavation, backfilling, and resurfacing activities. The majority of such construction activities would occur within public rights-of-way or along existing roadways. Typical construction equipment for storm water infrastructure would be the same as the typical water and wastewater infrastructure construction equipment.

Construction activities associated with storm water pipelines and culverts would occur at an average rate of approximately 50 LF per day, with a maximum rate per day of 100 LF. The maximum length of individual CIP storm water infrastructure projects would be up to 1,000 LF, but would be an average length of

approximately 200 LF. Average trench widths for these projects would be approximately 3 feet, with a maximum trench width of approximately 4 feet. Average trench depth would be approximately 3 feet, and maximum trench depth would be no greater than 10 feet.

**General Operation Overview**

After construction, ongoing activities would include regular inspection and, as necessary, maintenance activities, similar to existing storm water infrastructure maintained by the City.

## Streets

The City maintains 30 miles of streets. Figure 2-3e, Existing Streets Infrastructure, shows the location of existing roadways throughout Del Mar. The City recently undertook a pavement condition assessment to be used as a tool to prioritize pavement repairs citywide. The pavement improvements required as recommended in the report or determined by other need include:

- Replacing or rehabilitation of existing pavement;
- Removing and reinstalling traffic signal loops;
- Striping vehicle and bicycle line lines and symbols; and
- Reconstructing sidewalks/crosswalks in accordance with American with Disabilities Act (ADA) requirements.

The CIP includes streets infrastructure improvement projects to address maintenance needs for the City's existing and future roadways. Improvements would generally include annual pavement rehabilitation and ADA upgrades. The proposed street improvements in the CIP are consistent with the goals and policies in the Environmental Management and Transportation sections of the Community Plan. Refer to Table 2-2 at the end of this chapter for street related CIP projects included in the City's approved FY 2026-2027 Work Plan.

**General Construction Overview**

Construction related to improvements, repairs, and rehabilitation of existing or future public roadways, including pavement, concrete curb and gutter, sidewalks, and ADA-compliant curb ramps, would generally include excavation, backfill, and resurfacing activities. The majority of such construction activities would occur within public rights-of-way or along existing roadways. Typical construction equipment for CIP streets projects would include backhoes, skid steer loaders, and dump trucks for excavation activities; milling machines, sweepers, asphalt pavers, roller compactors, and dump trucks for asphalt resurfacing; and concrete mixer trucks, dump trucks, and hand tools for concrete resurfacing.

Construction activities associated with roadway construction/improvements would occur at an average rate of approximately 500 LF per day, with a maximum rate per day of 2,000 LF. The maximum length of individual CIP roadway projects would be up to 7,500 LF, but would be an average length of approximately 2,500 LF. Additionally, activities associated with curb and gutter construction/improvements would occur at an average rate of approximately 250 LF per day, with a maximum rate per day of 500 LF. The maximum length of individual CIP curb and gutter projects would be up to 3,000 LF, but would be an average length of approximately 500 LF.

Construction related to installation of retaining walls in slopes would generally include excavation, backfill, and installation of irrigation and landscaping. The majority of such construction activities would occur within public rights-of-way along existing roadways.

Construction related to improvements, repairs, and rehabilitation of existing or future bridges would generally include structural or surface maintenance. Replacement of a bridge would generally include excavation, backfill, and bridge installation. The majority of such construction activities would occur within public rights-of-way at existing bridges.

**General Operation Overview**

After construction, ongoing activities would include regular inspection and, as necessary, maintenance activities, similar to existing roadway infrastructure maintained by the City.

## Facilities

The CIP includes facilities projects to address maintenance needs for the City's existing public facilities. The projects relate to various short-term and long-term municipal facility needs related to public safety operations. Figure 2-3f, Existing Municipal Facilities, shows the location of existing public facilities in Del Mar, including, but not limited to, lifeguard towers, public restrooms, and bridges. The proposed CIP facility improvements are consistent with the goals and policies of the Environmental Management and Community Development sections of the Community Plan. Refer to Table 2-2 at the end of this chapter for facilities CIP projects included in the City's approved FY 2026-2027 Work Plan.

**General Construction Overview**

Construction related to improvements and repairs of existing public facilities would generally include minor exterior façade repairs and minor interior improvements, such as painting; new carpeting; replacement of/repairs to plumbing, electrical, and heating, ventilation, and air conditioning (HVAC) units; security/fire system repairs; and roof repairs. Additionally, CIP facilities projects would include the installation of hardscape features (e.g., benches, drinking fountains, streetlights, traffic lights) on City property and public rights-of-way. Construction equipment for these types of CIP facilities projects would generally be limited to hand tools. Small generators and compressors may also be used.

Construction activities associated with the possible future relocation of the fire station and the Public Works building from the floodway may include reconstruction of the buildings to minimize potential impacts associated with flooding. This would be accomplished by either: (1) reconstruction at the existing location through recontouring of the project site or by other means to elevate the new building foundations above the flood elevation; and/or (2) reconstruction at a new location outside the flood zone. Typical construction equipment for these CIP facilities projects would likely include bulldozers, excavators, backhoes, skid steer loaders, concrete mixer trucks, asphalt pavers, roller compactors, sweepers, and dump trucks.

Maintenance of bridges primarily includes concrete repairs to spalling in pier walls, columns, side rails, and sidewalks. Standard maintenance activities associated with bridges would be in compliance with

typical best management practices (BMPs) to ensure no inadvertent direct or indirect impacts to jurisdictional waters or other environmentally sensitive areas.

**General Operation Overview**

After construction of the CIP facilities projects, ongoing maintenance activities similar to existing conditions would continue.

### Open Space

The CIP includes open space projects to address maintenance needs for the City's existing and future open space amenities, including City parks, trail connections, the beach, and lifeguard facilities. Figure 2-3g, Existing Open Space, shows existing open space locations in Del Mar. The proposed improvements are consistent with the goals and policies relating to parks, recreation, environmental management, and public safety in the Environmental Management section of the Community Plan. Refer to Table 2-2 at the end of this chapter for open space CIP projects included in the City's approved FY 2026-2027 Work Plan.

**General Construction Overview**

Construction related to improvements and repairs of existing and future public open space facilities would generally include excavation, backfill, and resurfacing activities and the installation of irrigation and landscaping for outdoor improvements. Minor exterior façade repairs associated with lifeguard building improvements would generally include exterior painting, security/fire system repairs, roof repairs, and minor interior improvements such as painting, new carpeting, and replacement of/repairs to plumbing, electrical, and HVAC units. The majority of such construction activities would occur on City property or within public rights-of-way or along existing roadways. Typical construction equipment for CIP open space projects would likely include hand tools for minor improvements, and backhoes, skid steer loaders, concrete mixer trucks, asphalt pavers, roller compactors, sweepers, and dump trucks for major improvements.

**General Operation Overview**

After construction of the CIP open space projects, ongoing maintenance activities similar to existing conditions would continue.

## 2.4.2. Representative CIP Projects

To evaluate the potential environmental impacts associated with the seven CIP categories, the following four individual CIP projects are included as representative projects.

### Project No. 1 – Utilities Undergrounding- Beach Colony

The City proposes to remove existing utility poles and replace existing overhead cable lines for electricity and telecommunications with undergrounded lines within the Beach Colony neighborhood including UUD 2 and the 25th Street (20A) Undergrounding District, which are bounded by San Dieguito River to the north, the LOSSAN rail corridor to the east, 18$^{th}$ Street to the south, and the Pacific Ocean to the west (Figure 2-4, Utilities Undergrounding District 2 Project Site). The project area is fully developed with residences and streets, and also within a flood zone as designated by FEMA.

Project construction would include trenching within existing City rights-of-way and utility easements, installation of electrical and telecommunications lines and conduit in the trenches, backfilling trenches, resurfacing pavement, and replacement of removed vegetation, as well as removal of all existing overhead lines and poles located within the Beach Colony District, along approximately 11,800 LF of existing public right-of-way and private streets in the project site. The project would also include homeowner-installed trenches and conduit from meters at approximately 124 houses out to the street right-of-way at locations where overhead services currently exist to the residences over existing improved lots. Additionally, minor grading and the installation of retaining walls may be required for the installation of required aboveground facilities for the undergrounded lines, such as handholes, transformers, and pedestals. The utility agency would install equipment and wiring for the proposed electrical and telecommunications services and remove the overhead lines and poles. Pavement resurfacing and vegetation replacement would be completed by the City in the public right-of-way and homeowners on private property.

The majority of construction activities would occur within existing streets and driveways with some exceptions for equipment and walls adjacent to the paved areas, homeowner trenching through yards to existing meter locations, and overhead wire and pole removals for existing lines that pass through private property.

Construction equipment would include backhoes, skid steer loaders, and dump trucks for excavation activities; milling machines, sweepers, asphalt pavers, roller compactors, and dump trucks for asphalt resurfacing; and concrete mixer trucks, dump trucks, and hand tools for concrete resurfacing.

Construction activities would occur at an average rate of approximately 100 LF per day, with a maximum rate per day of 400 LF. Construction duration is anticipated to be approximately 118 working days. Trenches for utility undergrounding would be approximately 1 to 3 feet wide and approximately 2 to 10 feet deep.

### Project No. 2 – Roadway Widening Project

Although no specific location has been identified for this representative project, the City proposes to widen and improve some public roadway segments as part of its CIP. The City evaluates the specific needs and constraints of each CIP roadway widening project and tailors the design accordingly. In some cases, improvements may be limited to roadway widening with an asphalt berm and no sidewalk. Other locations may require concrete curb and gutter, rolled curbs, or ribbon gutters to ensure proper drainage and safe circulation. Because many areas of Del Mar have limited public rights-of-way and physical constraints, sidewalks are not always feasible, and the City considers these limitations when determining the most appropriate design for each CIP roadway widening project.

This representative CIP project would potentially entail widening of an approximately 2,500-LF roadway segment. For the purposes of this analysis, the project assumes the construction of concrete curbs and gutters, sidewalks, and ADA-compliant curb ramps along both sides of the roadway where appropriate. The finished roadway width would be approximately 20 feet wider than existing conditions. Construction would also include demolition of existing roadway infrastructure, as needed, to accommodate the proposed widening and improvements. Construction of this representative project would not require take

of private property that would result in displacement of a resident or business; construction activities would occur within public rights-of-way or along existing roadways.

It is noted that in portions of the City where no curb and gutter exist, a roadway widening could include different curb options such as an asphalt berm and, in many cases, no sidewalks.

Typical construction equipment would include backhoes, skid steer loaders, and dump trucks for excavation activities; milling machines, sweepers, asphalt pavers, roller compactors, and dump trucks for asphalt resurfacing; and concrete mixer trucks, dump trucks, and hand tools for concrete resurfacing.

Construction would occur at an average rate of 500 LF per day for roadway asphalt surfacing/resurfacing and 250 LF per day for curb and gutter surfacing/resurfacing. Construction duration is anticipated to be approximately five working days.

### Project No. 3 – Storm Water and Sewer Infrastructure Improvement Project

The City proposes to construct, replace, and/or repair deteriorated storm drain pipelines at six locations and sewer infrastructure at three locations (Figure 2-5, Storm Water and Sewer Infrastructure Improvement Project Site). Specifically, the proposed storm drain repairs and replacements include:

- Installation of cured-in-place pipe (CIPP) lining along approximately 55 LF of an existing 18-inch corrugated metal pipe (CMP) at the intersection of Crest Road and Hoska Drive
- Installation of CIPP lining of approximately 28 LF of an existing 36-inch by 48-inch ellipse reinforced concrete pipe (RCP) beneath Court Street, south of 21st Street
- Replacement of approximately 21 LF of an existing 12-inch CMP with 12-inch polyvinyl chloride (PVC) pipe beneath Grand Avenue between Camino del Mar and Jimmy Durante Boulevard
- Installation of approximately 28 LF of CIPP lining of an existing 18-inch CMP beneath Christy Lane at Jimmy Durante Boulevard
- Construction of approximately 21 LF of 18-inch PVC pipe west of Camino del Mar at Serpentine Drive
- Replacement of approximately 81 LF of an existing 18-inch CMP with an 18-inch PVC pipe beneath Jimmy Durante Boulevard south of Via de la Valle

Project construction and repair activities would occur at an average rate of 50 feet per day for storm water drain pipes. Maximum pipeline trench widths during project construction would be 4 feet and trench excavation would be no greater than 10 feet deep. Project construction and repair activities would occur at an average rate of 200 LF per day for sewer pipes.

The proposed sewer improvements include:

- Construction of a new manhole on Zapo Street north of Culebra Street (construction footprint would be approximately 5 feet by 5 feet in area and 8 feet in depth)
- Replacement of approximately 680 LF of 6-inch vitrified clay pipe (VCP) on Luzon Avenue between Balboa Avenue and Sea View Avenue (construction footprint would be approximately 2 feet wide and 8 feet deep)
- Spot repair of an 8-inch PVC pipe located beneath Pine Needles Drive (construction footprint would be approximately 2 feet wide and 8 feet deep)

This project would occur within and adjacent to existing public roadways, and construction activities would be limited to public rights-of-way along City roadways.

Typical construction equipment would include backhoes, skid steer loaders, and dump trucks for excavation activities; small excavators, dump trucks, and small paving equipment for pipe lining activities; milling machines, sweepers, asphalt pavers, roller compactors, and dump trucks for asphalt paving; and concrete mixer trucks, dump trucks, and hand tools for concrete resurfacing. Construction duration is anticipated to be approximately 120 calendar days. Maximum pipeline trench widths would be 3.5 feet, and trench excavation would be no greater than 15 feet deep.

### Project No. 4 – Shores Park Improvements Project

The City proposes the reconstruction and operation of Shores Park on approximately 3.5 acres, located southwest of the Camino Del Mar and 9th Street intersection and immediately east of the Winston School (Figure 2-6, Shores Park Improvements Project Site). Existing park amenities include a turf field and backstop, multiuse court area, landscaped areas, parking lots, and a City Community Building. A portion of the project site is currently being used as a parking lot by the Winston School. The entire Shores Property, including the Winston School area, is 5.3 acres in area. As part of the City's lease agreement with the Winston School, the school is granted non-exclusive access to the landscaped turf area on the project site during school hours. The landscaped turf area serves as a shared use area, providing space as a dog park, youth baseball field, and multi-purpose field, each with their specific times of use. The City also currently leases the on-site Del Mar Community Building to the Del Mar Foundation, a local nonprofit organization. The Del Mar Community Building includes a conference room, computer lab, and kitchen, and is available to the public with advance reservations.

The project would include reconstruction of Shores Park to include passive and active recreational amenities, a multiuse sport court, a dog park and flexible turf area and backstop, and may include the relocation of the Alvarado House, an approximately 785-square-foot historic Del Mar home, to the site (Figure 2-7, Shores Park Improvements Project Conceptual Site Plan). Additionally, the project may include upgrades to the existing on-site Community Building, which could include additions of up to 3,000 square feet, or the demolition and rebuilding of a new Community Building totaling up to 5,000 square feet. The project may also include improvements to and addition of on-site parking for the park and community

center. Other site improvements would include storm water infrastructure to accommodate on-site runoff and potential retaining wall installation to accommodate updated parking configurations.

Construction equipment would likely include bulldozers, excavators, backhoes, skid steer loaders, concrete mixer trucks, asphalt pavers, roller compactors, sweepers, and dump trucks. For the purposes of this analysis, construction duration is anticipated to be approximately 425 working days.

### 2.4.3. Regulatory Requirements and Standard City Measures

The environmental impact analysis included in Chapter 3.0 of this PEIR assumes that implementation of all CIP projects would adhere to applicable federal, state, and local laws and regulations, and standard City measures, including but not limited to those included in this section. Adherence to these requirements is essential for CEQA compliance and for the effective protection of the City's protected and sensitive resources.

#### Federal Requirements

- **Migratory Bird Treaty Act (16 U.S. Code [USC] §§703-712):** To maintain compliance with the Migratory Bird Treaty Act (MBTA) of 1918 and the California Fish and Game Code (CFGC), clearance surveys are typically required during the breeding season (generally February 1 to August 31 but as early as January 1 for raptors) prior to any ground disturbance or vegetation removal activities to avoid direct and indirect impacts to active bird nests and/or nesting birds. Consequently, if an active bird nest is destroyed or if construction activities result in indirect impacts to nesting birds (e.g., nest abandonment, loss of reproductive effort), it is considered "take" and is potentially punishable by fines and/or imprisonment.

- **Clean Water Act (33 USC §1251 et seq.):** Section 401 of the Clean Water Act (CWA) requires any applicant for a federal license or permit that is conducting any activity that may result in a discharge of a pollutant into waters of the United States to obtain a certification that the discharge will comply with the applicable effluent limitations and water quality standards. The Regional Water Quality Control Board (RWQCB) regulates Section 401 requirements.

  CWA Section 404 prohibits the discharge of dredged or fill material into waters of the United States without a permit from the US Army Corps of Engineers (USACE). The USACE and the US Environmental Protection Agency (EPA) administer the act.

#### State Requirements

- **California Fish and Game Code §§ 3503, 3503.5, and 3513 – Nesting Birds and Birds of Prey:** Sections 3503, 3503.5, and 3513 of the CFGC collectively provide legal protection for nesting birds and birds of prey in California and have similar requirements as the MBTA.

- **California Fish and Game Code § 1600 et seq. – Lake and Streambed Alteration Program:** CFGC Section 1602 requires any person, public utility, or state or local governmental agency to notify the California Department of Fish and Wildlife (CDFW) prior to initiating any activity that would: (1) substantially divert or obstruct the natural flow of any river, stream, or lake; (2) substantially

change or remove material from the bed, channel, or bank of any river, stream, or lake; or (3) deposit or dispose of debris, waste, or other material into any river, stream, or lake.

- **California Coastal Act – Public Resources Code §§ 30000–30900:** The City is entirely within the California Coastal Zone, as defined by the California Coastal Act of 1976 (Public Resources Code Division 20). Within the coastal zone, the California Coastal Commission (CCC) has regulatory authority over land use and environmental protection, including oversight of sensitive biological resources such as wetlands and environmentally sensitive habitat areas.

- **Health & Safety Codes §§ 7050.5, 7051, and 7054 (Protection of Human Remains):** California Health and Safety Code Sections 7050.5, 7051, and 7054 collectively address the illegality of interference with human burial remains as well as the disposition of Native American burials in archaeological sites. The law protects such remains from disturbance, vandalism, or inadvertent destruction and establishes procedures to be implemented if Native American skeletal remains are discovered during construction of a project, including the treatment of remains prior to, during, and after evaluation, and reburial procedures.

### Local Requirements

The Del Mar Municipal Code (DMMC) establishes a comprehensive regulatory framework to protect biological resources, floodways, parklands, natural open space areas, historically significant properties, and noise-sensitive receptors within the City. The following DMMC chapters are particularly relevant for ensuring compliance with CEQA and for guiding CIP project implementation.

- **Chapter 8.12 – San Dieguito Lagoon and River:** This chapter safeguards the biodiversity and ecological integrity of the San Dieguito Lagoon and River. It mandates the conservation of aquatic and upland ecosystems, supports habitat restoration, and promotes educational and recreational opportunities while protecting native wildlife and marine populations.

- **Chapter 9.20 – Noise Ordinance:** This chapter states sound level limits based on the receiving property's zone (Section 9.20.040), establishes construction noise restrictions, including day and time restrictions for construction work and a noise level limit of 75-dBA Leq on property zoned or used for residential purposes (Section 9.20.050), and prohibits noise from public nuisances such as horns, loud speaking amplifiers, and radios in in public parks and beach areas (Section 9.20.090). See Section 3.6, Noise and Vibration, for details.

- **Chapter 23.50 – Trees:** This chapter establishes regulations for the protection, management, and removal of trees within the City, emphasizing the preservation of the urban forest and native tree species. The ordinance identifies "protected trees" as Torrey pine (*Pinus torreyana*); Monterey cypress (*Cupressus macrocarpa*); any tree located within the Central Commercial (CC) Zone or Open Space (OS) Overlay Zone, public rights-of-way, or City-owned property, provided it meets size criteria (single trunk equal to or less than 20 inches circumference or multi-trunk equal to or less than 30 inches, measured 2 feet above ground); and trees planted as mitigation for prior removals. Removal or substantial alteration of a protected tree requires a Tree Removal Permit, typically supported by an assessment from a Certified Arborist, unless the tree qualifies for

specific exemptions. The ordinance reflects the City's commitment to ecological integrity, scenic character, and public safety through responsible tree stewardship protection, management, and regulated removal of significant tree species.

- **Chapter 30.29 – Floodway Zone (FW):** This zone preserves areas subject to floodwaters, reduces reliance on engineered flood control, and protects public health, safety, and property. It restricts development within designated floodways, including portions of the San Dieguito Lagoon, to maintain natural hydrology and minimize flood risk.

- **Chapter 30.30 – Public Parkland Zone (PP):** This zone designates publicly owned lands for use as parks or open space preserves, such as Crest Canyon Open Space. It ensures these areas are maintained for public recreation and ecological value, limiting incompatible development.

- **Chapter 30.31 – Public Facilities Zone (PF):** This zone is designed for publicly owned land set aside, or in use, to support public schools and governmental offices and facilities.

- **Chapter 30.50-51 – Beach Overlay Zone and Setback Seawall Permits:** The Beach Overlay Zone was established to regulate the uses of the Del Mar beach area, so as to protect public access to and along the shoreline, while promoting public safety, health and welfare, and providing for the protection of private property, pursuant to the City's Beach Preservation Initiative Ordinance. No development is allowed west of the Shoreline Protection Area line except for authorized protective structures, which are structures that are necessary to protect existing structures and/or public beaches from erosion and minimize risks to life and property from flood hazards, such as seawalls, riprap, and lifeguard facilities. The Setback Seawall Permit Ordinance regulates beach uses to the east of the Shoreline Protection Area line. This ordinance encourages seawalls and other types of protective devices, when needed, to be constructed landward (east) of the Shoreline Protection Area line.

- **Chapter 30.52 – Bluff, Slope, and Canyon Overlay Zone (BSC-OZ):** This overlay zone regulates development on bluffs, steep slopes, and canyon areas to prevent erosion, sedimentation, and habitat loss. It requires that projects incorporate measures to stabilize slopes using native vegetation and avoid adverse impacts to downstream resources.

- **Chapter 30.53 – Lagoon Overlay Zone:** This overlay zone provides additional protections for the biological resources of the San Dieguito Lagoon, including both wetland and sensitive upland habitats. It restricts activities that could degrade these resources and requires compliance with best management practices for habitat preservation.

- **Chapter 30.55 – Coastal Bluff Overlay Zone:** This overlay zone protects Del Mar's fragile coastal bluffs as a visual resource and avoid the risks to life and property associated with bluff failure and shoreline erosion. It restricts grading and construction activities within 40 feet of the top edge of a coastal bluff and requires geotechnical analysis for projects involving new construction on properties containing coastal bluffs.

- **Chapter 30.58 – Historic Preservation Overlay Zone (HP-OZ):** This overlay zone safeguards the architectural and historic integrity of properties deemed historically significant within the City limits. It regulates permitted uses and any construction/renovation projects on the parcels within the overlay zone and requires the changes to the property are similar to the landmark's historical period.

- **Chapter 30.60 – Open Space Overlay Zone (OS-OZ):** This overlay zone ensures the long-term preservation of open space areas, scenic vistas, and unique natural features, including the San Dieguito Lagoon, Crest Canyon Open Space, and adjacent bluffs and slopes. It limits development to uses compatible with open space conservation and ecological protection.

All CIP projects within areas protected by the DMMC must be designed and implemented in accordance with the protections and permitted uses specified in the applicable sections of the DMMC.

### Standard City Construction Noise Abatement Measures

The following standard abatement measures would reduce noise emissions during construction of the CIP projects, and therefore should be incorporated, to the extent possible, into future CIP projects:

- Construction activities shall only occur during allowed Monday through Friday between 7:00 a.m. and 7:00 p.m., and Saturday between 9:00 a.m. and 7:00 p.m. (DMMC §§ 9.20.050.B-C).

- No construction activities shall be conducted on Sundays or City holidays (DMMC § 9.20.050.A).

- Construction equipment, whether fixed or mobile, shall be equipped with properly operating and maintained mufflers pursuant to State requirements for noise attenuation devices.

- Construction equipment shall be maintained in accordance with manufacturer's recommendations during active construction activities.

- Construction equipment shall be placed such that noise is directed away from the nearest noise-sensitive land use (i.e., residences, schools, libraries, churches), as feasible.

- Construction equipment is encouraged to be shut off when not in use; equipment is prohibited from idling for more than 3 minutes.

- Distance between construction staging areas and noise-sensitive land uses should be maximized to the extent practicable.

- Electric-powered tools are encouraged.

- Properties owners and tenants adjacent to construction activities shall be notified in writing regarding project construction schedules at least 72 hours before the start of construction. A contact name and phone number to submit noise complaints 24 hours a day should be provided in the notice.

- An advance notice of construction activities shall be placed in a conspicuous, easily viewable place at the site for public viewing at least 72 hours before the start of construction.

### Standard City Traffic Control Measures

To reduce potential traffic-related safety hazards, a traffic control plan would be prepared and implemented for roadways and intersections that would be affected by the construction of a CIP project. The construction contractor would prepare a traffic control plan for roadways and intersections affected by the proposed improvements for approval by the City Engineer. The traffic control plan is encouraged to include, but not be limited to, the following elements based on local site and roadway conditions:

- Provide street layout showing location of construction activity and surrounding streets to be used as detour routes, including "special signage." Post a minimum 72-hour advance warning of construction activities within affected roadways to allow motorists to select alternative routes.

- Restrict delivery of construction materials to non-peak travel periods (9:00 a.m. to 3:00 p.m.) or as appropriate. Weekend and nighttime work shifts shall be allowed in non-residential areas only.

- Maintain the maximum travel-lane capacity during non-construction periods, and provide flagger-control as needed at construction sites to manage traffic control and flows.

- Limit the construction work zone in each block to a width that, at a minimum, maintains alternate one-way traffic flow past the construction zone.

- Maintain access for driveways and private roads, except for brief periods of construction, in which case property owners shall be notified.

- Require temporary steel-plate trench crossings, as needed, to maintain reasonable access to homes, businesses, and streets. When required by the City Engineer, maintain the existing lane configuration during non-working hours by covering the trench with steel plates or by using temporary backfill.

- Require appropriate warning signage and safety lighting for construction zones.

- Access for emergency vehicles shall be maintained at all times. Police, fire, and emergency services shall be notified of the timing, location, and duration of construction activities that could hinder and/or delay emergency access through the construction period.

- Coordinate with the North County Transit District to plan, as needed, for the temporary relocation of bus stops and/or detour of transit routes on affected storm water drainage alignments.

- Identify detours, where available, for bicyclists and pedestrians in areas potentially affected by project construction.

- Provide adequate off-street parking locations for workers' vehicles and construction equipment in those areas where on-street parking availability is insufficient.

- Repair and restore the roadway right-of-way to its original condition or better upon completion of work.

### 2.4.4. Activities Not Covered under this PEIR

This section discusses the CIP projects not covered under this PEIR. The CIP projects not covered by this PEIR will be required to comply with CEQA independent of this PEIR. Certain projects may be determined to be statutorily exempt from CEQA, while other projects may require preparation of subsequent CEQA documents.

#### Ministerial Projects

Ministerial projects refer to actions performed by government officials that are routine, follow established procedures, and require no judgment or discretion. Ministerial projects are those activities which have no discretionary provisions contained in a federal, state, or local law, regulation, or ordinance establishing the requirements for the permit, license, or other entitlement for use. Such activities are often dictated by law or policy and involve implementing operational procedures. Example of ministerial projects/activities conducted by the City include issuance of construction permits and business licenses, and approval of individual utility service connections and disconnections (CEQA Guidelines Section 15268[b]).

Pursuant to CEQA Guidelines Sections 15260 and 15268(a), ministerial projects are statutorily exempt from the requirements of CEQA. Accordingly, any ministerial activities related to the CIP or individual CIP projects are not analyzed in this PEIR.

#### Other Projects Statutorily Exempt from CEQA Review

In addition to ministerial projects, other projects are exempt from CEQA review. Such projects include those that are statutorily exempt from CEQA pursuant to CEQA Guidelines Sections 15260 through 15285. Statutory exemptions that are potentially applicable to the CIP include:

- **Emergency Projects** (CEQA Guidelines Section 15269) include, for example:
    - Projects to maintain, repair, restore, demolish, or replace property or facilities damaged or destroyed as a result of a disaster in a disaster-stricken area in which a state of emergency has been proclaimed by the Governor pursuant to the California Emergency Services Act;
    - Emergency repairs to publicly or privately owned service facilities necessary to maintain service essential to the public health, safety, or welfare; and
    - Specific actions necessary to prevent or mitigate an emergency, not including long-term projects undertaken for the purpose of preventing or mitigating a situation that has a low probability of occurrence in the short-term.

- **Other Statutory Exemptions** (CEQA Guidelines Section 15282) include, for example:
  - Restriping streets or highways to relieve traffic congestion as set forth in Section 21080.19 of the Public Resources Code;
  - Installation of new pipeline or maintenance, repair, restoration, removal, or demolition of an existing pipeline as set forth in Section 21080.21 of the Public Resources Code, if the project would be located within a public street, highway, or other public right-of-way; would not exceed one mile in length; and would not increase the service area or capacity; and
  - Minor alterations to utilities made for the purposes of complying with Sections 116410 and 116415 of the Health and Safety Code (which require public water systems with 10,000 or more service connections and naturally low fluoride levels to fluoridate the water supply) as set forth in Section 21080.26 of the Public Resources Code.

## 2.5. Required Approvals

The City of Del Mar is the lead agency for the project, as it is the agency with primary authority over the proposed CIP's discretionary approvals. As the lead agency, the City will be responsible for certification of the Final PEIR, as well as adoption of the associated Mitigation Monitoring and Reporting Program.

**TABLE 2-2 FY 2026-2027 WORK PLAN CIP PROJECTS**

| Tier Level[1] | Project Category | CIP Project Name | Project Description |
|---|---|---|---|
| 1 | Water | Annual Water System Priority Improvements | Water system repairs and improvements. |
| 1 | Water | Annual Water Valve Replacement Project | Replace broken water valves as identified in maintenance program. |
| 1 | Wastewater | Annual Wastewater System Priority Improvements | Wastewater system repairs and improvements. |
| 1 | Storm Water | Annual Storm Drain System Priority Improvement | Replacement of storm drain facilities that have surpassed their useful life. |
| 1 | Streets | Annual Bike Route Repairs | Repairing of bike lanes on major arterials, including Camino del Mar, Jimmy Durante Boulevard, Via de la Valle, and Carmel Valley Road. |
| 1 | Streets | Annual Pavement Management Program | Perform roadway repairs to major arterials and residential streets as identified in the annual pavement program. |
| 1 | Streets | Annual Small Area Pavement Repairs | Citywide small area asphalt paving/repairs. |
| 1 | Facilities | Annual Major Facility Repairs | Essential building (e.g., City Hall, Library, Public Works, Community Services, etc.) repairs, including exterior, doors/windows, electrical, plumbing, HVAC, and fire and security systems. |
| 1 | UP | Utility Undergrounding District 1B (Stratford North) | Undergrounding of aboveground dry utilities into joint trench and underground service laterals. |
| 1 | UP | Utility Undergrounding District 25th Street (20A) | Undergrounding of aboveground dry utilities into joint trench and underground service laterals. |
| 1 | UP | Utility Undergrounding District 2 (Beach Colony) | Undergrounding of aboveground dry utilities into joint trench and underground service laterals. |
| 2 | Storm Water | Coast Boulevard Stormwater Analysis and Infrastructure Alternatives Study | Improvements to storm water drainage in the Coast Boulevard area from 17th Street to 22nd Street, which has historically been subject to heavy flooding. |
| 3 | Open Space | Major Arterial Median Improvements | Installation of drought tolerant landscaping and irrigation efficiency enhancements along major arterial median segments, currently planned for four locations as Phase I of project, including along Camino del Mar from 15th Street to San Dieguito River Bridge; at the Jimmy Durante Boulvard/Via de la Valle Triangle; along the Jimmy Durante Boulvard Roundabout to the Camino del Mar Merge; and along Camino del Mar from 4th Street to 9th Street. |
| 3 | Facilities | Public Works Facility Improvements | Replacement of antiquated facilities within new office modular building, locker building, warehouse, workshop, wash rack, and equipment enclosure. |

Source: City of Del Mar 2026

1 Tier 1 = Essential Services (State Mandated/Legally or Contractually Required)
Tier 2 = Important Items that Support City Operations/Values (Not Mandated/Legally Required)
Tier 3 = Non-Essential Work Plan Items That Could be Deferred or Eliminated (Not Required)




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## Legend

- Project Site
- **Undergrounding Program Districts Boundaries**
  - Fairgrounds
  - Tewa Court
  - UUD 1A
  - UUD X1A
  - UUD 1B
  - UUD 2
  - UUD 3
  - UUD 4
  - UUD 5

Michael Baker INTERNATIONAL

0 0.25 0.5 Miles

Source: Esri, ArcGIS Online, City of Del Mar, San Diego County

CITY OF DEL MAR CIP STREAMLINING PROJECT
PROGRAM ENVIRONMENTAL IMPACT REPORT

# Undergrounding Program Districts

Figure 2-3a

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**Legend**

- Water Line
- Project Site

0 0.25 0.5 Miles

Source: Esri, ArcGIS Online, City of Del Mar, San Diego County

Michael Baker INTERNATIONAL

CITY OF DEL MAR CIP STREAMLINING PROJECT
PROGRAM ENVIRONMENTAL IMPACT REPORT

# Existing Water Infrastructure

Figure 2-3b

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**Legend**

- Wastewater Line
- Project Site

Michael Baker INTERNATIONAL

0 0.25 0.5 Miles

Source: Esri, ArcGIS Online, City of Del Mar, San Diego County

CITY OF DEL MAR CIP STREAMLINING PROJECT
PROGRAM ENVIRONMENTAL IMPACT REPORT

# Existing Wastewater Infrastructure

Figure 2-3c

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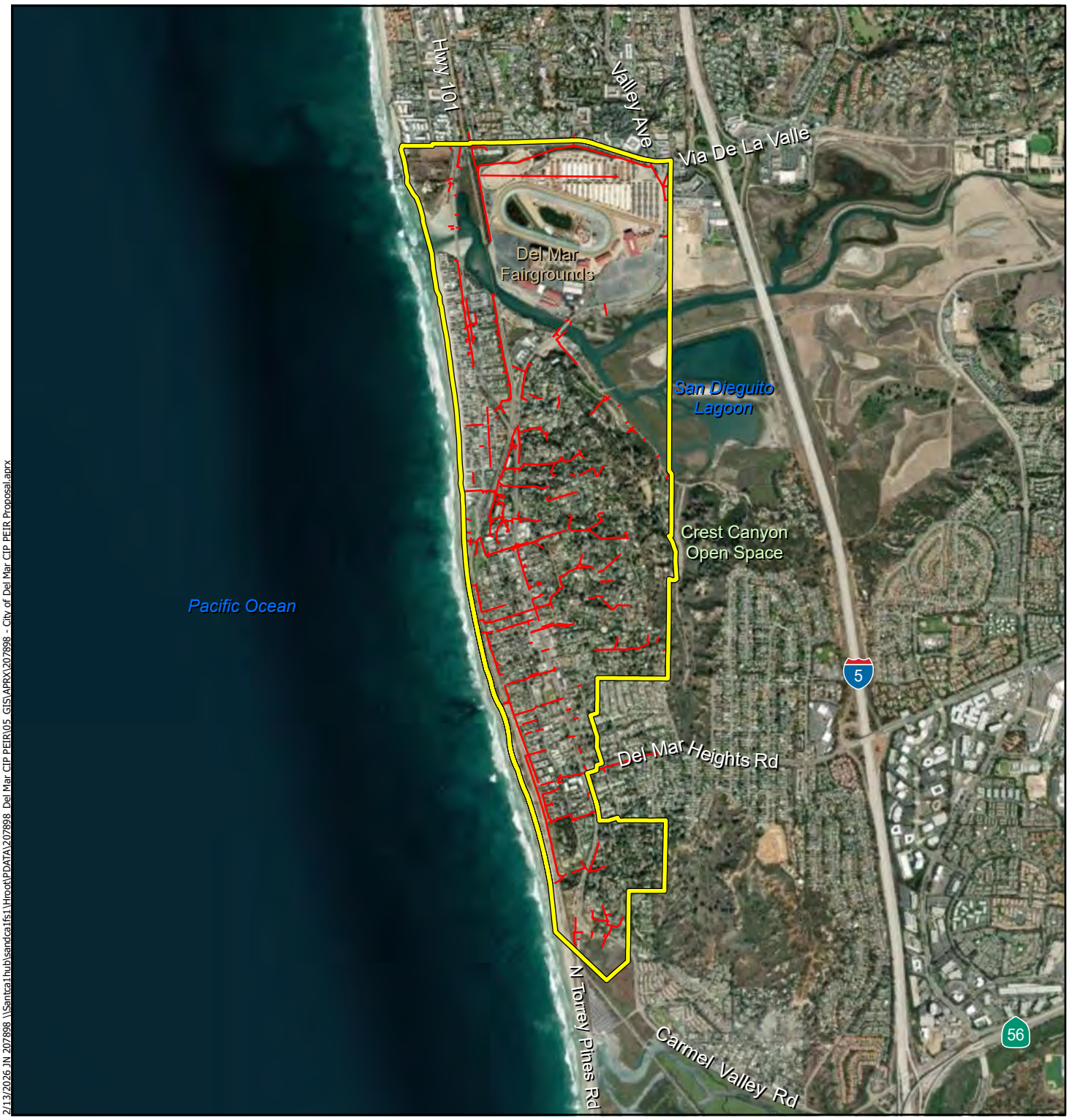


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**Legend**

- Storm Water Line
- Project Site

0 0.25 0.5 Miles

Source: Esri, ArcGIS Online, City of Del Mar, San Diego County

Michael Baker INTERNATIONAL

CITY OF DEL MAR CIP STREAMLINING PROJECT
PROGRAM ENVIRONMENTAL IMPACT REPORT

# Existing Storm Water Infrastructure

Figure 2-3d

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**Legend**

- Roads
- Bikeways
- Project Site

0 0.25 0.5 Miles

Source: Esri, ArcGIS Online, City of Del Mar, San Diego County

CITY OF DEL MAR CIP STREAMLINING PROJECT
PROGRAM ENVIRONMENTAL IMPACT REPORT

# Existing Streets Infrastructure

Figure 2-3e

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**Legend**

- Project Site
- Lifeguard Towers
- Municipal Facilities
- Restrooms
- Bridges

0 0.25 0.5 Miles

Source: Esri, ArcGIS Online, City of Del Mar, San Diego County

Michael Baker INTERNATIONAL

CITY OF DEL MAR CIP STREAMLINING PROJECT
PROGRAM ENVIRONMENTAL IMPACT REPORT

# Existing Municipal Facilities

Figure 2-3f

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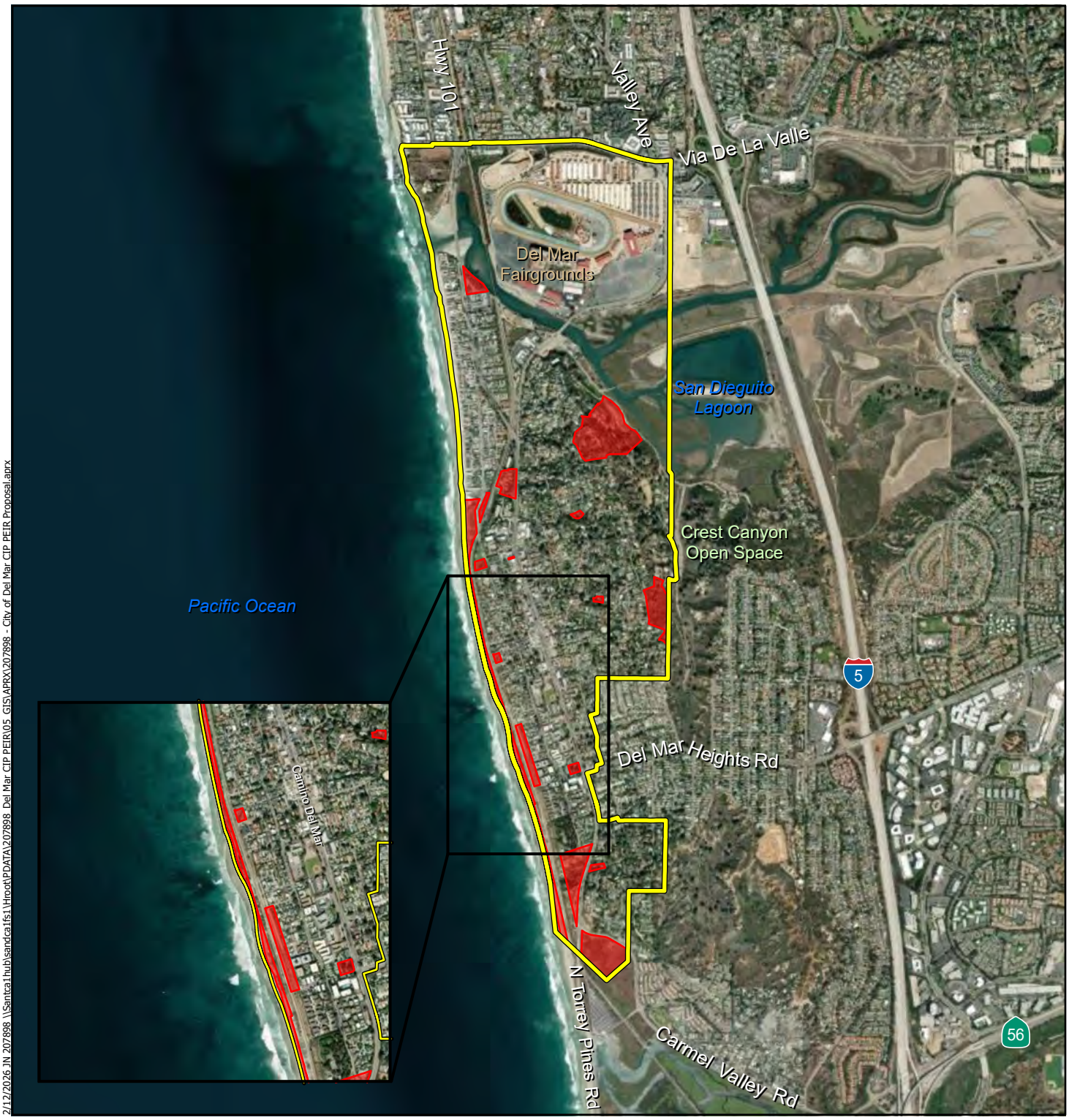


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**Legend**

- Project Site
- Open Space

0 0.25 0.5 Miles

Source: Esri, ArcGIS Online, City of Del Mar, San Diego County

Michael Baker INTERNATIONAL

CITY OF DEL MAR CIP STREAMLINING PROJECT
PROGRAM ENVIRONMENTAL IMPACT REPORT

# Existing Open Space

Figure 2-3g

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**Legend**

District 2 Limits

CITY OF DEL MAR CIP STREAMLINING PROJECT
PROGRAM ENVIRONMENTAL IMPACT REPORT

Michael Baker INTERNATIONAL

0 300 600 US Feet

Source: Esri, ArcGIS Online, City of Del Mar, San Diego County

## Utilities Undergrounding District 2 Project Site

Figure 2-4

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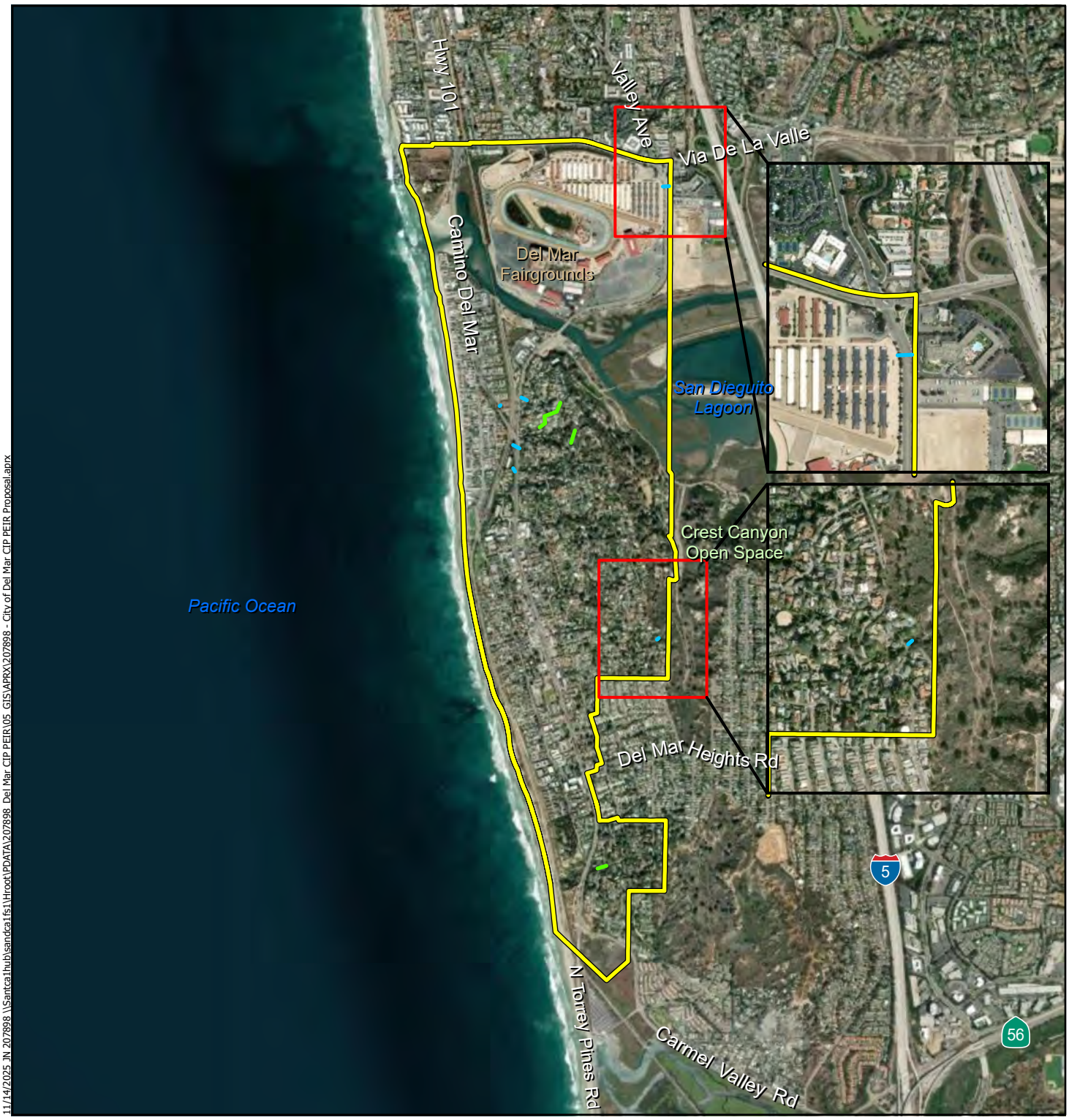


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**Legend**

- Sewer Locations
- Storm Drain Locations
- Project Site

CITY OF DEL MAR CIP STREAMLINING PROJECT
PROGRAM ENVIRONMENTAL IMPACT REPORT

# Storm Water and Sewer Infrastructure Improvement Project Site

Michael Baker INTERNATIONAL

0 0.25 0.5 Miles

Source: Esri, ArcGIS Online, City of Del Mar, San Diego County

Figure 2-5

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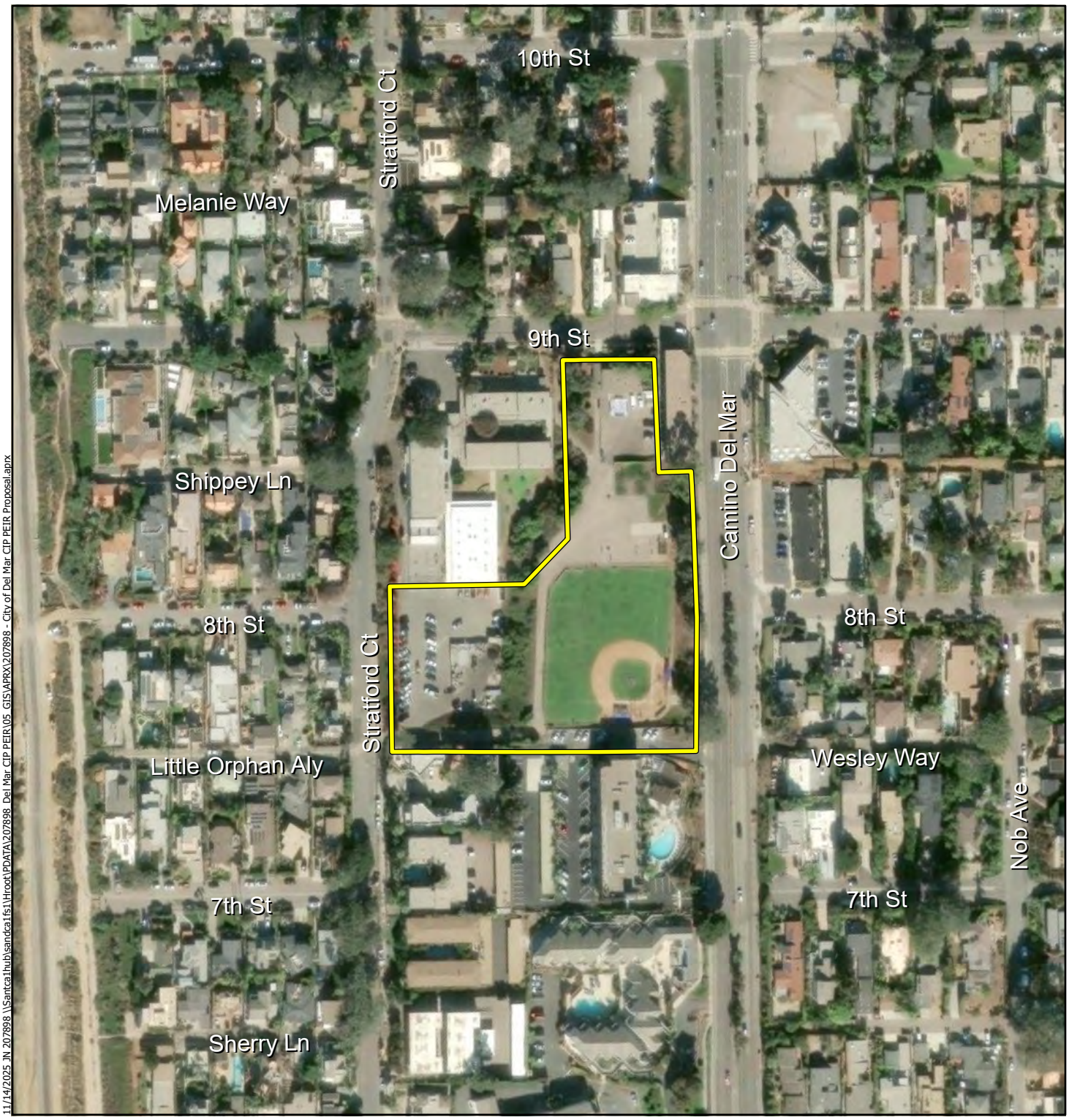


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**Legend**

Project Site

Michael Baker INTERNATIONAL

0 100 200 US Feet

Source: Esri, ArcGIS Online, City of Del Mar, San Diego County

CITY OF DEL MAR CIP STREAMLINING PROJECT
PROGRAM ENVIRONMENTAL IMPACT REPORT

## Shores Park Improvements Project Site

Figure 2-6

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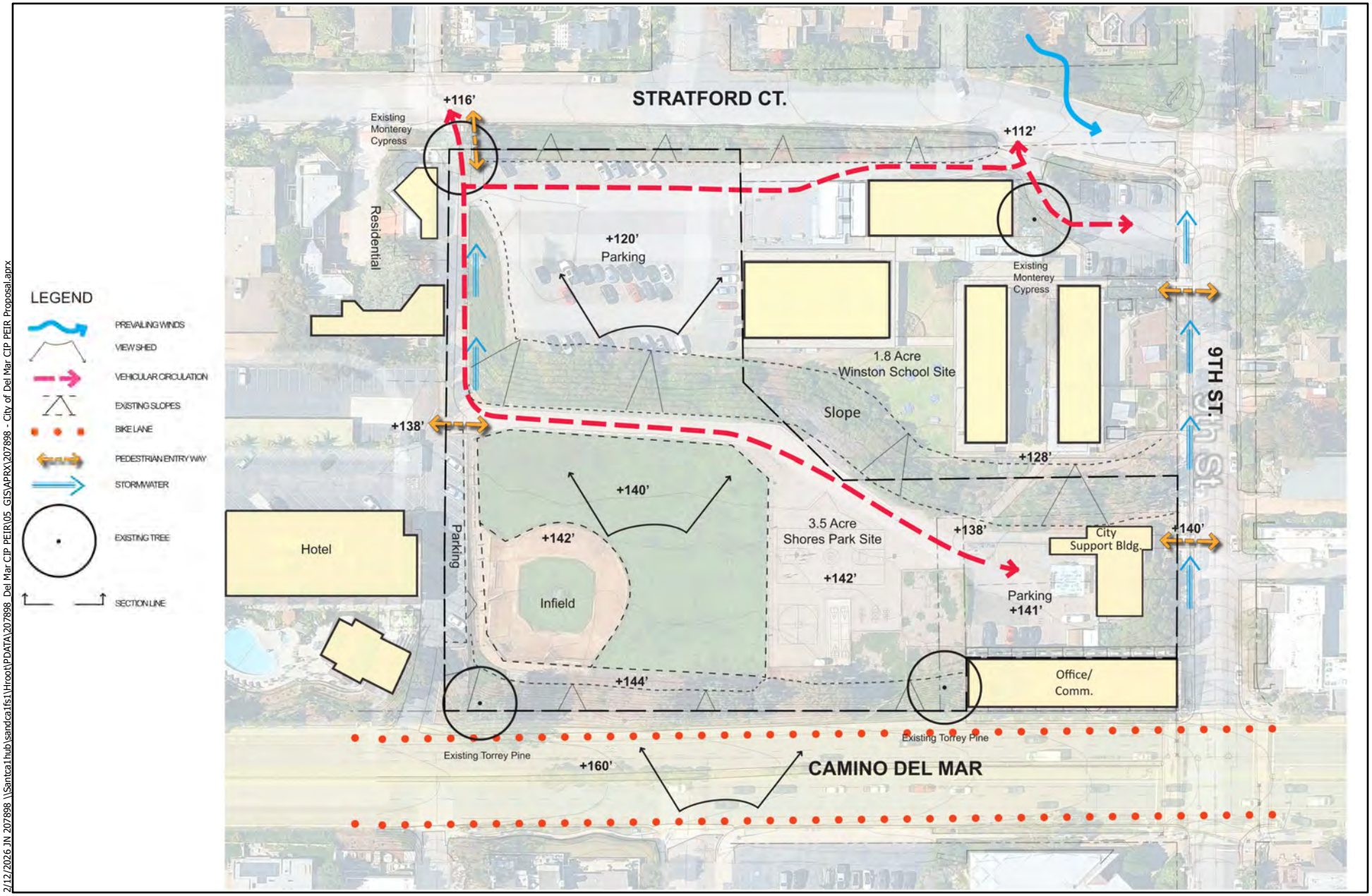


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CITY OF DEL MAR CIP STREAMLINING PROJECT
PROGRAM ENVIRONMENTAL IMPACT REPORT

# Shores Park Improvements Project
# Conceptual Site Plan

Michael Baker INTERNATIONAL

NOT TO SCALE

Source: Schmidt Design Group, Inc.

Figure 2-7

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# 3.0 ENVIRONMENTAL ANALYSIS

This Program Environmental Impact Report (PEIR) analyzes those environmental issue areas as stated in the Notice of Preparation (NOP) for which a potentially significant impact may occur (Appendix A, Notice of Preparation / Public Comments Received).

## Section Content and Definition of Terms

The PEIR examines the following environmental factors outlined in the California Environmental Quality Act (CEQA) Guidelines Appendix G Environmental Checklist Form, as follows:

- Air Quality
- Biological Resources
- Cultural Resources
- Geology and Soils
- Greenhouse Gas Emissions
- Noise and Vibration
- Tribal Cultural Resources

The following environmental issue areas are addressed in Chapter 4.0, Effects Not Found to Be Significant:

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

Each potentially significant environmental issue is addressed in a separate section of the PEIR (Section 3.1 through Section 3.7) and is organized into the following general subsections:

- **Environmental Setting** describes the physical conditions that exist at the time of PEIR preparation and that may influence or affect the environmental issue under investigation.

- **Regulatory Framework** describes the pertinent policy, standards, and codes that exist at the time of PEIR preparation and that may influence or affect the regulatory environment of the proposed project.

- **Significance Thresholds and Methodology** identifies the thresholds used in the analysis to determine whether a significant impact would occur, and describes the specific methodologies applied in conducting the analysis.

- **Impact Analysis and Mitigation Measures** applies the thresholds that are the basis of conclusions of significance, which are primarily the criteria identified in the CEQA Guidelines Appendix G Environmental Checklist. Mitigation measures are identified, as appropriate, for those impacts determined to be significant.

## Impact Analysis

The level of significance identifies the degree or severity of an impact with implementation of the proposed project. Project impacts are the potential environmental changes to the existing physical conditions that may occur if the proposed project is implemented. Impacts are classified as potentially significant impact, less than significant impact with mitigation incorporated, less than significant impact, or no impact.

Major sources used in crafting significance criteria include the CEQA Appendix G Guidelines; local, state, federal, or other standards applicable to an impact category; and officially established significance thresholds. “An ironclad definition of significant effect is not possible because the significance of any activity may vary with the setting” (CEQA Guidelines Section 15064[b][1]). Principally, “a substantial, or potentially substantial, adverse change in any of the physical conditions within an area affected by the project, including land, air, water, flora, fauna, ambient noise, and objects of historic and aesthetic significance” constitutes a significant impact (CEQA Guidelines Section 15382).

Evidence, based on factual and scientific data, is presented to show the cause-and-effect relationship between the proposed project and the potential changes in the environment. The exact magnitude, duration, extent, frequency, range, or other parameters of a potential impact are ascertained, to the extent possible, to determine whether impacts may be significant when compared to the presented criteria. Potential direct and reasonably foreseeable indirect, construction-related (short-term), and operational and maintenance (long-term) effects are considered. Each section also addresses cumulative impacts (described further below) and identifies any significant and unavoidable impacts.

## Mitigation Measures

Mitigation measures are those project-specific measures that would be required of the proposed project to avoid a significant adverse impact; minimize a significant adverse impact; rectify a significant adverse impact by restoration; reduce or eliminate a significant adverse impact over time by preservation and maintenance operations; or compensate for the impact by replacing or providing substitute resources or environment. Mitigation measures are identified in Section 3.1 through Section 3.7, where necessary, to address a potentially significant impact.

Where significant impacts cannot be feasibly mitigated to less than significant levels, they would be considered significant and unavoidable impacts. To approve a project with significant and unavoidable impacts, the lead agency must adopt a Statement of Overriding Considerations. In adopting such a

statement, the lead agency is required to balance the benefits of a project against its unavoidable environmental impacts in determining whether to approve the project. If the benefits of a project are found to outweigh the unavoidable adverse environmental effects, the adverse effects may be considered "acceptable" and the project approved (CEQA Guidelines Section 15093[a]).

## Cumulative Impact Evaluation

Cumulative impacts are defined in the CEQA Guidelines (Section 15355) as "two or more individual effects which, when considered together, are considerable or which compound or increase other environmental impacts." A cumulative impact occurs from a "change in the environment which results from the incremental impact of the project when added to other closely related past, present, and reasonably foreseeable probable future projects. Cumulative impacts can result from individually minor, but collectively significant, projects taking place over a period of time." Consistent with CEQA Guidelines Section 15130(a), the discussion in this PEIR focuses on the identification of significant cumulative impacts and, where present, the extent to which the proposed project would constitute a considerable contribution to the cumulative impact. CEQA Guidelines Section 15130(b) states the following:

> *The discussion of cumulative impacts shall reflect the severity of the impacts and their likelihood of occurrence, but the discussion need not provide as great of detail as is provided for the effects attributable to the project alone. The discussion should be guided by the standards of practicality and reasonableness and should focus on the cumulative impact to which the identified other projects contribute rather than the attributes of other projects which do not contribute to the cumulative impact.*

## Cumulative Impact Methodology

To identify the projects to be analyzed in the evaluation of cumulative impacts, CEQA Guidelines Section 15130(b) requires that a PEIR employ one of the following:

- **List Approach** – Entails listing past, present, and probable future projects producing related or cumulative impacts, including, if necessary, those projects outside of the control of the agency; or,

- **Projection Approach** – Uses a summary of projections contained in an adopted general plan or related planning document, or in a prior environmental document that has been adopted or certified, which described or evaluated regional or area-wide conditions contributing to the cumulative impact.

The approach and geographic scope of the cumulative impact evaluation vary depending on the environmental topic area being analyzed. The individual cumulative impacts discussion in the section addressing each environmental topic presents impacts and mitigation measures for the proposed project. Each impact begins with a summary of the approach and the geographic area relevant to that environmental topic area. For most environmental topic areas, the list approach is used.

Past projects include those land uses that have been previously constructed and comprise the existing environment. Present projects include those projects recently approved or under construction. Probable future projects are those that are reasonably foreseeable, such as those for which an application was on file and being processed with a lead agency at the time when the NOP was published. The cumulative projects listed in Table 3-1, Cumulative Projects, have been determined to be reasonably foreseeable by the City of Del Mar. These projects are considered in the cumulative impact analysis in each section of this PEIR, as appropriate. Refer to Figure 3-1, Cumulative Project Locations, for the location of each cumulative project.

CEQA does not require updating the cumulative project list following release of the NOP. However, the City has made a good faith effort to update cumulative project data, as appropriate, prior to release of the Draft PEIR for public review.

**TABLE 3-1 CUMULATIVE PROJECTS**

| No.[1] | Project Name | Lead Agency | Location[1] | Description |
|---|---|---|---|---|
| 1 | Camino del Mar Bridge Replacement Project | City of Del Mar | Camino del Mar Bridge over San Dieguito Lagoon | Replacement of existing Camino del Mar bridge |
| 2 | La Atalaya Project | City of Del Mar | Between Zapo and Gatun Streets, and Serpentine and San Dieguito Drive | Lot line adjustment of 8 lots to better accommodate environmental constraints and land use regulations |
| 3 | Water, Wastewater, Pavement, and Storm Drain Project | City of Del Mar | Various locations citywide[2] | Repair, maintenance, and minor alteration of existing water and sewer pipelines and pavement repairs |
| 4 | Sand Compatibility and Opportunistic Use Program | City of Del Mar | Within the bed, channel, and bank of the San Dieguito River, west of railroad track | Excavation and/or dredging of accumulated material from San Dieguito River |
| 5 | Jimmy Durante Blvd Bluff Stabilization Project | City of Del Mar | Bluff along to Jimmy Durante Boulevard | Extension of existing retaining wall by approximately 45 feet south |
| 6 | Del Mar Bluffs Emergency Repair at MP 245.4 | San Diego Association of Governments | Del Mar Bluffs area on Torrey Pines States Beach | Bluff repair work to secure track bed in existing alignment |
| 7 | San Diego LOSSAN Rail Re-alignment Project | San Diego Association of Governments | Within LOSSAN rail corridor within Del Mar and San Diego | Addition of second rail track |
| 8 | LOSSAN Rail Realignment Project – Geological Investigation | San Diego Association of Governments | Within LOSSAN rail corridor within Del Mar and San Diego | Geotechnical borings in approximately 34 locations and 5 geophysical survey lines |

**TABLE 3-1, CONTINUED**

| No.[1] | Project Name | Lead Agency | Location[1] | Description |
|---|---|---|---|---|
| 9 | I-5 Culvert Repair Project | California Department of Transportation, District 11 | Within I-5 right-of-way between Post Mile 36.48 and Post Mile 36.72 | Maintenance work to clean and repair multiple culverts along I-5 |
| 10 | Margaret Fleming Trail Repair and Reopen Project | California Department of Parks and Recreation | Torrey Pines State Natural Reserve | Repair work to lower section of trail to improve water flow |
| 11 | Del Mar Heights School Rebuild Project | Del Mar Union School District | Del Mar Heights School at 13555 Boquita Drive | Demolition of existing structures and construction of new school buildings |
| 12 | Riverpath Del Mar Phase 3 | City of Del Mar | Along San Dieguito Drive on the lagoon side between Grand Avenue Bridge and Crest Canyon | Extension of Riverpath Del Mar from Grand Avenue Bridge to Crest Canyon |
| 13 | Utility Undergrounding District X1A (Crest Canyon) | City of Del Mar | Crest Canyon area in Del Mar | Undergrounding of above ground dry utilities into joint trench and underground service laterals |
| 14 | San Dieguito Drive Improvements | City of Del Mar | Along San Dieguito Drive between Racetrack View Drive and Oribia Road | Improvements to San Dieguito Drive roadway between Racetrack View Drive and Oribia Road |

Source: LCI 2025.
LOSSAN = Los Angeles – San Diego – San Luis Obispo; MP = Mile Post
Note:
1 Refer to Figure 3-1, Cumulative Project Locations, for location of cumulative projects.
2 Not shown on Figure 3-1, Cumulative Project Locations.

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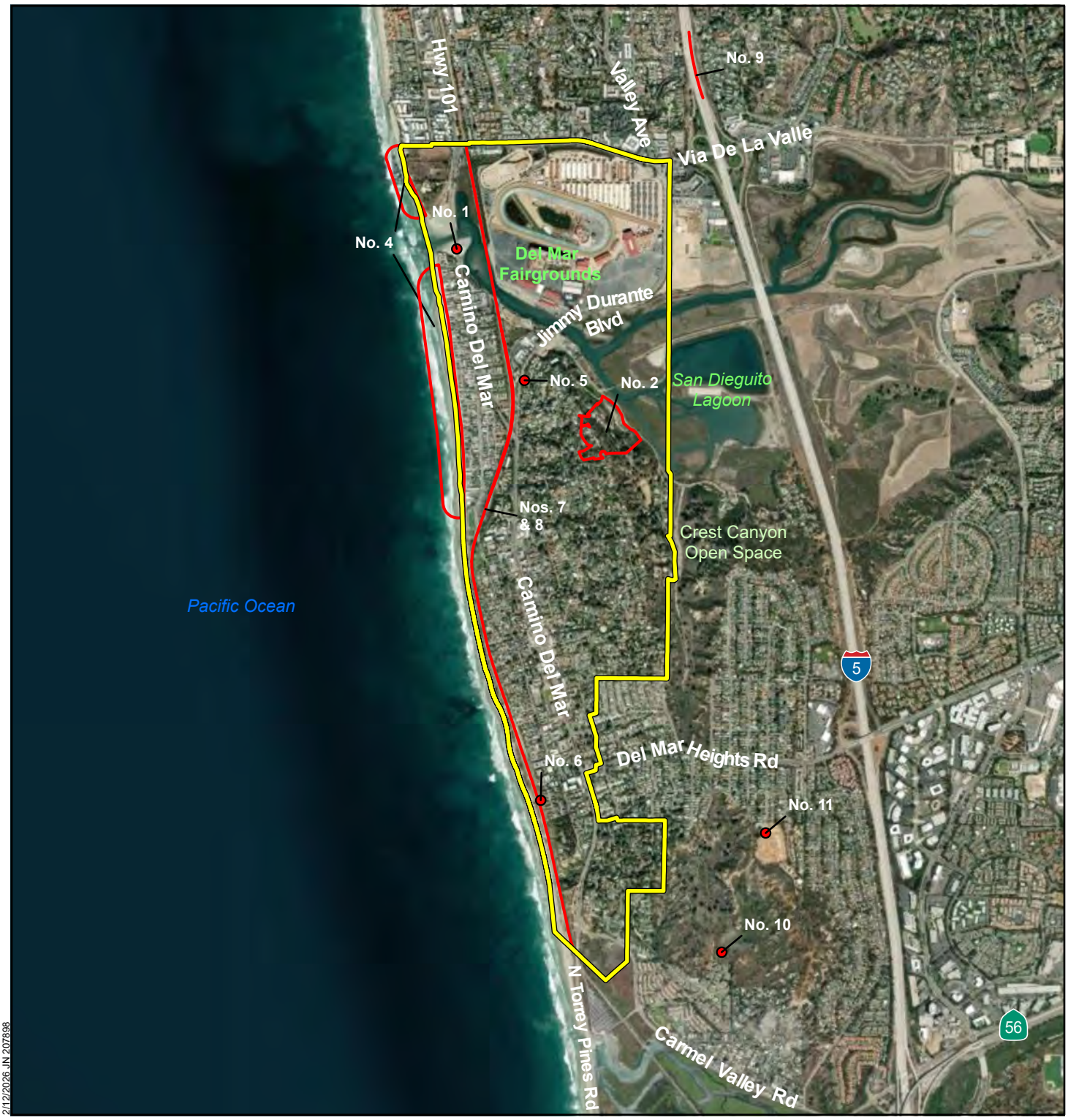


2/12/2026 JN 207898

**Legend**

Cumulative Project Location - refer to Table 3.0-1 for cumulative project information

Project Site

Michael Baker INTERNATIONAL

0 0.25 0.5 Miles

Source: Esri, ArcGIS Online, City of Del Mar, San Diego County

CITY OF DEL MAR CIP STREAMLINING PROJECT
PROGRAM ENVIRONMENTAL IMPACT REPORT

# Cumulative Project Locations

Figure 3-1

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# 3.1. Air Quality

This section discusses the environmental setting, existing conditions, regulatory context, and potential impacts of the proposed project in relation to air quality. Air quality impacts were assessed in accordance with methodologies recommended by the California Air Resources Board (CARB) and the San Diego Air Pollution Control District (SDAPCD).

This section is based on technical data from the following:

- *Air Quality/Greenhouse Gas Emissions Data,* prepared by Michael Baker International (Appendix D)

The following table provides a summary of impacts and significance findings, based on the analysis provided in Section 3.1.4, Project Impacts and Mitigation Measures. No significant and unavoidable impacts were identified.

**SUMMARY BY CIP PROJECT CATEGORY OF IMPACTS BY CIP CATEGORY – AIR QUALITY**

| Impact | UP | Water | Wastewater | Storm Water | Streets | Facilities | Open Space |
|---|---|---|---|---|---|---|---|
| Impact 3.1-1: Conflict with air quality plan | LTS | LTS | LTS | LTS | LTS | LTS | LTS |
| Impact 3.1-2: Cumulatively considerable net increase of criteria pollutant | LTS | LTS | LTS | LTS | LTS | LTS | LTS |
| Impact 3.1-3: Expose sensitive receptors to substantial pollutant concentrations | LTS | LTS | LTS | LTS | LTS | LTS | LTS |
| Impact 3.1-4: Other emissions such as objectionable odors | LTS | LTS | LTS | LTS | LTS | LTS | LTS |
| Impact 3.1-5: Project's contribution to cumulative air quality impacts | NCC | NCC | NCC | NCC | NCC | NCC | NCC |

Notes: LTS = Less than Significant; NCC = Not Cumulatively Considerable

## 3.1.1. Environmental Setting

Air quality and dispersion of air pollution in an area is determined by such natural factors as topography, meteorology, and climate, coupled with atmospheric stability. The factors affecting the dispersion of air pollution with respect to the air basin are discussed below.

### Topography

The project site (City of Del Mar) is located within the San Diego Air Basin (SDAB), a 4,260-square-mile area bounded by the Pacific Ocean to the west and high mountain ranges and desert to the east. The SDAB includes all of San Diego County with population and emissions concentrated mainly in the western portion of the County. Topography of the SDAB is highly varied, composed of coastal plains and lagoons, flatlands and mesas, broad valleys, canyons, foothills, mountains, and deserts.

Primary factors that influence air quality are the locations of air pollutant sources and the amount of pollutants emitted; however, meteorological and topographical conditions are also important. Factors such as wind speed and direction, air temperature, gradients and sunlight, and precipitation and humidity interact with physical landscape features to determine the movement and dispersion of air pollutants.

## Meteorology and Climate

The general region lies within a high-pressure zone of the eastern Pacific Ocean. As a result, the climate of the SDAB is classified as Mediterranean, with warm, dry summers and mild winters. The area experiences an average of 201 days above 70 degrees Fahrenheit and 9 to 13 inches of rainfall annually. During the fall season, the region experiences dry, warm easterly winds, locally referred to as the Santa Ana winds, which raise temperature and lower humidity. The SDAB experiences frequent temperature inversions. Subsidence inversions occur during the warmer months as descending air associated with the Pacific High-Pressure Zone meets cool marine air. The boundary between the two layers of air creates a temperature inversion that traps pollutants. Another type of inversion, a radiation inversion, develops on winter nights when air near the ground cools by heat radiation and air that is aloft remains warm. The shallow inversion layer formed between these two air masses also can trap pollutants. As the pollutants become more concentrated in the atmosphere, photochemical reactions occur that produce ozone ($O_3$), commonly known as smog.

Light daytime winds, predominantly from the west, further aggravate the condition by driving air pollutants inland toward the mountains. During the fall and winter, air quality problems are created due to carbon monoxide (CO) and oxides of nitrogen ($NO_x$) emissions. Concentrations of CO are generally higher in the morning and late evening. In the morning, CO levels are elevated due to cold temperatures and a larger number of motor vehicles traveling (i.e., commuting to work). Higher CO levels during the late evenings are a result of stagnant atmospheric conditions trapping CO in the area. Since CO is produced almost entirely from automobiles, the highest CO concentrations in the SDAB are associated with heavy traffic. Nitrogen dioxide ($NO_2$) levels are also generally higher during fall and winter days.

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

## Sensitive Receptors

Sensitive receptors are more susceptible to the effects of air pollution than the general population. Sensitive populations (sensitive receptors) in proximity to localized sources of toxics and CO are of concern. Land uses considered sensitive receptors include residences, schools, playgrounds, childcare centers, long-term health care facilities, rehabilitation centers, convalescent centers, and retirement homes.

The exact location of the project's construction activities are currently unknown and future projects undertaken with implementation of the CIP would occur throughout the City. The City is largely built out,

predominantly with single-dwelling unit and multi-dwelling unit residences and commercial uses, with relatively limited developable, vacant land area remaining. Sensitive receptors are located throughout the project area.

### Air Pollutants of Concern

Carbon Monoxide. CO is an odorless, colorless toxic gas that is emitted by mobile and stationary sources as a result of the incomplete combustion of hydrocarbons or other carbon-based fuels. In cities, automobile exhaust can cause as much as 95 percent of all CO emissions.

CO replaces oxygen in the body's red blood cells. Individuals with a deficient blood supply to the heart, patients with diseases involving heart and blood vessels, fetuses (unborn babies), and patients with chronic hypoxemia (oxygen deficiency) as seen in high altitudes are most susceptible to the adverse effects of CO exposure. People with heart disease are also more susceptible to developing chest pain when exposed to low levels of carbon monoxide.

Ozone. $O_3$ occurs in two layers of the atmosphere. The layer surrounding the earth's surface is the troposphere. The troposphere extends approximately 10 miles above ground level, where it meets the second layer, the stratosphere. The stratospheric (the "good" $O_3$ layer) extends upward from approximately 10 to 30 miles and protects life on earth from the sun's harmful ultraviolet rays. "Bad" $O_3$ is a photochemical pollutant and needs volatile organic compounds (VOCs), $NO_X$, and sunlight to form; therefore, VOCs and $NO_X$ are $O_3$ precursors. To reduce $O_3$ concentrations, it is necessary to control the emissions of these $O_3$ precursors. Significant $O_3$ formation generally requires an adequate number of precursors in the atmosphere and a period of several hours in a stable atmosphere with strong sunlight. High $O_3$ concentrations can form over large regions when emissions from motor vehicles and stationary sources are carried hundreds of miles from their origins.

While $O_3$ in the upper atmosphere (stratosphere) protects the earth from harmful ultraviolet radiation, high concentrations of ground-level $O_3$ (in the troposphere) can adversely affect the human respiratory system and other tissues. $O_3$ is a strong irritant that can constrict the airways, forcing the respiratory system to work hard to deliver oxygen. Individuals exercising outdoors, children, and people with preexisting lung diseases such as asthma and chronic pulmonary lung disease are considered to be the most susceptible to the health effects of $O_3$. Short-term exposure (lasting for a few hours) to $O_3$ at elevated levels can result in aggravated respiratory diseases such as emphysema, bronchitis, and asthma, shortness of breath, increased susceptibility to infections, inflammation of the lung tissue, and increased fatigue, as well as chest pain, dry throat, headache, and nausea.

Nitrogen Dioxide. $NO_X$ is a family of highly reactive gases that are a primary precursor to the formation of ground-level $O_3$ and react in the atmosphere to form acid rain. $NO_2$ (often used interchangeably with $NO_X$) is a reddish-brown gas that can cause breathing difficulties at elevated levels. Peak readings of $NO_2$ occur in areas that have a high concentration of combustion sources (e.g., motor vehicle engines, power plants, refineries, and other industrial operations). $NO_2$ can irritate and damage the lungs and lower resistance to respiratory infections such as influenza. The health effects of short-term exposure remain unclear. However, continued or frequent exposure to $NO_2$ concentrations that are typically much higher than those normally found in the ambient air may increase acute respiratory illnesses in children and increase the

incidence of chronic bronchitis and lung irritation. Chronic exposure to $NO_2$ may aggravate eyes and mucus membranes and cause pulmonary dysfunction.

Coarse Particulate Matter ($PM_{10}$). $PM_{10}$ refers to suspended particulate matter that is smaller than 10 microns or ten one-millionths of a meter. $PM_{10}$ arises from sources such as road dust, diesel soot, combustion products, construction operations, and dust storms. $PM_{10}$ scatters light and significantly reduces visibility. In addition, these particulates penetrate into the lungs and can potentially damage the respiratory tract. CARB has adopted amendments to the statewide 24-hour particulate matter standards based upon requirements set forth in the Children's Environmental Health Protection Act (Senate Bill 25).

Fine Particulate Matter ($PM_{2.5}$). Due to recent increased concerns over health impacts related to fine particulate matter (particulate matter 2.5 microns in diameter or less), both state and federal $PM_{2.5}$ standards have been created. Particulate matter impacts primarily affect infants, children, the elderly, and those with preexisting cardiopulmonary disease.

CARB adopted amendments for statewide annual ambient particulate matter air quality standards (2002). These standards were revised/established due to increasing concerns by CARB that previous standards were inadequate, as almost everyone in California is exposed to levels at or above the current state standards during some parts of the year, and the statewide potential for significant health impacts associated with particulate matter exposure was determined to be large and wide-ranging.

Sulfur Dioxide ($SO_2$). $SO_2$ is a colorless, irritating gas with a rotten egg smell; it is formed primarily by the combustion of sulfur-containing fossil fuels. $SO_2$ is often used interchangeably with sulfur oxides ($SO_X$). Exposure of a few minutes to low levels of $SO_2$ can result in airway constriction in some asthmatics.

Volatile Organic Compounds. VOCs are hydrocarbon compounds (any compound containing various combinations of hydrogen and carbon atoms) that exist in the ambient air. VOCs contribute to the formation of smog through atmospheric photochemical reactions and/or may be toxic. Compounds of carbon (also known as organic compounds) have different levels of reactivity; that is, they do not react at the same speed or do not form $O_3$ to the same extent when exposed to photochemical processes. VOCs often have an odor, and some examples include gasoline, alcohol, and the solvents used in paints. Exceptions to the VOC designation include carbon monoxide, carbon dioxide, carbonic acid, metallic carbides or carbonates, and ammonium carbonate. VOC is not considered a criteria pollutant; however, it is a precursor to $O_3$, which is a criteria pollutant. Due to the role VOC plays in $O_3$ formation, it is classified as a precursor pollutant and only a regional emissions threshold has been established. The terms VOC and ROG (see below) are often used interchangeably.

Reactive Organic Gases (ROG). Similar to VOCs, ROGs are also precursors in forming $O_3$ and consist of compounds containing methane, ethane, propane, butane, and longer chain hydrocarbons, which are typically the result of some type of combustion/decomposition process. Smog is formed when ROG and $NO_X$ react in the presence of sunlight. ROGs are a criteria pollutant since they are a precursor to $O_3$, which is a criteria pollutant. The terms ROG and VOC are often used interchangeably.

### 3.1.2. Regulatory Framework

#### Federal and State

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

CARB has established California Ambient Air Quality Standards (CAAQS), which are generally more restrictive than the NAAQS. The CAAQS describe adverse conditions; that is, pollution levels must be below these standards before an air basin can attain the standard. Air quality is considered "in attainment" if pollutant levels are continuously below the CAAQS and violate the standards no more than once each year. The CAAQS for $O_3$, CO, $SO_2$ (1-hour and 24-hour), $NO_2$, $PM_{10}$, $PM_{2.5}$, and visibility-reducing particles are values that are not to be exceeded. All others are not to be equaled or exceeded. The NAAQS and CAAQS are presented in Table 3.1-1, Ambient Air Quality Standards.

**TABLE 3.1-1 AMBIENT AIR QUALITY STANDARDS**

| Pollutant | Averaging Time | California Standards | National Standard: Primary | National Standard: Secondary |
|---|---|---|---|---|
| $O_3$ | 1 hour | 0.09 ppm (180 µg/m³) | — | Same as Primary Standard |
| $O_3$ | 8 hours | 0.070 ppm (137 µg/m³) | 0.070 ppm (137 µg/m³) | Same as Primary Standard |
| $NO_2$ | 1 hour | 0.18 ppm (339 µg/m³) | 0.100 ppm (188 µg/m³) | Same as Primary Standard |
| $NO_2$ | Annual Arithmetic Mean | 0.030 ppm (57 µg/m³) | 0.053 ppm (100 µg/m³) | Same as Primary Standard |
| CO | 1 hour | 20 ppm (23 mg/m³) | 35 ppm (40 mg/m³) | None |
| CO | 8 hours | 9.0 ppm (10 mg/m³) | 9 ppm (10 mg/m³) | |
| $SO_2$ | 1 hour | 0.25 ppm (655 µg/m³) | 0.075 ppm (196 µg/m³) | — |
| $SO_2$ | 3 hours | — | — | 0.5 ppm (1,300 µg/ m³) |
| $SO_2$ | 24 hours | 0.04 ppm (105 µg/m³) | 0.14 ppm (for certain areas) | — |
| $SO_2$ | Annual | — | 0.030 ppm (for certain areas) | — |
| $PM_{10}$ | 24 hours | 50 µg/m³ | 150 µg/m³ | Same as Primary Standard |
| $PM_{10}$ | Annual Arithmetic Mean | 20 µg/m³ | — | Same as Primary Standard |
| $PM_{2.5}$ | 24 hours | — | 35 µg/m³ | Same as Primary Standard |
| $PM_{2.5}$ | Annual Arithmetic Mean | 12 µg/m³ | 12.0 µg/m³ | 15.0 µg/m³ |
| Lead | 30-day Average | 1.5 µg/m³ | — | — |
| Lead | Calendar Quarter | — | 1.5 µg/m³ (for certain areas) | Same as Primary Standard |
| Lead | Rolling 3-Month Average | — | 0.15 µg/m³ | Same as Primary Standard |
| Hydrogen sulfide | 1 hour | 0.03 ppm (42 µg/m³) | — | — |
| Vinyl chloride | 24 hours | 0.01 ppm (26 µg/m³) | — | — |
| Sulfates | 24 hours | 25 µg/m³ | — | — |
| Visibility-reducing particles | 8 hours (10:00 a.m. to 6:00 p.m. PST) | Insufficient amount to produce an extinction coefficient of 0.23 per kilometer due to the number of particles when the relative humidity is less than 70% | — | — |

Sources: California Air Resources Board 2024; US Environmental Protection Agency 2025

Notes: µg/m³ = micrograms per cubic meter; CO = carbon monoxide; mg/m³ = milligrams per cubic meter; $NO_2$ = nitrogen dioxide; $O_3$ = ozone; $PM_{10}$ = particulate matter with an aerodynamic diameter less than or equal to 10 microns; $PM_{2.5}$ = particulate matter with an aerodynamic diameter less than or equal to 2.5 microns; ppm = parts per million by volume; $SO_2$ = sulfur dioxide

## Regional

### San Diego County Regional Air Quality Strategy

The SDAPCD is the local agency responsible for the administration and enforcement of air quality regulations in San Diego County. The air district regulates most air pollutant sources, except for motor vehicles, marine vessels, aircraft, and agricultural equipment, which are regulated by CARB or the US Environmental Protection Agency. State and local government projects, as well as projects proposed by the private sector, are subject to SDAPCD requirements if the sources are regulated by the district. Additionally, the SDAPCD, along with CARB, maintains and operates ambient air quality monitoring stations at numerous locations throughout San Diego County. These stations are used to measure and monitor criteria and toxic air pollutant levels in the ambient air.

The SDAPCD and the San Diego Association of Governments (SANDAG) are responsible for developing and implementing the clean air plan for attainment and maintenance of the ambient air quality standards in the SDAB; refer to Table 3.1-2, San Diego Air Basin Attainment Status by Pollutant. The San Diego County Regional Air Quality Strategy (RAQS) outlines the air district's plans and control measures designed to attain the state air quality standards for ozone. The SDAPCD has also developed input into the State Implementation Plan (SIP), which is required under the federal Clean Air Act for pollutants that are designated as being in nonattainment of the NAAQS for the basin.

**TABLE 3.1-2 SAN DIEGO AIR BASIN ATTAINMENT STATUS BY POLLUTANT**

| Criteria Pollutant | Federal Designation | State Designation |
|---|---|---|
| Ozone (8-Hour) | Nonattainment | Nonattainment |
| Ozone (1-Hour) | Attainment * | Nonattainment |
| Carbon Monoxide | Attainment | Attainment |
| $PM_{10}$ | Unclassifiable ** | Nonattainment |
| $PM_{2.5}$ | Attainment | Nonattainment*** |
| Nitrogen Dioxide | Attainment | Attainment |
| Sulfur Dioxide | Attainment | Attainment |
| Lead | Attainment | Attainment |
| Sulfates | No Federal Standard | Attainment |
| Hydrogen Sulfide | No Federal Standard | Unclassified |
| Visibility | No Federal Standard | Unclassified |

Source: SDAPCD 2026

Notes:

* The federal 1-hour standard of 12 pphm [parts per hundred million] was in effect from 1979 through June 15, 2005. The revoked standard is referenced here because it was employed for such a long period and because this benchmark is addressed in State Implementation Plans.

** At the time of designation, if the available data does not support a designation of attainment or nonattainment, the area is designated as unclassifiable.

*** The California Air Resources Board (CARB) has not reclassified the region to attainment yet due to (1) incomplete data, and (2) the use of non-California Approved Samplers (CAS). While data collected does meet the requirements for designation of attainment with federal PM2.5 standards, the data completeness requirements for state PM2.5 standards substantially exceed federal requirements and mandates, and have historically not been feasible for most air districts to adhere to given local resources. SDAPCD has begun replacing most regional filter-based PM2.5 monitors as they reach the end of their useful life with continuous PM2.5 air monitors to ensure collected data meets stringent completeness requirements in the future. SDAPCD anticipates these new monitors will be approved as "CAS" monitors once CARB review the list of approved monitors, which has not been updated since 2013.

The RAQS relies on information from CARB and SANDAG, such as mobile and area source emissions, as well as information from local jurisdictions regarding projected growth, to forecast future emissions and establish the strategies necessary for the reduction of emissions through regulatory controls. Projects that propose development consistent with the growth anticipated by the Regional Transportation Plan/Sustainable Communities Strategy would be consistent with the RAQS. In the event that a project proposes development that is less intensive than anticipated in the RAQS, the project would likewise be consistent with the RAQS. If a project proposes development that is greater than anticipated in the growth projections, the project could conflict with the RAQS and the SIP, and could have a potentially significant impact on air quality.

The SIP relies on the same information from SANDAG to develop emissions inventories and emissions reduction strategies that are included in the attainment demonstration for the air basin. The plan also includes rules and regulations that have been adopted by the SDAPCD to control emissions from stationary sources. These SIP-approved rules may be used as guidelines to determine whether a project's emissions would have the potential to conflict with the SIP and thereby hinder attainment of the NAAQS for ozone.

**SDAPCD Measures to Reduce Particulate Matter in San Diego County**

The SDAPCD has adopted the *Measures to Reduce Particulate Matter in San Diego County*, which identifies fugitive dust as the major source of directly emitted particulate matter in the County, with mobile sources and residential wood combustion as minor contributors. Data on $PM_{2.5}$ source apportionment indicates that the main contributor to $PM_{2.5}$ in the County is combustion organic carbon, followed closely by ammonium sulfate and ammonium nitrate from combustion sources. The main contributors to $PM_{10}$ include resuspended soil and road dust from unpaved and paved roads, construction and demolition sites, and mineral extraction and processing. Based on the report's evaluation of control measures recommended by CARB to reduce particulate matter emissions, the SDAPCD adopted Rule 55, Fugitive Dust Control (2009). The SDAPCD requires that construction activities implement the measures listed in Rule 55 to minimize fugitive dust emissions:

> *No person shall engage in construction or demolition activity in a manner that discharges visible dust emissions into the atmosphere beyond the property line for a period or periods aggregating more than 3 minutes in any 60-minute period.*
>
> *Visible roadway dust as a result of active operations, spillage from transport trucks, erosion, or track-out/carry-out shall be minimized by the use of any of the equally effective track-out/carry-out and erosion control measures listed in Rule 55 that apply to the project or operation. These measures include track-out grates or gravel beds at each egress point; wheel-washing at each egress during muddy conditions; soil binders, chemical soil stabilizers, geotextiles, mulching, or seeding; watering for dust control; and using secured tarps or cargo covering, watering, or treating of transported material for outbound transport trucks. Erosion control measures must be removed at the conclusion of each workday when active operations cease, or every 24 hours for continuous operations.*

In addition, the SDAPCD established Rule 20.2, New Source Review, Non-Major Stationary Source, which outlines the screening criteria for the preparation of air quality impact assessments. Should emissions be found to exceed these thresholds, additional modeling would be required to demonstrate that a project's total air quality impacts are below the state and federal ambient air quality standards. These screening thresholds for construction and daily operations are shown in Table 3.1-3, Screening Thresholds for Criteria Pollutants.

**TABLE 3.1-3 SCREENING THRESHOLDS FOR CRITERIA POLLUTANTS**

| Emission Type | Pollutant | Total Emissions (Pounds per Day) | Total Emissions (Tons per Year) |
|---|---|---|---|
| Construction Emissions | Respirable Particulate Matter ($PM_{10}$ and $PM_{2.5}$) | 100 and 55 | 15 |
| Construction Emissions | Nitrogen Oxide ($NO_x$) | 250 | 40 |
| Construction Emissions | Sulfur Oxide ($SO_x$) | 250 | 40 |
| Construction Emissions | Carbon Monoxide (CO) | 550 | 100 |
| Construction Emissions | Volatile Organic Compounds (VOC) | 75 | 40 |
| Construction Emissions | Reactive Organic Gases (ROG) | 75 | 40 |
| Operational Emissions | Respirable Particulate Matter ($PM_{10}$ and $PM_{2.5}$) | 100 and 55 | 15 |
| Operational Emissions | Nitrogen Oxide ($NO_x$) | 250 | 40 |
| Operational Emissions | Sulfur Oxide ($SO_x$) | 250 | 40 |
| Operational Emissions | Carbon Monoxide (CO) | 550 | 100 |
| Operational Emissions | Lead and Lead Compounds | 3.2 | 0.6 |
| Operational Emissions | Volatile Organic Compounds (VOCs)* | 75 | 40 |
| Operational Emissions | Reactive Organic Gases (ROG) SCAQMD | 75 | 40 |

Source: SDAPCD 1994.
Notes: * Since the SDAPCD does not have air quality impact assessment threshold for emissions of VOCs, analysis for this project uses the VOC threshold from the South Coast Air Quality Management District (SCAQMD).

### SDAPCD Rule 51 - Odor Impacts

The State of California Health and Safety Code, Division 26, Part 4, Chapter 3, Section 41700 and SDAPCD Rule 51, Nuisance, prohibit emissions from any source in such quantities of air contaminants or other material that cause injury, detriment, nuisance, or annoyance to the public health or damage to property. Projects required to obtain permits from the SDAPCD are evaluated by SDAPCD staff for potential odor nuisance, and conditions may be applied (or control equipment required) where necessary to prevent occurrence of public nuisance.

SDAPCD Rule 51 also prohibits emission of any material that causes nuisance to a considerable number of people or endangers the comfort, health, or safety of any person. A project that proposes a use that would produce objectionable odors would be deemed to have a significant odor impact if it would affect a considerable number of off-site receptors. Odor issues are subjective by the nature of odors themselves

and due to the fact that their measurements are difficult to quantify. Therefore, this guideline is qualitative and focuses on existing and potential surrounding uses and the location of sensitive receptors.

### Local

**City of Del Mar Community Plan**

The City of Del Mar Community Plan (which serves as the City's General Plan) is the primary source of long-range planning and policy direction used to guide growth and preserve the quality of life in the City. The following goals and policies are relevant in protecting air quality:

*Community Plan: Environmental Management*

GOAL 1: Establish without delay a comprehensive program to preserve and acquire permanent open space sufficient to meet the long-range needs of the community, preserve and enhance natural resources, and protect areas and people susceptible to seismic and flooding hazards.

Policy H.5: Minimize particulate matter pollution that leads to sedimentation or siltation through implementation of erosion control plans and permits for new and redevelopment projects which pose such a threat to water quality.

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

Policy I.17: Prohibit adverse environmental impacts from all types of uses and/or pollution including, but not limited to, public access, visual blight, noise, light, air, and water pollution.

*Community Plan: Transportation*

GOAL 2: Minimize the impact of the automobile on the character of Del Mar and emphasize a more pedestrian oriented environment, safer sidewalks, landscaped buffer zones, and alternate means of transportation.

Policy F.1: Promote the reduction of vehicle-miles-traveled, thereby reducing congestion and reducing air and water pollution.

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

## 3.1.3. Significance Thresholds

The State of California has developed guidelines to address the significance of air quality impacts based on Appendix G of the CEQA Guidelines. The proposed project would have a significant impact related to air quality if it would:

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

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

3. Expose sensitive receptors to substantial pollutant concentrations.

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

### 3.1.4. Project Impacts and Mitigation Measures

#### *Conflict with Air Quality Plan*

| | |
|---|---|
| **Impact 3.1-1** | **The project would not conflict with or obstruct implementation of the applicable air quality plan. Impacts would be less than significant.** |

Conformance with the 2022 RAQS and SIP determines whether a project would conflict with or obstruct implementation of the applicable air quality plans. Because CARB mobile source emission projections and SANDAG growth projections are based on population and vehicle trends and land use plans developed by local jurisdictions as part of their general plans, projects that propose development consistent with the growth anticipated by the general plan are assumed to be consistent with the RAQS and SIP. In the event a project proposes development that is less dense than anticipated by the general plan, the project would likewise be consistent with the RAQS and SIP.

Given the nature of the proposed project, it is not anticipated to result in direct or indirect population growth and would not affect City plans for growth. After CIP projects are constructed, the project would not result in increased routine maintenance activities beyond existing conditions, and therefore would not increase employment within the City. The project would not alter existing City Community Plan land use or zoning designations. The project also would not permanently change the existing or planned transportation network or traffic patterns anywhere in the SDAB. As such, the proposed project would be consistent with the City's Community Plan land use and zoning designations and SANDAG's growth projections.

Based on the above, the project would not conflict with or obstruct implementation of the 2022 RAQS or SIP, and impacts would be **less than significant**.

**Mitigation Measures:** None required.

**Level of Significance:** Less than significant.

## *Net Increase of Criteria Pollutant*

| | |
|---|---|
| **Impact 3.1-2** | **The project would not 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. Impacts would be less than significant.** |

### Construction Impacts

This analysis estimates the construction-related air pollutant emissions of the proposed project, based on construction schedule and land use types, using the California Emissions Estimator Model version 2022.1 (CalEEMod). The CalEEMod result sheets are provided in Appendix D, Air Quality/Greenhouse Gas Emissions Data.

As discussed in Chapter 2.0, Project Description, the proposed project is composed of numerous improvement projects related to public infrastructure and facilities. Due to the programmatic nature of the project (i.e., streamlining implementation of the City's CIP projects), the exact location and timing of future CIP projects are currently unknown. To analyze potential air quality impacts associated with the seven CIP categories, the four representative CIP projects included in Chapter 2.0, Project Description. Refer to Section 2.4.4, Representative CIP Projects, for project information, including anticipated construction equipment and estimated duration of construction activities.

Air quality modeling was performed in general accordance with the statutory requirements outlined in the 2022 RAQS (SDAPCD 2022) to identify construction emissions associated with the four representative CIP projects. Emissions estimates were compared with the recommended thresholds of significance developed by the SDAPCD to determine if project emissions are likely to cause a significant adverse impact associated with emissions of criteria pollutants.

#### Project No. 1 – Utilities Undergrounding District 2 (Beach Colony)

Table 3.1-4, Project No. 1: Maximum Daily Construction Emissions, presents anticipated daily short-term construction emissions associated with Project No. 1.

**TABLE 3.1-4 PROJECT NO. 1: MAXIMUM DAILY CONSTRUCTION EMISSIONS**

| | ROG (lbs/day) | $NO_x$ (lbs/day) | CO (lbs/day) | $SO_2$ (lbs/day) | $PM_{10}$ (lbs/day) | $PM_{2.5}$ (lbs/day) |
|---|---|---|---|---|---|---|
| **Emissions** | 1.32 | 10.7 | 15.6 | 0.02 | 1.21 | 0.53 |
| *SDAPCD Threshold* | *75* | *250* | *550* | *250* | *100* | *55* |
| **Significant Impact?** | **No** | **No** | **No** | **No** | **No** | **No** |

Source: Appendix D, Air Quality/Greenhouse Gas Emissions Data

Notes:

- Emissions were calculated using CalEEMod version 2022.1. Emissions in this table represent the highest emissions, either winter or summer, to provide a conservative analysis (refer to Appendix D).
- Modeling assumptions include compliance with SDAPCD Rule 55, Fugitive Dust Control, which requires the following: properly maintain mobile and other construction equipment; water exposed surfaces three times daily; limit speeds on unpaved roads to 15 miles per hour; and other measures.
- The numbers may be slightly off due to rounding.

As indicated in Table 3.1-4, criteria pollutant emissions during construction of Project No. 1 would be well below the SDAPCD significance thresholds. Accordingly, construction-related air emissions associated with Project No. 1 would be less than significant.

**Project No. 2 – Roadway Widening Project**

Table 3.1-5, Project No. 2: Maximum Daily Construction Emissions, presents the anticipated daily short-term construction emissions associated with Project No. 2.

**TABLE 3.1-5 PROJECT NO. 2: MAXIMUM DAILY CONSTRUCTION EMISSIONS**

| | ROG (lbs/day) | $NO_x$ (lbs/day) | CO (lbs/day) | $SO_2$ (lbs/day) | $PM_{10}$ (lbs/day) | $PM_{2.5}$ (lbs/day) |
|---|---|---|---|---|---|---|
| **Emissions** | 1.13 | 9.53 | 15.2 | 0.02 | 0.72 | 0.41 |
| *SDAPCD Threshold* | *75* | *250* | *550* | *250* | *100* | *55* |
| **Significant Impact?** | **No** | **No** | **No** | **No** | **No** | **No** |

Source: Appendix D, Air Quality/Greenhouse Gas Emissions Data
Notes:

- Emissions were calculated using CalEEMod version 2022.1. Emissions in this table represent the highest emissions, either winter or summer, to provide a conservative analysis (refer to Appendix D).
- Modeling assumptions include compliance with SDAPCD Rule 55, Fugitive Dust Control, which requires the following: properly maintain mobile and other construction equipment; water exposed surfaces three times daily; limit speeds on unpaved roads to 15 miles per hour; and other measures.
- The numbers may be slightly off due to rounding.

As indicated in Table 3.1-5, criteria pollutant emissions during construction of Project No. 2 would be well below the SDAPCD significance thresholds. Accordingly, construction-related air emissions associated with Project No. 2 would be less than significant.

**Project No. 3 – Storm Water and Sewer Infrastructure Improvement Project**

Table 3.1-6, Project No. 3: Maximum Daily Construction Emissions, presents the anticipated daily short-term construction emissions associated with Project No. 3.

**TABLE 3.1-6 PROJECT NO. 3: MAXIMUM DAILY CONSTRUCTION EMISSIONS**

| | ROG (lbs/day) | $NO_x$ (lbs/day) | CO (lbs/day) | $SO_2$ (lbs/day) | $PM_{10}$ (lbs/day) | $PM_{2.5}$ (lbs/day) |
|---|---|---|---|---|---|---|
| **Emissions** | 1.85 | 17.8 | 19.0 | 0.04 | 0.97 | 0.72 |
| *SDAPCD Threshold* | *75* | *250* | *550* | *250* | *100* | *55* |
| **Significant Impact?** | **No** | **No** | **No** | **No** | **No** | **No** |

Source: Appendix D, Air Quality/Greenhouse Gas Emissions Data
Notes:

- Emissions were calculated using CalEEMod version 2022.1. Emissions in this table represent the highest emissions, either winter or summer, to provide a conservative analysis (refer to Appendix D).
- Modeling assumptions include compliance with SDAPCD Rule 55, Fugitive Dust Control, which requires the following: properly maintain mobile and other construction equipment; water exposed surfaces three times daily; limit speeds on unpaved roads to 15 miles per hour; and other measures.
- The numbers may be slightly off due to rounding.

As indicated in Table 3.1-6, criteria pollutant emissions during construction of Project No. 3 would be well below the SDAPCD significance thresholds. Accordingly, construction-related air emissions associated with Project No. 3 would be less than significant.

**Project No. 4 – Shores Park Improvements Project**

Table 3.1-7, Project No. 4: Maximum Daily Construction Emissions, presents the anticipated daily short-term construction emissions associated with Project No. 4.

**TABLE 3.1-7 PROJECT NO. 4: MAXIMUM DAILY CONSTRUCTION EMISSIONS**

| | ROG (lbs/day) | $NO_x$ (lbs/day) | CO (lbs/day) | $SO_2$ (lbs/day) | $PM_{10}$ (lbs/day) | $PM_{2.5}$ (lbs/day) |
|---|---|---|---|---|---|---|
| **Emissions** | 1.77 | 15.5 | 18.4 | 0.03 | 2.65 | 1.54 |
| ***SDAPCD Threshold*** | *75* | *250* | *550* | *250* | *100* | *55* |
| **Significant Impact?** | **No** | **No** | **No** | **No** | **No** | **No** |

Source: Appendix D, Air Quality/Greenhouse Gas Emissions Data
Notes:

- Emissions were calculated using CalEEMod version 2022.1. Emissions in this table represent the highest emissions, either winter or summer, to provide a conservative analysis (refer to Appendix D).
- Modeling assumptions include compliance with SDAPCD Rule 55, Fugitive Dust Control, which requires the following: properly maintain mobile and other construction equipment; water exposed surfaces three times daily; limit speeds on unpaved roads to 15 miles per hour; and other measures.
- The numbers may be slightly off due to rounding.

As indicated in Table 3.1-7, criteria pollutant emissions generated by construction of Project No. 4 would be well below the SDAPCD significance thresholds. Accordingly, construction-related air emissions associated with Project No. 4 would be less than significant.

## Operational Impacts

Modeling for criteria pollutant emissions was not conducted for operational impacts of the four representative projects; therefore, a qualitative analysis of operational impacts was performed.

Operation of the proposed linear improvements (i.e., Project Nos. 1, 2, and 3) would not result in increased routine maintenance beyond existing conditions, nor would project operation increase roadway capacity or generate substantial amounts of additional traffic. Due to the nature of the anticipated improvements, no area or energy source emissions would be generated. As these CIP projects would not include new mobile source emissions or new permanent stationary sources, they would not have the potential to generate criteria air pollutants emissions from operations. Operational criteria air pollutants emissions associated with Project Nos. 1, 2, and 3 would be less than significant in this regard.

It is noted that Project No. 4 (Shores Park Improvements Project) would include upgrades to the existing on-site City Community Building, which could include additions of up to 5,000 square feet and improvements to on-site parking for the proposed park and community center. However, due to the limited scope of the proposed improvements, Project No. 4 is not expected to generate a substantial amount of operational emissions beyond existing conditions. Operational air quality impacts would be less than significant.

### Conclusion

As previously presented, criteria pollutant emissions associated with the construction and operation of Project Nos. 1 through 4 would be well below the SDAPCD significance thresholds. Based on the quantitative construction impact evaluation and qualitative operational analysis for the four representative CIP projects presented above, implementation of the proposed project (i.e., streamlining implementation of City CIP projects) is not anticipated to 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. Impacts would be **less than significant**.

**Mitigation Measures:** None required.

**Level of Significance:** Less than significant.

## *Expose Sensitive Receptors to Pollutants*

| | |
|---|---|
| **Impact 3.1-3** | **The project would not expose sensitive receptors to substantial pollutant concentrations. Impacts would be less than significant.** |

Sensitive receptors are defined as facilities or land uses that include members of the population who are particularly sensitive to the effects of air pollutants, such as children, the elderly, and people with illnesses. Examples of these sensitive receptors are residences, schools, hospitals, and daycare centers. CARB has identified the following groups of individuals as the most likely to be affected by air pollution: the elderly over 65, children under 14, athletes, and persons with cardiovascular and chronic respiratory diseases such as asthma, emphysema, and bronchitis. As previously stated, the exact location, timing, and construction requirements of all future improvements are currently unknown. The CIP projects would occur throughout the City, which is largely built out, predominantly with single-dwelling unit and multi-dwelling unit residences and commercial uses, with relatively little developable, vacant areas remaining. As such, there are sensitive receptors located throughout the project site.

### Construction Impacts

If a project has the potential to result in toxic air contaminant (TAC) emissions with a cancer risk greater than 10 in 1 million or substantial non-cancer risk, the project would be deemed to have a potentially significant impact. Project construction activities are anticipated to involve the operation of diesel-powered equipment, which would emit diesel particulate matter (DPM). CARB has identified diesel exhaust as a TAC. Cancer health risks associated with exposures to diesel exhaust typically are associated with chronic exposure, in which a 30-year exposure period often is assumed. The project would be required to comply with the California Code of Regulations (CCR), Title 13, Sections 2449(d)(3) and 2485, which minimizes the idling time of construction equipment either by shutting it off when not in use or by reducing the time of idling to no more than five minutes. Implementation of these regulations would reduce the amount of DPM emissions generated from project construction.

For the proposed project, the nearest sensitive receptors could be located as close as adjacent to CIP project construction activities. Health impacts on sensitive receptors associated with exposure to DPM from project construction are anticipated to be less than significant because construction activities are

expected to occur for a limited period of time and would be well below the 30-year exposure period used in health risk assessments.

For linear CIP projects (i.e., most of the utilities undergrounding, water, sewer, storm water, and streets CIP projects), construction activities would progress sequentially along the alignment. Work would be completed in segments, and equipment and emissions sources would move away from any given receptor as each project segment is completed. Additionally, emissions would be short-term and intermittent in nature and therefore would not generate TAC emissions at high enough exposure concentrations to represent a health hazard.

For non-linear projects (i.e., most of the facilities and open space CIP projects, and potentially some of the water, sewer, storm water, and streets CIP projects), construction activities would generally be limited to one location. However, given that construction of such projects would be short-term and emissions would be intermittent in nature, non-linear CIP projects would not generate TAC emissions at high enough exposure concentrations to represent a health hazard.

Therefore, construction of the proposed project is not anticipated to result in an elevated cancer risk to nearby sensitive receptors, and impacts would be **less than significant**.

### Operational Impacts

As previously noted, Project No. 4 (Shores Park Improvements Project) would include additions of up to 5,000 square feet to the existing on-site City Community Building and improvements to on-site parking for the park and community center. Nonetheless, the proposed park improvements are not expected to generate a substantial amount of operational TAC emissions beyond existing conditions.

Additionally, operation of the proposed project would not result in increased routine maintenance beyond existing conditions, nor would project operation increase roadway capacity, or generate additional traffic. In general, as the proposed project (i.e., streamlining implementation of City CIP) would not include substantial new mobile source emissions or permanent stationary sources, the project would not have the potential to generate TAC emissions from the project operation. Impacts would be **less than significant**.

**Mitigation Measures:** None required.

**Level of Significance:** Less than significant.

### *Other Emissions Such as Those Leading to Objectionable Odors*

| | |
|---|---|
| **Impact 3.1-4** | **The project would not result in other emissions (such as those leading to odors) adversely affecting a substantial number of people. Impacts would be less than significant.** |

#### Odors

Project construction could result in minor amounts of odor compounds associated with diesel heavy equipment exhaust. These compounds would be emitted in various amounts and at various locations during construction. Odors are highest near the source and would quickly dissipate off-site and any odors associated with construction would be temporary. In addition, the project would be required to comply with CCR Title 13, Sections 2449(d)(3) and 2485, which minimizes the idling time of construction equipment either by shutting it off when not in use or by reducing the time of idling to no more than five minutes. This would further reduce detectable odors from heavy-duty equipment exhaust. For these reasons, construction activities are considered to result in a less than significant impact relative to odors.

The planned improvements to the City's infrastructure and public facilities would not include land uses that would be sources of objectionable odors during operations. The project would be required to comply with SDAPCD Rule 51, Nuisance, which prohibits the emission of any material, including odors, that causes a nuisance to a considerable number of people or endangers the comfort, health or safety of the public. Thus, odor impacts associated with project operations would be less than significant.

#### Dust

Construction activities associated with the proposed project would be required to implement emissions control measures detailed in SDAPCD's Rule 55, Fugitive Dust Control, which restricts construction activities from creating visible dust emissions at the property line that lasts more than three minutes in any hour and requires the removal of all track-out from the nearby roadways. With compliance with SDAPCD's Rule 55, the proposed project would not exceed the SDAPCD standards for fugitive dust.

As shown in Table 3.1-4 through Table 3.1-7, project construction would not generate $PM_{10}$ emissions that exceed the SDAPCD threshold of 100 pounds per day. Therefore, impacts would be **less than significant**.

**Mitigation Measures:** None required.

**Level of Significance:** Less than significant.

### *Cumulative Impacts*

| | |
|---|---|
| **Impact 3.1-5** | **The project would not result in a significant impact from a net increase of any criteria pollutant for which the region is nonattainment under an applicable federal or state ambient air quality standard or other cumulative impacts related to air quality. Project impacts would not be cumulatively considerable.** |

The anticipated impacts associated with the proposed project, including representative Project Nos. 1 through 4 and future CIP projects, in conjunction with cumulative development in the City included in

Table 3-1, Cumulative Projects, would increase urbanization in an already urbanized area and could result in increased emissions of pollutants from construction and operations. Additionally, the SDAB has been designated as a federal nonattainment area for $O_3$ and a state nonattainment area for $O_3$, $PM_{10}$, and $PM_{2.5}$. $PM_{10}$ and $PM_{2.5}$ emissions associated with construction generally result in nearfield impacts. The nonattainment status is the result of cumulative emissions from all sources of these air pollutants and their precursors within the SDAB.

Potential land use impacts are site-specific and each cumulative project would require separate discretionary approval and evaluation under CEQA, which would address potential air quality impacts and identify necessary mitigation measures, where appropriate. Therefore, a potentially significant cumulative impact associated with criteria air pollutant emissions could occur.

As discussed under Impact 3.1-2, implementation of the proposed project is not anticipated to 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, and proposed project impacts would be less than significant. As such, the proposed project's contribution to air quality impacts **would not be cumulatively considerable**.

**Mitigation Measures:** None required.

**Level of Significance:** Less than significant cumulative impacts; project impacts would not be cumulatively considerable.

## 3.2. Biological Resources

This section discusses the environmental setting, existing conditions, regulatory context, and potential impacts of the proposed project in relation to biological resources.

This section is based on technical data and analysis from the following:

- *Biological Resources Technical Report for the City of Del Mar Capital Improvement Program Streamlining Project* prepared by Michael Baker International (Appendix E)

The following table provides a summary of impacts and significance findings, based on the analysis provided in Section 3.2.4, Project Impacts and Mitigation Measures. No significant and unavoidable impacts were identified.

**SUMMARY BY CIP PROJECT CATEGORY OF IMPACTS ASSOCIATED WITH BIOLOGICAL RESOURCES**

| Impact | UP | Water | Wastewater | Storm Water | Streets | Facilities | Open Space |
|---|---|---|---|---|---|---|---|
| Impact 3.2-1: Substantial adverse effect on candidate, sensitive, or special status species | LTS+M | LTS+M | LTS+M | LTS+M | LTS+M | LTS+M | LTS+M |
| Impact 3.2-2: Substantial adverse effect on riparian habitat or sensitive natural communities | LTS+M | LTS+M | LTS+M | LTS+M | LTS+M | LTS+M | LTS+M |
| Impact 3.2-3: Substantial adverse effect on jurisdictional wetlands | LTS+M | LTS+M | LTS+M | LTS+M | LTS+M | LTS+M | LTS+M |
| Impact 3.2-4: Interfere substantial with wildlife movement or impede use of wildlife nursery sites | LTS+M | LTS+M | LTS+M | LTS+M | LTS+M | LTS+M | LTS+M |
| Impact 3.2-5: Conflict with local policies or ordinances protecting biological resources | LTS+M | LTS+M | LTS+M | LTS+M | LTS+M | LTS+M | LTS+M |
| Impact 3.2-6: Conflict with an adopted habitat conservation plan | LTS | LTS | LTS | LTS | LTS | LTS | LTS |
| Impact 3.2-7: Project's contribution to cumulative biological resources impacts | NCC | NCC | NCC | NCC | NCC | NCC | NCC |

Notes: LTS = Less than Significant; LTS+M = Less than Significant with Mitigation; NCC = Not Cumulatively Considerable

### 3.2.1. Environmental Setting

The City is defined by its marine-influenced climate and diverse coastal landscape, which includes beaches, coastal bluffs, and lagoon ecosystems. While the City is largely developed, the Del Mar Fairgrounds occupy approximately 20 percent of its northern area, north of the San Dieguito Lagoon. Remaining developed areas consist primarily of residential and commercial uses. Open space is limited but ecologically significant, including the San Dieguito Lagoon—a regionally important estuarine habitat supporting a variety of plant and animal species—coastal bluffs along the western shoreline, and patches

of coastal sage scrub and chaparral along the central-eastern boundary. These open space areas contribute meaningfully to the City's biological diversity and natural resource value.

### Vegetation Communities and Land Cover Types

The City of Del Mar supports a variety of native and naturalized vegetation communities that provide habitat for a diverse array of plant and animal species, many of which are considered special-status. These communities, although limited in extent due to urban development, contribute significantly to the City's biological diversity and ecological value. As part of coastal San Diego County and the broader southern California region—recognized globally as a biodiversity hotspot—Del Mar's remaining natural areas play an important role in sustaining regional and global biodiversity.

Vegetation communities and land cover types mapped within the project site include:

- Non-native vegetation
- Disturbed habitat
- Urban/developed
- Southern foredunes
- Southern coastal bluff scrub
- Maritime succulent scrub
- Diegan coastal sage scrub
- Diegan coastal sage scrub: coastal form
- Southern mixed chaparral
- Southern maritime chaparral
- Non-native grassland
- Southern coastal salt marsh
- Coastal and valley freshwater marsh
- Southern arroyo willow riparian forest
- Riparian scrubs
- Southern willow scrub
- Unvegetated habitat
- Open water
- Intertidal
- Estuarine
- Freshwater
- Saltpan/mudflats
- Beach
- Torrey pine forest

Figure 3.2-1a and Figure 3.2-1b, Vegetation Communities Map, show the vegetation communities and land cover types within the project site. Descriptions of each vegetation community and land cover mapping unit are provided in Appendix D.

### Special-Status Biological Resources

Special-status biological resources include the following:

- Areas designated as sensitive natural communities by the CDFW
- Plant species that are federally or state listed
- Plant species that have been assigned a California Rare Plant Rank (CRPR). CRPRs are defined as follows:
    - List 1A: Plants presumed extirpated in California and either rare or extinct elsewhere.
    - List 1B: Plants rare, threatened, or endangered in California and elsewhere
    - List 2A: Plants presumed extirpated in California but common elsewhere.

- List 2B: Plants rare, threatened, or endangered in California but common elsewhere.
- List 3: Plants about which more information is needed.
- List 4: Plants of limited distribution (a watch list).

- Wildlife species that are federal or state listed, proposed, or candidates for listing under ESA or CESA; designated species of special concern or fully protected by CDFW; or designated sensitive by other federal agencies
- Areas designated as critical habitat by the USFWS
- Areas that provide habitat for rare or endangered species which meet the definition of Section 15380 of the California Environmental Quality Act (CEQA) Guidelines
- Aquatic resources outlined in CFGC Section 1600
- Aquatic resources regulated under Sections 401 or 404 of the Clean Water Act
- Other areas protected under local regulations and policies (e.g., Environmentally Sensitive Habitat Areas [ESHA])

**Sensitive Natural Communities**

Sensitive natural communities within the City boundaries include coastal salt marsh (41.62 acres), which occurs primarily within the San Dieguito Lagoon; southern maritime chaparral (5.33 acres), which occurs along the eastern City boundary adjacent to Torrey Pines State Natural Reserve Extension and Crest Canyon Open Space Park; southern willow scrub (0.18 acres), which is mapped in the northern portion of the City, and Torrey Pine Forest (12.05 acres), which is mapped in patches on the hillside generally between Crest Road and San Dieguito Drive (Figure 3.2-1a and Figure 3.2-1b).

**Special-Status Plants**

A total of 15 special-status plant species is expected to occur within the project site due to the presence of known locations within the project site and an additional 46 species may occur due to the presence of nearby known locations and potentially suitable habitat. Special-status plants are limited to native habitat areas within the project site, including San Dieguito Lagoon and River habitats, coastal bluffs, coastal scrub, chaparral, and open space reserve areas such as Del Mar Canyon Preserve, Torrey Pines State Natural Reserve Extension, and Crest Canyon Open Space Park. These native habitat areas are identified as high sensitivity zones on Figure 3.2-2, Del Mar Sensitive Area Overlay Zones. The moderate sensitivity zone provides a buffer around the high sensitivity zone to ensure maximum protection of special-status plant species.

Table 3.2-1, Special-Status Plants with Potential to Occur in the Project Site, includes the special-status plant species that are expected or have at least a moderate potential to occur in the project site.

**TABLE 3.2-1 SPECIAL-STATUS PLANTS WITH POTENTIAL TO OCCUR IN THE PROJECT SITE**

| Scientific Name | Common Name | Status (Federal/State/CNPS)* | Potential to Occur** |
|---|---|---|---|
| *Abronia maritima* | red sand-verbena | None/None/4.2 | E |
| *Acmispon prostratus* | Nuttall's acmispon | None/None/1B.1 | M |
| *Adolphia californica* | California adolphia | None/None/2B.1 | E |
| *Agave shawii* var. *shawii* | Shaw's agave | None/None/2B.1 | M |
| *Ambrosia monogyra* | singlewhorl burrobrush | None/None/2B.2 | M |
| *Ambrosia pumila* | San Diego ambrosia | FE/None/1B.1 | M |
| *Aphanisma blitoides* | aphanisma | None/None/1B.2 | M |
| *Aphyllon parishii* ssp. *brachylobum* | short-lobed broomrape | None/None/4.2 | M |
| *Arctostaphylos glandulosa* ssp. *crassifolia* | Del Mar manzanita | FE/None/1B.1 | E |
| *Artemisia palmeri* | San Diego sagewort | None/None/4.2 | M |
| *Atriplex coulteri* | Coulter's saltbush | None/None/1B.2 | M |
| *Atriplex pacifica* | south coast saltscale | None/None/1B.2 | M |
| *Baccharis vanessae* | Encinitas baccharis | FT/SE/1B.1 | M |
| *Bahiopsis laciniata* | San Diego County viguiera | None/None/4.3 | E |
| *Berberis nevinii* | Nevin's barberry | FE/SE/1B.1 | M |
| *Bergerocactus emoryi* | golden-spined cereus | None/None/2B.2 | M |
| *Calandrinia breweri* | Brewer's calandrinia | None/None/4.2 | M |
| *Camissoniopsis lewisii* | Lewis' evening-primrose | None/None/3 | M |
| *Ceanothus verrucosus* | wart-stemmed ceanothus | None/None/2B.2 | E |
| *Centromadia parryi* ssp. *australis* | southern tarplant | None/None/1B.1 | E |
| *Chaenactis glabriuscula* var. *orcuttiana* | Orcutt's pincushion | None/None/1B.1 | E |
| *Chloropyron maritimum* ssp. *maritimum* | salt marsh bird's-beak | FE/SE/1B.2 | M |
| *Chorizanthe orcuttiana* | Orcutt's spineflower | FE/SE/1B.1 | E |
| *Cistanthe maritima* | seaside cistanthe | None/None/4.2 | M |
| *Comarostaphylis diversifolia* ssp. *diversifolia* | summer holly | None/None/1B.2 | M |
| *Corethrogyne filaginifolia* var. *incana* | San Diego sand aster | None/None/1B.1 | M |
| *Corethrogyne filaginifolia* var. *linifolia* | Del Mar Mesa sand aster | None/None/1B.1 | E |
| *Cylindropuntia californica* var. *californica* | snake cholla | None/None/1B.1 | M |
| *Dichondra occidentalis* | western dichondra | None/None/4.2 | M |
| *Dudleya brevifolia* | short-leaved dudleya | None/SE/1B.1 | M |
| *Ericameria palmeri* var. *palmeri* | Palmer's goldenbush | None/None/1B.1 | M |
| *Erysimum ammophilum* | sand-loving wallflower | None/None/1B.2 | M |
| *Euphorbia misera* | cliff spurge | None/None/2B.2 | M |
| *Ferocactus viridescens* | San Diego barrel cactus | None/None/2B.1 | M |
| *Geothallus tuberosus* | Campbell's liverwort | None/None/1B.1 | M |
| *Heterotheca sessiliflora* ssp. *sessiliflora* | beach goldenaster | None/None/1B.1 | M |
| *Holocarpha virgata* ssp. *elongata* | graceful tarplant | None/None/4.2 | M |
| *Isocoma menziesii* var. *decumbens* | decumbent goldenbush | None/None/1B.2 | M |
| *Iva hayesiana* | San Diego marsh-elder | None/None/2B.2 | M |
| *Juglans californica* | Southern California black walnut | None/None/4.2 | M |
| *Juncus acutus ssp. leopoldii* | southwestern spiny rush | None/None/4.2 | M |

**TABLE 3.2-1, CONTINUED**

| Scientific Name | Common Name | Status (Federal/State/CNPS)* | Potential to Occur** |
|---|---|---|---|
| *Lasthenia glabrata* ssp. *coulteri* | Coulter's goldfields | None/None/1B.1 | M |
| *Lepidium virginicum* var. *robinsonii* | Robinson's pepper-grass | None/None/4.3 | M |
| *Leptosyne maritima* | sea dahlia | None/None/2B.2 | E |
| *Lycium californicum* | California box-thorn | None/None/4.2 | E |
| *Microseris douglasii* ssp. *platycarpha* | small-flowered microseris | None/None/4.2 | M |
| *Monardella viminea* | willowy monardella | FE/SE/1B.1 | M |
| *Nemacaulis denudata* var. *denudata* | coast woolly-heads | None/None/1B.2 | M |
| *Pentachaeta aurea* ssp. *aurea* | golden-rayed pentachaeta | None/None/4.2 | M |
| *Phacelia ramosissima* var. *austrolitoralis* | south coast branching phacelia | None/None/3.2 | E |
| *Phacelia stellaris* | Brand's star phacelia | None/None/1B.1 | |
| *Pinus torreyana* ssp. *torreyana* | Torrey pine | None/None/1B.2 | E |
| *Piperia cooperi* | chaparral rein orchid | None/None/4.2 | M |
| *Quercus dumosa* | Nuttall's scrub oak | None/None/1B.1 | M |
| *Quercus engelmannii* | Engelmann oak | None/None/4.2 | M |
| *Selaginella cinerascens* | ashy spike-moss | None/None/4.1 | M |
| *Senecio aphanactis* | chaparral ragwort | None/None/2B.2 | M |
| *Sphaerocarpos drewiae* | bottle liverwort | None/None/1B.1 | M |
| *Stipa diegoensis* | San Diego County needle grass | None/None/4.2 | M |
| *Suaeda esteroa* | estuary seablite | None/None/1B.2 | E |
| *Suaeda taxifolia* | woolly seablite | None/None/4.2 | E |

California Native Plant Society (CNPS); California Rare Plant Rank (CRPR)

***Status Legend:**

**Federal**
FE: Federally listed as endangered
FT: Federally listed as threatened

**State**
SE: State listed as endangered
ST: State listed as threatened

**CNPS (CRPR)**
1A: Plants presumed extirpated in California and either rare or extinct elsewhere
1B: Plants rare, threatened, or endangered in California and elsewhere
2A: Plants presumed extirpated in California but common elsewhere
2B: Plants rare, threatened, or endangered in California but more common elsewhere
3: Review List: Plants about which more information is needed
4: Watch List: Plants of limited distribution

.1 Seriously threatened in California (over 80% of occurrences threatened / high degree and immediacy of threat)
.2 Moderately threatened in California (20–80% occurrences threatened / moderate degree and immediacy of threat)
.3 Not very threatened in California (<20% of occurrences threatened / low degree and immediacy of threat or no current threats known)

****Potential to Occur:** E = expected to occur within project site; M = moderate potential to occur within project site

## Special-Status Wildlife

A total of 15 special-status wildlife species is expected to occur within the project site due to the presence of suitable habitat or documented locations, and an additional 14 species may occur due to the presence of nearby known locations and potentially suitable habitat. With the exception of monarch and Crotch's bumble bee which may occur throughout the project site in all biological resource sensitivity zones (Figure 3.2-3, Biological Resources Sensitivity Zones), suitable habitat for special-status wildlife species occurs in the open space areas of the City. These areas are identified as high sensitivity zones on Figure 3.2-3. The moderate sensitivity zone provides a buffer to the high sensitivity zone to ensure maximum protection of special-status wildlife species. Table 3.2-2, Special-Status Wildlife with Potential to Occur in the Project

Site, includes the special-status wildlife species that are expected or have at least a moderate potential to occur in the project site.

**TABLE 3.2-2 SPECIAL-STATUS WILDLIFE WITH POTENTIAL TO OCCUR IN THE PROJECT SITE**

| Class | Scientific Name | Common Name | Status (Federal/State/Other)* | Potential to Occur** |
|---|---|---|---|---|
| Invertebrate | *Bombus crotchii* | Crotch's bumble bee | None/SCE/None | M |
| Invertebrate | *Danaus plexippus plexippus* | monarch - California overwintering population | FPT/None/None | E |
| Amphibian | *Spea hammondii* | Western spadefoot | FPT/None/CDFW-SSC | E |
| Reptile | *Anniella stebbinsi* | Southern California legless lizard | None/None/CDFW-SSC | M |
| Reptile | *Aspidoscelis hyperythra* | Orange-throated whiptail | None/None/None | E |
| Reptile | *Aspidoscelis tigris stejnegeri* | Coastal whiptail | None/None/CDFW-SSC | E |
| Reptile | *Crotalus ruber* | Red-diamond rattlesnake | None/None/CDFW-SSC | M |
| Reptile | *Diadophis punctatus similis* | San Diego ringneck snake | None/None/None | M |
| Reptile | *Phrynosoma blainvillii* | Coast horned lizard | None/None/CDFW-SSC | M |
| Reptile | *Plestiodon skiltonianus interparietalis* | Coronado skink | None/None/None | M |
| Bird | *Agelaius tricolor* | Tricolored blackbird | None/ST/CDFW-SSC | M |
| Bird | *Charadrius alexandrinus nivosus* | western snowy plover | FPT/None/CDFW-SSC | E |
| Bird | *Elanus leucurus* | white-tailed kite | None/None/CDFW-FP | E |
| Bird | *Icteria virens* | yellow-breasted chat | None/None/CDFW-SSC | E |
| Bird | *Passerculus sandwichensis beldingi* | Belding's savannah sparrow | None/SE/None | E |
| Bird | *Polioptila californica californica* | coastal California gnatcatcher | FT/None/CDFW-SSC | E |
| Bird | *Rallus obsoletus levipes* | light-footed Ridgway's rail | FE/SE/CDFW-FP | E |
| Bird | *Setophaga petechia* | yellow warbler | None/None/CDFW-SSC | E |
| Bird | *Sternula antillarum browni* | California least tern | FE/SE/CDFW-FP | E |
| Mammal | *Antrozous pallidus* | pallid bat | None/None/CDFW-SSC | M |
| Mammal | *Chaetodipus californicus femoralis* | Dulzura pocket mouse | None/None/CDFW-SSC | M |
| Mammal | *Chaetodipus fallax fallax* | Northwestern San Diego pocket mouse | None/None/CDFW-SSC | E |
| Mammal | *Corynorhinus townsendii* | Townsend's big-eared bat | None/None/CDFW-SSC | M |
| Mammal | *Euderma maculatum* | spotted bat | None/None/CDFW-SSC | M |
| Mammal | *Eumops perotis californicus* | western mastiff bat | None/None/CDFW-SSC | M |
| Mammal | *Myotis yumanensis* | Yuma myotis | None/None/None | M |
| Mammal | *Neotoma lepida intermedia* | San Diego desert woodrat | None/None/CDFW-SSC | E |
| Mammal | *Nyctinomops femorosaccus* | Pocketed free-tailed bat | None/None/CDFW-SSC | E |
| Mammal | *Nyctinomops macrotis* | big free-tailed bat | None/None/CDFW-SSC | M |

***Status Legend:**

**Federal**
FE: Federally listed as endangered
FT: Federally listed as threatened
FPT: Federally proposed for listing as threatened

**State**
SE: State listed as endangered
ST: State listed as threatened

**Other**
CDFW-FP: California Fully Protected Species
CDFW-SSC: California Species of Special Concern

****Potential to Occur:** E = expected to occur within project site; M = moderate potential to occur within project site

*Critical Habitat*

There is no USFWS-designated critical habitat for listed plants mapped within the project site.

Critical habitat for the federally threatened western snowy plover is designated within the northern portion of the City at the west end of San Dieguito River Park (see Figure 6 in Appendix E). This 4-acre area provides essential nesting and foraging habitat for the western snowy plover and other sensitive shorebirds, supporting the species' recovery and regional biodiversity. The San Dieguito Lagoon is recognized as an important coastal wetland in the species' recovery plan, emphasizing the need for ongoing habitat protection and management. Projects with a federal nexus that may affect designated critical habitat require consultation with the USFWS and may be subject to additional mitigation requirements. Additional details about the critical habitat area are included in Appendix E.

### Aquatic Resources

A variety of aquatic resources are present within the project site, most notably the Pacific Ocean along the western boundary and the San Dieguito Lagoon and floodplain system in the north (see Figure 7 in Appendix E). The lagoon complex supports a range of wetland types, including tidal salt marshes, brackish marshes, mudflats, freshwater marshes, and riparian corridors, each providing important habitat for fish, birds, amphibians, and other wildlife. Open water features such as lagoon channels and river mouths further enhance aquatic habitat diversity and serve as stopover points for migratory species. Collectively, these aquatic systems sustain local biodiversity, support wildlife movement, and contribute to water quality, flood management, and the City's scenic value. These aquatic systems are regulated by the USACE, RWQCB, and CDFW under applicable state and federal laws, ensuring protection of water quality, habitat functions, and ecological values.

### Wildlife Movement and Connectivity

Wildlife corridors and habitat linkages are linear areas—such as greenbelts, refuge systems, or natural landforms—that connect larger blocks of habitat and facilitate the safe movement of mammals and other wildlife between areas. These corridors are essential for linking water, food, and cover resources, supporting gene flow, dispersal, and maintaining genetic diversity, which is especially important for small or isolated populations. In the project site, several natural features—including the San Dieguito Lagoon and River Valley, Crest Canyon, Los Peñasquitos Lagoon, coastal bluffs, and beaches—function as important movement corridors for a variety of species. These linkages support both resident and migratory wildlife, contributing to regional biodiversity within this recognized hotspot, despite the City's urbanized character and fragmented landscape.

## 3.2.2. Regulatory Framework

Implementation of the proposed project is subject to a comprehensive framework of federal, state, and local laws and policies designed to protect natural resources and regulate development activities.

## Federal

Applicable federal regulatory requirements are listed below (see Section 2.1 of Appendix E for summary descriptions of each):

- Endangered Species Act (16 United States Code [USC] § 1531 et seq.)
- Migratory Bird Treaty Act (16 USC §§ 703–712)
- Bald and Golden Eagle Protection Act (16 USC §§ 668–668(d); 50 CFR Part 22)
- Clean Water Act (33 USC § 1251 et seq.)
- Fish and Wildlife Coordination Act (16 USC §§ 661–666)
- Magnuson-Stevens Fishery Conservation and Management Act (16 USC § 1801 et seq.)
- Marine Mammal Protection Act (16 USC § 1361 et seq.)
- Executive Order 13112 – Invasive Species
- Coastal Zone Management Act (16 USC §§ 1451–1466)

## State

Applicable federal regulatory requirements are listed below (see Section 2.2 of Appendix E for summary descriptions of each):

- California Endangered Species Act (CESA) – Fish & Game Code §§ 2050–2116
- California Fish and Game Code § 1600 et seq. – Lake and Streambed Alteration Program
- California Fish and Game Code §§ 3503, 3503.5, 3513 – Nesting Birds and Birds of Prey
- California Fish and Game Code §§ 3511, 4700, 5050, 5515 – Fully Protected Species
- California Native Plant Protection Act (NPPA) – Fish & Game Code §§ 1900–1913
- Natural Community Conservation Planning Act (NCCPA) – Fish & Game Code §§ 2800–2835
- Porter-Cologne Water Quality Control Act – California Water Code Division 7, §13000 et seq.
- California Wetlands Policy
- California Coastal Act – Public Resources Code §§ 30000–30900

## Local

The reader is referred to Sections 2.3.2 and 2.3.4 of Appendix E for summary descriptions of the City's Local Coastal Program (LCP) and the San Diego County Multiple Species Conservation Program, respectively. For chapters of the DMMC protecting biological resources, floodways, parklands, and natural open space areas within the City, see Section 2.4.3, Regulatory Requirements and Best Management Practices, in Chapter 2.0.

### City of Del Mar Community Plan

The City of Del Mar Community Plan, which serves as its General Plan, is the guiding framework for land use, development, and resource conservation. It emphasizes sustainable growth, protection of scenic and ecological resources, and compatibility between development and the City's unique coastal setting. The plan aligns with the California Coastal Act and incorporates policies to manage pressures from housing demand, commercial development, and infrastructure needs while safeguarding sensitive habitats and open space areas. Specifically, the goals and policies applicable to the project include the protection of

designated open space areas, San Dieguito Lagoon and Floodway, and bluffs, slopes, and canyons. The following goals and policies are relevant in protecting biological resources:

*Community Plan: Environmental Management*

GOAL 1: Establish without delay a comprehensive program to preserve and acquire permanent open space sufficient to meet the long-range needs of the community, preserve and enhance natural resources, and protect areas and people susceptible to seismic and flooding hazards.

Objective E: Protect specific open space areas as shown on the Del Mar Environmental Management Plan.

Policy E.1. Preserve, as open space, areas such as the 100-year floodway and the beach bluffs west of the railroad tracks that are too hazardous to justify permanent construction.

Policy E.2. Preserve, as City-owned open space, areas desirable as City parks and preserves.

Policy E.3. Preserve, as open space, pending possible acquisition by other jurisdictions, areas of regional significance.

Policy E.4. Preserve and where necessary acquire easements for the protection of access to the beach and other public open space.

Policy E.5. Protect the scenic quality of the air space above the railroad tracks by allowing only railroad transportation and open space uses, and restrict stretches of right-of-way with adjacent landslide danger to single track usage.

Policy E.6. Control building, signing and paving on publicly owned open space so such use will not be objectionable to Del Mar residents.

Policy E.7. Open space areas should be managed with erosion control and pollution prevention measures in the forefront.

Objective H. CONSERVE the natural character of land, water, vegetative and wildlife resources within the community.

Policy H.11. Minimize or prevent development in hazard and resource areas with the following characteristics: flood potential; wetlands; riparian corridors and areas with a greater than 25% slope.

Objective I: Retain and enhance natural benefits within the San Dieguito River Floodway and Lagoon habitat.

Policy I-1. Establish a comprehensive master plan and management program for the lagoon including biological productivity potential, health controls, future water supply, the

preservation and enhancement of wildlife, and opportunities for educational and recreational enjoyment.

Policy I-2. Land use policies established within the San Dieguito River Floodway and Lagoon Habitat should be consistent with the long-range goal of returning the entire area to the natural lagoon condition.

Policy I-3. Identify public ownership and public use rights in the lagoon and tidelands and restrict therein uses inconsistent with such public rights.

Policy I-4. Support and continue education with regard to biological resource values of the lagoon ecosystem.

Policy I-5. Require the placement of beach quality sand on Del Mar beaches whenever beach quality sand results from the dredging of the San Dieguito lagoon. If placement within Del Mar is not needed or desirable, consideration shall be given to placement elsewhere within the Oceanside littoral cell or where exceptional biological benefits can be demonstrated.

Policy I-6. Require the proper disposal of less than beach quality sand in a manner that protects against the pollution of beaches, lagoons, or other waterways and minimizes as much as possible any potentially adverse environmental impacts that could result from the disposal.

Policy I-7. Prohibit the placement of sand in areas that may result in negative long-term impacts including, but not limited to, the filling of wetlands, the closing of the river mouth, or the disturbance of sensitive habitat near shore or in the lagoon unless exceptional biological benefits can be demonstrated.

Policy I-8. Prohibit any development, dredging, protective devices, and/or enhancement that would exacerbate flooding or erosion.

Policy I-9. Prohibit placement of fill within the effective flow area as delineated using the FESWNS (Federal Highway Administration, 1992) Model.

Policy I-10. Maintain existing public uses of the beach.

Policy I-11. Preserve the natural appearance and open space character of the river mouth region.

Policy I-12. Protect and enhance the biological resources of the river mouth region.

Policy I-13. Maintain existing east-west public access to the beach from Camino del Mar. Public access shall be enhanced provided that there are no significant negative impacts upon the natural appearance and/or biological resources of the river mouth region.

Policy I-14. Maintain existing lateral, north-south access to the beach without negatively impacting the beauty and biological resources of the river mouth region. Public access shall be

enhanced provided that there are no significant negative impacts upon the natural appearance and/or biological resources of the river mouth region.

Policy I-15. Mitigate for impacts that, while beneficial to the biological resources of the San Dieguito Lagoon, adversely impact public access. If lateral access across the river mouth is impacted by Lagoon restoration, access shall be enhanced between the beach and Camino del Mar both north and south of the San Dieguito River, including a pedestrian access connection over San Dieguito River.

Policy I-16. Preserve and, where necessary, acquire easements for the protection or enhancement of access to the beach and other public open space in the San Dieguito River mouth and Lagoon.

Policy I-17. Prohibit adverse environmental impacts from all types of uses and/or pollution including, but not limited to, public access, visual blight, noise, light, air, and water pollution.

**Del Mar Municipal Code**

The following chapters/sections of the DMMC are relevant for protecting biological resources, floodways, parklands, and natural open space areas within the City (see Section 2.4.3, Regulatory Requirements and Best Management Practices, in Chapter 2.0 for descriptions of each of these DMMC chapters/sections):

- Chapter 8.12 – San Dieguito Lagoon and River
- Chapter 23.50 – Trees
- Chapter 30.29 – Floodway Zone
- Chapter 30.30 – Public Parkland Zone
- Chapter 30.50 – Beach Overlay Zone
- Chapter 30.52 – Bluff, Slope, and Canyon Overlay Zone
- Chapter 30.53 – Lagoon Overlay Zone
- Chapter 30.53- Floodplain Overlay Zone
- Chapter 30.60 – Open Space Overlay Zone

### 3.2.3. Significance Thresholds

The State of California has developed guidelines to address the significance of biological impacts based on Appendix G of the CEQA Guidelines. The proposed project would have a significant impact related to biological resources if it would:

1. 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 US Fish and Wildlife Service.

2. 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 US Fish and Wildlife Service.

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

4. Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors or impede the use of native wildlife nursery sites.

5. Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance.

6. Conflict with the provisions of an adopted habitat conservation plan, natural community conservation plan, or other approved local, regional, or state habitat conservation plan.

### 3.2.4. Project Impacts and Mitigation Measures

#### *Candidate, Sensitive, or Special-Status Species*

| | |
|---|---|
| **Impact 3.2-1** | **The project would have a potentially 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 US Fish and Wildlife Service. Impacts would be less than significant with mitigation incorporated.** |

Due to the programmatic nature of this PEIR, this analysis focuses on reasonably foreseeable impacts and establishes standards for individual CIP project review. The approach integrates baseline data from the Biological Resources Technical Report (Appendix E) and applies a screening-level evaluation of potential impacts associated with the CIP categories. The analysis utilizes a citywide biological sensitivity map to classify areas as high, moderate, or low sensitivity, based on regulatory status, ecological rarity, and potential for sensitive resources (Figure 3.2-3). A general description of each biological resources sensitive zone is provided below:

- **High Sensitivity Zone:** These areas contain the highest concentration of sensitive biological resources, such as wetlands, riparian habitats, rare vegetation communities, designated ESHAs, and known occurrences of special-status species. High Sensitivity Zones often overlap with regulatory overlays (e.g., Lagoon Overlay Zone, Bluff/Slope/Canyon Overlay Zone) and may include critical habitat, wildlife corridors, or protected tree species.

- **Moderate Sensitivity Zone:** This zone is mapped as a 100-foot buffer surrounding the High Sensitivity Zone. Its primary purpose is to provide an added layer of protection for the most sensitive biological resources by minimizing indirect impacts from adjacent development or activities. This buffer helps to maintain ecological integrity, reduce edge effects, and support habitat connectivity adjacent to high-value areas.

- **Low Sensitivity Zone:** This zone is generally characterized by developed or disturbed areas with limited biological resource value, such as urbanized parcels, maintained landscapes, or areas

lacking native vegetation. Due to the presence of the Moderate Sensitivity Zone buffer, these areas are not expected to overlap with High Sensitivity Zones. While these areas generally have limited habitat value, they may still contain biological resources that could support nesting birds and listed species that may occur in developed areas (e.g., monarch or Crotch's bumble bee).

**Special-Status Plants**

*Construction Impacts*

The majority of CIP projects would occur in previously developed or disturbed lands either within public rights-of-way associated with existing roadways or on City property. The approved CIP projects for FY 2026-2027 (included in Table 2-2 at the end of Chapter 2.0) were overlaid onto the biological sensitivity zones (see Figure 3.2-3). As shown in Figure 3.2-4a through Figure 3.2-4g, most of the existing public infrastructure and municipal facilities occur within the low biological resources sensitivity zone, and therefore most of the CIP projects would be located within the low biological resources sensitivity zone. Previously developed and disturbed areas occur within the low biological resources sensitivity zone, and special-status plant species are not expected to occur within that zone due to lack of suitable habitat. Accordingly, no impacts to special-status plant species or their habitat are anticipated for CIP projects occurring wholly within the low biological resources sensitivity zone.

Construction activities associated with CIP projects wholly or partially in the moderate and/or high biological resources sensitivity zones could potentially result in direct and/or indirect impacts to special-status plant species or their habitat. Plant species that only have a protection status of CRPR 3 or 4 (no other federal or state status) are not considered "rare" from a statewide perspective. Therefore, impacts to plant species ranked CRPR 3 and 4 would be less than significant since any populations identified on the project site would not represent a significant percentage of the population in terms of the ability for the species to persist.

The remaining 41 special-status plant species (those not ranked as only CRPR 3 or 4) are expected or have at least a moderate potential to occur in the project site: Nuttall's acmispon, California adolphia, Shaw's agave, singlewhorl burrobrush, San Diego ambrosia, aphanisma, Del Mar manzanita, Coulter's saltbush, south coast saltscale, Encinitas Baccharis, Nevin's barberry, golden-spined cereus, Lewis' evening-primrose, wart-stemmed ceanothus, southern tarplant, Orcutt's pincushion, salt marsh bird's-beak, Orcutt's spineflower, summer holly, San Diego sand aster, Del Mar Mesa sand aster, snake cholla, short-leaved dudleya, Palmer's goldenbush, sand-loving wallflower, cliff spurge, San Diego barrel cactus, Campbell's liverwort, beach goldenaster, decumbent goldenbush, San Diego marsh-elder, Coulter's goldfields, sea dahlia, willowy monardella, coast woolly-heads, Brand's star phacelia, Torrey pine, Nuttall's scrub oak, chaparral ragwort, bottle liverwort, and estuary seablite. During CIP project construction activities, potential impacts to these 41 special-status plant species and/or their habitat are anticipated to be minimal. Direct impacts may occur as a result of vegetation crushing and clearing. Short-term indirect impacts may include adverse edge effects adjacent to preserves and potential increases to invasive species. Given the programmatic nature of the project, impacts to special-status plant species not ranked as only CRPR 3 or 4 in the moderate and/or high biological resources sensitivity zones could be **potentially significant**.

*Operational Impacts*

After construction, operational activities would mostly be limited to continued, ongoing regular maintenance activities, although some of the facilities and open space CIP projects could include increased visitors to City facilities and parks. The continuation of ongoing routine maintenance activities would not impact special-status plant species. Additionally, given the developed nature of City facility and park sites, special-status plant species are not anticipated to occur, and operational impacts to special-status plant species would be **less than significant**.

**Special-Status Wildlife**

*Construction Impacts*

As previously stated, as shown in Figure 3.2-4a through Figure 3.2-4g, most of the existing public infrastructure and municipal facilities occur within the low biological resources sensitivity zone, and therefore most of the CIP projects would be located within the low biological resources sensitivity zone. Special-status wildlife species are not expected to occur within the low biological resources sensitivity zone due to lack of suitable habitat in previously developed and disturbed lands. Accordingly, no impacts to special-status wildlife species or their habitat are anticipated for CIP projects occurring wholly within the low biological resources sensitivity zone.

Construction activities wholly or partially in the moderate and/or high biological resources sensitivity zones could potentially result in direct and/or indirect impacts to special-status plant species or their habitat. Wildlife species that do not have a federal, state, or other protection status are not considered "rare" from a statewide perspective. Impacts to these species would be less than significant since any populations identified on the project site would not represent a significant percentage of the population in terms of the ability for the species to persist. Therefore, impacts to wildlife species without a federal, state, or other protection status would not be considered significant since any populations identified on site would not represent a significant percentage of the population in terms of the ability for the species to persist.

The remaining 25 special-status wildlife species (those with a federal, state, or other protection status) are expected or have at least a moderate potential to occur in the project site: Crotch's bumble bee, monarch butterfly, western spadefoot, southern California legless lizard, coastal whiptail, red-diamond rattlesnake, and coast horned lizard, tricolored blackbird, western snowy plover, white-tailed kite, yellow-breasted chat, Belding's savannah sparrow, coastal California gnatcatcher, light-footed Ridgway's rail, yellow warbler, and California least tern, pallid bat, Dulzura pocket mouse, Northwestern San Diego pocket mouse, Townsend's big-eared bat, spotted bat, western mastiff bat, San Diego desert woodrat, pocketed free-tailed bat, and big free-tailed bat. During CIP project construction activities, potential impacts to these 25 special-status wildlife species and/or their habitat are anticipated to be minimal. Direct impacts may occur as a result of vegetation crushing and clearing. Short-term indirect impacts may include noise generated by equipment, increased human presence, and adverse edge effects adjacent to open space areas. However, such indirect impacts are not anticipated to deter wildlife within and near work areas. Given the programmatic nature of the project, impacts to special-status wildlife species with a federal, state, or other protection status in the moderate and/or high biological resources sensitivity zones could be **potentially significant**.

*Operational Impacts*

After construction, the continuation of ongoing routine maintenance activities would not impact special-status wildlife species. Additionally, given the developed nature of City facility and park sites, special-status wildlife species are not anticipated to be deterred from a CIP project site or nearby during operational activities. As such, operational impacts to special-status wildlife species would be **less than significant**.

The existing UUDs, public infrastructure, municipal facilities, and open space were overlaid onto the biological sensitivity zones (see Figure 3.2-4a through Figure 3.2-4g). As shown in Figure 3.2-4a through Figure 3.2-4g, most of the existing public infrastructure and municipal facilities occur within the low biological resources sensitivity zone, and therefore most of the CIP projects would be located within the low biological resources sensitivity zone. It is also noted that most existing open space areas occurs within the high biological resources sensitivity zone.

**Mitigation Measures:**

**BIO-1** **Biological Resources Technical Report.** Prior to clearing, grubbing, grading, or vegetation removal activities associated with CIP projects wholly and/or partially within moderate or high biological resource sensitivity zones as depicted in Figure 3.2-3, Biological Resources Sensitivity Zones, the City shall retain a qualified biologist to conduct a project-specific biological resources technical report. Preparation of a project-specific biological resources technical report shall, at a minimum, include a comprehensive database and literature review, biological site survey, and consideration and evaluation for the habitat types and species occurrences identified in Table 2, Vegetation Communities and Land Cover Types; Table 3, Special Status Plants Expected to Occur within the City of Del Mar; and Table 5, Special-Status Wildlife Expected to Occur within the City of Del Mar, of Appendix E of the PEIR. Project-specific biological resources technical reports shall: (1) delineate vegetation communities and land covers, including riparian habitat or other sensitive natural communities; (2) identify aquatic resources including potential jurisdictional wetlands and non-wetlands waters of the US and/or State; (3) identify the extent or absence of habitat that may support special-status plants or wildlife; (4) evaluate the potential for direct and indirect impacts from proposed activities; (5) outline avoidance and minimization measures to avoid direct and indirect impacts; and (6) specify any additional compensatory mitigation measures to reduce direct and indirect impacts below a level of significance.

**BIO-2** **Focused Special-Status Plant Surveys and Compensation.** Based on the results of the project-specific biological resources technical report conducted pursuant to BIO-1, if it is determined that there is a moderate or high potential for special-status plant species to occur in the construction area, a qualified biologist shall conduct a focused botanical survey for special-status plants during the appropriate bloom period for each species following the California Department of Fish and Wildlife's "*Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations*." Focal species shall include plant species that are listed as threatened or endangered or are candidate species for

listing under the federal and/or California Endangered Species Act, and/or are assigned as CRPR 1A, 1B, 2B, or 2B. If special-status species are not detected, no further surveys or mitigation would be necessary. If any individuals or populations are detected, the location(s) shall be mapped, and a mitigation and monitoring plan focused on compensating for impacts to special-status plants shall be developed and include the following elements and criteria:

- A description of any areas of habitat occupied by special-status plants to be preserved and/or removed by the project;
- Identification and evaluation of the suitability of on-site or off-site areas for preservation, restoration, enhancement or translocation;
- Analysis of species-specific requirements and considerations and specific criteria for success relative to the project's impact on this species and restoration, enhancement or translocation;
- A description of proposed methods of preservation, restoration, enhancement, and/or translocation;
- A description of specific performance standards, including a required replacement ratio and minimum success standard of 1:1 for impacted individuals or populations;
- A monitoring and reporting program to ensure mitigation success; and
- A description of adaptive management and associated remedial measures to be implemented in the event that performance standards are not achieved.

**BIO-3** **Focused Special-Status Wildlife Surveys.** Based on the results of the project-specific biological resources technical report conducted pursuant to BIO-1, if it is determined that there is habitat suitable for special-status wildlife species in the construction area, a qualified biologist shall conduct a focused survey for special-status wildlife during the appropriate seasonal survey window for each species prior to any clearing, grubbing, grading, or vegetation removal activities. Focal species shall include wildlife species that are listed as threatened or endangered, or are candidate species for listing under the federal and/or California Endangered Species Acts.

If special-status species are not detected, no further surveys or mitigation is necessary. If any individuals are detected, the location(s) shall be mapped, and a mitigation and monitoring plan focused on compensating for impacts to special-status wildlife shall be developed and include the elements and criteria included in BIO-2.

**BIO-4** **Preconstruction Wildlife Surveys.** Based on the results of the project-specific biological resources technical report conducted pursuant to BIO-1, if it is determined that there is habitat suitable for special-status wildlife species in the construction area, a qualified

biologist shall conduct pre-construction surveys to determine if special-status wildlife species are present no more than two weeks prior to the beginning of clearing, grubbing, grading, or vegetation removal activities.

If special-status wildlife species are observed within the construction area prior to or during construction activities, the biologist shall relocate such individuals out of the area affected by construction activities to nearby habitat that has equivalent value to support the species. The biologist shall identify suitable habitats as potential release sites prior to start of construction activities. If the special-status species is a federally- or state-listed as threatened or endangered, the biologist shall notify the USFWS and/or CDFW, as appropriate, prior to capture and relocation to obtain approval.

Species-specific survey requirements include:

- Coastal California Gnatcatcher: If construction activities occur within the coastal California gnatcatcher nesting season (February 15 to August 31), a qualified biologist shall survey for active nests within a 500-foot radius (or as practicable due to surrounding conditions, as determined by the biologist) within two weeks of noise-producing activity (including mobilization of construction equipment). If an active gnatcatcher nest is identified, the biologist shall notify the City and coordinate with the USFWS within 48 hours to determine if additional avoidance measures are necessary to prevent take. Such measures may include establishing buffers or delaying construction activities until nests are no longer occupied, as determined by a qualified biologist (DMMC § 30.92.050.B.5.d).

**BIO-5** **Special-Status Species Avoidance and Construction Monitoring**. Based on the results of the project-specific biological resources technical report conducted pursuant to BIO-1, if it is determined that there is habitat suitable for special-status species in the construction area, prior to any clearing, grubbing, grading, or vegetation removal activities, high-visibility exclusion fencing shall be installed around all adjacent special-status species habitat identified during the preconstruction surveys within the project work areas and surrounding 300 feet, as feasible (if 300 feet is not feasible, then at a distance deemed appropriate by the qualified biologist). Exclusion fencing shall be located so as to preclude encroachment within the root-zone of any special-status plants by construction crews or vehicles. Exclusion fencing shall be retained during project construction. A biological monitor shall accompany the work crew during installation of fencing to prevent harm to species that may be active present and moving along the fence route.

A qualified biologist shall monitor vegetation removal and ground-disturbing activities (i.e., clearing, grubbing, grading) during all work hours for off-pavement work or once a week for all other construction activities. During the avian breeding season (February 1 through August 31), the monitor shall check the exclusion fencing and buffers for active nesting birds once a week, and shall verify when juveniles have fledged if found present prior to the start of construction (see BIO-6). The biologist shall have stop-work authority

in the event that a special-status species is found within the active construction footprint. During construction, the biological monitor shall keep a daily observation log and a photo log to describe monitoring activities, remedial actions, non-compliance, and other issues and actions taken.

**BIO-6** **Sensitive Vegetation Communities Compensation.** Based on the results of the project-specific biological resources technical report conducted pursuant to BIO-1, if direct impacts to sensitive vegetation communities occur, the City shall mitigate via on-site and/or off-site measures. On-site measures shall include rehabilitation for areas temporarily impacted at a 1:1 mitigation ratio, and enhancement for areas permanently impacted at a 2:1 mitigation ratio. Areas temporarily impacted shall be returned to conditions similar to those that existed prior to grading and/or ground-disturbing activities. Areas permanently impacted shall be mitigated through on-site enhancement activities including removal of non-native and invasive species for a minimum of three years. If additional area is needed to compensate for permanent impacts at a 2:1 ratio, then an off-site location will be identified and evaluated. A Habitat Mitigation and Monitoring Plan shall be prepared and implemented to compensate for the loss of all sensitive vegetation communities (see below).

The Habitat Mitigation and Monitoring Plan shall detail the habitat restoration activities and shall specify the criteria and standards by which the revegetation and restoration actions will compensate for impacts of the proposed project on sensitive vegetation communities and shall at a minimum include discussion of the following:

- The rehabilitation and enhancement objectives, type, and amount of revegetation to be implemented taking into account enhanced areas where non-native invasive vegetation is removed and replanting specifications that take into account natural regeneration of native species when applicable.
- The specific methods to be employed for revegetation.
- Success criteria, monitoring requirements, and adaptive management strategies to ensure vegetation community restoration success.

**Level of Significance:** Less than significant with mitigation incorporated.

### *Riparian Habitat and Sensitive Natural Communities*

**Impact 3.2-2** **The project would 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 US Fish**

**and Wildlife Service. Impacts would be less than significant with mitigation incorporated.**

**Construction Impacts**

Sensitive natural communities within the project site include coastal salt marsh, southern maritime chaparral, southern willow scrub, and Torrey pine forest. The majority of CIP projects would occur in previously developed or disturbed lands either within public rights-of-way associated with existing roadways or on City property. Additionally, sensitive natural communities are not expected to occur within the low biological resources sensitivity zone due to lack of suitable habitat in previously developed and disturbed lands. Accordingly, no impacts to riparian habitat or other sensitive natural communities are anticipated for CIP projects occurring wholly within the low biological resources sensitivity zone.

Construction activities wholly or partially in the moderate and/or high biological resources sensitivity zones could potentially result in direct and/or indirect impacts to sensitive natural communities. Direct impacts to sensitive vegetation communities may occur as a result of vegetation crushing and clearing. Short-term indirect impacts may include adverse edge effects adjacent to open space areas and potential increases to invasive species. Pursuant to the DMMC, revegetation requirements for areas within the Lagoon Overlay Zone (DMMC § 30.53.160), for all land disturbance activities (DMMC § 11.30.140.D.2), and to avoid the use of invasive species (DMMC § 30.92.050.B.4) would be incorporated, as applicable, to reduce the potential for adverse effects. Given the programmatic nature of the project, impacts to riparian habitat and/or other sensitive natural communities in the moderate and/or high biological resources sensitivity zones could be **potentially significant**.

**Operational Impacts**

After construction, the continuation of ongoing routine maintenance activities would not impact sensitive natural communities. Additionally, given the developed nature of City facility and park sites, sensitive natural communities are not anticipated to occur. As such, operational impacts to riparian habitat and/or other sensitive natural communities would be **less than significant**.

**Mitigation Measures**: BIO-1 and BIO-6 (see above).

**Level of Significance:** Less than significant with mitigation incorporated.

### *Wetlands*

| | |
|---|---|
| **Impact 3.2-3** | **The project would not have a potentially 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. Impacts would be less than significant with mitigation incorporated.** |

**Construction Impacts**

Wetlands are protected within the City through a series of policies and ordinances, including DMMC §§ 30.92.050.B.2.a and 30.53.080 through 30.53.100. These provisions require preservation and restoration of wetlands and establishment of buffers (typically 100 feet, reducible to 50 feet through a Coastal

Development Permit and Conditional Use Permit, with concurrence from CDFW based on site-specific findings made by the Planning Commission pursuant to DMMC § 30.53.100.B). Wetlands within the City are concentrated near San Dieguito Lagoon and River, beaches, and coastal bluffs, which correspond to the high biological resources sensitivity zone (Figure 3.2-3). The moderate biological resources sensitivity zone provides additional buffers. Potential direct impacts to state or federally protected wetlands may occur as a result of trenching and other grading activities. Short-term indirect impacts may include adverse edge effects adjacent to riparian areas and potential increases to invasive species. Given the programmatic nature of the project, impacts to state or federally protected wetlands in the moderate and/or high biological resources sensitivity zones could be **potentially significant**.

State and federally protected wetlands are not expected to occur within the low biological resources sensitivity zone due to lack of suitable habitat in previously developed and disturbed lands. Accordingly, no impacts to state or federally protected wetlands are anticipated for CIP projects occurring wholly within the low biological resources sensitivity zone.

**Operational Impacts**

After construction, the continuation of ongoing routine maintenance activities would not impact state or federally protected wetlands. Additionally, given the developed nature of City facility and park sites, wetlands are not anticipated to occur. Operational activities also would be required to comply with the City's wetland protection policies and ordinances. As such, operational impacts to state or federally protected wetlands would be **less than significant**.

**Mitigation Measures:**

In addition to mitigation measures BIO-5 and BIO-6 (above), implementation of the following mitigation measures would minimize potentially significant impacts to state and federally protected wetlands associated with construction:

**BIO-7** **Aquatic Resources Delineation, Avoidance, and Compensation.** Based on the results of the project-specific biological resources technical report conducted pursuant to BIO-1, if it is determined that there are aquatic resources in the construction area, a qualified biologist shall conduct a formal aquatic resources jurisdictional delineation to determine the extent of jurisdictional aquatic resources regulated by the US Army Corps of Engineers, Regional Water Quality Control Board, and/or CDFW within the impact area.

CIP projects shall be designed to avoid jurisdictional aquatic resources regulated by the US Army Corps of Engineers, Regional Water Quality Control Board, and CDFW through design changes or implementation of alternative construction methodologies. Staking, flagging, and/or fencing shall be established to demarcate no-work areas, which shall include jurisdictional aquatic resources plus the required buffer established by the applicable regulatory agencies (typically, a minimum 100-foot buffer), to be avoided.

For CIP projects that will directly or indirectly impact jurisdictional aquatic resources, the City shall obtain the required federal and/or state permits from the US Army Corps of

Engineers, Regional Water Quality Control Board, and/or CDFW, pursuant to Sections 404 and 401 of the Clean Water Act and Section 1600 et seq. of the California Fish and Game Code, respectively. Permits are required to be obtained by the City before the impact to the resources. Permits may include additional conditions of approval, such as compensatory mitigation.

**Level of Significance:** Less than significant with mitigation incorporated.

### *Wildlife Movement, Wildlife Corridors, and Native Wildlife Nursery Sites*

| | |
|---|---|
| **Impact 3.2-4** | **The project would not substantially interfere with the movement of 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. Impacts would be less than significant.** |

Wildlife movement through the project site is generally limited to east/west movement in the San Dieguito Lagoon and River in the northern portion of the City and Los Peñasquitos Lagoon and River adjacent to and south of the City. Due to development north and south of these linear landscape features, north/south wildlife movement is constrained, creating two wildlife corridors connecting the coast with inland habitats. These corridors support a diversity of aquatic and terrestrial species, including migratory birds, amphibians, reptiles, and mammals. The lagoons' wetlands and adjacent uplands are recognized as important habitat for both resident and migratory wildlife. North/south wildlife movement occurs unconstrained along the open space of the beach and coastal bluffs along the western boundary of the City, while north/south wildlife movement is more constrained through the Crest Canyon Open Space Park to the east of the City due to development south of the park.

The majority of CIP projects would occur in previously developed or disturbed lands either within public rights-of-way associated with existing roadways or on City property. These limited spatial impacts would not permanently affect the extent or resource availability of the San Dieguito Lagoon and River wildlife corridor or Crest Canyon Open Space Park. Temporary indirect impacts such as construction noise associated with CIP projects that occur adjacent to open space areas are not anticipated to deter wildlife using these wildlife corridors. Therefore, direct and indirect impacts to wildlife corridors and movement during construction activities would be less than significant.

Nesting birds within all biological resources sensitivity zones are protected pursuant to the federal Migratory Bird Treaty Act (MBTA) of 1918 and the California Fish and Game Code (CFGC). If an active bird nest is destroyed or if construction activities result in indirect impacts to nesting birds (e.g., nest abandonment, loss of reproductive effort), it is considered "take" and is potentially punishable by fines and/or imprisonment. Trees and other vegetation within any of the project site's biological resources sensitivity zones provide suitable nesting opportunities for a variety of bird species. However, construction of the CIP projects would require compliance with the MBTA and CFGC. Therefore, take of nesting birds (resident and migratory species) would not occur and impacts would be **less than significant**.

**Mitigation Measures:** None required.

**Level of Significance:** Less than significant.

### *Local Policies or Ordinances Protecting Biological Resources*

| | |
|---|---|
| **Impact 3.2-5** | **The project would not conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance. Impacts would be less than significant.** |

DMMC Chapter 8.12 regulates activities within the San Dieguito Lagoon and San Dieguito River areas to protect sensitive habitats and wildlife. The ordinance prohibits boating, fishing, and other disturbances within designated areas and requires compliance with posted restrictions and signage. CIP projects occurring within or adjacent to these areas must avoid prohibited activities and prevent habitat degradation, consistent with Chapter 8.12 provisions.

The majority of construction activities associated with the proposed project would occur on City property or within public rights-of-way or along existing roadways. As such, implementation of the CIP projects could result in the removal or substantial alteration of a protected tree, as defined by the City's Tree Preservation Ordinance (DMMC Chapter 23.50). Pursuant to the Tree Preservation Ordinance, a "protected tree" is defined as: (1) a Torrey pine (*Pinus torreyana*); (2) a Monterey cypress (*Cupressus macrocarpa*); (3) any tree located within the Central Commercial (CC) Zone, Open Space (OS) Overlay Zone, public right-of-way, or City-owned property that meet the ordinance's size criteria (single trunk equal to or less than 20 inches circumference or multi-trunk equal to or less than 30 inches, measured 2 feet above ground); and (4) any tree planted as mitigation for prior removals.

DMMC Chapter 30 establishes zoning and Local Coastal Program regulations that protect sensitive biological resources and ESHA and requires a Coastal Development Permit in certain circumstances. Development within these areas must comply with overlay zone requirements designed to avoid or minimize impacts to native vegetation, wildlife habitat, and scenic resources. The relevant overlay zones include (see Section 2.4.3, Regulatory Requirements and Best Management Practices, in Chapter 2.0 for descriptions of each of these DMMC chapters/sections):

- 30.29 – Floodway Zone: Regulates development in flood-prone areas to protect riparian habitat and maintain natural hydrology.
- 30.30 – Public Parkland Zone: Preserves public parkland and associated habitat values.
- 30.52 – Bluff, Slope, and Canyon Overlay Zone: Protects coastal bluffs, steep slopes, and canyon habitats from erosion and habitat loss.
- 30.53 – Lagoon Overlay Zone: Safeguards the San Dieguito Lagoon and adjacent wetlands, requiring measures to prevent habitat degradation such as wetland buffers.
- 30.60 – Open Space Overlay Zone: Maintains open space areas for habitat conservation and scenic resource protection.

- 30.92.040 – Protection of Environmentally Sensitive Habitat Areas: Ensures long-term protection and integrity through siting requirements, buffers, and legal protection mechanisms.

CIP projects occurring within or adjacent to these zones must avoid prohibited activities and prevent habitat degradation, consistent with DMMC Chapter 30 provisions.

Because the CIP projects would be required to comply with the requirements set forth in the applicable chapters/sections of the DMMC, impacts would be result in **less than significant**.

**Mitigation Measures:** None required.

**Level of Significance:** Less than significant.

### *Adopted Habitat Conservation Plan, Natural Community Conservation Plan, or Other Approved Local, Regional, or State Habitat Conservation Plan*

| | |
|---|---|
| **Impact 3.2-6** | **The project would not conflict with the provisions of an adopted habitat conservation plan, natural community conservation plan, or other approved local, regional, or state habitat conservation plan. No impact would occur.** |

The San Diego County MSCP is a comprehensive, long-term habitat conservation plan designed to protect multiple species and their habitats by establishing a regional preserve system in southwestern San Diego County. The City is a signatory to the MSCP and has prepared a draft Subarea Plan; however, the Subarea Plan has not yet been approved or adopted. Because the City's Subarea Plan has not yet been adopted, there is no approved local habitat conservation plan applicable to the City at this time. Therefore, implementation of the CIP projects would not conflict with the provisions of an adopted habitat conservation plan, natural community conservation plan, or other approved local, regional, or state habitat conservation plan. **No impact** would occur.

**Mitigation Measures:** None required.

**Level of Significance:** No impact.

### *Cumulative Impacts*

| | |
|---|---|
| **Impact 3.2-7** | **The cumulative projects would not result in a significant cumulative impact related to biological resources. Project impacts would not be cumulatively considerable.** |

The anticipated impacts associated with the proposed project in conjunction with cumulative development in the City included in Table 3-1, Cumulative Projects, may result in incremental habitat loss, fragmentation, or disturbance to special-status plant and wildlife species, sensitive natural communities, wetlands, and wildlife corridors. Each cumulative project would require separate discretionary permit approval and evaluation under CEQA, which would address potential biological resource impacts. However, most cumulative projects are in previously disturbed or urbanized areas (i.e., in the low biological resources sensitivity zone; see Figure 3.2-3), and those near sensitive habitats are subject to

regulatory requirements and mitigation measures, similar to the proposed project. With these controls in place, the combined effects of the proposed project and other cumulative projects are expected to result in **less than significant cumulative impacts** to biological resources.

**Mitigation Measures:** None required.

**Level of Significance:** Less than significant cumulative impacts; project impacts would not be cumulatively considerable.




## Legend

Project Site

**Vegetation Communities and Land Cover Types**

- 11000 Non-Native Vegetation
- 11300 Disturbed Habitat
- 12000 Urban/Developed
- 21230 Southern Foredunes
- 31200 Southern Coastal Bluff Scrub
- 32500 Diegan Coastal Sage Scrub
- 32510 Diegan Coastal Sage Scrub: Coastal form
- 37120 Southern Mixed Chaparral
- 42200 Non-Native Grassland
- 52120 Southern Coastal Salt Marsh
- 52410 Coastal and Valley Freshwater Marsh
- 63320 Southern Willow Scrub
- 64000 Unvegetated Habitat
- 64100 Open Water
- 64112 Intertidal
- 64130 Estuarine
- 64140 Freshwater
- 64300 Saltpan/Mudflats
- 64400 Beach
- 83140 Torrey Pine Forest

Michael Baker INTERNATIONAL

0 300 600 US Feet

Source: Esri, ArcGIS Online, City of Del Mar, San Diego County

CITY OF DEL MAR CIP STREAMLINING PROJECT
PROGRAM ENVIRONMENTAL IMPACT REPORT

# Vegetation Communities Map

Figure 3.2-1a

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## Legend

Project Site

**Vegetation Communities and Land Cover Types**

- 11300 Disturbed Habitat
- 12000 Urban/Developed
- 32400 Maritime Succulent Scrub
- 32500 Diegan Coastal Sage Scrub
- 37120 Southern Mixed Chaparral
- 37C30 Southern Maritime Chaparral
- 42200 Non-Native Grassland
- 52120 Southern Coastal Salt Marsh
- 61320 Southern Arroyo Willow Riparian Forest
- 63000 Riparian Scrubs
- 64000 Unvegetated Habitat
- 64400 Beach
- 83140 Torrey Pine Forest

Michael Baker INTERNATIONAL

0 300 600 US Feet

Source: Esri, ArcGIS Online, City of Del Mar, San Diego County

CITY OF DEL MAR CIP STREAMLINING PROJECT
PROGRAM ENVIRONMENTAL IMPACT REPORT

# Vegetation Communities Map

Figure 3.2-1b

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**Legend**

- Project Site
- Beach Overlay Zone
- Floodplain Overlay Zone
- Lagoon Overlay Zone
- Bluff, Slope, and Canyon Overlay Zone
- Coastal Bluffs

Michael Baker INTERNATIONAL

0 0.25 0.5 Miles

Source: Esri, ArcGIS Online, City of Del Mar, San Diego County

CITY OF DEL MAR CIP STREAMLINING PROJECT
PROGRAM ENVIRONMENTAL IMPACT REPORT

# Del Mar Sensitive Area Overlay Zones

Figure 3.2-2

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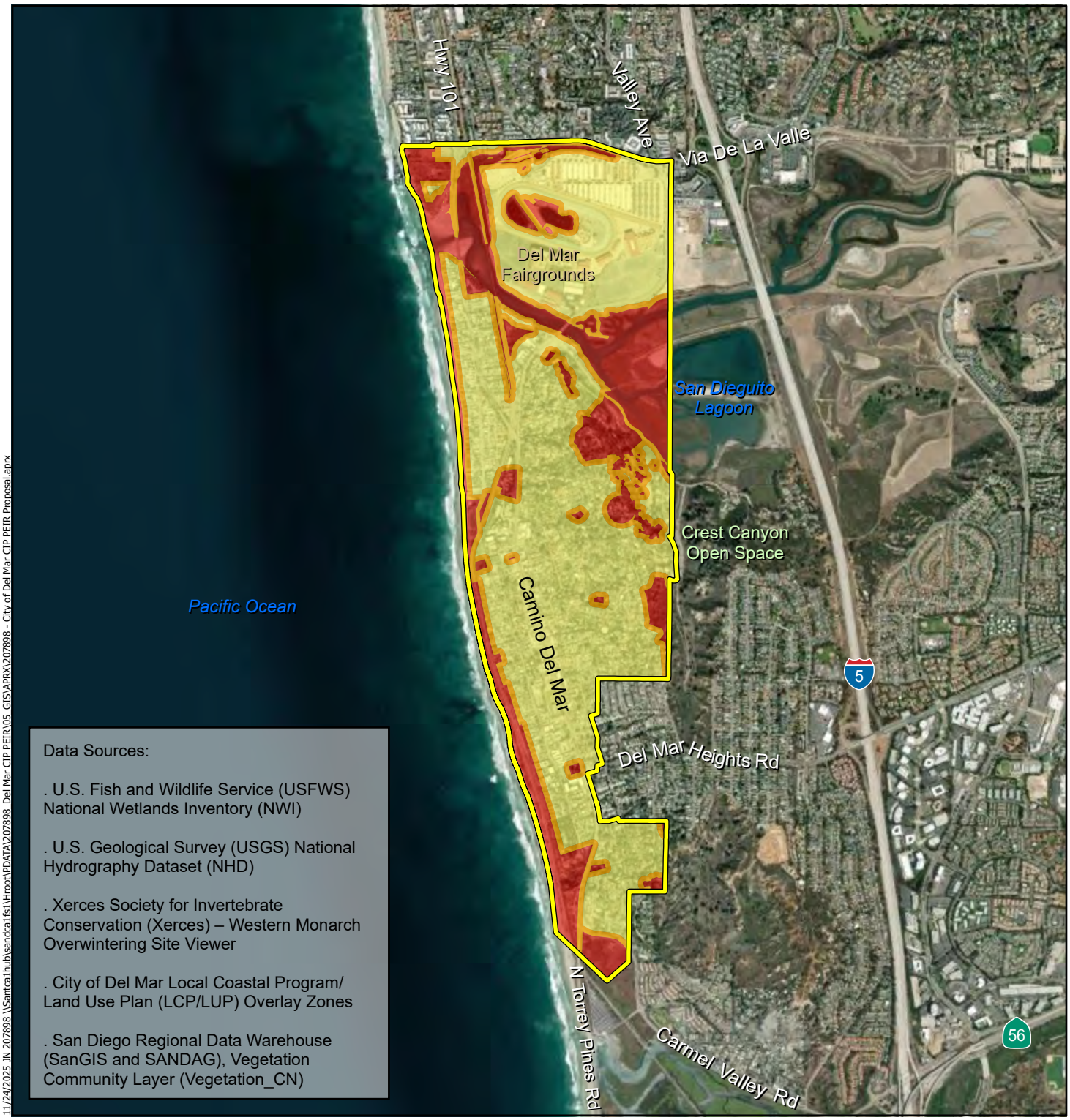


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**Legend**

Project Site

**Biological Resources Sensitivity Zones**

- High Sensitivity Zone
- Moderate Sensitivity Zone
- Low Sensitivity Zone

CITY OF DEL MAR CIP STREAMLINING PROJECT
PROGRAM ENVIRONMENTAL IMPACT REPORT

Michael Baker INTERNATIONAL

0 0.25 0.5 Miles

# Biological Resources Sensitivity Zones

Source: Esri, ArcGIS Online, USFWS, USGS, City of Del Mar, San Diego County, Xerces Society Western Monarch Count. 2025. Western Monarch Count Data, 1997-2025

Figure 3.2-3

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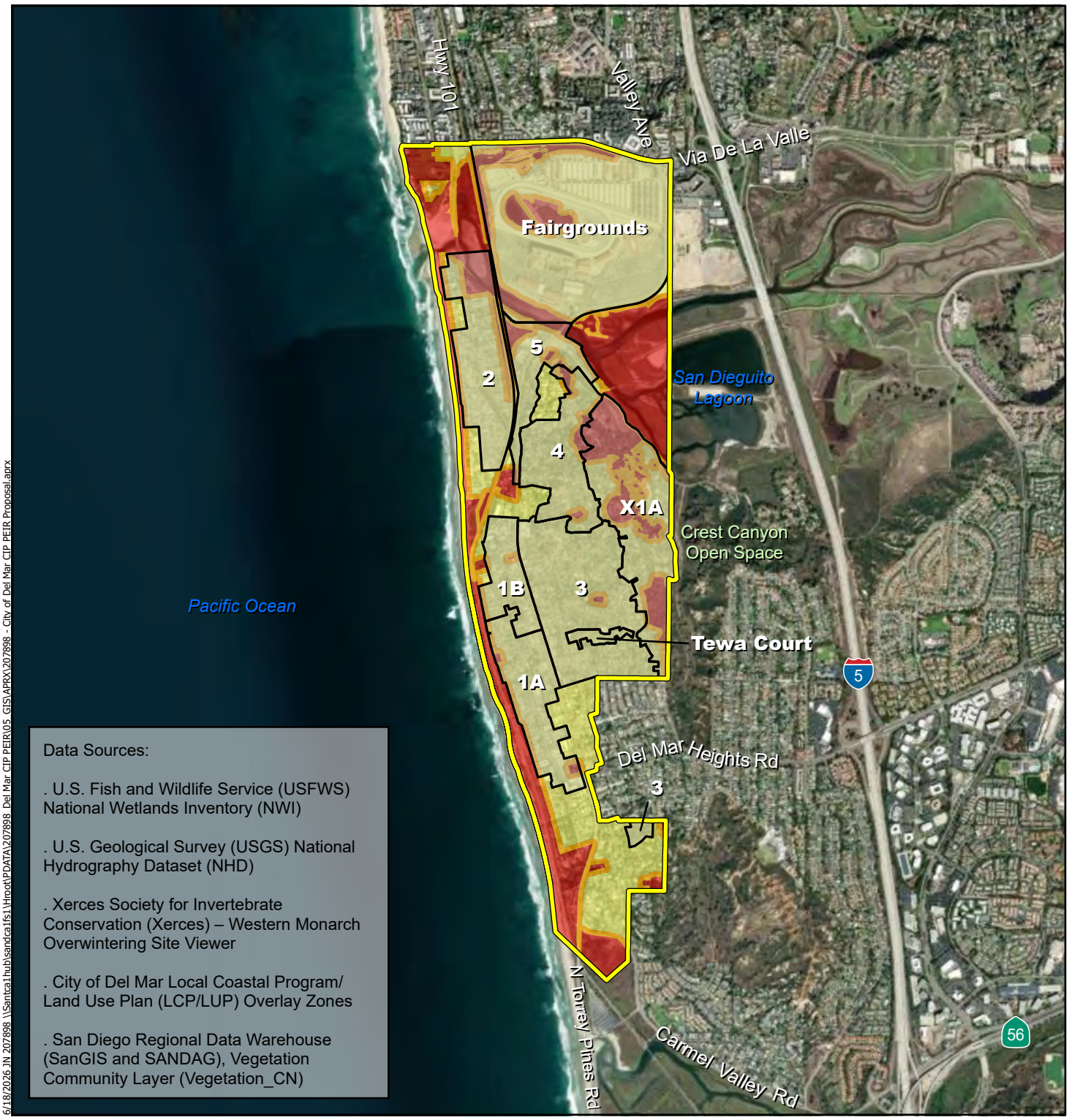


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**Legend**

- Project Site
- Undergrounding Program Districts Boundaries

**Biological Resources Sensitivity Zones**

- High Sensitivity Zone
- Moderate Sensitivity Zone
- Low Sensitivity Zone

Michael Baker INTERNATIONAL

0 0.25 0.5 Miles

Source: Esri, ArcGIS Online, USFWS, USGS, City of Del Mar, San Diego County, Xerces Society Western Monarch Count. 2025. Western Monarch Count Data, 1997-2025

CITY OF DEL MAR CIP STREAMLINING PROJECT
PROGRAM ENVIRONMENTAL IMPACT REPORT

# Undergrounding Program Districts Within Biological Resources Sensitivity Zones

Figure 3.2-4a

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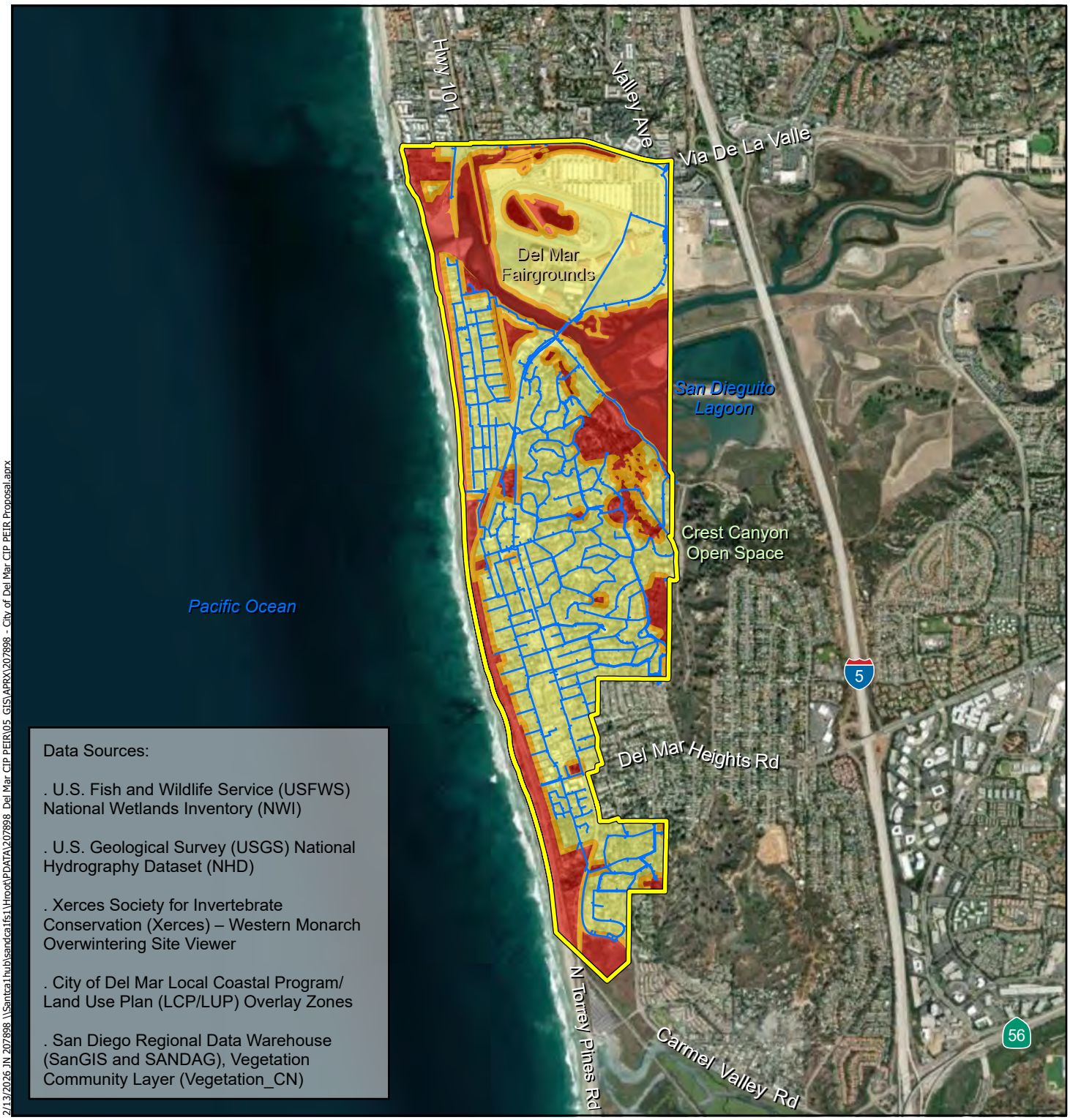


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**Legend**

- Water Line
- Project Site

**Biological Resources Sensitivity Zones**

- High Sensitivity Zone
- Moderate Sensitivity Zone
- Low Sensitivity Zone

CITY OF DEL MAR CIP STREAMLINING PROJECT
PROGRAM ENVIRONMENTAL IMPACT REPORT

Michael Baker INTERNATIONAL

0 0.25 0.5 Miles

Source: Esri, ArcGIS Online, USFWS, USGS, City of Del Mar, San Diego County, Xerces Society Western Monarch Count. 2025. Western Monarch Count Data, 1997-2025

# Existing Water Infrastructure Within Biological Resources Sensitivity Zones

Figure 3.2-4b

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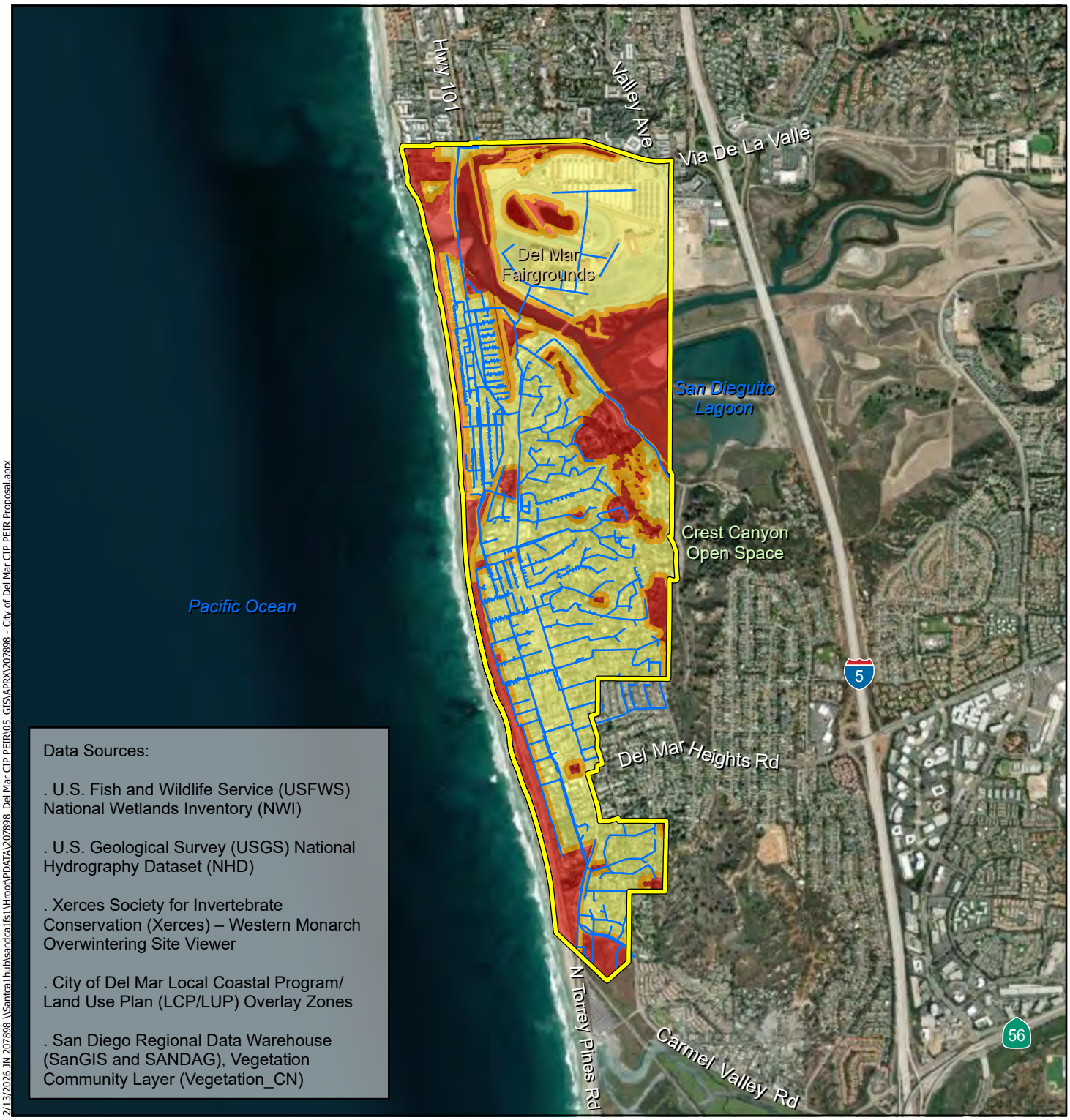


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**Legend**

- Wastewater Line
- Project Site

**Biological Resources Sensitivity Zones**

- High Sensitivity Zone
- Moderate Sensitivity Zone
- Low Sensitivity Zone

0 0.25 0.5 Miles

Source: Esri, ArcGIS Online, USFWS, USGS, City of Del Mar, San Diego County, Xerces Society Western Monarch Count. 2025. Western Monarch Count Data, 1997-2025

Michael Baker INTERNATIONAL

CITY OF DEL MAR CIP STREAMLINING PROJECT
PROGRAM ENVIRONMENTAL IMPACT REPORT

# Existing Wastewater Infrastructure Within Biological Resources Sensitivity Zones

Figure 3.2-4c

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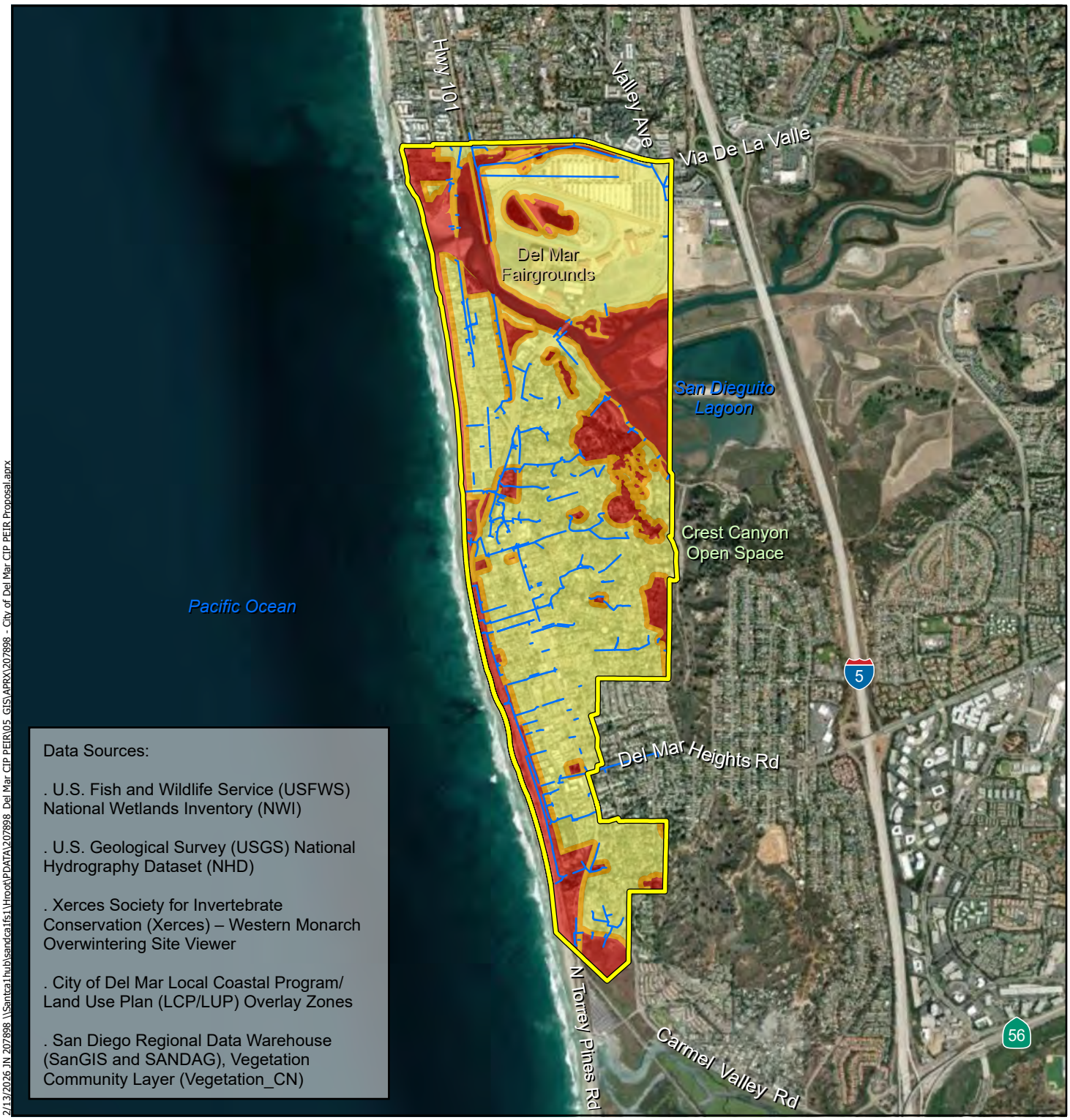


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**Legend**

- Storm Water Line
- Project Site

**Biological Resources Sensitivity Zones**

- High Sensitivity Zone
- Moderate Sensitivity Zone
- Low Sensitivity Zone

0 0.25 0.5 Miles

Source: Esri, ArcGIS Online, USFWS, USGS, City of Del Mar, San Diego County, Xerces Society Western Monarch Count. 2025. Western Monarch Count Data, 1997-2025

Michael Baker INTERNATIONAL

CITY OF DEL MAR CIP STREAMLINING PROJECT
PROGRAM ENVIRONMENTAL IMPACT REPORT

# Existing Storm Water Infrastructure Within Biological Resources Sensitivity Zones

Figure 3.2-4d

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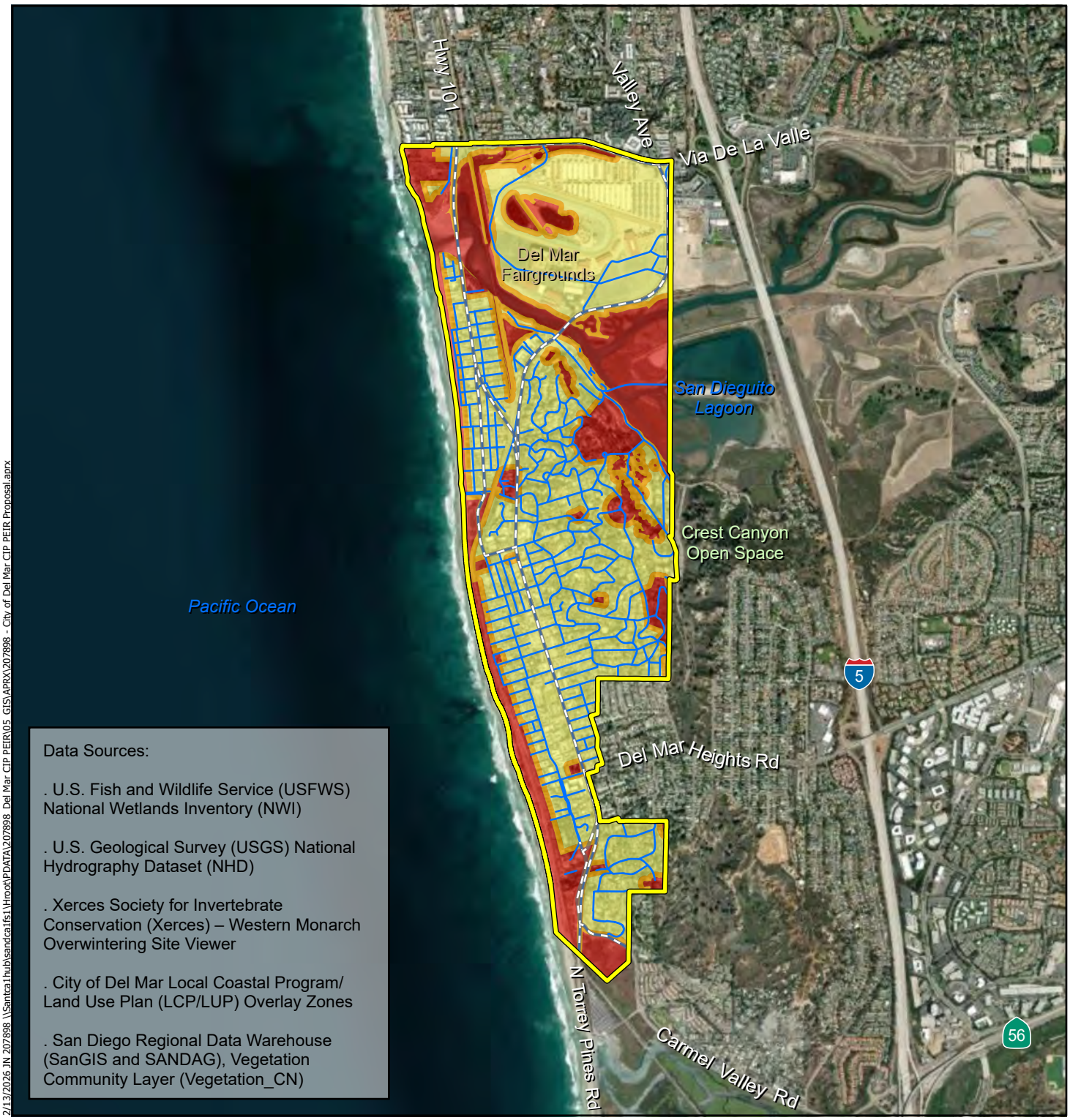


2/13/2026 JN 207898 \\Santca1.hub\sandca1fs1\Hroot\PDATA\207898 Del Mar CIP PEIR\05_GIS\APRX\207898 - City of Del Mar CIP PEIR Proposal.aprx

**Legend**

- Roads
- Bikeways
- Project Site

**Biological Resources Sensitivity Zones**

- High Sensitivity Zone
- Moderate Sensitivity Zone
- Low Sensitivity Zone

CITY OF DEL MAR CIP STREAMLINING PROJECT
PROGRAM ENVIRONMENTAL IMPACT REPORT

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0 0.25 0.5 Miles

Source: Esri, ArcGIS Online, USFWS, USGS, City of Del Mar, San Diego County, Xerces Society Western Monarch Count. 2025. Western Monarch Count Data, 1997-2025

# Existing Streets Infrastructure Within Biological Resources Sensitivity Zones

Figure 3.2-4e

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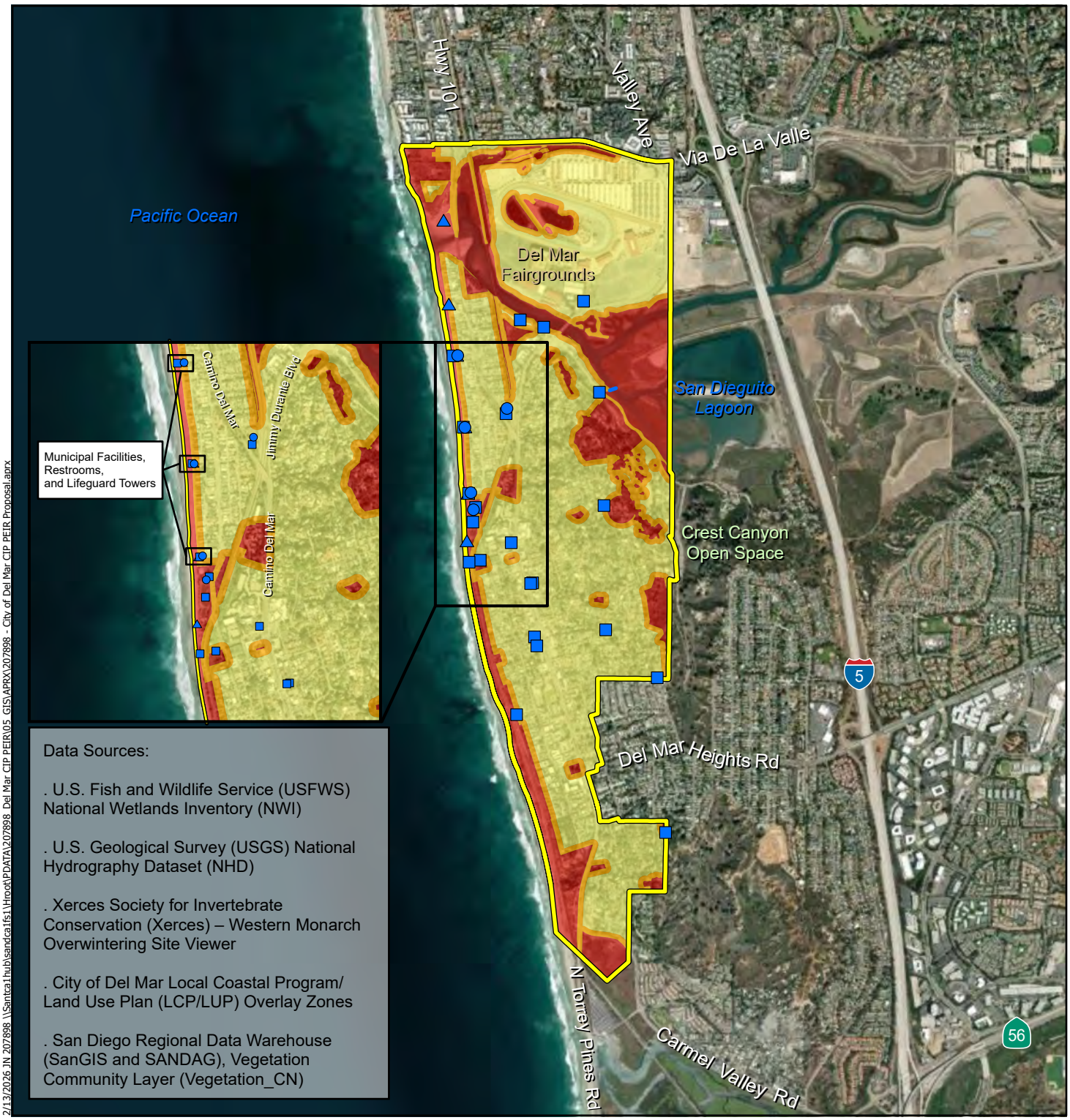


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**Legend**

- Project Site
- Lifeguard Towers
- Municipal Facilities
- Restrooms
- Bridges

**Biological Resources Sensitivity Zones**

- High Sensitivity Zone
- Moderate Sensitivity Zone
- Low Sensitivity Zone

CITY OF DEL MAR CIP STREAMLINING PROJECT
PROGRAM ENVIRONMENTAL IMPACT REPORT

# Existing Municipal Facilities Within Biological Resources Sensitivity Zones

Michael Baker INTERNATIONAL

0 0.25 0.5 Miles

Source: Esri, ArcGIS Online, USFWS, USGS, City of Del Mar, San Diego County, Xerces Society Western Monarch Count. 2025. Western Monarch Count Data, 1997-2025

Figure 3.2-4f

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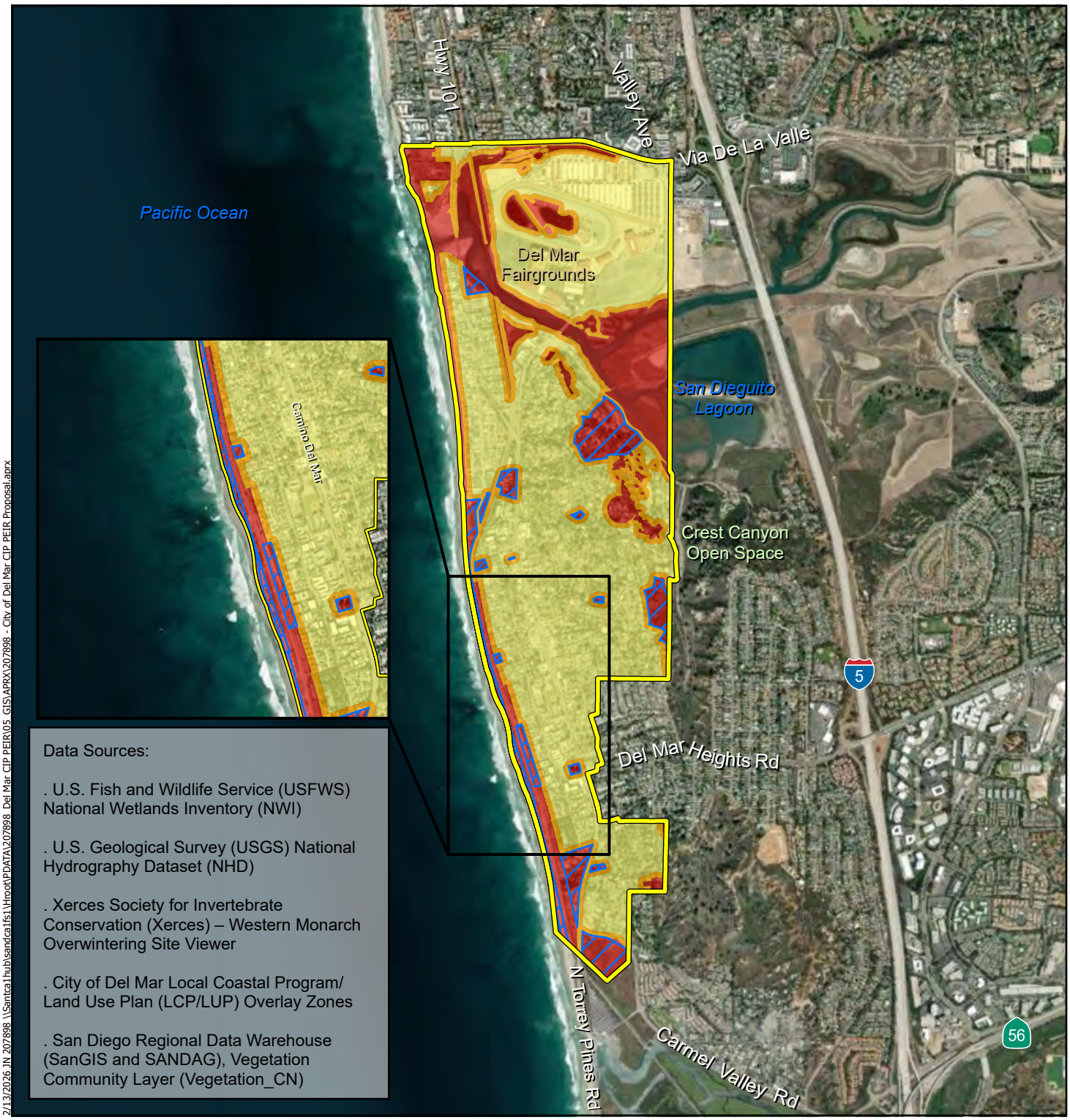


2/13/2026 JN 207898 \\Santca1.hub\sandca1fs1\Hroot\PDATA\207898 Del Mar CIP PEIR\05_GIS\APRX\207898 - City of Del Mar CIP PEIR Proposal.aprx

**Legend**

- Project Site
- Open Space

**Biological Resources Sensitivity Zones**

- High Sensitivity Zone
- Moderate Sensitivity Zone
- Low Sensitivity Zone

CITY OF DEL MAR CIP STREAMLINING PROJECT
PROGRAM ENVIRONMENTAL IMPACT REPORT

Michael Baker INTERNATIONAL

0 0.25 0.5 Miles

Source: Esri, ArcGIS Online, USFWS, USGS, City of Del Mar, San Diego County, Xerces Society Western Monarch Count. 2025. Western Monarch Count Data, 1997-2025

# Existing Open Space Within Biological Resources Sensitivity Zones

Figure 3.2-4g

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## 3.3. Cultural Resources

Cultural resources include places, objects, and settlements that reflect group or individual religious, archaeological, architectural, or paleontological activities. Such resources provide information on scientific progress, environmental adaptations, group ideology, or other human advancements. By statute, CEQA is primarily concerned with two classes of cultural resources: "historical resources," which are defined in Public Resources Code (PRC) Section 21084.1 and CEQA Guidelines Section 15064.5; and "unique archaeological resources," which are defined in PRC Section 21083.2

This section discusses the environmental setting, existing conditions, regulatory context, and potential impacts of the proposed project in relation to historical and archaeological resources. Tribal cultural resources are evaluated in Section 3.7 of this PEIR.

This section is based on technical data and analysis from the following:

- *Programmatic Cultural and Paleontological Resources Assessment – City of Del Mar Capital Improvement Program Streamlining Project, Del Mar, California,* prepared by Michael Baker International (Appendix F).

Due to the sensitive and confidential nature of cultural resources, portions of the *Cultural Resources Inventory and Evaluation Report* have been redacted (Appendix F).

The following table provides a summary of impacts and significance findings, based on the analysis provided in Section 3.3.4, Project Impacts and Mitigation Measures. No significant and unavoidable impacts were identified.

**SUMMARY BY CIP PROJECT CATEGORY OF IMPACTS ASSOCIATED WITH CULTURAL RESOURCES**

| Impact | UP | Water | Wastewater | Storm Water | Streets | Facilities | Open Space |
|---|---|---|---|---|---|---|---|
| Impact 3.3-1: Cause a substantial adverse change in the significance of a historical resource | LTS+M | LTS+M | LTS+M | LTS+M | LTS+M | LTS+M | LTS+M |
| Impact 3.3-2: Cause a substantial adverse change in the significance of an archaeological resource | LTS+M | LTS+M | LTS+M | LTS+M | LTS+M | LTS+M | LTS+M |
| Impact 3.3-3: Disturb human remains | LTS+M | LTS+M | LTS+M | LTS+M | LTS+M | LTS+M | LTS+M |
| Impact 3.3-4: Project's contribution to cumulative cultural resources impacts | NCC | NCC | NCC | NCC | NCC | NCC | NCC |

Notes: LTS = Less than Significant; LTS+M = Less than Significant with Mitigation; NCC = Not Cumulatively Considerable; NI = No Impact; SU = Significant and Unavoidable

## 3.3.1. Environmental Setting

### Cultural Resources Records Search

A records search request was sent on August 29, 2025, to the South Coastal Information Center (SCIC) of the California Historical Resources Information System and received a response on October 1, 2025. The records search returned 67 cultural resource studies within the City. The records search also identified 37 previously recorded cultural resources sites within the City, including 9 precontact archaeological sites, 4 historic-period archaeological sites, 24 historic built environment sites (see Table 3.3-1, Previously Recorded Resources Sites within the City). Information about each resource is provided in Appendix F.

**TABLE 3.3-1 PREVIOUSLY RECORDED RESOURCES SITES WITHIN THE CITY**

| Primary Number | Trinomial Number/ Site Name | Attribute Code and Site Description | Recording Events (Recorder, Organization, Year) | NRHP/CRHR Evaluation Status |
|---|---|---|---|---|
| -- | 220 27th Street | Residence | -- | -- |
| P-37-000191 | CA-SDI-000191 | AP15: Habitation Debris; Prehistoric habitation site with cobble hearths, shell fragments, sandstone metates, and "worked stones" observed. | Malcolm Rogers, n.d.; Foglia & Spelts, AECOM, 2016; AECOM 2019; T. Wolfe, AECOM, 2020; J. Tansey, GeoPacific, 2021 | Not formally evaluated; likely eligible |
| P-37-000192 | CA-SDI-000192 | AP15: Habitation Debris; unknown prehistoric site, shell scatter, likely destroyed by development | Treganza, Gross and Bull, n.d.; Foglia & Spelts, AECOM, 2016 | Not formally evaluated |
| P-37-004612 | CA-SDI-004612 | Midden/Habitation Debris, Prehistoric site, cobbles, shell midden, eroding sandstone mortar | D. Colbern, 1973; J. Woodward, 1982; M. Mealey et al., 1996; N. Brodie, 2015; D. Mengers, PanGIS, 2018/2021 | Not formally evaluated |
| P-37-007979 | CA-SDI-007979 | Midden/Habitation Debris, Lithic/Ceramic Scatter; moderately developed midden, ground stone tools, shellfish, lithics, mammal bone. | D. Barboela and D. Cheever 1980; B. Smith, Brian F. Smith & Associates, 1996 | Underwent Data Recovery in 1996, likely remains an eligible resource |
| P-37-010149 | CA-SDI-010149 | Shell, ash, flaked stone, quartzite and metavolcanic flakes; site covered by slope-washed sediment | Richard Carrico & Jay Thesken, WESTEC, 1984; N. Brodie, 2014 | Not formally evaluated |
| P-37-010940 | CA-SDI-010940 | Burial, habitation site, cultures included LIT I & II, trace of Y-III; midden, scarce cobble hearths, burials, shell, bone, charcoal, metate, flakes, points, knives | Malcolm Rogers, n.d., Andrew Pigniolo, WESTEC, 1988 | Not formally evaluated; likely eligible |
| P-37-017450 | 1638 Coast Blvd Powerhouse Building and Smokestack; Powerhouse | Historic structure, last of Old Hotel Del Mar complex; stucco and wood timbers, concrete | John B. Bahorski, City of Del Mar, 1988) | Considered a local landmark; appears eligible for NRHP |
| P-37-024194 | DMB Feature 1 | AH16: Railroad retaining wall, culvert, or drain; concrete storm pipe and retaining wall, collapsed and broken into chunks | Ní Ghabhláin and Pallette, ASM Affiliates, 2001; D. Mengers, PanGIS, 2018/2020/2021 | Not eligible (FRA/SHPO 2021) |

**TABLE 3.3-1, CONTINUED**

| Primary Number | Trinomial Number/ Site Name | Attribute Code and Site Description | Recording Events (Recorder, Organization, Year) | NRHP/CRHR Evaluation Status |
|---|---|---|---|---|
| P-37-024195 | DMB Feature 2 | AH16: Railroad retaining wall, culvert, or drain; historic concrete retaining wall and spillway | Ní Ghabhláin and Pallette, ASM Affiliates 2001/2002, D. Mengers, PanGIS, 2018/2021 | Not eligible (FRA/SHPO 2021) |
| P-37-024196 | DMB Feature 3 | AH16: Railroad retaining wall, culvert, or drain; 20 m concrete wall | Ní Ghabhláin and Pallette, ASM Affiliates, 2001; D. Mengers, PanGIS, 2021 | Not eligible (FRA/SHPO 2021) |
| P-37-024197 | DMB Feature 4 | AH16: Historic foundation and bridge remains; 1910 gazebo/footbridge, wooden pilings of an 1890s swimming pool | Ní Ghabhláin and Pallette, ASM Affiliates, 2001; D. Mengers, PanGIS, 2018/2021 | Not eligible (FRA/SHPO 2021) |
| P-37-024198 | DMB Feature 5 | AH16: Railroad retaining wall, culvert, or drain; retaining wall and storm drain, mostly replaced | Ní Ghabhláin and Pallette, ASM Affiliates, 2001; D. Mengers, PanGIS, 2021 | Not eligible (FRA/SHPO 2021) |
| P-37-024199 | DMB Feature 6 | AH16: Railroad retaining wall, culvert, or drain; collapsed historic wall | Ní Ghabhláin and Pallette, ASM Affiliates, 2001; D. Mengers, PanGIS, 2021 | Not eligible (FRA/SHPO 2021) |
| P-37-024200 | DMB Feature 8 | AH16: Railroad retaining wall, culvert, or drain; historic concrete wall | Ní Ghabhláin and Pallette, ASM Affiliates, 2001; D. Mengers, PanGIS, 2021 | Not eligible (FRA/SHPO 2021) |
| P-37-024201 | DMB Feature 9 | AH16: Railroad retaining wall, culvert, or drain; historic large retaining wall with culvert | Ní Ghabhláin and Pallette, ASM Affiliates, 2001; D. Mengers, PanGIS, 2021 | Not eligible (FRA/SHPO 2021) |
| P-37-024249 | DMB Feature 7 | AH16: Railroad retaining wall, culvert, or drain; concrete wall | Ní Ghabhláin and Pallette, ASM Affiliates, 2001; D. Mengers, PanGIS, 2021 | Not eligible (FRA/SHPO 2021) |
| P-37-026493 | CA-SDI-017389 | Highland accretion midden on red crag formation, platforms, hearths, fire-cracked rock, shell | Rogers 1939 | Not formally evaluated; site destroyed by erosion |
| P-37-033925 | CA-SDI-021312 | AH4: Trash scatter; domestic and automotive artifacts, historic refuse: bottles, cans, hubcaps; destroyed by bridge retrofit | Charles Callahan 2011; Smith et al., Brian F. Smith & Assoc., 2014; D. Mengers, PanGIS, 2018/2021 | Not eligible (FRA/SHPO 2021) |
| P-37-034956 | San Dieguito River Railroad Bridge | HP19: Railroad Bridge; timber pile trestle | Ní Ghabhláin et al., ASM Affiliates, 2009 | Recommended not eligible |
| P-37-035160 | T-Mobile West LLC SD06288A / Crest Way Water Tank | HP11: Engineering Structure; Modern round steel water tank, circa 1953, public utility | K. A. Crawford, Crawford Historic Services, 2013 | Recommended not eligible |
| P-37-035935 | Del Mar Infield Pavilion | HP42: Contemporary building, irregular plan, brick and plywood, scoreboard | K. Brunzell, 2015 | Recommended not eligible |
| P-37-035936 | Del Mar Thoroughbred Club Grandstand and Racetrack Complex | HP4: Ancillary building, vernacular Modern style, built circa 1965 | K. Brunzell, 2015; M. Mello, AECOM, 2016 | Recommended not eligible |
| P-37-036273 | A-S-1 (Sewer Tank) | HP39: Sewer Tank; Concrete tank with manhole "City of Del Mar Sewage 1936—Standard Iron Works" | Dina Chatelain et al., 2014 | Not formally evaluated |

**TABLE 3.3-1, CONTINUED**

| Primary Number | Trinomial Number/ Site Name | Attribute Code and Site Description | Recording Events (Recorder, Organization, Year) | NRHP/CRHR Evaluation Status |
|---|---|---|---|---|
| P-37-036281 | CA-SDI-021996 A-S-3 (Historic Trash Dump) | A4: Historic Trash Dump; Refuse scatter, bottles, ceramics, metal, 1929–1954 | N. Turner, California State Parks, 2014 | Not formally evaluated |
| P-37-036412 | Del Mar-P62481-7 (1601 San Dieguito Drive) | HP2: Single-family property; Raised ranch-style residence, 1965 | M. Mello, AECOM, 2016. | Recommended not eligible |
| P-37-036413 | Del Mar-P62481-8 (1604 San Dieguito Drive) | HP2: Single-family property; Eclectic ranch-style residence, 1967 | M. Mello, AECOM, 2016 | Recommended not eligible |
| P-37-036415 | Del Mar-TL666 (Portion of TL666 within the Del Mar Project corridor) | HP11: Engineering Structure; SDG&E electric transmission line, circa 1918 | Foglia & Spelts, AECOM, 2016 | Recommended not eligible |
| P-37-036420 | CA-SDI-022048 Del Mar-Z90289-1 (Concrete Lamp Post Dump) | AH4: Privies/Dumps/Trash scatters; Dump of concrete blocks and pillars | Foglia & Spelts, AECOM, 2016 | Not formally evaluated |
| P-37-036421 | Del Mar-Z90296-1 (Glass Insulator Fragment) | AH16: Other; Clear glass insulator crown fragment, isolate | Foglia & Spelts, AECOM, 2016 | Not formally evaluated |
| P-37-036422 | Del Mar-Z90297-1 (Del Mar Blue Print Co/ Automotive) | HP8: Commercial Building; large rectangular corrugated metal warehouse, circa 1955 | Foglia et al., AECOM, 2016 | Recommended not eligible |
| P-37-036423 | Del Mar-Z90710-1 (Old Grand Avenue Bridge) | HP19: Bridge; WWII-era bridge, now overlook | Foglia & Spelts, AECOM, 2016 | Recommended not eligible |
| P-37-036525 | 34638-ISO-1 (Historic Glass Bottle Isolate) | AH16: Other (Isolate); Clear glass bottle (fragmented from bobcat machine), circa 1923-1982 | K. Ports, AECOM, 2016 | Not formally evaluated |
| P-37-039579 | DMB5-02 (Signal Foundation) | AH2: Foundation; Concrete foundation for intermediate signal, pre-1970s | Mengers & Rolland, PanGIS, 2020 | Not eligible for NRHP/CRHR (FRA/SHPO 2021) |
| P-37-039580 | DMB5-03 (Drainage Chute) | HP20: Water conveyance system; Historic-era concrete drainage chute, circa 1910 | Mengers & Rolland, PanGIS, 2020 | Not eligible for NRHP/CRHR (FRA/SHPO 2021) |
| P-37-039581 | DMB5-04 (Pipe Outlet) | HP20: Water conveyance system; Historic-era iron pipe outlet, circa 1910 | Mengers & Rolland, PanGIS, 2020 | Not eligible for NRHP/CRHR (FRA/SHPO 2021) |
| P-37-039582 | DMB5-05 (Foundation) | AH2: Foundation; Historic-era concrete foundation, circa 1910 | Mengers & Rolland, PanGIS, 2020 | Not eligible for NRHP/CRHR (FRA/SHPO 2021) |

## Sacred Lands File Search Results

On September 10, 2025, a request was sent to the Native American Heritage Commission (NAHC) for Sacred Lands File search for any tribal cultural resources that might be affected by the project. The NAHC responded in a letter dated September 17, 2025, stating that the search of the Sacred Lands File was

negative. The NAHC also provided a list of tribal contacts who may have knowledge regarding tribal cultural resources in the vicinity of the project area (Appendix F).

### Built Environment

Figure 3.3-1, SCIC Recorded Built Environment Resources, shows the locations of the built environment resources included in Table 3.3-1 as well as the presumed eligibility status of each built environment resource. Additionally, the City has a Historic Preservation Ordinance and has designated certain buildings as local historic landmarks. Table 3.3-2, City of Del Mar Historic Preservation Landmarks, lists the nine designated Historic Preservation landmarks identified under the Historic Preservation Ordinance, and Figure 3.3-2, Historic Preservation Landmarks, provides locational data based on the City's Historic Preservation Overlay Zone.

**TABLE 3.3-2 CITY OF DEL MAR HISTORIC PRESERVATION LANDMARKS**

| Del Mar Historic Preservation Landmark | Address |
|---|---|
| Powerhouse Building and Smokestack | 1638 Coast Boulevard |
| Railroad Depot | 15th Street |
| Historic Home | 1726 Coast Boulevard |
| Rockhouse | 410 15th Street |
| Hotel Del Mar Guest Cottage | 110 15th Street |
| Stratford Square | 1438 Camino del Mar |
| Old St. James Church (Library) | 1309 Camino del Mar |
| Public Walkway (Gunthers) | N/A |
| Torrey Pines Road Overhead (PCH) Bridge (Bridge 57C0207) | Pacific Coast Highway south of Carmel Valley Road |

PCH = Pacific Coast Highway

## 3.3.2. Regulatory Framework

### Federal

#### National Historic Preservation Act (NHPA, 1966)

The NHPA (Public Law 89-665; 54 United States Code [USC] 300101 et seq.) is the cornerstone of federal historic preservation law. Section 106 of the NHPA requires federal agencies to consider the effects of any federal undertaking on "historic properties," which are cultural resources listed in or eligible for the National Register of Historic Places (NRHP). The agency must consult with the State Historic Preservation Officer (SHPO) and other stakeholders, including Native American tribes, following procedures in 36 Code of Federal Regulations Part 800. In practice, if any Del Mar CIP projects receive federal funding, federal permits, or other federal approvals (a "federal nexus"), the Section 106 review process must be completed. This involves inventory and evaluation of cultural resources within the project's Area of Potential Effects (APE), assessment of project effects on any NRHP-eligible properties, and development of measures to avoid, minimize, or mitigate adverse effects. Federal undertakings that adversely affect historic properties cannot proceed until Section 106 consultation is resolved, typically via a Memorandum of Agreement outlining mitigation commitments.

**Archaeological Resources Protection Act (ARPA, 1979)**

ARPA [16 USC 470aa–470mm] protects archaeological sites and artifacts on federal lands and Indian lands. It requires permits for any excavation or removal of archaeological resources on those lands and imposes penalties for unauthorized artifact removal or site damage. ARPA would be applicable if any CIP project occurs on federally owned land (unlikely within City limits) or affects an archaeological site of Native American significance on tribal lands. While most CIP projects are on City or private property, ARPA is noted here for completeness in case of any federal land involvement.

**Native American Graves Protection and Repatriation Act (NAGPRA, 1990)**

NAGPRA [25 USC 3001 et seq.] provides a process for museums or federal agencies to return Native American human remains and cultural items to descendant communities, and it protects such remains and items discovered on federal or tribal land. If a project on federal land were to inadvertently discover Native American human remains or funerary objects, NAGPRA would mandate notification of tribes and repatriation of remains. While the CIP projects are not on federal or tribal land, NAGPRA's provisions reflect the sensitivity and legal protection accorded to Native American burials at the federal level. (Separate state laws outlined below protect human remains on non-federal lands.)

**Secretary of the Interior's Standards**

The Secretary of the Interior (SOI) is responsible for establishing standards for advising federal agencies on the preservation of historic properties that are eligible for or listed in the NRHP. These standards consist of four general types of treatments: preservation, rehabilitation, restoration, and reconstruction. Of the four, the Standards for Rehabilitation (36 CFR 68.3[b]) is the most likely appropriate treatment for the projects in the PEIR. Rehabilitation is defined as "the act or process of making possible a compatible use for a property through repair, alterations, and additions while preserving those portions or features which convey its historical cultural, or architectural values." The Standards for Rehabilitation thus acknowledge that a building may retain its historic character even with alterations. Under CEQA Guidelines Section 15064.5(b)(3), "[g]enerally, a project that follows the Secretary of the Interior's Standards for the Treatment of Historic Properties with Guidelines for Preserving, Rehabilitating, Restoring, and Reconstructing Historic Buildings or the Secretary of the Interior's Standards for Rehabilitation and Guidelines for Rehabilitating Historic Buildings, shall be considered as mitigated to a less than a significant impact on the historical resource."

**National Register of Historic Places**

The NRHP is "an authoritative guide to be used by federal, State, and local governments, private groups, and citizens to identify the Nation's cultural resources and to indicate what properties should be considered for protection from destruction or impairment." However, the federal regulations explicitly provide that a listing of private property on the NRHP "does not prohibit under Federal law or regulation any actions which may otherwise be taken by the property owner with respect to the property."

Historic properties, as defined by the Advisory Council on Historic Preservation, include any "prehistoric or historic district, site, building, structure, or object included in, or eligible for inclusion in, the National Register of Historic Places maintained by the Secretary of the Interior" (36 CFR Section 800.16[l][1]).

Eligibility for inclusion in the NRHP is determined by applying the following criteria, developed by the National Park Service in accordance with the National Historic Preservation Act:

> *The quality of significance in American history, architecture, archeology, engineering, and culture is present in districts, sites, buildings, structures, and objects that possess integrity of location, design, setting, materials, workmanship, feeling, and association and:*
>
> *a) That are associated with events that have made a significant contribution to the broad patterns of our history; or*
>
> *b) That are associated with the lives of persons significant in our past; or*
>
> *c) That embody distinctive characteristics of a type, period, or method of construction, or that represent the work of a master, or that possess high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction; or*
>
> *d) That have yielded, or may be likely to yield, information important in prehistory or history (36 CFR 60.4).*

### State

State historic preservation regulations affecting the proposed project include the statutes and guidelines contained in CEQA, PRC Sections 21083.2 and 21084.1, and CEQA Guidelines Section 15064.5. CEQA requires lead agencies to carefully consider the potential effects of a project on historical resources. A historical resource includes, but is not limited to, any object, building, structure, site, area, place, record or manuscript which is historically or archaeologically significant (PRC Section 5020.1). Section 15064.5 of the CEQA Guidelines specifies criteria for evaluating the significance or importance of cultural resources, including the following:

- The resource is associated with events that have made a contribution to the broad patterns of California history;
- The resource is associated with the lives of important persons from our past;
- The resource embodies the distinctive characteristics of a type, period, region or method of construction, or represents the work of an important individual or possesses high artistic values; or
- The resource has yielded, or may be likely to yield, important information in prehistory or history.

Advice on procedures to identify such resources, evaluate their importance, and estimate potential effects is given in several agency publications such as the technical advice series produced by the Governor's Office of Planning and Research. This technical advice series strongly recommends that Native American concerns and the concerns of other interested persons and corporate entities, including but not limited to museums, historical commissions, associations, and societies, be solicited as part of the process of

cultural resources inventory. In addition, California law protects Native American burials, skeletal remains, and associated grave goods regardless of the antiquity and provides for the sensitive treatment and disposition of those remains.

**California Register of Historical Resources (CRHR)**

The CRHR is a statewide program (established by PRC §5024.1 in 1992) that lists resources significant at the local, state, or national level. CRHR eligibility criteria are modeled on the NRHP criteria for significance, encompassing resources associated with important historical events or persons, embodying distinctive characteristics or artistic values, or yielding important scientific information. Under CEQA, any resource that is listed in or eligible for listing in the CRHR is automatically considered a "historical resource" (PRC §21084.1). Thus, evaluation of properties or sites against CRHR criteria is a key step in determining whether they are protected under CEQA. In practice, a cultural resources technical study for a CIP project will include significance evaluations for any identified cultural materials (buildings, structures, districts, archaeological sites, or objects) to determine if they meet CRHR criteria. If they do, CEQA requires impacts on those resources to be analyzed and mitigated. California Historical Landmarks and points of historical interest (designations for very high significance resources) are also treated as historical resources under CEQA. The CRHR provides a baseline for identifying what cultural resources are significant in the project's context.

There is no prescribed age limit for listing in the CRHR, although CRHR guidelines state that "sufficient time must have passed to obtain a scholarly perspective on the events or individuals associated with the resource." While the NRHP and CRHR generally apply a 50-year threshold to allow for scholarly evaluation of significance, CEQA practitioners often use 45 years as a screening guideline. This proactive approach accounts for project timelines, ensuring resources that may reach 50 years during development are considered early. The 45-year threshold is a best practice—not a statutory requirement—and reflects CEQA's flexibility to evaluate any resource with potential historical significance based on substantial evidence, regardless of age.

**California Health and Safety Code Sections 7050.5, 7051, and 7054**

California Health and Safety Code Sections 7050.5, 7051, and 7054 collectively address the illegality of interference with human burial remains as well as the disposition of Native American burials in archaeological sites. The law protects such remains from disturbance, vandalism, or inadvertent destruction and establishes procedures to be implemented if Native American skeletal remains are discovered during construction of a project, including the treatment of remains prior to, during, and after evaluation, and reburial procedures.

## Local

**City of Del Mar Community Plan**

The City of Del Mar Community Plan (which serves as the City's General Plan) is the primary source of long-range planning and policy direction used to guide growth and preserve the quality of life in the City.

The following goal and objective are relevant in protecting cultural resources:

*Community Plan: Environmental Management*

GOAL 1: Establish without delay a comprehensive program to preserve and acquire permanent open space sufficient to meet the long-range needs of the community, preserve and enhance natural resources, and protect areas and people susceptible to seismic and flooding hazards.

Objective K: Require development in areas of archeological significance to be reviewed by the City of Del Mar to insure that such uses do not result in a permanent destruction of any archeological sites or cultural information.

### 3.3.3. Significance Thresholds

The following thresholds of significance are based on CEQA Guidelines Appendix G. For the purposes of this PEIR, the project would be considered to have a significant impact on cultural resources if it would:

1. Cause a substantial adverse change in the significance of a historical resource pursuant to CEQA Guidelines Section 15064.5.

2. Cause a substantial adverse change in the significance of an archaeological resource pursuant to CEQA Guidelines Section 15064.5.

3. Disturb any human remains, including those interred outside of formal cemeteries.

### 3.3.4. Project Impacts and Mitigation Measures

#### *Historical Resources*

| | |
|---|---|
| **Impact 3.3-1** | **The project would have the potential to cause a substantial adverse change in the significance of a historical resource pursuant to CEQA Guidelines Section 15064.5. Impacts would be less than significant with mitigation incorporated.** |

Due to the programmatic nature of this PEIR, existing buildings or other structures located on CIP project sites could reach an age of 50 years or older prior to the commencement of construction. Generally, structures 50 years of age or older have the potential to be historic resources. Structures must have retained their original integrity and context to be considered a historic resource. Known historical resources in the project site are shown on Figure 3.3-1 and Figure 3.3-2. Additionally, CIP project sites that are developed could potentially contain a structure that meets the criteria as a historical resource, as determined eligible by NRHP or CRHR.

The majority of CIP projects would occur in previously developed or disturbed lands either within public rights-of-way associated with existing roadways or on City property. Additionally, future CIP projects could include repairs, maintenance, and improvements at the Powerhouse Building, which is a City Historic Preservation Landmark. The Historic Preservation Overlay Zone prohibits buildings, improvements, structures, or portion thereof to be erected, constructed, demolished, relocated, converted, altered, or

enlarged, or any lot or premises to be excavated or graded without a discretionary permit that is subject to approval by the Design Review Board (appealable to the City Council).

If CIP project implementation were to result in physical demolition, destruction, relocation, or alteration of a historical resource(s) or a potential historical resource(s), impacts to historical resources could be **potentially significant**.

**Mitigation Measures:**

**CUL-1** **Evaluation for Listing in the CRHR.** Prior to construction activities for CIP projects located on sites containing structures 50 years of age or older that has not previously been evaluated, a qualified architectural historian shall conduct a formal survey, recordation, and CRHR evaluation of the subject resource to determine if it is a historical resource under CEQA (CEQA Section 15064.5[a]). The architectural historian shall prepare comprehensive documentation of the evaluation, including methodology, analysis, and findings. This documentation must provide a clear determination of the site's eligibility for listing in the CRHR and be submitted to the appropriate regulatory agencies for review and concurrence.

Where development would involve the alteration or demolition of a structure greater than 50 years old, a historic evaluation by a Secretary of Interior's Standards for Architectural Historian or Historic Architect shall be provided to determine if the resource meets the definition of a historic resource as defined in CEQA Guidelines Section 15064.5.

For properties that have already been formally evaluated and determined to be historical resources, no additional CRHR eligibility evaluation is required. These resources shall be treated as historical resources for the purposes of CEQA.

If the structure is determined to be a historic resource, any proposed alteration shall follow mitigation guidelines contained in CEQA Guidelines Section 15126.4(b). Mitigation standards may include, but are not limited to avoidance and preservation, conducting alterations in a manner consistent with the Secretary of the Interior's Standards for the Treatment of Historic Properties (including as applicable, standards for Preservation, Rehabilitation, Restoration and Reconstruction), and documenting resources. The approach to comply with these standards shall be prepared by an Architectural Historian or Historic Architect and provided to the City.

Demolition and/or significant diminution of designated historic landmarks shall be prohibited.

**Level of Significance:** Less than significant with mitigation incorporated.

## *Archaeological Resources*

| | |
|---|---|
| **Impact 3.3-2** | **The project would have the potential to cause a substantial adverse change in the significance of an archaeological resource pursuant to CEQA Guidelines Section 15064.5. Impacts would be less than significant with mitigation incorporated.** |

**Construction Impacts**

Due to the programmatic nature of this PEIR, this analysis focuses on reasonably foreseeable impacts and establishes standards for individual CIP project review. The approach integrates baseline data from the Programmatic Cultural and Paleontological Resources Assessment (Appendix F) and applies a screening-level evaluation of potential impacts to precontact archaeological resources. The analysis utilizes a citywide archaeological sensitivity map to classify areas as high, moderate, low, or very low sensitivity, based on proximity of known archaeological sites and surface water (ocean, lagoon, or perennial stream), slope grading, soils, and present-day disturbance/land use (Figure 3.3-3, Archaeological Sensitivity Zones). The reader is referred to Appendix F Section 5.2 for details on the data sources and variables used to create the archaeological sensitivity map for the project site.

The approved CIP projects for FY 2026-2027 (included in Table 2-2 at the end of Chapter 2.0) were evaluated in relation to the archaeological sensitivity zones (see Figure 3.3-3). As shown in Figure 3.3-4a through Figure 3.3-4g, most of the existing public infrastructure and municipal facilities occur within the low and moderate archaeological sensitivity zones.

CIP projects located in the high archaeological sensitivity zone include those located along the San Dieguito River and Lagoon margins, coastal bluff edges, and undeveloped open space parcels adjacent to natural drainages. These areas correspond with known site clusters and environmental conditions conducive to prehistoric occupation and burial. Construction of the CIP projects in this zone could involve ground-disturbing activities such as grading and trenching that could encounter undiscovered archaeological resources. As such, archaeological resources impacts in the high archaeological sensitivity zone could be **potentially significant**.

CIP projects located in the moderate archaeological sensitivity zone include those located along inland canyon edges, older residential neighborhoods with limited prior grading, and transitional zones between developed parcels and natural features. These areas may contain buried or obscured cultural deposits not previously recorded. Because ground-disturbing activities associated with the CIP projects in this zone could encounter undiscovered archaeological resources, archaeological resources impacts in the moderate archaeological sensitivity zone could be **potentially significant**.

The low archaeological sensitivity zone encompasses heavily urbanized corridors, previously graded parcels, and areas with deep fill or artificial surfaces, and therefore is unlikely to contain intact cultural deposits. The very low archaeological sensitivity zone includes areas where prior ground disturbance has been so extensive that virtually no intact native soils remain. These areas are typically locales dominated by major infrastructure or earthwork—for example, heavily engineered corridors (railroad alignments or highway rights-of-way), sites of deep artificial fill, or large commercial/industrial parcels that have been

completely graded and paved. In such highly disturbed contexts, the likelihood of encountering any preserved archaeological deposits is negligible. Because ground-disturbing activities associated with the CIP projects in these zones are unlikely to encounter undiscovered archaeological resources, impacts to such resources in the low and very low archaeological sensitivity zones would be **less than significant**.

**Operational Impacts**

After construction, operational activities would mainly include continued, ongoing regular maintenance activities, as well as use of public facilities and open space CIP projects, which would not affect archaeological resources. Therefore, **no impact** to archaeological resources would occur due to CIP project operations.

**Mitigation Measures:**

**CUL-2** **Archaeological Surveys.** For CIP project locations where no previous archaeological survey data is available, prior to ground-disturbing construction activities in previously undisturbed soils for CIP projects wholly and/or partially within moderate or high archaeological sensitivity zones as depicted in Figure 3.3-3, Archaeological Sensitivity Zones, the City shall retain a qualified archaeologist to conduct an archaeological survey to evaluate the presence of cultural resources and the need for project-specific impact mitigation by preservation, relocation, or other methods. An archaeological resource report shall include the methods used to determine the presence or absence of archaeological resources, identify potential impacts from the proposed project, and evaluate the significance of any archaeological resources identified. If there are potentially significant impacts to an identified archaeological/cultural resource, the report shall also recommend appropriate mitigation required during ground-disturbing activities to reduce impacts to below a level of significance.

**CUL-3** **Cultural Resources Monitoring Program.** During ground-disturbing construction activities in previously undisturbed soils for CIP projects wholly and/or partially within moderate or high archaeological sensitivity zones as depicted in Figure 3.3-3, Archaeological Sensitivity Zones, a Cultural Resource Mitigation Monitoring Program shall be conducted to provide for the identification, evaluation, treatment, and protection of any cultural resources that are affected by or may be discovered during the construction of the proposed project. The monitoring shall consist of the full-time presence of a qualified archaeologist and a traditionally and culturally affiliated Native American monitor shall be retained to monitor all ground-disturbing activities associated with project construction, including vegetation removal, clearing, grading, trenching, excavation, or other activities that may disturb the ground.

The qualified archaeologist and/or Native American monitor may halt ground-disturbing activities if archaeological artifact deposits or cultural features are discovered. In general, ground disturbing activities shall be directed away from these deposits for a short time to allow a determination of potential significance, the subject of which shall be determined by the qualified archaeologist and the Native American monitor. Ground-disturbing

activities shall not resume until the qualified archaeologist, in consultation with the Native American monitor, deems the cultural resource or feature has been appropriately documented and/or protected. At the qualified archaeologist's discretion, the location of ground disturbing activities may be relocated elsewhere on the project site to avoid further disturbance of cultural resources.

The City shall relinquish ownership of all tribal cultural resources, including associated with burial and/or funerary goods, collected during the cultural resource mitigation monitoring program to the Most Likely Descendant as determined by the Native American Heritage Commission per California Public Resources Code Section 5097.98 for respectful and dignified treatment and disposition, including reburial, in accordance with the affiliated tribe's cultural and spiritual traditions.

Upon completion of construction monitoring, a Monitoring Report and/or Evaluation Report, which describes the results, analysis and conclusions of the cultural resource mitigation monitoring efforts (such as, but not limited to, the Research Design and Data Recovery Program) shall be submitted by the qualified archaeologist, along with the Native American monitor's notes and comments, to the City's Planning & Community Development Director.

**Level of Significance**: Less than significant with mitigation incorporated.

### *Human Remains*

| | |
|---|---|
| **Impact 3.3-3** | **The project would have the potential to disturb human remains, including those interred outside of formal cemeteries. Compliance with state laws would ensure potential impacts are less than significant.** |

There are no known burial sites or cemeteries in or near the City. Therefore, it is not expected that human remains would be disturbed as a result of implementation of CIP projects. Nonetheless it is possible that human remains could be uncovered during ground-disturbing construction activities. However, all CIP projects would be required to comply with the requirements set forth by California Health and Safety Code Section 7050.5. As such, if human remains are found on the project site during construction or during archaeological work, construction work would be halted and the San Diego County Coroner's office would be immediately notified. No further excavation or disturbance of the discovery or any nearby area reasonably suspected to overlie adjacent remains (as determined by the qualified archaeologist and/or the Native American monitor) would occur until the Coroner has made the necessary findings as to origin and disposition pursuant to Public Resources Code 5097.98.

If such a discovery occurs, a temporary construction exclusion zone would be established surrounding the area of the discovery so that the area would be protected (as determined by the qualified archaeologist and/or the Native American monitor), and consultation and treatment could occur as prescribed by law. As further defined by state law, the Coroner would determine within two working days of being notified if the remains are subject to his or her authority. If the Coroner recognizes the remains to be Native

American, they shall contact the Native American Heritage Commission (NAHC) within 24 hours. The NAHC would make a determination as to the Most Likely Descendent.

If Native American remains are discovered, the remains would be kept in situ ("in place"), or in a secure location in close proximity to where they were found, and the analysis of the remains would only occur on-site in the presence of the Native American monitor. Accordingly, potential impacts associated with the disturbance of human remains would be **less than significant**.

**Mitigation Measures:** None required.

**Level of Significance**: Less than significant.

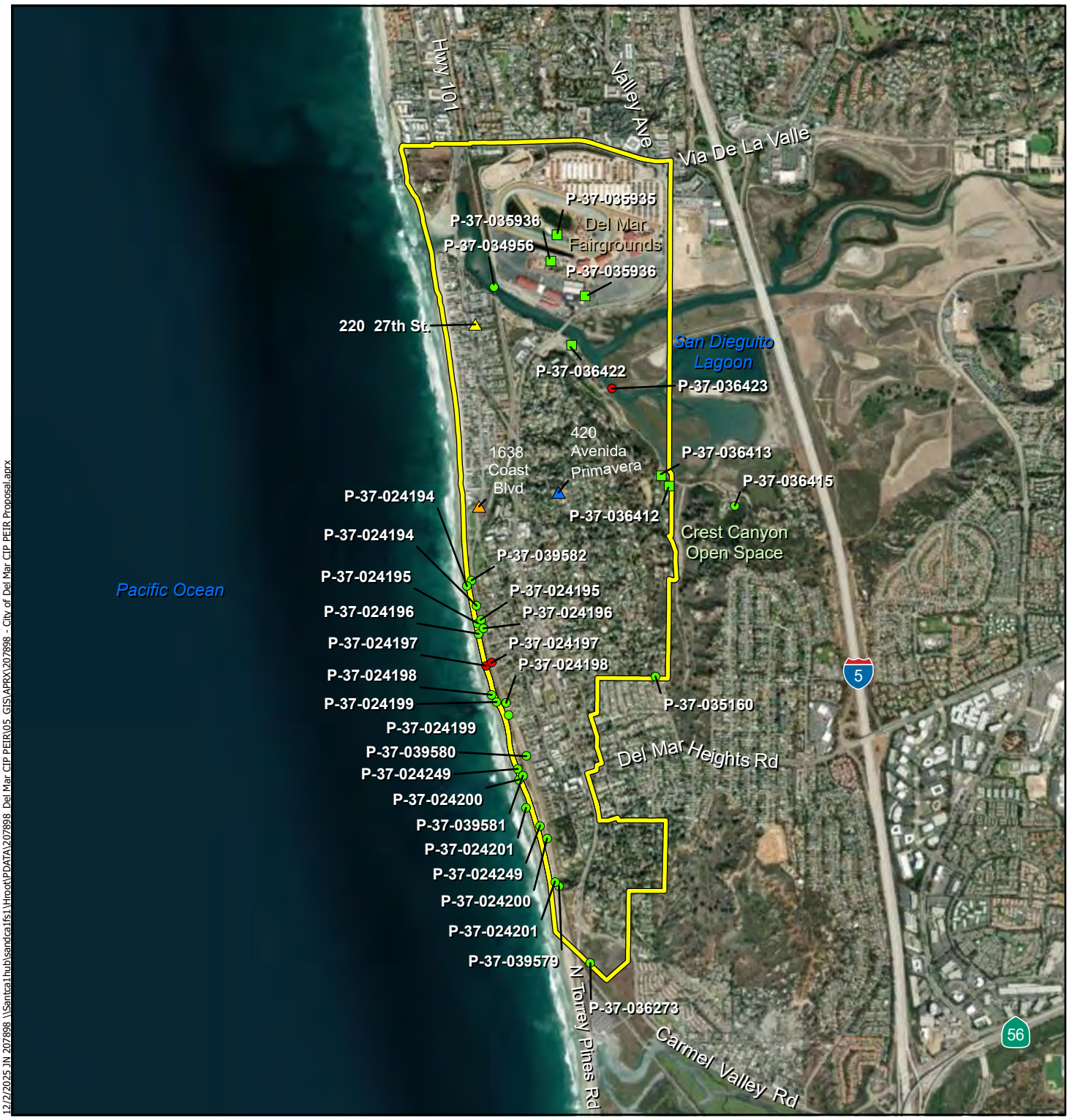
### *Cumulative Impacts*

| | |
|---|---|
| **Impact 3.3-4** | **The cumulative projects would not result in a significant cumulative impact related to cultural resources. Project impacts would not be cumulatively considerable.** |

The anticipated impacts associated with the proposed project in conjunction with cumulative development in the City included in Table 3-1, Cumulative Projects, may result in incremental loss of cultural resources. Each cumulative project would require separate discretionary permit approval and evaluation under CEQA, which would address potential cultural resource impacts. However, most cumulative projects are in previously disturbed or urbanized areas, and those that could potentially significantly impact cultural resources would be subject to regulatory requirements and mitigation measures, similar to the proposed project. With these controls in place, the combined effects of the proposed project and other cumulative projects are expected to result in **less than significant cumulative impacts** to cultural resources.

**Mitigation Measures:** None required.

**Level of Significance**: Less than significant cumulative impacts; project impacts would not be cumulatively considerable.

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## Legend

- Project Site
- **Built Environment Buildings Ineligible**
  - Ineligible
- **Built Environment Structures and Objects**
  - Ineligible
  - Ineligible, but locally important
- **Historic Addresses**
  - 1S Listed in the CR
  - 3S Appears Eligible
  - 6Y Ineligible

CITY OF DEL MAR CIP STREAMLINING PROJECT
PROGRAM ENVIRONMENTAL IMPACT REPORT

Michael Baker INTERNATIONAL

0 0.25 0.5 Miles

Source: Esri, ArcGIS Online, City of Del Mar, San Diego County

# SCIC Recorded Built Environment Resources

Figure 3.3-1

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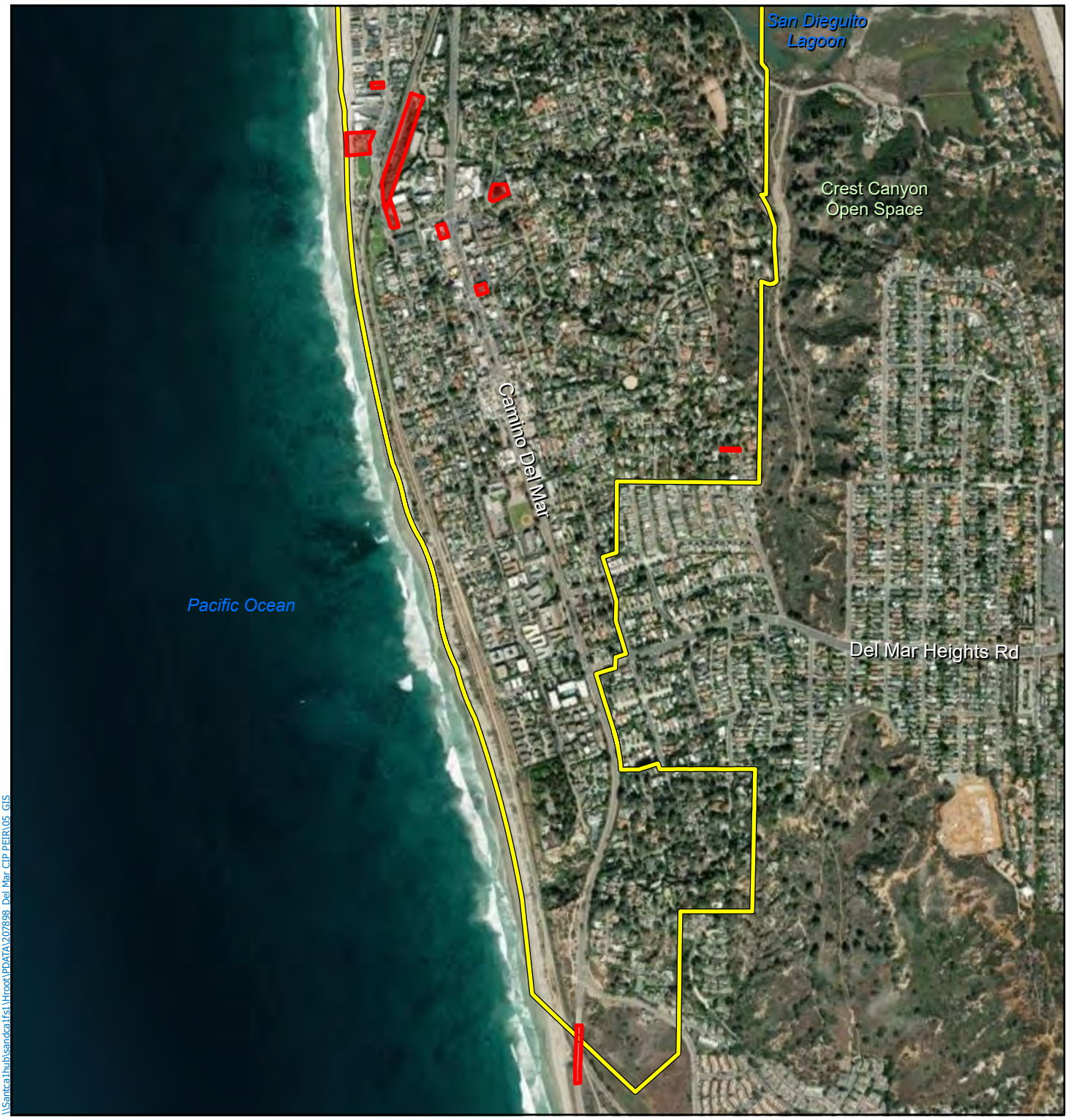


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**Legend**

- Project Site
- Del Mar Historic Preservation Overlay

CITY OF DEL MAR CIP STREAMLINING PROJECT
PROGRAM ENVIRONMENTAL IMPACT REPORT

Michael Baker INTERNATIONAL

0 650 1,300 US Feet

Source: Esri, ArcGIS Online, City of Del Mar, San Diego County

# Del Mar Historic Preservation Overlay

Figure 3.3-2

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**Legend**

Project Site

**Precontact Archaeological Sensitivity Zones**

- 5 - High Sensitivity
- 4 - Moderate Sensitivity
- 3 - Low Sensitivity
- 2 - Very Low Sensitivity

Michael Baker INTERNATIONAL

0 0.25 0.5 Miles

Source: Esri, ArcGIS Online, City of Del Mar, San Diego County

CITY OF DEL MAR CIP STREAMLINING PROJECT
PROGRAM ENVIRONMENTAL IMPACT REPORT

# Archaeological Sensitivity Zones

Figure 3.3-3

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## Legend

- Project Site
- Undergrounding Program Districts Boundaries

**Precontact Archaeological Sensitivity Zones**

- 5 - High Sensitivity
- 4 - Moderate Sensitivity
- 3 - Low Sensitivity
- 2 - Very Low Sensitivity

Michael Baker INTERNATIONAL

0 0.25 0.5 Miles

Source: Esri, ArcGIS Online, City of Del Mar, San Diego County

CITY OF DEL MAR CIP STREAMLINING PROJECT
PROGRAM ENVIRONMENTAL IMPACT REPORT

# Undergrounding Program Districts Within Archaeological Sensitivity Zones

Figure 3.3-4a

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## Legend

- Water Line
- Project Site

**Precontact Archaeological Sensitivity Zones**

- 5 - High Sensitivity
- 4 - Moderate Sensitivity
- 3 - Low Sensitivity
- 2 - Very Low Sensitivity

Michael Baker INTERNATIONAL

0 0.25 0.5 Miles

Source: Esri, ArcGIS Online, City of Del Mar, San Diego County

CITY OF DEL MAR CIP STREAMLINING PROJECT
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Existing Water Infrastructure
Within Archaeological Sensitivity Zones

Figure 3.3-4b

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## Legend

- Wastewater Line
- Project Site

**Precontact Archaeological Sensitivity Zones**

- 5 - High Sensitivity
- 4 - Moderate Sensitivity
- 3 - Low Sensitivity
- 2 - Very Low Sensitivity

0 0.25 0.5 Miles

Source: Esri, ArcGIS Online, City of Del Mar, San Diego County

Michael Baker INTERNATIONAL

CITY OF DEL MAR CIP STREAMLINING PROJECT
PROGRAM ENVIRONMENTAL IMPACT REPORT

# Existing Wastewater Infrastructure Within Archaeological Sensitivity Zones

Figure 3.3-4c

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## Legend

- Storm Water Line
- Project Site

**Precontact Archaeological Sensitivity Zones**

- 5 - High Sensitivity
- 4 - Moderate Sensitivity
- 3 - Low Sensitivity
- 2 - Very Low Sensitivity

Michael Baker INTERNATIONAL

0 0.25 0.5 Miles

Source: Esri, ArcGIS Online, City of Del Mar, San Diego County

CITY OF DEL MAR CIP STREAMLINING PROJECT
PROGRAM ENVIRONMENTAL IMPACT REPORT

# Existing Storm Water Infrastructure Within Archaeological Sensitivity Zones

Figure 3.3-4d

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## Legend

- Roads
- Bikeways
- Project Site

**Precontact Archaeological Sensitivity Zones**

- 5 - High Sensitivity
- 4 - Moderate Sensitivity
- 3 - Low Sensitivity
- 2 - Very Low Sensitivity

Michael Baker INTERNATIONAL

0 0.25 0.5 Miles

Source: Esri, ArcGIS Online, City of Del Mar, San Diego County

CITY OF DEL MAR CIP STREAMLINING PROJECT
PROGRAM ENVIRONMENTAL IMPACT REPORT

# Existing Streets Infrastructure Within Archaeological Sensitivity Zones

Figure 3.3-4e

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## Legend

- Project Site
- Lifeguard Towers
- Municipal Facilities
- Restrooms
- Bridges

**Precontact Archaeological Sensitivity Zones**

- 5 - High Sensitivity
- 4 - Moderate Sensitivity
- 3 - Low Sensitivity
- 2 - Very Low Sensitivity

Michael Baker INTERNATIONAL

0 0.25 0.5 Miles

Source: Esri, ArcGIS Online, City of Del Mar, San Diego County

CITY OF DEL MAR CIP STREAMLINING PROJECT
PROGRAM ENVIRONMENTAL IMPACT REPORT

# Existing Municipal Facilities Within Archaeological Sensitivity Zones

Figure 3.3-4f

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## Legend

- Project Site
- Open Space

**Precontact Archaeological Sensitivity Zones**

- 5 - High Sensitivity
- 4 - Moderate Sensitivity
- 3 - Low Sensitivity
- 2 - Very Low Sensitivity

0 0.25 0.5 Miles

Source: Esri, ArcGIS Online, City of Del Mar, San Diego County

Michael Baker INTERNATIONAL

CITY OF DEL MAR CIP STREAMLINING PROJECT
PROGRAM ENVIRONMENTAL IMPACT REPORT

# Existing Open Space Within Archaeological Sensitivity Zones

Figure 3.3-4g

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## 3.4. Geology and Soils

This section discusses the environmental setting, existing conditions, regulatory context, and potential impacts of the proposed project in relation to geology and soils.

This section is based on technical data and analysis from the following:

- *Programmatic Cultural and Paleontological Resources Assessment – City of Del Mar Capital Improvement Program Streamlining Project, Del Mar, California,* prepared by Michael Baker International (Appendix F)
- City of Del Mar Community Plan (1976; last updated July 18, 2025)
- City of Del Mar General Plan 6th Cycle Housing Element Update Program EIR (2020)

The following table provides a summary of impacts and significance findings, based on the analysis provided in Section 3.4.4, Project Impacts and Mitigation Measures. No significant and unavoidable impacts were identified.

**SUMMARY BY CIP PROJECT CATEGORY OF IMPACTS ASSOCIATED WITH GEOLOGY AND SOILS**

| Impact | UP | Water | Wastewater | Storm Water | Streets | Facilities | Open Space |
|---|---|---|---|---|---|---|---|
| Impact 3.4-1a: Substantial adverse effects involving rupture of a known earthquake fault | LTS | LTS | LTS | LTS | LTS | LTS | LTS |
| Impact 3.4-1b: Substantial adverse effects involving strong seismic ground shaking | LTS | LTS | LTS | LTS | LTS | LTS | LTS |
| Impact 3.4-1c: Substantial adverse effects involving seismic-related ground failure, including liquefaction | LTS | LTS | LTS | LTS | LTS | LTS | LTS |
| Impact 3.4-1d: Substantial adverse effects involving landslides | LTS | LTS | LTS | LTS | LTS | LTS | LTS |
| Impact 3.4-2: Substantial erosion or loss of topsoil | LTS | LTS | LTS | LTS | LTS | LTS | LTS |
| Impact 3.4-3: Unstable geologic unit or soil resulting in landslide, lateral spreading, subsidence, liquefaction, or collapse | LTS | LTS | LTS | LTS | LTS | LTS | LTS |
| Impact 3.4-4: Expansive soils, creating substantial risks to life or property | LTS | LTS | LTS | LTS | LTS | LTS | LTS |
| Impact 3.4-5: Soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems | NI | NI | NI | NI | NI | NI | NI |
| Impact 3.4-6: Destroy a unique paleontological resource/site or geologic feature | LTS+M | LTS+M | LTS+M | LTS+M | LTS+M | LTS+M | LTS+M |
| Impact 3.4-7: Project's contribution to cumulative geology and soils impacts | NCC | NCC | NCC | NCC | NCC | NCC | NCC |

Notes: LTS = Less than Significant; LTS+M = Less than Significant with Mitigation; NCC = Not Cumulatively Considerable; NI = No Impact; SU = Significant and Unavoidable

## 3.4.1. Environmental Setting

### Regional Geology

The Peninsular Ranges geomorphic province encompasses an area that extends approximately 900 miles from the Transverse Ranges south to the southern tip of Baja California and varies in width from approximately 30 to 100 miles. The Pacific Ocean borders it to the west, the Transverse Ranges geomorphic province to the north, and the Colorado Desert geomorphic province to the east. The province is characterized by mountainous terrain on the east composed mostly of Mesozoic igneous and metamorphic rocks, and low-lying coastal terraces to the west underlain by late Cretaceous-age, Tertiary-age, and Quaternary-age sedimentary units. This province also includes physiographic features such as the Los Angeles Basin, the southern members of the Channel Islands, and the continental shelf (Appendix F). The Peninsular Ranges batholith dominates the Peninsular Ranges.

Three geomorphic regions comprise San Diego County and include the Coastal Plain region as exposed west of the Peninsular Ranges, the Peninsular Range region, and the Salton Trough region as exposed east of the Peninsular Ranges. The City of Del Mar lies within the Coastal Plain region, which is underlain by a "layer cake" sequence of marine and non-marine sedimentary rock units formed over the last 140 million years. Both land and sea have fluctuated drastically over this time, preserving ancient marine rocks up to approximately 900 feet above sea level and ancient river deposits as high as 1,200 feet above sea level. Faulting related to the local La Nacion and Rose Canyon fault zones has broken up this "layer cake" sedimentary sequence into a series of fault blocks in southwestern portions of the county. The effects of such faulting to areas north of La Jolla are not as evident (City of Del Mar 2020).

Sandstone bluffs largely characterize the City of Del Mar, with larger and more prominent bluffs located in the northern and southern portions along the Pacific Ocean coastline. West of Camino del Mar in the northern portion of the City, the bluffs are identified in the City's Community Plan as one being culturally important sites. Numerous other bluffs throughout the City are also protected natural features as they provide visual relief and diversity. Stability of the bluffs is influenced by general rock strength as well as orientation and continuity. Local conditions, including groundwater seepage, drainage, weathering, and fatigue also influence overall bluff stability.

#### Soils

Soils underlying the City vary depending on elevation and distance from the shoreline and other water bodies. In the northern half of the City, soils are dominated by silty and sandy loams, such as the Corralitos Series and Huerhuero Series, from the deposition of sediments along the San Dieguito River. In the southern and eastern portions of the City, Marina series soils offer a higher gradient and a more seasonal runoff-dependent depositional environment further away from fluvial channeling. Along the western margin of the City, coastal beaches, tidal flats, and terrace escarpments are associated with the intermixing of the ocean with runoff and fluvial channels.

The majority of land within the City is developed. As a result, pockets of Made Land [sediment and other materials brought to its current location by human activity such as construction (i.e., artificial fill)] comprise approximately 20 percent of the City (Michael Baker International 2025). Refer to Figure 3.4-1, USDA Soils.

## Seismic and Geologic Hazards

During the Pliocene era (roughly 5.33 to 2.58 million years ago), several new faults developed in Southern California, creating a new tectonic regime superposed on the flat-lying section of Tertiary and late Cretaceous rocks in the San Diego region. One of these fault systems is the Rose Canyon Fault Zone.

The principal known onshore faults in Southern California are the San Andreas, San Jacinto, Elsinore, Imperial, and Rose Canyon. The principal offshore faults include the Coronado Bank, Descanso, San Diego Trough, and San Clemente faults off the San Diego and northern Baja California coastline. Most of the offshore faults coalesce south of the US international border with Mexico, where they come onshore as the Agua Blanca fault which transects the Baja California peninsula.

### Active Faults

The US Geological Survey defines an active fault as a fault that has had surface displacement within Holocene times (approximately the last 11,000 years) and is therefore considered more likely to generate a future earthquake. California's Alquist-Priolo Earthquake Fault Zoning Act requires the State Geologist to establish regulatory zones (known as earthquake fault zones) around the surface traces of active faults that pose a risk of surface ground rupture, and to issue appropriate maps to mitigate the hazard of surface faulting to structures for human occupancy and prevent the construction of buildings used for human occupancy on the surface trace of active faults.

There are nine known active faults within approximately 50 miles of the City limits which include the Coronado, Earthquake Valley, Elsinore, Mount Soledad, Rose Canyon, San Diego, Silver Strand, Spanish Bight, and Wildomar fault lines. These active faults are either part of the Newport-Inglewood-Rose Canyon Fault Zone of the coastal region or the Elsinore Fault Zone which lies further inland (City of Del Mar 2020).

No Earthquake Hazards Zones have been mapped within the City of Del Mar (DOC, n.d.). Approximately 6 miles south of the City lie the Mount Soledad and Rose Canyon faults which are considered active faults and comprise a 4.9-mile onshore segment of the fault zone that extends across a portion of Rose Canyon and the community of La Jolla. These faults are classified as Type B faults, indicating a reduced level of seismic activity (slip rate of less than 5 millimeters per year) and reduced likelihood to produce earthquake events of magnitude 7.0 or greater (City of Del Mar 2020). Movements along the Rose Canyon fault have occurred most recently (within 0.5 million years). Due to known earthquake epicenters that have occurred along this fault trace, it is considered to have the potential to experience seismic events that may pose potential hazards to the City.

### Ground Shaking

Ground shaking is the earthquake effect that produces the vast majority of damage and is the most common effect of earthquakes that adversely affects people, animals, and the built environment. Several factors control how ground motion interacts with structures, making the hazard of ground shaking difficult to predict. Earthquakes, or earthquake-induced landslides, can cause damage near and far from fault lines. Damage to buildings and infrastructure can threaten public safety and result in significant economic loss. Seismic waves propagating through the earth's crust are responsible for the ground vibrations typically experienced during an earthquake. Seismic waves can vibrate in any direction and at different

frequencies, depending on the frequency content of the earthquake rupture mechanism and the path and material through which the waves propagate. The earthquake rupture mechanism is the distance from the earthquake source, or epicenter, to an affected site.

As the City is located in Southern California, there is the potential for ground shaking to occur due to strong ground motion resulting from an earthquake. However, such risk is no greater than that for the surrounding region. The primary seismic hazard is the risk for ground shaking to occur in response to a large-magnitude earthquake during the lifetime of the planned CIP improvements.

The California Building Code (CBC) defines different seismic design categories based on building occupancy type and the severity of the probable earthquake ground motion. The six seismic design categories are designated A through F, with Category A having the least seismic potential and Category F having the highest seismic potential.

**Liquefaction**

Liquefaction is the phenomenon whereby soils lose shear strength and exhibit fluid-like flow behavior. Loose granular soils are most susceptible to these effects, with liquefaction generally restricted to saturated or near-saturated soils at depths of less than 50 feet. Liquefaction normally occurs in soils such as sand in which the strength is purely friction. However, liquefaction has occurred in soils other than clean sand. Liquefaction occurs under vibratory conditions such as those induced by a seismic event. Factors influencing the potential for liquefaction include intensity and duration of ground accelerations, subsurface soil characteristics, in situ stress conditions, and depth to groundwater.

As shown in Figure 3.4-2, Liquefaction Potential, a significant potential for liquefaction occurs along the San Dieguito River Valley and San Dieguito Lagoon in the northern portion of the City. The potential for liquefaction is due to deposits of alluvium and slope wash that are thought to be covering a mixture of beach sand, bay sand and salt, and alluvial sediments (largely dry and silt), mixed with occasional salt and dry marsh deposits (City of Del Mar 2020).

**Landslides**

Non-seismically induced landslides can be caused by water from rainfall, septic systems, landscaping, or other origins that infiltrate slopes with unstable material. Landslide events are often the result of a preexisting condition such as a plane of weak soil or rock inherent within the rock or soil mass. Movement may be precipitated by earthquakes, wet weather, and changes to the structure or loading conditions on a slope (e.g., by erosion, cutting, filling, or release of water from broken pipes).

Figure 3.4-3, Landslide Potential, shows the landslide potential for the City. Landslide susceptibility classes range from “0” to “X” (with “X” indicating the highest susceptibility) and are based on a combination of rock strength and slope.

Areas within the City with the highest potential for ground failure as a result of lateral spreading, ground lurching, landslides, and/or differential settlement include:

- All of the sea cliffs bordering the City;

- Areas of the Del Mar Formation of Torrey Sandstone where existing slopes exceed 25 percent;
- Areas having a slope of ten percent or more where the strata has been substantially tilted in the direction of the slope; and
- Terrace escarpments comprised of colluvium and slope wash in Crest Canyon and on the northeast side of the Del Mar Hills.

**Coastal Bluffs**

As defined by the DMMC, coastal bluffs are steep escarpments having a slope gradient equal to or greater than an average of one foot vertical to one foot horizontal and a vertical rise of 15 feet or more, and which are located in an area that is periodically subject to ocean wave action (DMMC Chapter 30.55, Coastal Bluff Overlay Zone). Bluff stability is influenced by general rock strength, orientation, and continuity, in addition to site-specific conditions that may include weathering, groundwater seepage, poor drainage, and other factors. City policies and regulations identified in the Community Plan, Local Coastal Program (LCP) Land Use Plan, and DMMC (e.g., DMMC Chapter 30.52, Bluff, Slope, and Canyon Overlay Zone and DMMC Chapter 30.55, Coastal Bluff Overlay Zone) provide protections to maintain public health and safety; preserve coastal bluffs, related canyons, steep slopes, and downstream resources; and ensure that development is appropriately distanced from the bluff edge (top of the slope) and bluff toe (bottom of the slope). A minimum development setback of 40 feet from the bluff edge is generally required per City regulations to minimize erosion and ensure bluff stability (DMMC § 30.55.080, Setbacks from Coastal Bluffs); however, an evaluation of site-specific conditions may be required to determine sufficient distancing. Other design measures may also be needed to manage storm water and irrigation runoff and to minimize the potential for erosion.

A limited number of CIP projects are planned within the Coastal Bluff Overlay Zone. Refer to Figure 3.4-4, Coastal Bluff Overlay Zone.

## Paleontological Resources

The City lies within the Peninsular Ranges geomorphic province, distinguished by northwest-trending mountain ranges and valleys following the branching San Andreas fault. According to available geologic mapping, the City is underlain by eight sedimentary geologic units ranging in age from the middle Eocene to Holocene (Michael Baker International 2025). Table 3.4-1, Paleontological Sensitivity of Underlying Geologic Units, shows these units (youngest to oldest) which range from having no paleontological sensitivity to a high paleontological sensitivity. Refer to Appendix F for a detailed explanation of each geologic unit and the resources they support.

**TABLE 3.4-1 PALEONTOLOGICAL SENSITIVITY OF UNDERLYING GEOLOGIC UNITS**

| Geologic Unit | Paleontological Sensitivity |
|---|---|
| Artificial Fill (af) (late Holocene). | No paleontological sensitivity unless the underlying native sediments below the fill layer are reached. |
| Marine Beach Deposits (Qmb) (late Holocene) | Low paleontological sensitivity at the surface and high paleontological sensitivity at depth. |
| Paralic estuarine deposits (Qpe) (late Holocene) | Low paleontological sensitivity at the surface and high paleontological sensitivity at depth. |
| Young alluvial flood-plain deposits (Qya) (Holocene and late Pleistocene) | High paleontological sensitivity at all depths due to the few previously recorded fossil localities near the area of interest (i.e., the City). |
| Old paralic deposits, Units 2–4 and 6 (Bay Point Formation) (Qop) (late to middle Pleistocene) | High paleontological sensitivity at all depths due to their age and abundant marine invertebrate, marine vertebrate, plant, and terrestrial vertebrate fossil specimens. |
| Very old paralic deposits (Lindavista Formation) (Qvop) (middle to early Pleistocene) | High paleontological sensitivity due to the paucity of previously recovered, scientifically important invertebrate or vertebrate fossil specimens near the City. |
| Torrey Sandstone (Tt) (middle Eocene) | High paleontological sensitivity at all depths on the basis of the numerous previously collected vertebrate, invertebrate, and plant fossil specimens. |
| Delmar Formation (Td) (middle Eocene) | High paleontological potential sensitivity at all depths due to its age (middle Eocene) and known fossil specimens. |

Source: Appendix F, Programmatic Cultural and Paleontological Resources Assessment– City of Del Mar Capital Improvement Program Streamlining Project, Del Mar, California.




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## Legend

- Reference Point
- Project Site

**USDA Soils**

- CbC — Carlsbad gravelly loamy sand, 5 to 9 percent slopes
- CcC — Carlsbad-Urban land complex, 2 to 9 percent slopes
- Cr — Coastal beaches
- CsC — Corralitos loamy sand, 5 to 9 percent slopes
- CsD — Corralitos loamy sand, 9 to 15 percent slopes
- HrC — Huerhuero loam, 2 to 9 percent slopes
- HuC — Huerhuero-Urban land complex, 2 to 9 percent slopes
- LG-W — Lagoon water
- LvF3 — Loamy alluvial land-Huerhuero complex, 9 to 50 percent slopes, severely eroded
- Md — Made land
- MIC — Marina loamy coarse sand, 2 to 9 percent slopes
- MIE — Marina loamy coarse sand, 9 to 30 percent slopes
- TeF — Terrace escarpments
- Tf — Tidal flats
- TuB — Tujunga sand, 0 to 5 percent slopes

Michael Baker INTERNATIONAL

0 0.25 0.5 Miles

Source: Esri, ArcGIS Online, USDA, City of Del Mar, San Diego County

CITY OF DEL MAR CIP STREAMLINING PROJECT
PROGRAM ENVIRONMENTAL IMPACT REPORT

# USDA Soils

Figure 3.4-1

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**Legend**

- Project Site
- Potential Liquefaction

Michael Baker INTERNATIONAL

0 0.25 0.5 Miles

Source: Esri, ArcGIS Online, City of Del Mar, San Diego County

CITY OF DEL MAR CIP STREAMLINING PROJECT
PROGRAM ENVIRONMENTAL IMPACT REPORT

# Liquefaction Potential

Figure 3.4-2

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## Legend

- Project Site

**Landslide Susceptiblity Classes**

- 0
- III
- V
- VI
- VII
- VIII
- IX
- X

CITY OF DEL MAR CIP STREAMLINING PROJECT
PROGRAM ENVIRONMENTAL IMPACT REPORT

# Landslide Potential

Michael Baker INTERNATIONAL

0 0.25 0.5 Miles

Source: Esri, ArcGIS Online, California Department of Conservation, City of Del Mar, San Diego County

Figure 3.4-3

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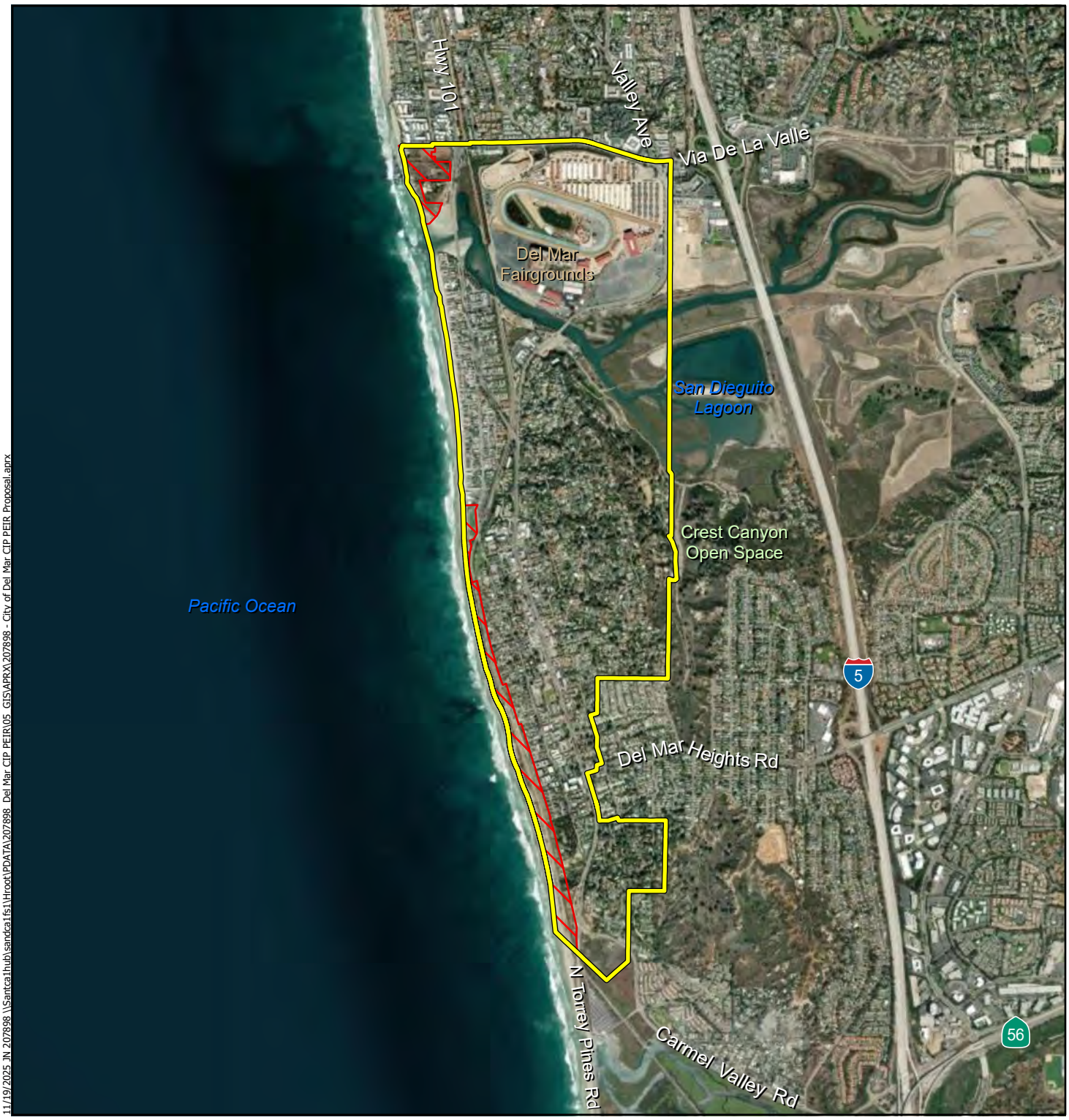


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**Legend**

- Project Site
- Coastal Bluffs

Michael Baker INTERNATIONAL

0 0.25 0.5 Miles

Source: Esri, ArcGIS Online, City of Del Mar, San Diego County

CITY OF DEL MAR CIP STREAMLINING PROJECT
PROGRAM ENVIRONMENTAL IMPACT REPORT

# Coastal Bluff Overlay Zone

Figure 3.4-4

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## 3.4.2. Regulatory Framework

### Federal

**US Geological Survey Landslide Hazard Program**

The Landslide Hazard Program was created by the US Geological Survey and is aimed at reducing significant risk of loss from landslide hazards by improving understanding of ground failure and identifying proper mitigation strategies. The federal government leads the funding and conducting of this research. However, the responsibility to reduce such risk of loss occurs at the state and local levels. In San Diego County, the Unified San Diego County Emergency Services Organization provides coordination efforts for implementation of programs aimed at the protection of life and property.

**National Flood Insurance Act**

The National Flood Insurance Program was created by the National Flood Insurance Act (1968) and is aimed at establishing requirements for floodplain management and minimizing flood damage within special flood hazard areas (areas that have a one percent chance of flooding within a given year, also referred to as the 100-year flood). The National Flood Insurance Program is administered by the Federal Emergency Management Agency (FEMA). FEMA also issues Flood Insurance Rate Maps (FIRMs) which identify properties subject to flooding and establish design standards for protection against flooding in high-risk areas. As required by federal law, development occurring within special flood hazard areas is subject to conformance with specific design standards.

A special flood hazard area (Zone AE) occurs within the City of Del Mar and applies to properties located along the San Dieguito River and San Dieguito Lagoon. A second special flood hazard area (Zone VE) generally applies to beachfront properties with flooding risk associated with the Pacific Ocean. Property owners within these zones are required to carry flood insurance. Other properties located in Zone X within the floodplain on the FIRM maps are assigned a lower associated risk of flooding and fewer associated requirements.

**Soil and Water Resources Conservation Act**

The Soil and Water Resources Conservation Act is aimed at the protection and restoration of soil functions on a permanent and sustainable basis. The Act requires the US Department of Agriculture to prepare and periodically update a plan to identify soil and water conservation measures for implementation on private lands. The plan is based upon an established inventory and appraisal of existing resource conditions and trends. The Natural Resources Conservation Service is the primary agency responsible for completing the land appraisals. Measures enacted for soil and water conservation may include avoidance of harmful soil changes; rehabilitation of soil and water on contaminated sites; and measures to minimize or avoid potential negative impacts to soils.

**Section 402, National Pollutant Discharge Elimination System**

Section 402 of the Clean Water Act establishes the permit program to regulate pollutant discharge from point sources and discharge pollutants into waters of the US. In California, the US Environmental Protection Agency has authorized the State Water Resources Control Board (SWRCB) to issue the permits required to implement the National Pollutant Discharge Elimination System (NPDES) program.

The NPDES Construction General Storm Water Permit, referred to as the Construction General Permit, is administered by the San Diego Regional Water Quality Control Board. Disturbance of one acre or more triggers NPDES coverage under the Construction General Permit, which requires:

- Filing of a Notice of Intent with the SWRCB;
- Implementation of a storm water pollution prevention plan (SWPPP) that specifies best management practices (BMPs) to prevent grading/construction-related pollutants (including sediment from erosion) from contacting storm water and moving off-site into receiving waters, as well as elimination/reduction of non-stormwater discharges; and
- Inspection of all BMPs.

The Construction General Permit also contains requirements for post-construction storm water management in the form of long-term BMPs, particularly for impervious surface runoff.

**Paleontological Resources Preservation Act**

The Paleontological Resources Preservation, Omnibus Public Lands Act (Public Law 111-011, Title VI, Subtitle D) (PRPA) directs the Secretaries of the US Department of the Interior and US Department of Agriculture (USDA) to manage and protect paleontological resources on federal land controlled or administered by these departments using "scientific principles and expertise." The PRPA codifies existing policies of the Bureau of Land Management, National Park Service, US Forest Service, Bureau of Reclamation, and US Fish and Wildlife Service, and provides the following:

- Definitions of "paleontological resources" and "casual collecting;"
- Criteria for the issuance of resource-use permits; and
- Requirements for the collection of paleontological resources and their curation in approved repositories; and penalties (criminal and civil) for the illegal removal, sale, purchase, transport, theft, and/or vandalism of fossils from federal lands.

## State

**California Building Code**

The State of California establishes minimum standards for building design and construction through the California Building Code (CBC) (California Code of Regulations, Title 24). The CBC is based on the Uniform Building Code, which is used widely throughout the United States (generally adopted on a state-by-state or district-by-district basis) and has been modified for conditions in California. State regulations and engineering standards related to geology, soils, and seismic activity in the Uniform Building Code are reflected in the CBC requirements.

The CBC contains specific requirements for seismic safety, excavation, foundations, retaining walls, and site demolition. It also regulates grading activities, including drainage and erosion control.

**Alquist-Priolo Earthquake Fault Zoning Act**

As a result of the 1971 San Fernando earthquake, the California Legislature passed the Alquist-Priolo Earthquake Fault Zoning Act (PRC Section 2621 et seq.) to provide a mechanism for reducing losses from surface fault rupture on a statewide basis. Specifically, the Act requires that proposed developments incorporating tracts of four or more dwelling units investigate the potential for ground rupture in designated Alquist-Priolo zones. These zones serve as an official notification of the probability of ground rupture during potential earthquake events.

Local agencies are required to regulate development proposed in such designated fault zones. Where such zones are designated, no building may be constructed on the line of fault. In addition, before any construction is allowed, a geologic study must be conducted to determine the location of all active fault lines within the zone.

**California Seismic Hazards Mapping Act**

The Seismic Hazards Mapping Act (CCR Code, §§2690–2699.6) addresses earthquake hazards from non-surface fault rupture which may include liquefaction, landslides, strong ground shaking, and other hazards caused by earthquake events or geological conditions. Provisions in the Act allow a lead agency for a project to withhold issuance of required permits until geologic or soils investigations are undertaken, as appropriate, and mitigation measures identified and incorporated into plans to minimize or avoid potential hazards related to seismicity and soil instability.

**Public Resources Code**

PRC Sections §5097–5097.6 identify the unauthorized disturbance or removal of archaeological, historical, or paleontological resources located on public lands as a misdemeanor. The Act prohibits deliberate destruction of objects of antiquity without a permit (expressed permission) on public lands and allows for criminal sanctions if such actions occur.

The PRC also requires agency consultation with the Native American Heritage Commission in the event that Native American graves are discovered during ground disturbance or excavation, with the take or possession of remains or artifacts encountered being considered a felony. California PRC §5097.5 states that “no person shall knowingly and willfully excavate upon, or remove, destroy, injure, or deface any historic or prehistoric ruins, burial grounds, archaeological or vertebrate paleontological site, including fossilized footprints, inscriptions made by human agency, rock art, or any other archaeological, paleontological or historic feature situated on public lands, except with the express permission of the public agency having jurisdiction over the lands.”

**California Coastal Act**

The California Coastal Act (CCA), in part, authorizes the California Coastal Commission (CCC) to review permit applications for development within the coastal zone; where appropriate, reasonable mitigation measures are required to offset the potential effects of such development. Pursuant to Section 30253 of the CCA, new development is required to: 1) minimize risks to life and property in areas of high geologic, flood, and fire hazard; and 2) assure stability and structural integrity, and neither create nor substantially contribute to erosion, geologic instability, or destruction of a site or the surrounding area or in any way

requires the construction of protective devices that would result in substantial alteration of coastal landforms such as bluffs and cliffs.

In conforming with CCA requirements, the City of Del Mar implements its LCP which applies to all proposed development within the coastal zone and outside California Coastal Commission jurisdiction. When required, applications for a Coastal Development Permit for new development are reviewed and permits issued to identify if there are any "special conditions" to conditionally approve a project intended to ensure the protection of coastal resources. The CCA also provides protection of paleontological resources within the coastal zone, indicating that "Where development would adversely impact archaeological or paleontological resources as identified by the State Historic Preservation Officer, reasonable mitigation measures shall be required" (CCA §30244).

**State Water Resources Control Board Storm Water Construction General Permit**

The state has adopted the NPDES General Permit for Storm Water Discharges Associated with Construction Activities (Construction Activities General Permit) (SWRCB Order No. 2022-0057-DWQ, NPDES No. CAS000002). The Construction General Permit requires that construction sites with one acre or greater of soil disturbance, or less than one acre but part of a greater common plan of development, apply for coverage for discharges under the Construction General Permit by submitting a Notice of Intent for coverage, developing a SWPPP, and implementing BMPs to address construction site pollutants. Section A of the Construction General Permit describes the elements that must be contained in a SWPPP.

## Regional

**San Diego County Multi-Jurisdictional Hazard Mitigation Plan**

San Diego County and 18 local jurisdictions, including the City of Del Mar, adopted the Multi-Jurisdictional Hazard Mitigation Plan (MHMP). The MHMP is a countywide plan that identifies risks and ways to minimize damage by natural and human-made disasters. It is a comprehensive document that serves many purposes, including creating a decision tool for management, promoting compliance with state and federal program requirements, enhancing local policies for hazard mitigation capability, and providing interjurisdictional coordination. The City's specific hazard mitigation goals, objectives, and related potential actions for earthquake hazards are identified in the MHMP.

Relative to geology and soils, the MHMP addresses potential hazards resulting from earthquakes, erosion, expansive soils, landslides, and subsidence. Of these, earthquake and erosion events are identified as having a likely potential to occur over a significant to extensive portion of the City. The MHMP identifies specific goals for mitigating such hazards, including Goal 3, which is aimed at reducing the potential for damage and loss on human life, critical facilities/infrastructure, and City-owned facilities as a result of geological hazards including erosion, landslides, and/or earthquakes.

**County of San Diego Guidelines for Determining Significance of Paleontological Resources**

The City has not adopted its own guidelines for determining significance of paleontological resources. Rather, the City relies upon the County of San Diego Guidelines, which define paleontological sensitivity as follows:

- High. Geologic formations known to contain paleontological localities with rare, well preserved, critical fossil materials for stratigraphic or paleoenvironmental interpretation, and fossils providing important information about the paleoclimatic, paleobiological and/or evolutionary history (phylogeny) of animal and plant groups. In general, formations with high resource potential are considered to have the highest potential to produce unique invertebrate fossil assemblages or unique vertebrate fossil remains and are, therefore, highly sensitive.

- Moderate. Moderate resource potential and moderate sensitivity are assigned to geologic formations known to contain paleontological localities. These geologic formations are judged to have a strong, but often unproven, potential for producing unique fossil remains.

- Low. Low resource potential and low sensitivity are assigned to geologic formations that, based on their relatively young age and/or high-energy depositional history, are judged unlikely to produce unique fossil remains. Low resource potential formations rarely produce fossil remains of scientific significance and are considered to have low sensitivity. However, when fossils are found in these formations, they are often very significant additions to our geologic understanding of the area.

- Marginal. Marginal resource potential and marginal sensitivity are assigned to geologic formations that are composed either of volcaniclastic (derived from volcanic sources) or metasedimentary rocks, but that nevertheless have a limited probability for producing fossils from certain formations at localized outcrops. Volcaniclastic rock can contain organisms that were fossilized by being covered by ash, dust, mud, or other debris from volcanoes. Sedimentary rocks that have been metamorphosed by heat and/or pressure caused by volcanoes or plutons are called metasedimentary. If the sedimentary rocks had paleontological resources within them, those resources may have survived the metamorphism and still be identifiable within the metasedimentary rock, but since the probability of this occurring is so limited, these formations are considered marginally sensitive.

- No Potential. No resource potential is assigned to geologic formations that are composed entirely of volcanic or plutonic igneous rock, such as basalt or granite, and therefore do not have any potential for producing fossil remains. These formations have no paleontological resource potential and are not sensitive.

## Local

**City of Del Mar Local Coastal Program**

The City's LCP is comprised of the certified Land Use Plan and Implementing Ordinances which the CCC has certified as being consistent with the Coastal Act and meeting its requirements. Regulations for new

development within the Bluff, Slope, Canyon Overlay Zone (DMMC Chapter 30.52), the Coastal Bluff Overlay Zone (DMMC Chapter 30.55), and the Floodplain Overlay Zone (DMMC Chapter 30.56) are provided in the LCP. Amendments to the LCP and Land Use Plan have been adopted (2018) to identify the City's approach to flood management, reduction of bluff erosion, and achieving resiliency relative to sea level rise. The City's certified LCP policies address coastal bluff erosion, landslides hazards, and shoreline protection.

The following additional LCP regulations are applicable to geology and soils:

*DMMC § 30.55.080 – Setbacks from Coastal Bluffs*

- Unless otherwise specified herein, all new or redeveloped principal or accessory structures, including new supporting foundations or supports for existing structures, shall be set back a minimum of 40 feet from the top edge of the coastal bluff as defined in this Chapter.

- All new fences, windscreens, and benches shall be set back a minimum of ten feet from the top edge of the coastal bluff as defined in this Chapter. All such improvements, when providing less than the 40-foot coastal bluff top setback otherwise required in this Chapter, shall be constructed primarily above grade using light-weight materials and without the use of grading and/or continuous foundation components.

- No grading shall be allowed within 40 feet of the top edge of a coastal bluff.

- No grading or construction activities shall be allowed on the face of a coastal bluff unless approved as part of a Shoreline Protection Permit or Setback Seawall Permit issued in accordance with the provisions of this Title and when the Planning Commission or City Council, as the authorized review body for the project, makes a finding that the proposed grading has been minimized to the extent feasible to implement the authorized shoreline protection.

**City of Del Mar Sea Level Rise Adaptation Plan**

The City has adopted a Sea Level Rise Adaptation Plan (Adaptation Plan) as an amendment to the LCP, which is incorporated by reference into the amended Community Plan Safety Element. The Adaptation Plan provides guidance related to future development and identifies options for adapting to potential effects of projected sea-level rise, flooding from the Pacific Ocean and San Dieguito River, and associated coastal bluff and beach erosion.

Such options as beach nourishment and sand retention are considered adaptation measures that would reduce the potential for wave run-up and bluff erosion. The City's Sediment Management Plan (2018) supports the adopted approach for beach nourishment and maintenance dredging of the San Dieguito River inlet, as established in the Adaptation Plan. The City also implements its Sand Compatibility Opportunistic Use Program which allows for use of beach-quality sand from local construction or development projects for shoreline nourishment to address coastal erosion and sea-level rise in accordance with the Adaptation Plan and Sediment Management Plan.

**City of Del Mar Community Plan**

The City of Del Mar Community Plan (which serves as the City's General Plan) is the primary source of long-range planning and policy direction used to guide growth and preserve the quality of life in the City. The following goals and policies are relevant in protecting geology and soils:

*Community Plan: Environmental Management*

GOAL 1: Establish without delay a comprehensive program to preserve and acquire permanent open space sufficient to meet the long-range needs of the community, preserve and enhance natural resources, and protect areas and people susceptible to seismic and flooding hazards.

Policy E.7. Open space areas should be managed with erosion control and pollution prevention measures in the forefront.

Policy F.5. Establish special controls to protect the natural environment in areas of bluffs, slopes, and canyons having special conservation sensitivity. (See Precise Plan for Bluffs, Slopes and Canyons.)

Policy H.4. Ensure that future development results in a minimum disturbance of existing or natural terrain and vegetation and does not create soil erosion, silting of lower slopes, slide damage, flooding problems, and/or severe cutting or scarring.

Policy H.10. Work with other local government agencies to develop cross-jurisdictional land use development standards and policies in order to maintain a watershed-based approach to land use, erosion, flood control, and nonpoint source pollution.

Policy H.11. Minimize or prevent development in hazard and resource areas with the following characteristics: flood potential; wetlands; riparian corridors; and areas with a greater than 25% slope.

Policy O.2: Supplement and update geologic information available to the City.

*Community Plan: Community Development*

GOAL 3: Preserve and enhance Del Mar's special residential character and small-town atmosphere with its harmonious blending of buildings and landscape in proximity to a beautiful shoreline.

Policy G.1. Avoid development of areas particularly susceptible to erosion and sediment loss (e.g., steep slopes) and/or establish development guidance that identifies these areas and protects them from erosion and sediment loss. It is general policy to limit grading permits or prohibit grading in those areas susceptible to erosion from October 1st through April 30th without the implementation of erosion control measures.

Policy G.2. Prevent undue erosion by retaining stormwater flows and peak flows to creek channels by implementing low impact development design features that include maximum

pervious surfaces, minimize natural drainage disturbances, and reduce not directly connected impervious surfaces. Regulate development near watercourses to reduce erosion and pollution and to provide open natural areas.

**City of Del Mar Municipal Code**

*Uniform Codes for Construction Building Code*

The City's Uniform Codes for Construction Building Code (DMMC Chapter 23.12) incorporates the 2025 CBC. The Code is intended to regulate construction of applicable facilities and encompasses and formally adopts associated elements of the CBC. As detailed in the DMMC Chapter 23.12, California Codes for Construction, "*All erection, construction, enlargement, alteration, repair, moving, removal, conversion, demolition, occupancy, equipment, use, height, area and maintenance of buildings and structures within the City of Del Mar shall be in conformance with the (2025) California Building Code and the adopted Appendix Chapters, published by the California Building Standards Commission."*

DMMC Chapter 23.32 identifies requirements for obtaining a grading/excavation permit. Unless otherwise provided, the City issues all excavation and grading permits and performs related inspections when the grading/excavation permit application conforms to the provisions of the DMMC.

*Coastal Bluff Overlay Zone*

Coastal bluffs are steep escarpments with a slope gradient equal to or greater than an average of one foot vertical to one foot horizontal and a vertical rise of 15 feet or more, and which are located in an area that is periodically subject to ocean wave action (DMMC Chapter 30.55, Coastal Bluff Overlay Zone). The City has adopted policies and regulations in its Community Plan, LCP Land Use Plan, and DMMC (e.g., DMMC Chapter 30.52, Bluff, Slope, and Canyon Overlay Zone and DMMC Chapter 30.55, Coastal Bluff Overlay Zone). Such policies and regulations are intended to protect the public health, safety, and general welfare; preserve scenic sandstone bluffs, related canyons, steep slopes, and their downstream resources; and to distance development from the bluffs to ensure stability and minimize erosion. Refer also to Figure 3.4-4, Coastal Bluff Overlay Zone.

DMMC § 30.55.090, Subsection B includes the following requirements for projects supporting coastal bluffs:

> *"All applications for projects involving new construction on properties containing coastal bluffs shall be accompanied by a geotechnical report addressing: 1) existing conditions; 2) the suitability of the site for the proposed construction; and 3) the potential of the proposed development to affect bluff stability over a 70-year life span of the project; 4) the potential future need for shoreline protection during an expected 70-year life span of the project; 5) an analysis of bluff retreat and coastal stability for the project site, according to accepted professional standards; 6) an analysis of the potential effects on bluff stability of rising sea levels, using latest scientific information; 7) an analysis of the potential effects of past and projected El Niño events on bluff stability; and 8) an analysis of whether the affected section of coastline is under a process of retreat. The report shall also include recommended mitigation measures as they relate to avoidance of risks and*

*preservation of fragile bluff systems. In the event that a submitted report recommends a coastal bluff top setback of a greater distance than otherwise minimally required in this Chapter [40 feet], the greater distance shall be provided. In addition, for new development, the applicant shall acknowledge a waiver of all rights to future protective devices for the new development through recordation of a deed restriction as a condition of permit approval."*

### 3.4.3. Significance Thresholds

The following thresholds of significance are based on CEQA Guidelines Appendix G. For the purposes of this PEIR, the project would be considered to have a significant impact relative to geology and soils if it would:

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

    a. 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.

    b. Strong seismic ground shaking.

    c. Seismic-related ground failure, including liquefaction.

    d. Landslides.

2. Result in substantial soil erosion or the loss of topsoil.

3. Be located on 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.

4. Be located on expansive soils, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property.

5. 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.

6. Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature.

### 3.4.4. Project Impacts and Mitigation

#### *Risk of Loss, Injury, or Death Involving Rupture of Alquist-Priolo Fault*

| | |
|---|---|
| **Impact 3.4-1a** | **The project would not directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning map issued by the State Geologist for the area or based on other substantial evidence of a known fault. Impacts would be less than significant.** |

The planned CIP projects would involve a range of infrastructure and facility improvements that would include both underground (e.g., water, wastewater, and storm water infrastructure; utility undergrounding) and aboveground (e.g., street, trail, and pathway improvements; sea walls and retaining walls; supporting utility infrastructure; restrooms; concessions; lifeguard towers and other public facilities). Some improvements may therefore involve structures that could be occupied, and therefore would have a greater risk of loss, injury, or death as the result of seismic events.

No known active faults transect the City nor is the City located within an earthquake fault zone mapped by the state or by the County of San Diego. The nearest active faults are the Mount Soledad and Rose Canyon faults, approximately 6 miles south of the City (City of Del Mar 2020).

Although no active faults traverse the project site, as appropriate to the improvements undertaken (e.g., retaining walls or other such structures deemed necessary in support of the utility undergrounding), new development would be required to comply with the requirements of the Alquist-Priolo Fault Zoning Act and the CBC, and the City's Uniform Codes for Construction Building Code (DMMC Chapter 23.12) which incorporates the 2025 CBC.

The CBC requirements address structural seismic safety and include design criteria for seismic loading and other geologic hazards, as well as provide calculation methods to assist in the design process. The CBC includes provisions for infrastructure to survive an earthquake without collapse and other structural design. Additionally, as deemed appropriate to the individual CIP projects, a geotechnical evaluation to address existing conditions and identify site-specific engineering design recommendations for soil compaction levels, retaining wall footing design parameters, and/or other relevant design measures may be required to ensure all improvements are constructed to appropriate engineering requirements.

Because of the distance to the nearest fault and the magnitude of past seismic activity, the proposed project would neither negate nor supersede the requirements of the Alquist-Priolo Earthquake Fault Zoning Act, nor would the project expose people or structures to potentially substantial adverse effects, including the risk of loss, injury, or death involving rupture of a known earthquake fault as delineated on the current Alquist-Priolo Earthquake Fault Zoning Map. Standard compliance with state and local engineering design regulations would ensure that impacts remain **less than significant**.

**Mitigation Measures:** None required.

**Level of Significance:** Less than significant.

### *Risk of Loss, Injury, or Death Involving Strong Seismic Ground Shaking*

| | |
|---|---|
| **Impact 3.4-1b** | **The project would not expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving strong seismic ground shaking. Impacts would be less than significant.** |

Refer also to Response 3.4-1a, above. The City is located in a seismically active area of Southern California. A seismic event along the Newport-Inglewood-Rose Canyon Fault or the Lake Elsinore Fault could result in seismic ground shaking at the individual project sites and may have the potential to affect the proposed CIP improvements.

As appropriate to the individual CIP improvements, project compliance with seismic design standards identified in the current version of the CBC and requirements contained in the City's Uniform Codes for Construction Building Code (DMMC Chapter 23.12) would minimize potential adverse effects, including the risk of loss, injury, or death from strong seismic ground shaking. Impacts would be **less than significant**.

**Mitigation Measures:** None required.

**Level of Significance**: Less than significant.

### *Risk of Loss, Injury, or Death Involving Seismic-related Ground Failure*

| | |
|---|---|
| **Impact 3.4-1c** | **The project would not expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving seismic-related ground failure, including liquefaction. Impacts would be less than significant.** |

Areas subject to significant liquefaction potential occur within the San Dieguito River Valley and San Dieguito Lagoon, generally in the northern portion of the City (north of Jimmy Durante Boulevard and San Dieguito Drive) (City of Del Mar 2020); refer also to Figure 3.4-2, Liquefaction Potential. Improvements occurring within or in proximity to these areas are considered to have an increased potential for the risk of liquefaction.

The proposed utility undergrounding projects would occur throughout the City and would therefore have the potential to be located within areas identified as having the potential for liquefaction to occur; refer to Figure 3.4-2. The number of water, wastewater, and storm water infrastructure projects located within the area identified as subject to liquefaction would be limited. Similarly, the planned street improvements would generally occur throughout the City; however, the majority of such improvements would be concentrated in the central and southern portions of the City, south of the area identified as having a high risk for liquefaction.

Minor facility improvements proposed (exterior façade repairs and interior improvements, such as painting and new carpeting; security/fire system repairs; and roof repairs) would not increase the exposure of people or structures to potential adverse effects resulting from liquefaction. However, more intensive activities such as potential relocation of several public structures from the flood zone or

replacement of a lifeguard tower, may have a greater potential to expose people or structures to the risk of loss, injury, or death as a result of liquefaction.

A number of planned open space improvements would be located in the northern portion of the City, within the area identified as having a high risk for potential liquefaction. Minor open space improvements such as landscaping and bench installation would not result in substantial risks related to liquefaction. However, other physical open space improvements (e.g., public restrooms, concessions, lifeguard tower) may have a greater potential to expose people or structures to the risk of loss, injury, or death as a result of liquefaction.

As appropriate, the CIP improvement projects would be required to comply with relevant state and local regulations and construction standards, including seismic structural design requirements identified in the current CBC and the Uniform Codes for Construction Building Code (DMMC Chapter 23.12). A site-specific geotechnical study may be required at the time when an individual project is undertaken to evaluate underlying geologic conditions and to recommend engineering design recommendations.

With conformance to relevant engineering design standards and state and local regulations, the project would not expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving seismic-related ground failure related to liquefaction. Impacts would be **less than significant**.

**Mitigation Measures:** None required.

**Level of Significance**: Less than significant.

### *Risk of Loss, Injury, or Death Involving Landslides*

| | |
|---|---|
| **Impact 3.4-1d** | **The project would not expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving landslides. Impacts would be less than significant.** |

As shown in Figure 3.4-3, Landslide Potential, there are areas within the City identified as having a potential risk for landslide occurrence. Such lands are generally located south of Jimmy Durante Boulevard and San Dieguito Drive, and in the northwestern portion of the City. The CIP improvements planned within or in proximity to these areas are therefore considered to have a higher potential for adverse effects resulting from landslide events.

Refer to Response 3.4-1(c), above. As stated, the planned CIP improvements would occur throughout the City, individual projects may occur on lands identified as having the potential for landslide occurrence.

The majority of lands affected by the CIP program is generally flat and has been previously developed with similar public infrastructure improvements. The planned CIP improvements would therefore not create a new condition that would substantially increase the exposure of people or structures to the risk of landslides.

Further, the majority of planned improvements, including utility undergrounding and water, wastewater, and storm water improvements, would largely be located underground, thus avoiding potential damage from landslides. However, as some CIP projects would be aboveground (e.g., lifeguard towers, community building, public facility buildings, pump stations, roads, sidewalks, utility support infrastructure, retaining walls) , such improvements would be required to comply with relevant state and local engineering design regulations identified in the current version of the CBC and requirements contained in the City's Uniform Codes for Construction Building Code (DMMC Chapter 23.12). Additionally, a site-specific geotechnical study may be required, with the individual project design tailored to incorporate any engineering design recommendations provided to minimize potential risks from landslides.

With conformance to relevant engineering design standards and state and local regulations, the proposed project would not result in substantial adverse effects, including the risk of loss, injury, or death involving landslides. Impacts would be **less than significant**.

**Mitigation Measures:** None required.

**Level of Significance**: Less than significant.

### *Soil Erosion or Loss of Topsoil*

| | |
|---|---|
| **Impact 3.4-2** | **The project would not result in substantial soil erosion or the loss of topsoil. Impacts would be less than significant.** |

The majority of CIP improvements would generally affect previously disturbed lands within the City, which is urban in character and largely built out. Soil erosion may result during construction of the proposed improvements, as grading, excavation, backfilling, stockpiling, and resurfacing would loosen surface soils and make soils susceptible to the erosional effects of wind and water movement across the surface. Further, the planned improvements may increase impervious surfaces within the City, or result in graded slopes, thereby increasing the potential for erosion from storm water runoff or downstream sedimentation to occur.

Minor facilities improvements such as interior or façade improvements would not contribute to erosion or the loss of topsoil, as ground disturbance would not occur. However, other improvements may involve grading and excavation to allow for building construction, remodeling, and/or relocation, or the introduction of new or expanded impervious surfaces, thereby disturbing soils and increasing the potential for erosion and sedimentation. As appropriate to the individual CIP improvements undertaken, the project would comply with the provisions of state and local requirements for avoiding and minimizing impacts concerning soil erosion or loss of topsoil. Such requirements include the City's Uniform Codes for Construction Building Code (DMMC Chapter 23.12) and the City's Grading Ordinance (DMMC Chapter 23.32) which would require a Grading Plan and Soils Engineering Report before issuance of grading permits.

As applicable, construction-related erosion control for individual improvement projects would be addressed through compliance with the NPDES program, which would require that, prior to any activities that may result in pollutants entering a municipal separate storm sewer system, a SWPPP would be

prepared and approved by the City Engineer. The SWPPP would identify BMPs to be implemented during project construction to prevent erosion, minimize siltation, and protect water quality, and post-construction storm water management measures in the form of long-term BMPs, particularly for impervious surface runoff. Post-construction storm water management measures in the form of long-term BMPs would also be implemented, as appropriate, for the management of impervious surface runoff.

Adherence to the BMPs in the SWPPP, in addition to applicable state and local design regulations, would minimize the potential for soil erosion or the loss of topsoil as the result of project-related activities. Impacts would be **less than significant**.

**Mitigation Measures:** None required.

**Level of Significance**: Less than significant.

### *Unstable Geologic Unit or Soil*

| | |
|---|---|
| **Impact 3.4-3** | **The project would not be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse. Impacts would be less than significant.** |

Refer to Response 3.4-1c for discussion of liquefaction and Response 3.4-1d for discussion of landslides.

Although limited, several CIP improvement projects are planned within the coastal bluff overlay zone, and thus, on or within proximity to potentially unstable bluffs; refer to Figure 3.4-4, Coastal Bluff Overlay Zone. The coastal bluff overlay zone generally applies to the southern half and the northwestern portion of the City along the Pacific Ocean coastline.

As the CIP projects may involve ground disturbance (e.g., grading, excavation, trenching, backfilling) and construction within the coastal bluff overlay zone, they may have the potential to affect unstable geological units or soils. Additionally, minor CIP improvement projects planned throughout the City (e.g., exterior façade repairs, bench installation, and interior improvements) would pose minimal risk relative to unstable geologic units or soils. However, more intensive activities (e.g., potential relocation of several public structures from the flood zone; lifeguard tower replacement; restrooms; concessions; community building) may require construction having the potential to be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project.

Chapter 30.55, Coastal Bluff Overlay Zone, of the DMMC requires that development of property within the coastal bluff overlay zone include consideration of topographic maps to delineate coastal bluffs and bluff edges, as well as preparation of a site-specific geotechnical study. Preparation of an erosion and sedimentation control plan is also typically required for any grading proposed within the Coastal Bluff Overlay zone.

Coastal bluff protections are further implemented via project conformance with policies and regulations identified in the Community Plan, LCP, and DMMC (e.g., DMMC Chapter 30.52, Bluff, Slope, and Canyon Overlay Zone). City policies and regulations are implemented for the protection of public health, safety, and general welfare; preservation of scenic bluffs, canyons, steep slopes, and associated downstream resources; and distancing of development from the bluff edge (top of slope) and bluff toe (bottom of slope).

Future improvements facilitated by the CIP would be subject to permitting approval and required to demonstrate conformance with applicable state and local requirements to ensure that potential impacts related to unstable geological units or soils, including coastal bluffs per DMMC § 30.55.090, Subsection B, and the Uniform Codes for Construction Building Code (DMMC Chapter 23.12), are avoided or minimized to the extent feasible. As appropriate to the individual CIP projects, conformance with such requirements, including the DMMC requirement for preparation of a geotechnical investigation (as applicable) and conformance with any recommendations identified for grading, soil stabilization, foundation design, and/or slope stability, would reduce impacts related to unstable geological units or soils to **less than significant**.

**Mitigation Measures:** None required.

**Level of Significance**: Less than significant.

### *Expansive Soils*

| | |
|---|---|
| **Impact 3.4-4** | **The project would not be located on expansive soils, as defined in Table 18 1 B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property. Impacts would be less than significant.** |

Expansive soils are clayey soils characterized by their ability to undergo significant volume changes (shrinking or swelling) due to variations in moisture content. Such volume changes can be damaging to buildings, infrastructure, and other components within the built environment.

Soils within the City are generally composed of 30 percent or less clay components, and therefore have a reduced potential risk for expansion to occur. Soils having a greater potential for expansion include Made Land, Terrace Escarpments, and Loamy Alluvial Land-Huerhuero Complex (City of Del Mar 2020). Figure 3.4-1, USDA Soils, shows the general soil composition within the City.

Some minor CIP improvements, such as landscaping, interior renovations, façade improvements, and bench installation, would not result in substantial risks related to expansive soils. However, other physical improvements (e.g., public restrooms, concessions, lifeguard tower, community building, retaining walls and other structural elements) would have the potential to be located on lands where expansive soils are present and may require design considerations.

As there is a potential for the presence of expansive soils within areas where CIP improvements are planned, direct or indirect risks to life or property may occur, resulting in a significant impact. As appropriate, design and construction of the planned improvements would adhere to state and local

engineering design and permitting requirements, including the City's Uniform Codes for Construction Building Code (DMMC Chapter 23.12) and Grading Ordinance (DMMC Chapter 23.32). For areas where expansive soils are anticipated, a site-specific geotechnical report may be required to evaluate geologic conditions and identify proper engineering design recommendations (e.g., soil stabilization and foundation design) and to ensure that geologic risks relative to expansive soils are minimized or avoided.

As individual projects would be implemented following proper engineering methods and code requirements, it is not anticipated that construction activities associated with the CIP improvements would exacerbate expansive characteristics in soils. With adherence to applicable state and local regulations and requirements, future CIP improvements would not create a substantial risk to life or property associated with expansive soils. Impacts would be **less than significant**.

**Mitigation Measures:** None required.

**Level of Significance**: Less than significant.

### *Septic Tanks*

| | |
|---|---|
| **Impact 3.4-5** | **The project would not 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 would occur.** |

The City owns and operates its own sanitary sewer collection system. The majority of wastewater collected flows to the Elijo Wastewater Reclamation Facility, with a limited percentage being treated at the Point Loma Wastewater Treatment Plant.

The planned utility undergrounding, water, wastewater, storm water and street improvements would involve replacement, upgrades, and rehabilitation of existing City infrastructure systems. Such improvements would not involve habitable structures, and the need for wastewater disposal systems or the use of septic tanks would not be required.

Planned CIP improvements to City public facilities may involve study for relocation of existing public facilities (i.e., fire station and public works facility) and/or general as-needed improvements to other existing City facilities (lifeguard tower) that may require wastewater services. Some planned open space projects (i.e., restrooms at Shores Park) may similarly require wastewater services. As needed, wastewater flows generated by the CIP improvement projects would be collected on-site and conveyed to points of connection to the public sewer system. The use of septic systems or alternative wastewater systems would not be required. **No impact** would occur.

**Mitigation Measures:** None required.

**Level of Significance**: No impact.

### *Paleontological Resources or Unique Geologic Features*

| | |
|---|---|
| **Impact 3.4-6** | **The project would have the potential to directly or indirectly destroy a unique paleontological resource or site or unique geologic feature. Impacts would be less than significant with mitigation incorporated.** |

Impacts on paleontological resources occur when excavation activities encounter fossiliferous geological deposits and cause physical destruction of fossil remains. Fossil remains, fossil sites, fossil-producing geologic formations, and geologic formations with the potential for containing fossil remains are all considered paleontological resources or have the potential to be paleontological resources. Fossil remains are considered important if they are well preserved, identifiable, type/topotypic specimens, age diagnostic, useful in environmental reconstruction, and/or represent new, rare, and/or endemic taxa.

**Construction Impacts**

Due to the programmatic nature of this PEIR, this analysis focuses on reasonably foreseeable impacts and establishes standards for individual CIP project review. The approach integrates baseline data from the *Programmatic Cultural and Paleontological Resources Assessment* (Appendix F) and applies a screening-level evaluation of potential impacts associated with the CIP categories. The analysis utilizes a citywide paleontological sensitivity map to classify areas as high, moderate, low, or no sensitivity, based on the age, lithology, and depositional environment of the geologic units present at or near the surface (see Figure 3.4-5, Paleontological Resources Sensitivity Zones). Figure 3.4-6a through Figure 3.4-6g show the existing public infrastructure and municipal facilities with the paleontological resources sensitivity zones.

The high paleontological sensitivity zone is underlain with Delmar Formation (Td), Torrey Sandstone (Tt), and late to middle Pleistocene-aged paralic deposits ($Qop_{2–4}$, $Qop_{6}$), which have previously yielded scientifically significant fossils in the City. These geologic units are known regionally for yielding vertebrate and invertebrate fossils and are considered to have high potential for additional discoveries. As such, grading and excavation in the high paleontological sensitivity zone could encounter paleontological resources if Delmar Formation, Torrey Sandstone, or late to middle Pleistocene-aged paralic deposits are encountered, which could result in a **potentially significant impact**.

The moderate paleontological sensitivity zone is underlain with Middle Pleistocene very old paralic deposits ($Qvop_{11}$) and Holocene to late Pleistocene Young alluvial floodplain deposits (Qya), which have previously yielded scientifically significant fossils but not in the City. As such, grading and excavation in the moderate paleontological sensitivity zone could encounter paleontological resources if Middle Pleistocene very old paralic deposits or Holocene to late Pleistocene Young alluvial floodplain deposits are encountered, which could result in a **potentially significant impact**.

The low paleontological sensitivity zone is underlain with Holocene-aged geologic units, including marine beach deposits (Qmb) and estuarine deposits (Qpe), because their young age makes fossil preservation unlikely. The no sensitivity zone was assigned to Artificial fill (af) and open water, as they do not represent natural geologic formations and lack any in situ fossil potential. Because ground-disturbing activities associated with the CIP projects in these zones are unlikely to encounter paleontological resources, impacts in the low and very low paleontological sensitivity zones would be **less than significant**.

**Operational Impacts**

After construction, operational activities would mainly include continued, ongoing regular maintenance activities, as well as use of public facilities and open space CIP projects, which would not affect paleontological resources. Therefore, **no impact** to paleontological resources would occur due to CIP project operations.

**Mitigation Measures:**

**GEO-1** **Paleontological Resources Monitoring Program.** For CIP project locations where no previous paleontological survey data is available that are wholly and/or partially within moderate or high paleontological sensitivity zones as depicted in Figure 3.4-5, Paleontological Resources Sensitivity Zones, that could encounter sensitive formations during grading or excavation at depths of 5 feet below ground surface or more in previously undisturbed soils, the City shall retain a Society of Vertebrate Paleontology (SVP)-qualified paleontologist (i.e., possesses a graduate degree in paleontology, geology, or related field, with demonstrated experience in the vertebrate, invertebrate, or botanical paleontology of California, as well as at least one year of full-time professional experience or equivalent specialized training in paleontological research and at least four months of supervised field and analytic experience in general North American paleontology) to provide or supervise a paleontological sensitivity training to all personnel involved with earth-moving activities. The training session shall focus on how to identify paleontological resources, such as fossils that may be encountered, and the procedures to follow if encountered during construction.

The qualified paleontologist shall monitor earthwork affecting the aforementioned geological units or supervise the monitoring of these activities by a paleontological monitor. If any paleontological resources are encountered on the project site, the qualified paleontologist or the paleontological monitor shall halt all ground-disturbing activities within 50 feet of the find until a significance determination is made. If the fossils are determined to be significant, the qualified paleontologist shall prepare and implement a data recovery plan. The plan shall include, but not be limited to, the following measures:

- The paleontologist shall ensure that all significant fossils collected are cleaned, identified, catalogued, and permanently curated with an appropriate institution with a research interest in the materials (such as the San Diego Natural History Museum);
- The paleontologist shall ensure that specialty studies are completed, as appropriate, for any significant fossil collected; and
- The paleontologist shall ensure that curation of fossils is completed in consultation with the City. A letter of acceptance from the curation institution shall be submitted to the City.

The qualified paleontologist will determine when work within the immediate vicinity of the find may resume, or otherwise expand or reduce the construction exclusion buffer as warranted to ensure proper treatment of resources. The qualified paleontologist may reduce the frequency of monitoring, or cease monitoring altogether if observations of specific site conditions warrant.

**Level of Significance**: Less than significant with mitigation incorporated.

### *Cumulative Impacts*

| | |
|---|---|
| **Impact 3.4-7** | **The cumulative projects would have the potential to result in a significant cumulative impact related to geology and soils. However, the proposed project's impacts would not be cumulatively considerable.** |

Risks related to geology and soils are typically localized in nature because they tend to be related to on-site conditions or conditions caused by a project's construction. Cumulative projects that would have the potential to be considered in a cumulative context with the proposed project's incremental contribution, and that are included in the analysis of cumulative impacts relative to geology and soils, are identified in Table 3-1 and Figure 3-1 of this PEIR. Cumulative projects were chosen based on proximity to the proposed project. The majority of the cumulative projects are similar to the proposed project regarding construction and operational activities. These selection factors are appropriate in the context of geology and soils cumulative impacts because generally there needs to be a direct nexus and similar geologic conditions for a synergistic impact to occur, such as site modifications at nearby projects combining to destabilize soils.

Impacts of the proposed project would be cumulatively considerable if the project, in combination with other related projects, would result in a significant cumulative impact. However, as stated, the effects of the cumulative projects considered are not of a nature to cause cumulatively significant effects from geologic impacts, or on soils, because such impacts are typically site-specific and would only have the potential to combine with impacts of the proposed project if they occurred in the same location.

Like much of Southern California, the project site is located in a seismically active area. All areas of San Diego County are considered seismically active to a lesser or greater extent depending on their proximity to active regional faults. As appropriate, improvements with the proposed project, as well as the cumulative projects identified, may experience seismic events that may lead to liquefaction, lateral spreading, subsidence, or other damage. As localized improvements are undertaken, unstable or expansive soils or other conditions may be encountered. As appropriate, City engineering design requirements would require preparation of a geotechnical investigation prior to final City plan approval; each improvement project would be required to conform with recommendations given in the project-specific geotechnical investigation report, in addition to conformance with other applicable state and local regulations and standard engineering design requirements.

Certain construction activities required with the project may involve excavation or minor grading. Due to the nature of the planned improvements, the affected land areas would not be visually or topographically different from existing development surrounding the affected sites. Although construction activities would have the potential to result in erosion, adherence to state and local regulations pertaining to

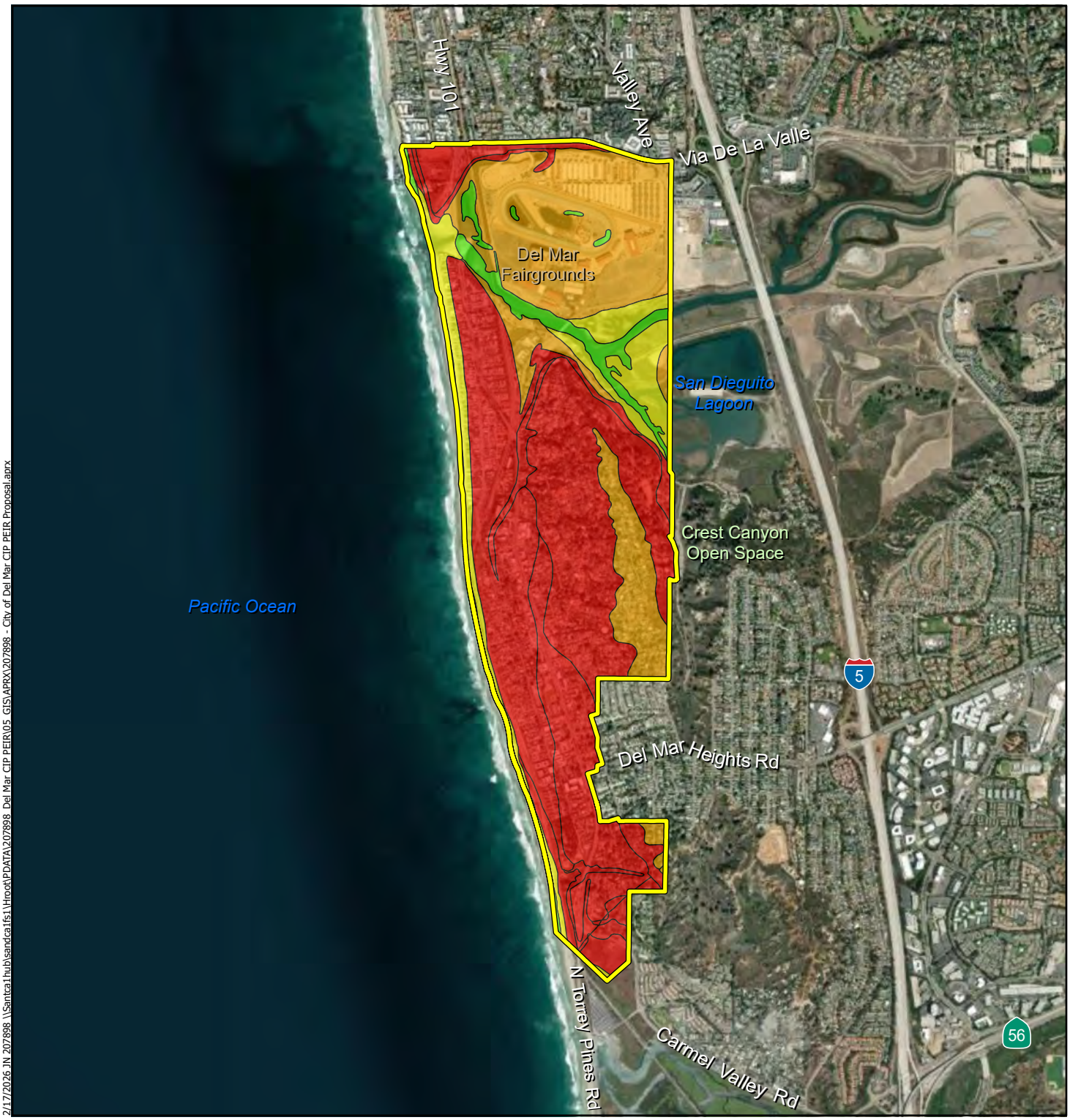
grading, building, and water quality requirements would mitigate erosion impacts to less than significant levels. Other cumulative projects would adhere to similar requirements, thereby minimizing cumulative scenario erosion impacts. All planned discretionary development projects in the vicinity of the proposed project would be subject to environmental review and would be required to conform to the City's Community Plan, LCP, DMMC, and CBC, as appropriate.

Other cumulative projects may be located in areas considered sensitive for paleontological resources. Such projects would be required to implement mitigation measures similar to the proposed project to reduce potential impacts to known (or unknown) paleontological resources to less than significant levels. Implementation of mitigation measure GEO-1 would reduce impacts resulting from implementation of the proposed project to less than significant.

With adherence to applicable grading and building requirements, and any recommendations provided in project-specific geotechnical studies, the proposed project would not contribute to cumulative impacts related to geologic or seismic hazards, or related events. The proposed project and other cumulative projects in the area would be required to demonstrate compliance with state and local building and safety standards and engineering design regulations prior to City issuance of grading and/or building permits, as applicable. As a result, the proposed project's contribution to cumulative impacts related to geology and soils **would not be cumulatively considerable**.

**Mitigation Measures:** Implement mitigation measure GEO-1.

**Level of Significance**: Project impacts would not be cumulatively considerable with mitigation.

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## Legend

- Project Site

**Paleontological Resources Sensitivity Zones**

- High
- Moderate
- Low
- No Paleontological Resources Sensitivity Zones

CITY OF DEL MAR CIP STREAMLINING PROJECT
PROGRAM ENVIRONMENTAL IMPACT REPORT

Michael Baker INTERNATIONAL

0 0.25 0.5 Miles

# Paleontological Resources Sensitivity Zones

Source: Esri, ArcGIS Online, City of Del Mar, San Diego County

Figure 3.4-5

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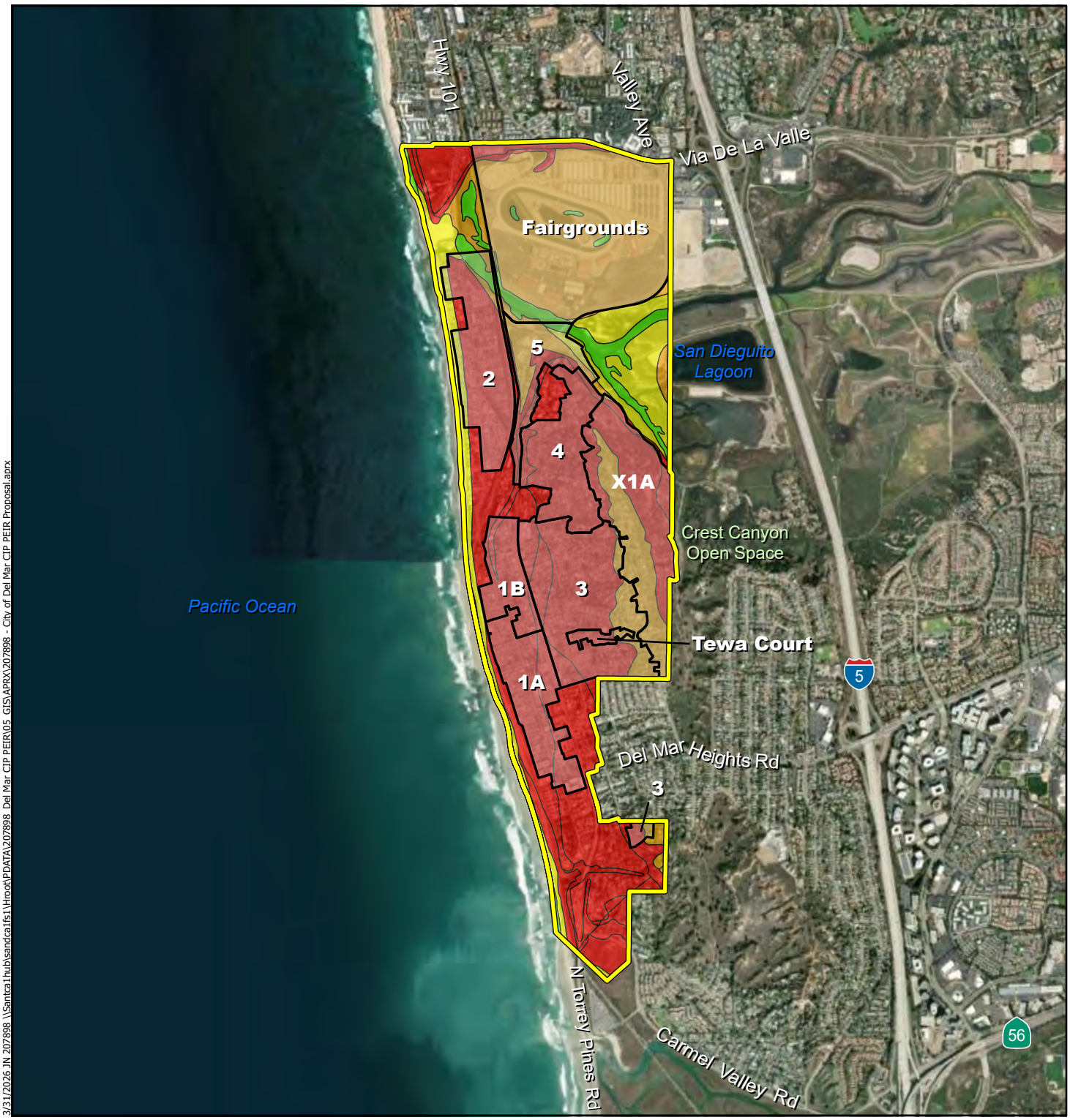


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## Legend

- Project Site
- Undergrounding Program Districts Boundaries

**Paleontological Resources Sensitivity Zones**

- High
- Moderate
- Low
- No Paleontological Resources Sensitivity Zones

CITY OF DEL MAR CIP STREAMLINING PROJECT
PROGRAM ENVIRONMENTAL IMPACT REPORT

Michael Baker INTERNATIONAL

0 0.25 0.5 Miles

Source: Esri, ArcGIS Online, City of Del Mar, San Diego County

# Undergrounding Program Districts Within Paleontological Resources Sensitivity Zones

Figure 3.4-6a

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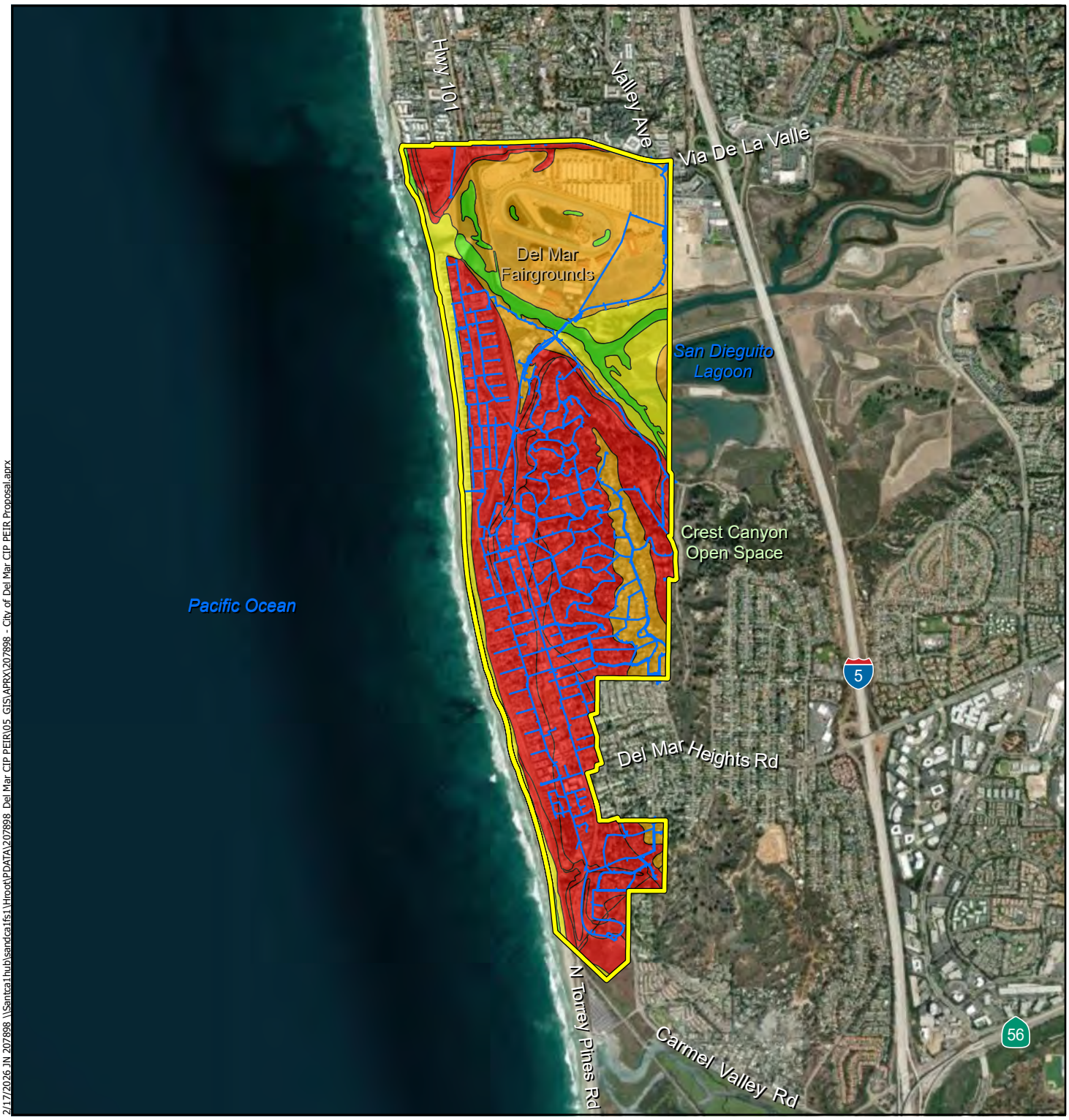


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## Legend

- Water Line
- Project Site

**Paleontological Resources Sensitivity Zones**

- High
- Moderate
- Low
- No Paleontological Resources Sensitivity Zones

CITY OF DEL MAR CIP STREAMLINING PROJECT
PROGRAM ENVIRONMENTAL IMPACT REPORT

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0 0.25 0.5 Miles

Source: Esri, ArcGIS Online, City of Del Mar, San Diego County

# Existing Water Infrastructure Within Paleontological Resources Sensitivity Zones

Figure 3.4-6b

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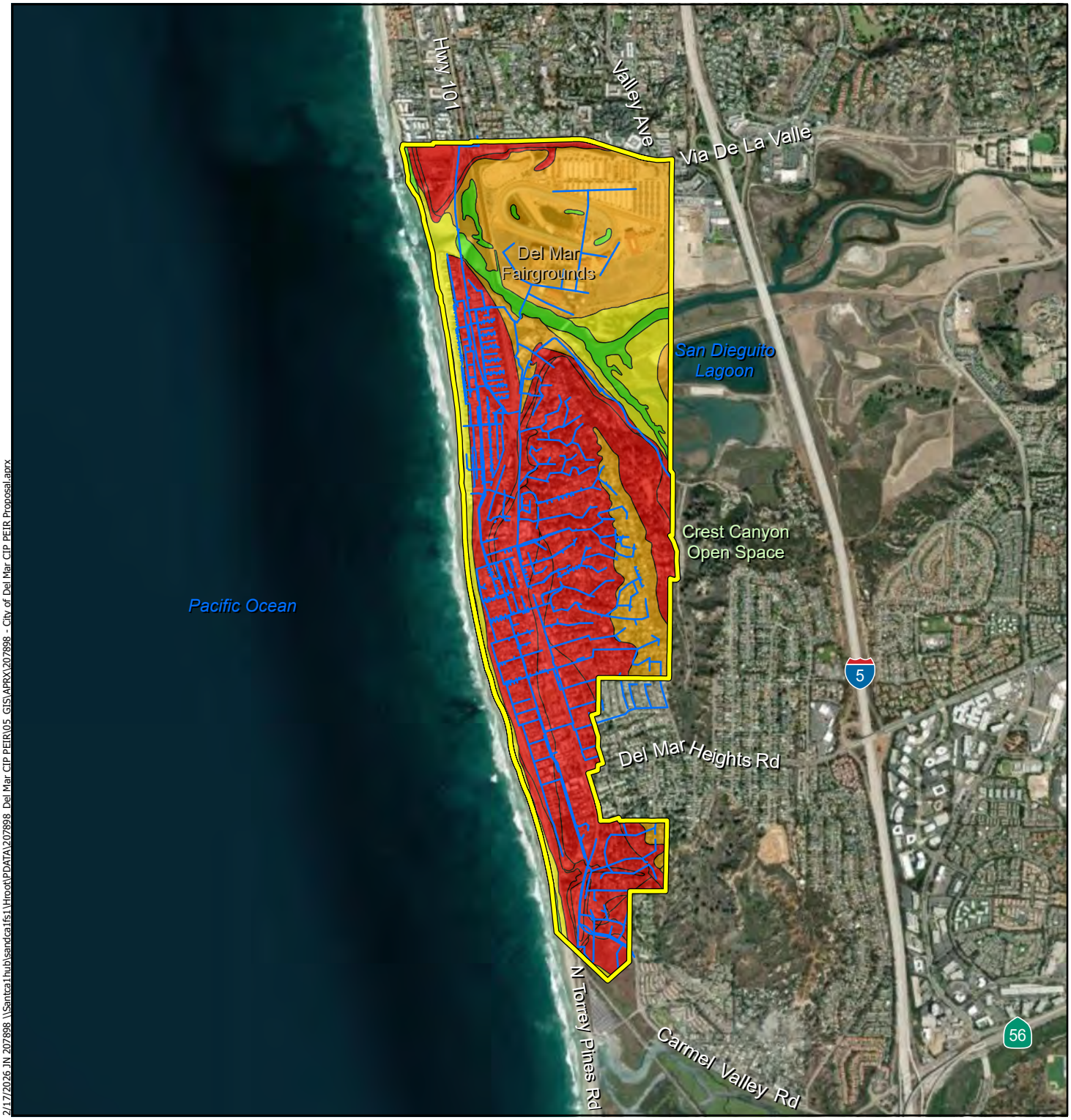


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## Legend

- Wastewater Line
- Project Site

**Paleontological Resources Sensitivity Zones**

- High
- Moderate
- Low
- No Paleontological Resources Sensitivity Zones

CITY OF DEL MAR CIP STREAMLINING PROJECT
PROGRAM ENVIRONMENTAL IMPACT REPORT

Michael Baker INTERNATIONAL

0 0.25 0.5 Miles

Source: Esri, ArcGIS Online, City of Del Mar, San Diego County

# Existing Wastewater Infrastructure Within Paleontological Resources Sensitivity Zones

Figure 3.4-6c

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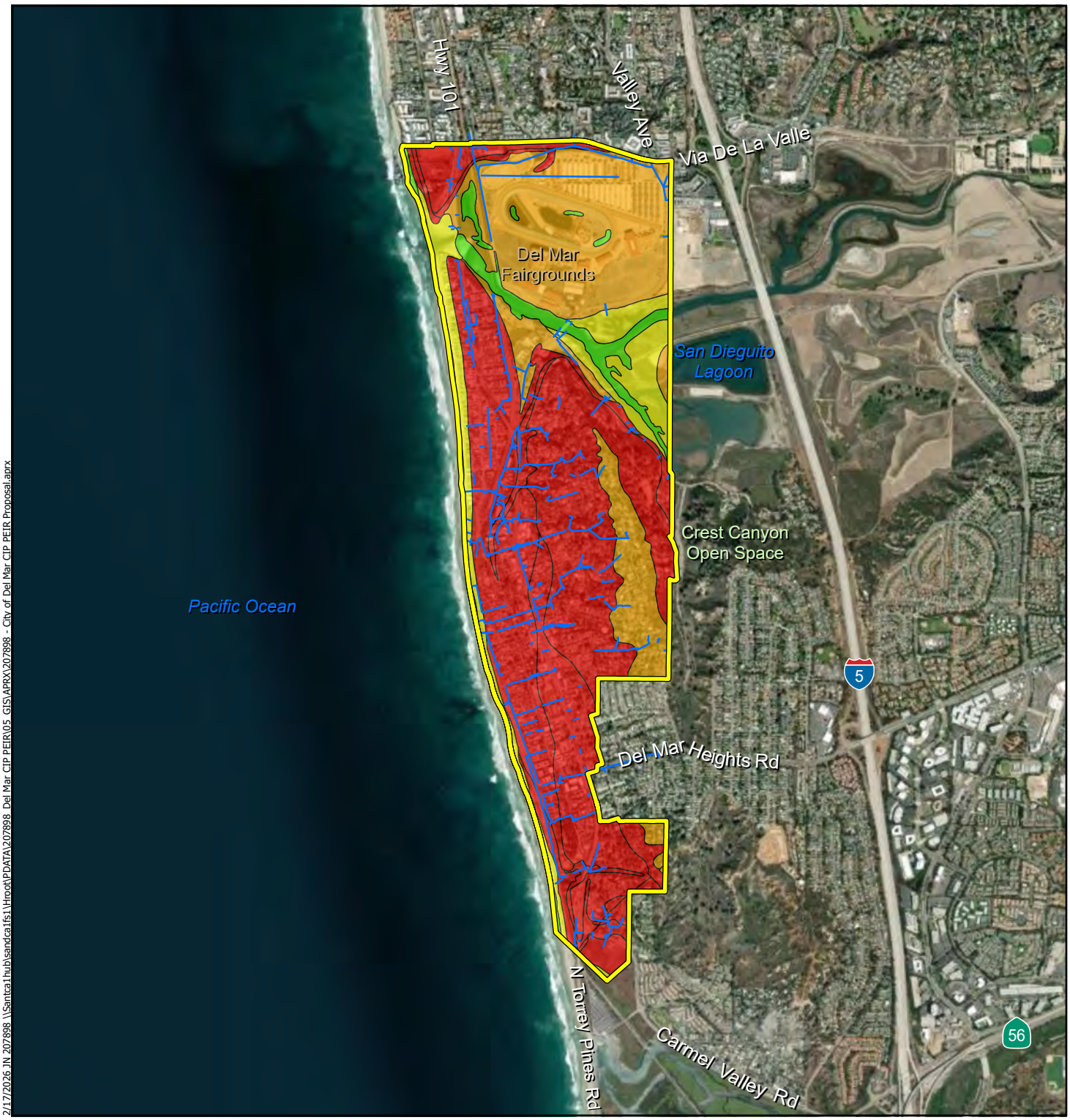


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## Legend

- Storm Water Line
- Project Site

**Paleontological Resources Sensitivity Zones**

- High
- Moderate
- Low
- No Paleontological Resources Sensitivity Zones

CITY OF DEL MAR CIP STREAMLINING PROJECT
PROGRAM ENVIRONMENTAL IMPACT REPORT

Michael Baker INTERNATIONAL

0 0.25 0.5 Miles

Source: Esri, ArcGIS Online, City of Del Mar, San Diego County

# Existing Storm Water Infrastructure Within Paleontological Resources Sensitivity Zones

Figure 3.4-6d

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## Legend

- Roads
- Bikeways
- Project Site

**Paleontological Resources Sensitivity Zones**

- High
- Moderate
- Low
- No Paleontological Resources Sensitivity Zones

CITY OF DEL MAR CIP STREAMLINING PROJECT
PROGRAM ENVIRONMENTAL IMPACT REPORT

Michael Baker INTERNATIONAL

0 0.25 0.5 Miles

Source: Esri, ArcGIS Online, City of Del Mar, San Diego County

# Existing Streets Infrastructure Within Paleontological Resources Sensitivity Zones

Figure 3.4-6e

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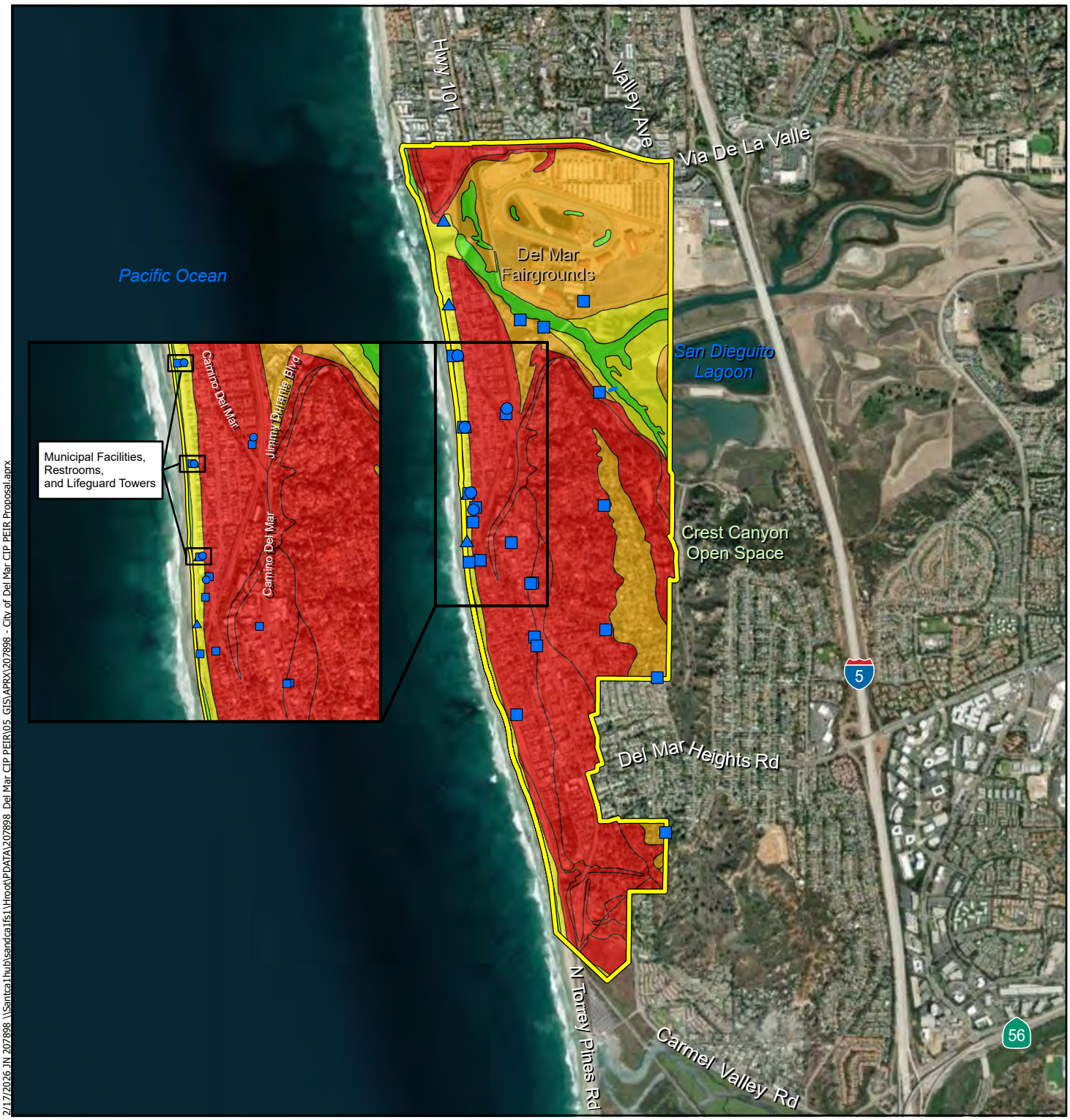


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## Legend

- Project Site
- Lifeguard Towers
- Municipal Facilities
- Restrooms
- Bridges

**Paleontological Resources Sensitivity Zones**

- High
- Moderate
- Low
- No Paleontological Resources Sensitivity Zones

CITY OF DEL MAR CIP STREAMLINING PROJECT
PROGRAM ENVIRONMENTAL IMPACT REPORT

Michael Baker INTERNATIONAL

0 0.25 0.5 Miles

Source: Esri, ArcGIS Online, City of Del Mar, San Diego County

# Existing Municipal Facilities Within Paleontological Resources Sensitivity Zones

Figure 3.4-6f

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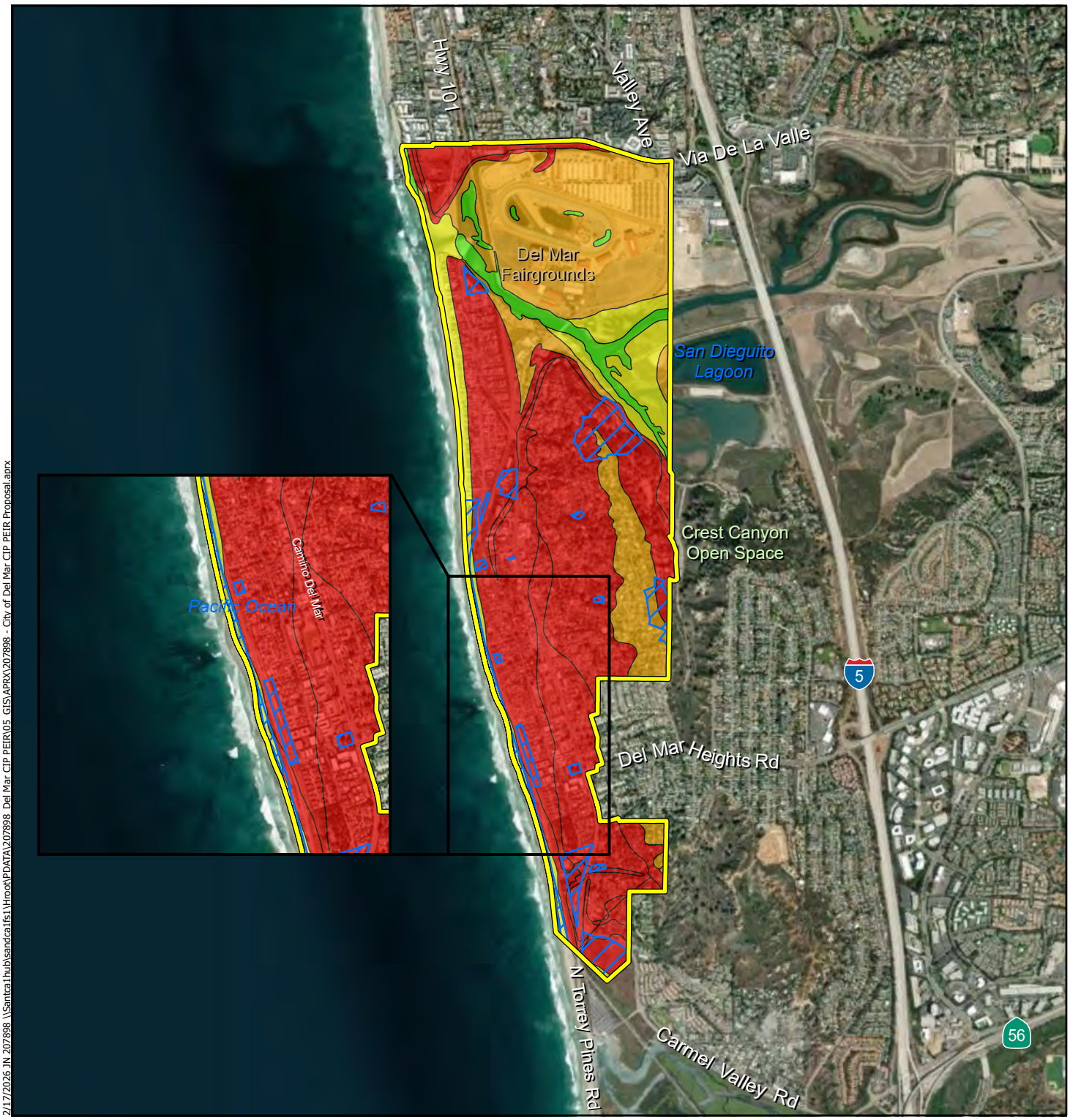


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## Legend

- Project Site
- Open Space

**Paleontological Resources Sensitivity Zones**

- High
- Moderate
- Low
- No Paleontological Resources Sensitivity Zones

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# Existing Open Space Within Paleontological Resources Sensitivity Zones

Figure 3.4-6g

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## 3.5. Greenhouse Gas Emissions

This section discusses the environmental setting, existing conditions, regulatory context, and potential impacts of the proposed project in relation to greenhouse gas (GHG) emissions.

This section is based on technical data from the following:

- *Air Quality/Greenhouse Gas Emissions Data,* prepared by Michael Baker International (Appendix D)

The following table provides a summary of impacts and significance findings, based on the analysis provided in Section 3.5.4, Project Impacts and Mitigation Measures. No significant and unavoidable impacts were identified.

**SUMMARY BY CIP PROJECT CATEGORY OF IMPACTS BY CIP CATEGORY – GHG EMISSIONS**

| Impact | UP | Water | Wastewater | Storm Water | Streets | Facilities | Open Space |
|---|---|---|---|---|---|---|---|
| Impact 3.5-1: Generate GHG emissions that may have a significant impact on the environment | LTS | LTS | LTS | LTS | LTS | LTS | LTS |
| Impact 3.5-2: Conflict with an applicable plan, policy, or regulation to reduce GHG emissions | LTS | LTS | LTS | LTS | LTS | LTS | LTS |
| Impact 3.5-3: Project's contribution to cumulative GHG emissions impacts | NCC | NCC | NCC | NCC | NCC | NCC | NCC |

Notes: LTS = Less than Significant; NCC = Not Cumulatively Considerable

### 3.5.1. Environmental Setting

California is a substantial contributor of global GHGs, emitting over 371.1 million metric tons of carbon dioxide equivalent ($MTCO_2e$) in 2022 (CARB 2022). Methane ($CH_4$) is also an important GHG that potentially contributes to global climate change. GHGs are global in their effect, which is to increase the earth's ability to absorb heat in the atmosphere. As primary GHGs have a long lifetime in the atmosphere, accumulate over time, and are generally well-mixed, their impact on the atmosphere is mostly independent of the point of emission. Every nation emits GHGs and as a result makes an incremental cumulative contribution to global climate change; therefore, global cooperation is required to reduce the rate of GHG emissions enough to slow or stop the human-caused increase in average global temperatures and associated changes in climatic conditions.

The impact of human activities on global climate change is apparent in the observational record. Air trapped by ice has been extracted from core samples taken from polar ice sheets to determine the global atmospheric variation of carbon dioxide ($CO_2$), $CH_4$, and nitrous oxide ($N_2O$) from before the start of industrialization (approximately 1750) to over 650,000 years ago. For that period, it was found that $CO_2$ concentrations ranged from 180 to 300 parts per million (ppm). For the period from approximately 1750

to the present, global $CO_2$ concentrations increased from a pre-industrialization period concentration of 280 to 379 ppm in 2005, with the 2005 value far exceeding the upper end of the pre-industrial period range (Intergovernmental Panel on Climate Change [IPCC] 2007). As of August 2025, the highest monthly average concentration of $CO_2$ in the atmosphere was recorded at 425.11 ppm (Scripps Institution of Oceanography 2025).

The IPCC developed several emission trajectories of GHGs needed to stabilize global temperatures and climate change impacts. It concluded that stabilization of GHGs at 400 to 450 ppm carbon dioxide equivalent ($CO_2e$) concentration is required to keep global mean warming below 2 degrees Celsius (°C), which in turn is assumed to be necessary to avoid dangerous climate change. $CO_2e$ is a metric measure used to compare the emissions from various GHGs based on their global warming potential (GWP).

The natural process through which heat is retained in the troposphere is called the "greenhouse effect."[2] The greenhouse effect traps heat in the troposphere through a three-fold process as follows: Short wave radiation emitted by the sun is absorbed by the earth; the earth emits a portion of this energy in the form of long wave radiation; and GHGs in the upper atmosphere absorb this long wave radiation and emit this radiation into space and toward the earth. This "trapping" of the long wave (thermal) radiation emitted back toward the earth is the underlying process of the greenhouse effect.

The most abundant GHGs are water vapor and $CO_2$. Many other trace gases have greater ability to absorb and re-radiate long wave radiation; however, these gases are not as plentiful. For this reason, and to gauge the potency of GHGs, scientists have established a GWP for each GHG based on its ability to absorb and re-radiate long wave radiation. GHGs normally associated with development projects include the following:[3]

- Water Vapor ($H_2O$). Although water vapor has not received the scrutiny of other GHGs, it is the primary contributor to the greenhouse effect. Natural processes, such as evaporation from oceans and rivers and transpiration from plants, contribute 90 percent and 10 percent of the water vapor in our atmosphere, respectively. The primary human-related source of water vapor comes from fuel combustion in motor vehicles; however, it does not contribute a significant amount (less than 1 percent) to atmospheric concentrations of water vapor. The IPCC has not determined a GWP for water vapor.

- Carbon Dioxide ($CO_2$). $CO_2$ is primarily generated by fossil fuel combustion in stationary and mobile sources. Due to the increased use of clean fuel by industrial facilities and mobile sources, $CO_2$ emissions from fossil fuel combustion decreased by a total of 1.9 percent between 1990 and 2021 (EPA 2023). $CO_2$ is the most widely emitted GHG and is the reference gas (GWP of 1) for determining GWPs for other GHGs.

- Methane ($CH_4$). $CH_4$ is emitted from biogenic sources, incomplete combustion in forest fires, landfills, manure management, and leaks in natural gas pipelines. The United States' top three

[2] The troposphere is the bottom layer of the atmosphere, which varies in height from the earth's surface to 10 to 12 kilometers.

[3] All GWPs are given as 100-year GWP. Generally, GWPs were obtained from the IPCC Fourth Assessment Report (AR4), with the addition of GWPs from the IPCC's Fifth Assessment Report for fluorinated GHGs that did not have GWPs in the AR4.

$CH_4$ sources are landfills, natural gas systems, and enteric fermentation. $CH_4$ is the primary component of natural gas, which is commonly used for space and water heating, steam production, and power generation. The GWP of $CH_4$ is 25.

- Nitrous Oxide ($N_2O$). $N_2O$ is produced by both natural and human-related sources. Primary human-related sources include agricultural soil management, animal manure management, sewage treatment, mobile and stationary combustion of fossil fuels, adipic acid production, and nitric acid production. The GWP of $N_2O$ is 298.

- Hydrofluorocarbons (HFCs). Typically used as refrigerants for both stationary refrigeration and mobile air conditioning, use of HFCs for cooling and foam blowing is increasing, as the continued phase out of chlorofluorocarbons (CFCs) and hydrochlorofluorocarbons (HCFCs) gains momentum. The 100-year GWP of HFCs ranges from 12 for HFC-161 to 14,800 for HFC-23.

- Perfluorocarbons (PFCs). PFCs are compounds consisting of carbon and fluorine and are primarily created as a byproduct of aluminum production and semiconductor manufacturing. PFCs are potent GHGs with a GWP several thousand times that of $CO_2$, depending on the specific PFC. Another area of concern regarding PFCs is their long atmospheric lifetime (up to 50,000 years). The GWP of PFCs ranges from 7,390 to 12,200.

- Sulfur hexafluoride ($SF_6$). $SF_6$ is a colorless, odorless, nontoxic, nonflammable gas. $SF_6$ is the most potent GHG that has been evaluated by the IPCC with a GWP of 22,800. However, its global warming contribution is not as high as the GWP would indicate due to its low mixing ratio compared to $CO_2$ (4 parts per trillion in 1990 versus 365 ppm, respectively).

In addition to the six major GHGs discussed above (excluding water vapor), many other compounds have the potential to contribute to the greenhouse effect. Some of these substances were previously identified as stratospheric ozone ($O_3$) depletors; therefore, their gradual phase out is currently in effect. The following is a listing of these compounds:

- Hydrochlorofluorocarbons (HCFCs). HCFCs are solvents, similar in use and chemical composition to CFCs. The main uses of HCFCs are for refrigerant products and air conditioning systems. As part of the Montreal Protocol, all developed countries that adhere to the Montreal Protocol are subject to a consumption cap and gradual phase out of HCFCs. The United States is scheduled to achieve a 100 percent reduction to the cap by 2030. The 100-year GWP of HCFCs ranges from 77 for HCFC-123 to 2,310 for HCFC-142b.

- 1,1,1 trichloroethane. 1,1,1 trichloroethane or methyl chloroform is a solvent and degreasing agent commonly used by manufacturers. The GWP of methyl chloroform is 146 times that of $CO_2$.

- Chlorofluorocarbons (CFCs). CFCs are used as refrigerants, cleaning solvents, and aerosol spray propellants. CFCs were also part of the US Environmental Protection Agency's (EPA) Final Rule (57 Federal Register 3374) for the phase out of $O_3$ depleting substances. Currently, CFCs have been replaced by HFCs in cooling systems and a variety of alternatives for cleaning solvents.

Nevertheless, CFCs remain suspended in the atmosphere contributing to the greenhouse effect. CFCs are potent GHGs with 100-year GWPs ranging from 4,750 for CFC-11 to 14,400 for CFC-13.

### 3.5.2. Regulatory Framework

#### Federal

To date, no national standards have been established for nationwide GHG reduction targets, nor have any regulations or legislation been enacted specifically to address climate change and GHG emissions reduction at the project level. Various efforts have been promulgated at the federal level to improve fuel economy and energy efficiency to address climate change and its associated effects.

**Energy Independence and Security Act**

The Energy Independence and Security Act (2007) included key measures which aid in the reduction of national GHG emissions:

- Increase the supply of alternative fuel sources by setting a mandatory Renewable Fuel Standard requiring fuel producers to use a set quantity of biofuel.
- Set a target of 35 miles per gallon for the combined fleet of cars and light trucks, and direct the National Highway Traffic Safety Administration (NHTSA) to establish a fuel economy program for medium- and heavy-duty trucks and create a separate fuel economy standard for work trucks.
- Prescribe or revise standards affecting regional efficiency for heating and cooling products and procedures for new or amended standards, energy conservation, energy efficiency labeling for consumer electronic products, residential boiler efficiency, electric motor efficiency, and home appliances.

**US Environmental Protection Agency Endangerment Finding**

The EPA's authority to regulate GHG emissions comes from the US Supreme Court decision in *Massachusetts v. EPA* (2007). The Supreme Court ruled that GHGs meet the definition of air pollutants under the existing Clean Air Act and that GHG must therefore be regulated if they could be reasonably anticipated to pose a threat to public health or welfare. In response to the ruling, the EPA finalized an endangerment finding based on scientific evidence, identifying six GHGs ($CO_2$, $CH_4$, $N_2O$, HFCs, PFCs, and $SF_6$) considered to constitute a threat to public health and welfare. It is the Supreme Court's interpretation of the Clean Air Act and the EPA's assessment of the scientific evidence that forms the basis for EPA's regulatory actions.

**Corporate Average Fuel Economy Program**

The Corporate Average Fuel Economy (CAFE) program (1975) was the main federal program regulating vehicle standards relative to emissions and initially served as the primary means of controlling potential mobile source carbon emissions through implementation of binding standards for specific model years. Federal light-duty vehicle standards were subsequently developed and the first ever federal GHG standards for medium-duty and heavy-duty vehicles were identified. At the time, the EPA estimated that

the new standards would substantially reduce potential $CO_2$ emissions and reduce oil demand by millions of barrels over the life of vehicles sold (2014 through 2018 model years).

The EPA and NHTSA implemented a subsequent program related to the fuel economy and GHG standards for medium- and heavy-duty trucks. The program applies to vehicles with model years 2018 through 2027 for certain trailers, and model years 2021 through 2027 for semi-trucks, large pickup trucks, vans, and all types and sizes of buses and work trucks. The final standards are expected to lower $CO_2$ emissions by approximately 1.1 billion metric tons and reduce oil consumption by up to 2 billion barrels over the lifetime of the vehicles sold under the program.

The EPA and NHTSA have also adopted the Safer Affordable Fuel-Efficient (SAFE) Vehicles Rule (2018). The SAFE Vehicles Rule sets fuel economy and $CO_2$ standards that increase 1.5 percent in stringency each year from model years 2021 through 2026. These standards apply to both passenger cars and light trucks and will continue the nation's progress toward energy independence and $CO_2$ reduction, while recognizing the realities of the marketplace and consumers' interest in buying vehicles that meet all of their diverse needs.

## State

### Executive Order S-1-07

Executive Order S-1-07 proclaims that the transportation sector is the main source of GHG emissions in California, generating more than 40 percent of statewide emissions. It establishes a goal to reduce the carbon intensity of transportation fuels sold in California and directs CARB to determine whether this Low Carbon Fuel Standard (LCFS) could be adopted as a discrete early-action measure as part of the effort to meet the deadlines in Assembly Bill (AB) 32. CARB's 2017 Scoping Plan Update identified the LCFS as a regulatory measure to reduce GHG emissions to meet the 2030 emissions target. In calculating statewide emissions and targets, the 2017 Scoping Plan Update assumed the LCFS would be extended to an 18 percent reduction in carbon intensity beyond 2020. CARB has also approved a rulemaking package that amended the LCFS to require a carbon intensity reduction of 20 percent by 2030.

### Executive Order S-3-05

Executive Order S-3-05 set forth a series of target dates by which statewide emissions of GHGs would be progressively reduced, including reducing GHG emissions to 1990 levels by 2020, and further reducing GHG emissions to 80 percent below 1990 levels by 2050. The state succeeded in achieving the 2020 goal in 2014.

The executive order directed the secretary of the California EPA to coordinate a multi-agency effort to reduce GHG emissions to the target levels. The secretary also submits biannual reports to the governor and California legislature that describe the progress made toward the emissions targets, the impacts of global climate change on California's resources, and mitigation and adaptation plans to combat these impacts.

### Executive Order S-13-08

Executive Order S-13-08 seeks to enhance the state's management of climate impacts, including sea level rise, increased temperatures, shifting precipitation, and extreme weather events, by facilitating the

development of the state's first climate adaptation strategy. This executive order results in consistent guidance from experts on how to address climate change impacts in the State of California.

**Senate Bill (SB) 100**

SB 100 (Chapter 312, Statutes of 2018) requires that retail sellers and local publicly owned electric utilities procure a minimum quantity of electricity products from eligible renewable energy resources so that the total kilowatt-hours (kWh) of those products sold to their retail end-use customers achieve 52 percent by December 31, 2027, 60 percent by December 31, 2030, and 100 percent by December 31, 2045. The bill requires the California Public Utilities Commission, California Energy Commission, CARB, and all other state agencies to incorporate such policies into all relevant planning actions. In addition, SB 100 requires the California Public Utilities Commission, California Energy Commission, and CARB to utilize programs authorized under existing statutes to achieve policy targets and, as part of a public process, issue a joint report to the legislature every four years that includes specified information relating to implementation of the policy.

**Assembly Bill 1493**

AB 1493 (also known as the Pavley Bill) required that CARB develop and adopt regulations to achieve "the maximum feasible reduction of GHG emitted by passenger vehicles and light-duty trucks and other vehicles determined by CARB to be vehicles whose primary use is noncommercial personal transportation in the state." To meet AB 1493 requirements, CARB approved amendments to the California Code of Regulations by adding GHG emissions standards to California's existing standards for motor vehicle emissions. Such amendments required automobile manufacturers to meet fleet-average GHG emissions limits for all passenger cars, light-duty trucks within various weight criteria, and medium-duty weight classes for passenger vehicles (i.e., any medium-duty vehicle with a gross vehicle weight rating less than 10,000 pounds that is designed primarily to transport people).

**Assembly Bill 32 (California Global Warming Solutions Act)**

California passed the California Global Warming Solutions Act (AB 32; California Health and Safety Code Division 25.5, Sections 38500-38599), which establishes regulatory, reporting, and market mechanisms to achieve quantifiable reductions in GHG emissions and establishes a cap on statewide GHG emissions. AB 32 specifies that regulations adopted in response to AB 1493 should be used to address GHG emissions from vehicles. However, AB 32 also includes language stating that if the AB 1493 regulations cannot be implemented, then CARB should develop new regulations to control vehicle GHG emissions under the authorization of AB 32.

**Executive Order B-55-18**

Executive Order B-55-18 (2018) establishes a statewide policy to achieve carbon neutrality as soon as possible, and no later than 2045, and to achieve and maintain net-negative emissions thereafter. The goal is an addition to existing statewide targets for reducing GHG emissions. In response to such policy, CARB continues to coordinate with relevant state agencies to ensure that future scoping plans identify and recommend measures to achieve the carbon neutrality goal.

**Senate Bill 32 (SB 32)**

SB 32 (2016) codifies the 2030 GHG reduction target in Executive Order B-30-15 (40 percent below 1990 levels by 2030). The bill authorizes CARB to adopt an interim GHG emissions level target to be achieved by 2030. CARB also must adopt rules and regulations in an open public process to achieve the maximum, technologically feasible, and cost-effective GHG reductions. AB 197 also added two members of the legislature to CARB as nonvoting members; requires CARB to make available and update (at least annually via its website) emissions data for GHGs, criteria air pollutants, and toxic air contaminants from reporting facilities; and requires CARB to identify specific information for GHG emissions reduction measures when updating the scoping plan.

**CARB Scoping Plan**

CARB's Scoping Plan (2008) functions as a road map to achieve the GHG reductions required by AB 32 through subsequently enacted regulations. The Scoping Plan identifies the main strategies California would implement to reduce projected emissions to targeted levels.

AB 32 requires CARB to update the Scoping Plan at least once every five years. The first major update to the Scoping Plan (2014) looked beyond 2020 toward a 2050 goal, established in Executive Order S-3-05, and observed that "a mid-term statewide emission limit will ensure that the state stays on course to meet our long-term goal." The Scoping Plan update did not establish or propose any specific post-2020 goals, but identified such goals in water, waste, natural resources, clean energy, transportation, and land use.

The second update to the Scoping Plan (2017) identified the state's post-2020 reduction strategy and established a 2030 target of a 40 percent reduction below 1990 levels, set by Executive Order B-30-15 and codified by SB 32. The 2017 Scoping Plan update established a new statewide emissions limit of 260 million $MTCO_2e$ for the year 2030, which corresponds to a 40 percent decrease in 1990 levels by 2030.

CARB's *2022 Scoping Plan for Achieving Carbon Neutrality* (2022 Scoping Plan) was developed to achieve carbon neutrality by 2045 through a substantial reduction in fossil fuel dependence, while increasing deployment of efficient non-combustion technologies and distribution of clean energy. The plan is also aimed at reducing emissions of short-lived climate pollutants and includes mechanical $CO_2$ capture and sequestration actions, as well as emissions and sequestration from natural and working lands and nature-based strategies. Under the 2022 Scoping Plan, by 2045, California aims to cut GHG emissions by 85 percent below 1990 levels, reduce smog-forming air pollution by 71 percent, reduce the demand for liquid petroleum by 94 percent compared to current usage, improve health and welfare, and create millions of new jobs. The plan also builds upon current and previous environmental justice efforts to integrate environmental justice directly into the plan, to ensure that all communities can reap the benefits of this transformational plan. Key goals include:

- Identify a path to keep California on track to meet its SB 32 GHG reduction target of at least 40 percent below 1990 emissions by 2030.
- Identify a technologically feasible, cost-effective path to achieve carbon neutrality by 2045 and a reduction in anthropogenic emissions by 85 percent below 1990 levels.

- Focus on strategies for reducing California's dependency on petroleum to provide consumers with clean energy options that address climate change, improve air quality, and support economic growth and clean sector jobs.
- Integrate equity and protect California's most impacted communities as driving principles throughout the document.
- Incorporate the contribution of natural and working lands to the state's GHG emissions, as well as their role in achieving carbon neutrality.
- Rely upon the most up-to-date science, including the need to deploy all viable tools to address the existential threat that climate change presents, including carbon capture and sequestration, as well as direct air capture.
- Evaluate the substantial health and economic benefits of taking action.

**Senate Bill 375**

Acknowledging the relationship between land use planning and transportation sector GHG emissions, SB 375 (2008) links regional planning for housing and transportation with the GHG reduction goals outlined in AB 32. Reductions in GHG emissions can be achieved by, for example, locating employment opportunities close to transit. Under SB 375, each metropolitan planning organization is required to adopt a sustainable communities strategy (SCS) to encourage compact development that reduces passenger vehicle miles traveled (VMT) and trips so that the region can meet a target, created by CARB, for reducing GHG emissions. If the SCS is unable to achieve the regional GHG emissions reduction targets, then the metropolitan planning organization is required to prepare an alternative planning strategy that shows how the GHG emissions reduction target can be achieved through alternative development patterns, infrastructure, and/or transportation measures.

**CEQA Guidelines**

Amendments to CEQA Guidelines Section 15064.4 were adopted to assist lead agencies in determining the significance of the impacts of GHG emissions. Consistent with existing CEQA practice, Section 15064.4 gives lead agencies the discretion to determine whether to assess those emissions quantitatively or qualitatively. The section recommends certain factors to be considered in the determination of significance (i.e., the extent to which a project may increase or reduce GHG emissions compared to the existing environment; whether the project exceeds an applicable significance threshold; and the extent to which the project complies with regulations or requirements adopted to implement a plan for the reduction or mitigation of GHGs).

The amendments do not establish a quantified or performance-based threshold of significance; rather, lead agencies are granted discretion to establish significance thresholds for their respective jurisdictions, including looking to thresholds developed by other public agencies or suggested by other experts, such as the California Air Pollution Control Officers Association (CAPCOA), so long as any threshold chosen is supported by substantial evidence (CEQA Guidelines Section 15064.7[c]).

Notwithstanding, for informational purposes, the analysis herein calculates the amount of GHG emissions that would be attributable to the project using recommended air quality models. The primary purpose of quantifying the project's GHG emissions is to satisfy CEQA Guidelines Section 15064.4(a), which calls for a good-faith effort to describe and calculate emissions.

## Regional

### San Diego Association of Governments Regional Plan

The San Diego Association of Governments (SANDAG) Board of Directors has adopted the *San Diego Forward: The Regional Plan* (2021 Regional Plan). The 2021 Regional Plan combines the Regional Transportation Plan, SCS, and Regional Comprehensive Plan, which complies with specific state and federal mandates that achieve GHG emission reduction targets set by CARB; compliance with federal civil rights requirements (Title VI); and environmental justice considerations, air quality conformity, and a public participation process.

SANDAG continues to implement regional transportation control measures to reduce motor vehicle use, thereby reducing emissions and improving air quality. The measures expand access to public transit, vanpools, and park-and-ride/bicycle facilities, as well as enhancements to the regional high-occupancy vehicle lane system.

## Local

### City of Del Mar Climate Action Plan

The City of Del Mar adopted a Climate Action Plan (CAP; 2016) to establish a series of measures by which it aims to reduce GHG emissions and mitigate the impacts of global climate change. The CAP identifies electricity and natural gas consumption as Del Mar's greatest contributors to GHG emissions, collectively accounting for 36 percent of the 2012 total. To reduce the City's energy consumption, the CAP proposes multiple reduction measures to encourage residents to live more sustainably. These include strategies to achieve a renewable energy supply, reduce water consumption and waste generation, invest in energy efficiency, and encourage sustainable transportation alternatives. These measures are designed to achieve the statewide goals of an 80 percent GHG reduction below 1990 values by 2050 and development of a 100 percent renewable energy supply by 2035.

### Sea-Level Rise and Climate Resiliency

Climate adaptation and resiliency planning is required by state law. California Senate Bill (SB) 379 requires that local jurisdictions prepare a vulnerability assessment and update local hazard mitigation policies to address climate adaptation and resiliency strategies. The City's coastal resiliency/sea level rise work program provides a long-term plan and resiliency strategy to manage the City's shoreline and bring the City into compliance with SB 379. City efforts have included:

- **City of Del Mar Coastal Hazards, Vulnerability, and Risk Assessment:** The assessment used best available science to identify vulnerable areas in Del Mar that are subject to projected sea level rise, storm surge, river flooding, coastal flooding, and erosion. Vulnerable City facilities include

the fire station, public works yard, sewer lift station, beach access points, public roads, sewer lines, and storm water systems.

- **City of Del Mar Sea-Level Rise Adaptation Plan:** The Adaptation Plan provides a variety of adaptation strategies and approaches and will serve as the City's "toolbox" to help property owners (public and private) plan for and address the vulnerabilities identified by the Coastal Hazards, Vulnerability and Risk Assessment.

- **City of Del Mar Coastal Sediment Management Plan:** The plan includes soft sediment management solutions to protect development and coastal resources, including beach nourishment, dune management, San Dieguito River Lagoon mouth and channel dredging, and integration with the California Regional Sediment Management Program. This plan is part of the City's Sea-Level Rise Adaptation Plan.

- **City of Del Mar San Dieguito Lagoon Wetland Habitat Migration Assessment (2018):** In response to the results from the Coastal Hazards, Vulnerability, and Risk Assessment, which showed significant vulnerabilities and risks to Del Mar, including wetland habitat loss, the City developed a Wetland Habitat Migration Assessment, which serves as a companion document to the Community Plan (1976, as revised), Adaptation Plan, and Local Coastal Program. The assessment evaluates habitat migration in the San Dieguito Lagoon under varying levels of sea level rise.

- **City of Del Mar Local Coastal Program (LCP) Land Use Plan:** The City's certified LCP Land Use Plan includes hazard control policies applicable to local hazards relating to sea level rise, flooding, erosion, and storm surge, as well as the City's approved Adaptation Plan strategies to address coastal hazards.

- **City of Del Mar LCP Implementing Ordinances:** The City's certified LCP Implementation Plan includes regulations to ensure protection of coastal resources and environmentally sensitive habitat areas. This includes the following certified LCP regulations:

    - Base zone regulations (i.e., Residential Zones, Commercial Zones, Fairgrounds Racetrack Zone, Railroad Right-of-way Zone, Floodway Zone, Public Parkland Zone, and Public Facilities Zone);

    - Overlay zone regulations (Beach Overlay Zone, Bluff, Slope, and Canyon Overlay Zone, Lagoon Overlay Zone, Coastal Bluff Overlay Zone, Floodplain Overlay Zone, and Housing Element Implementation Overlay Zone); and

    - Special permit regulations (Setback Seawall Permits, Conditional Use Permits, Coastal Development Permits, and Temporary Use Permits); and

    - Miscellaneous regulations (Public Access, Parking, Accessory Dwelling Units, and SB 9 Implementation).

### 3.5.3. Significance Thresholds

The State of California has developed guidelines to address the significance of GHG emissions impacts based on Appendix G of the CEQA Guidelines. The proposed project would have a significant impact related to GHG emissions if it would:

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

2. Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases.

### 3.5.4. Project Impacts and Mitigation Measures

| | |
|---|---|
| **Impact 3.5-1** | **The project would not have the potential to generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment. Impacts would be less than significant.** |
| **Impact 3.5-2** | **The project would not conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases. Impacts would be less than significant.** |

#### *Greenhouse Gas Emissions*

The California Emissions Estimator Model (CalEEMod) *User Guide Version 2022.1* provides guidance for quantifying criteria pollutants and GHG emissions from a project. GHG emissions are calculated using a project's principle anthropogenic (human-made) emissions that contribute to global warming. Principle anthropogenic emissions include $CO_2$, $CH_4$, $N_2O$, and fluorinated compounds such as $SF_6$, HFCs, and PFCs. CalEEMod also quantifies common refrigerant GHG emissions used in air condition and refrigeration equipment, which are commonly HFCs. CalEEMod describes all GHG emissions in terms of a single gas for ease of reporting and analysis. As discussed earlier, the common method used to compare GHG emissions is to identify the GWP of each GHG. CalEEMod quantifies a project's principle anthropogenic emissions and converts all of the gases in terms of $CO_2e$.

As discussed in Chapter 2.0, Project Description, the proposed project is composed of numerous improvement projects related to public infrastructure and facilities. Due to the programmatic nature of the project (i.e., streamlining implementation of the City's CIP projects), the exact location and timing of future CIP projects are currently unknown. To analyze potential GHG impacts associated with the seven CIP categories, the four representative CIP projects included in Chapter 2.0, Project Description. Refer to Section 2.4.2, Representative CIP Projects, for project information, including anticipated construction equipment and estimated duration of construction activities.

Construction sources of GHG emissions include construction equipment operation on-site and construction worker vehicle trips to and from the project site, and construction material deliveries to and from the project site. Construction input data for CalEEMod include, but are not limited to, (1) the anticipated start and finish dates of construction activity; (2) inventories of construction equipment to be

used; and (3) trips associated with construction activities (i.e., hauling, vendor, and worker trips). Construction GHG emissions were quantified by estimating the types and quantity of equipment that would be used on-site during each construction phase, as provided by the model defaults. CalEEMod also quantified off-site GHG emissions from worker, vendor, and hauling truck trips.

The proposed project would result in direct GHG emissions generated by construction activities. Operation of the utilities undergrounding, water, sewer, storm water, and streets CIP projects would not result in increased routine maintenance beyond existing conditions, nor would project operation increase roadway capacity or generate substantial amounts of additional traffic. Due to the nature of the anticipated improvements, no area or energy source emissions would be generated. As the project would not include new mobile source emissions or new permanent stationary sources, it would not have the potential to generate substantial new criteria air pollutant emissions from operations. Table 3.5-1, Estimated Direct Construction-Related GHG Emissions ($MTCO_2e$ /year), presents the estimated GHG emissions of the proposed project. CalEEMod outputs are provided in Appendix D, Air Quality/Greenhouse Gas Emissions Data.

It is noted that representative Project No. 4 (Shores Park Improvements Project) would include upgrades to the existing on-site City Community Building, which could include additions of up to 5,000 square feet and improvements to on-site parking for the proposed park and community center. However, due to the limited scope of the proposed improvements, Project No. 4 is not expected to generate a substantial amount of operational emissions beyond existing conditions.

**TABLE 3.5-1 ESTIMATED DIRECT CONSTRUCTION-RELATED GHG EMISSIONS ($MTCO_2E$ /YEAR)**

| Source | $CO_2$ | $CH_4$ | $N_2O$ | Refrigerants | Total |
|---|---|---|---|---|---|
| Representative Project No. 1 | 4.43 | <0.01 | <0.01 | <0.01 | **4.43** |
| Representative Project No. 2 | 0.31 | <0.01 | <0.01 | <0.01 | **0.31** |
| Representative Project No. 3 | 1.45 | <0.01 | <0.01 | <0.01 | **1.45** |
| Representative Project No. 4 | 10.42 | <0.01 | <0.01 | <0.01 | **10.46** |
| ***Total Direct Emissions*** | ***16.61*** | ***<0.01*** | ***<0.01*** | ***<0.01*** | ***16.65*** |
| **Total Project-Related Emissions** | | | | | **16.65 $MTCO_2e$/year** |

Source: Appendix D, Air Quality/Greenhouse Gas Emissions Data
$CO_2$ = carbon dioxide; $CH_4$ = methane; $N_2O$ = nitrous oxide; $MTCO_2e$ = metric tons of carbon dioxide equivalent
Notes: Emissions calculated using California Emissions Estimator Model Version 2022.1 (CalEEMod) computer model.
Totals may be slightly off due to rounding.

Due to the cumulative nature of GHG emissions, construction emissions from the four representative CIP projects are summed and provided in Table 3.5-1. Construction GHG emissions are amortized (i.e., total construction emissions divided by the lifetime of the project, assumed to be 30 years),[4] then added to the

[4] In accordance with the South Coast Air Quality Management District guidance (SCAQMD 2008), projected GHGs from construction have been quantified and amortized over 30 years, which is the number of years considered to represent the life of a project. Since the SDAPCD guidance (SDAPCD 2024) does not provide similar guidance, the project lifetime was assumed to be 30 years. The amortized construction emissions are added to the annual average operational emissions.

operational emissions. As seen in Table 3.5-1, construction of the proposed project would result in a total of 16.65 $MTCO_2e$ per year when amortized over 30 years.

To determine whether the proposed project's GHG emissions may have a significant impact on the environment, it must be determined whether the project is consistent with applicable plans, policies, and regulations adopted for the purpose of reducing the emissions of GHGs, as in the following section. Based on the analysis presented below, impacts would be **less than significant**.

### *Conflict with Applicable Plans, Policies, or Regulations*

The GHG consistency analysis for the proposed project is based on the project's consistency with SANDAG's 2021 Regional Plan,[5] CARB's 2022 Scoping Plan, and the City of Del Mar CAP. The 2021 Regional Plan incorporates local land use projections and circulation networks from city and county general plans. The 2022 Scoping Plan describes the approach California will take to reduce GHG emissions by 40 percent below 1990 levels by the year 2030. Similarly, the CAP identifies goals intended to support sustainable development within the City, and implementation of the CAP would contribute to a reduction in the City's overall GHG emissions.

#### Consistency with the SANDAG 2021 Regional Plan

Chapter 2, Sustainable Community Strategy – A Framework for the Future, of the 2021 Regional Plan includes three core strategies around which projects, policies, and programs in accordance with the 2021 Regional Plan are organized and implemented to achieve the intended goals. Table 3.5-2, 2021 Regional Plan Consistency Analysis, shows the project's consistency with the core strategies. As shown, the project would not conflict with GHG emission reduction strategies identified in the 2021 Regional Plan.

**TABLE 3.5-2 2021 REGIONAL PLAN CONSISTENCY ANALYSIS**

| Reduction Strategy | Project Consistency Analysis |
|---|---|
| **Invest in a reimagined transportation system**: Build a network and fund services that include multimodal roadways; an expanded network of fast, frequent, and low-cost transit; 21st-century technology that manages the entire transportation system and connects people to on-demand services; and zero-emission options for vehicles and micromobility. | **Not Applicable.** The project is not a transit project. This strategy is not applicable to the project. However, the proposed project would include street improvements to roadway pavement, bikeways, sidewalks, and boardwalks, which would support the City's multimodal transportation system and connectivity, as well as enhance public access. |
| **Incentivize sustainable growth and development**: Collaborate with local jurisdictions and fund programs that accelerate housing production while also addressing the intertwined issues of equity, climate resilience, and mobility. | **Not Applicable.** The proposed project does not include development of any residential uses. This strategy is not applicable to the project. |
| **Implement innovative demand and system management**: Reduce solo driving and congestion through increased remote work, carsharing, vanpooling, pricing strategies, and parking-management programs that leverage partnerships and technology. | **Not Applicable.** The proposed project is the implementation of the City's CIP. The measures identified would not apply to the improvements anticipated with implementation of the CIP. This strategy is not applicable to the project. |

Source: SANDAG 2021

[5] The *Draft 2025 Regional Plan* has not yet been fully adopted; therefore, the following project consistency evaluation is based on the 2021 Regional Plan.

## Consistency with the 2022 CARB Scoping Plan

The 2022 Scoping Plan identifies reduction measures necessary to achieve the goal of carbon neutrality by 2045 or earlier. Actions that reduce GHG emissions are identified for each AB 32 inventory sector. Table 3.5-3, Consistency with the 2022 Scoping Plan, provides an evaluation of reduction actions/strategies by emissions source category to determine how the proposed project would be consistent with or exceed reduction actions/strategies outlined in the 2022 Scoping Plan.

**TABLE 3.5-3 CONSISTENCY WITH THE 2022 SCOPING PLAN**

| Actions and Strategies | Project Consistency Analysis |
|---|---|
| **Smart Growth / Vehicles Miles Traveled (VMT):** Reduce VMT per capita to 25 percent below 2019 levels by 2030, and 30 percent below 2019 levels by 2045 | **Not Applicable**. The proposed project is the implementation of the City's CIP. The project would not result in development that would generate a substantial number of operational vehicular trips or cause an increase in vehicle miles traveled over existing conditions. This strategy is not applicable to the project. |
| **New Residential and Commercial Buildings:** All electric appliances beginning 2026 (residential) and 2029 (commercial), contributing to 6 million heat pumps installed statewide by 2030 | **Not Applicable**. The proposed project is the implementation of the City's CIP. The project would not result in any residential or commercial development. This strategy is not applicable to the project. |
| **Construction Equipment:** Achieve 25 percent of energy demand electrified by 2030 and 75 percent electrified by 2045 | **Not Applicable**. The City of Del Mar has not adopted an ordinance or program requiring electric-powered construction equipment. However, if such programs or ordinances are adopted in the future, compliance would be required as the CIP improvements are implemented. This strategy is not applicable to the proposed project. |
| **Non-combustion Methane Emissions:** Divert 75 percent of organic waste from landfills by 2025 | **Not Applicable.** The proposed project is the implementation of the City's CIP. The project does not include development that would increase the generation of organic waste over existing conditions, due to the nature of the improvements identified. This strategy is not applicable to the project. |

Source: CARB 2022

## Consistency with the City's CAP

The City's CAP is a long-range strategy aimed at reducing GHG emissions and commits to reducing GHG emissions by 50 percent below 2012 levels by 2035, in alignment with AB 32 and statewide climate goals. To achieve these reductions, the CAP outlines a suite of measures and strategies across key focus areas, including energy use in buildings, water conservation, waste management, transportation, and urban forestry. These measures may be applied as a guiding framework for evaluating and enhancing the sustainability of public infrastructure projects. However, capital improvement projects such as roadway widening, infrastructure upgrades, and other public works projects are not directly subject to CAP requirements. These projects can support CAP goals by incorporating sustainable design features, improving multimodal transportation options, and enhancing climate resilience. Infrastructure improvements are considered consistent with the CAP when they align with the CAP's objectives and do not conflict with its reduction strategies.

### Conclusion

The proposed project would not generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment. As applicable, measures identified in the CAP (i.e., Goal 9: Reduce Outdoor Water Consumption; Goal 17: Increase Number of Preferential Parking Spaces for Clean Vehicles; and Goal 22: Implement Urban Tree Planting Program) may be incorporated into City CIP projects as they are implemented over time to support continued GHG reduction goals. Accordingly, impacts would be **less than significant**.

**Mitigation Measures**: None required.

**Level of Significance**: Less than significant.

## *Cumulative Impacts*

| | |
|---|---|
| **Impact 3.5-3** | **Cumulative projects have and would continue to contribute to a cumulatively significant impact associated with GHG emissions. However, the proposed project's contribution would not be cumulatively considerable.** |

Impacts related to GHG emissions are the result of cumulative global emissions and no single project on its own can cause climate change, as a single project is not large enough to change the global atmosphere. As such, the geographic scope for cumulative GHG emissions impacts is global and past, present, and reasonably foreseeable future projects in the region, state, nation, and world, have and would continue to contribute to GHG emissions. While federal, state, and local regulations have been put in place to address targets for emissions reductions, changes from past, present, and reasonably foreseeable future projects have contributed to a cumulatively significant impact associated with GHG emissions.

As discussed in Section 3.5.4, Project Impacts and Mitigation Measures, CIP projects facilitated by the proposed project (i.e., streamlining implementation of the City's CIP projects) would not generate GHG emissions, either directly or indirectly, that would result in a significant impact on the environment. As a result, cumulative impacts related to consistency with GHG plans, policies, and regulations would be less than significant, as the proposed project would be consistent with applicable plans and policies. Further, future CIP projects would be required to comply with these plans and policies. Therefore, the proposed project's contribution to impacts associated with GHG emissions would **not be cumulatively considerable**.

**Mitigation Measures:** None required.

**Level of Significance**: Project impacts would not be cumulatively considerable.

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# 3.6. Noise and Vibration

This section discusses the environmental setting, existing conditions, regulatory context, and potential impacts of the proposed project in relation to noise and vibration.

This section is based on technical data from the following:

- *Noise Data*, prepared by Michael Baker International (Appendix G)

The following table provides a summary of impacts and significance findings, based on the analysis provided in Section 3.6.4, Project Impacts and Mitigation Measures. A significant and unavoidable impact was identified in relation to temporary construction noise.

**SUMMARY BY CIP PROJECT CATEGORY OF IMPACTS ASSOCIATED WITH NOISE AND VIBRATION**

| Impact | UP | Water | Wastewater | Storm Water | Streets | Facilities | Open Space |
|---|---|---|---|---|---|---|---|
| Impact 3.6-1: Increase in ambient noise exceeding noise standards | SU | SU | SU | SU | SU | SU | SU |
| Impact 3.6-2: Excessive groundborne vibration or noise | LTS+M | LTS+M | LTS+M | LTS+M | LTS+M | LTS+M | LTS+M |
| Impact 3.6-3: Exposure to excessive airport noise | NI | NI | NI | NI | NI | NI | NI |
| Impact 3.6-4: Project's contribution to cumulative noise and vibration impacts | NCC | NCC | NCC | NCC | NCC | NCC | NCC |

Notes: LTS = Less than Significant; LTS+M = Less than Significant with Mitigation; NCC = Not Cumulatively Considerable; NI = No Impact; SU = Significant and Unavoidable

## 3.6.1. Environmental Setting

### Fundamentals of Noise and Vibration

Acoustics is the science of sound. Sound may be thought of as mechanical energy of a vibrating object transmitted by pressure waves through a medium to human (or animal) ears. If the pressure variations occur frequently enough (at least 20 times per second), they can be heard and are called sound. The number of pressure variations per second is called the frequency of sound and is expressed as cycles per second, or hertz (Hz).

Noise is a subjective reaction to different types of sounds. Noise is typically defined as airborne sound that is loud, unpleasant, unexpected, or undesired and may therefore be classified as a more specific group of sounds. A typical noise environment consists of a base of steady background noise that is the sum of many distant and indistinguishable noise sources. Superimposed on this background noise is the sound from individual local sources. These sources can vary from an occasional aircraft or train passing by to virtually continuous noise from, for example, traffic on a major highway. Perceptions of sound and noise are subjective from person to person.

Sound levels are described in decibel (dB) units. The decibel scale uses the hearing threshold (20 micropascals) as a point of reference, defined as 0 dB. Other sound pressures are then compared to this reference pressure and the logarithm is taken to keep the numbers in a practical range. The decibel scale allows a million-fold increase in pressure to be expressed as 120 dB, and changes in levels (dB) correspond closely to human perception of relative loudness.

The impacts of noise are not a function of loudness alone. The perceived loudness of sounds is dependent on many factors, including sound pressure level and frequency content. However, within the usual range of environmental noise levels, perception of loudness is relatively predictable and can be approximated by A-weighted sound levels (expressed as dBA). There is a strong correlation between A-weighted sound levels and the way the human ear perceives sound. For this reason, the A-weighted sound level has become the standard tool of environmental noise assessment. All noise levels reported in this section are in terms of A- weighted levels, but are expressed as dB unless otherwise noted.

### Addition of Decibels

The decibel scale is logarithmic, not linear, and therefore sound levels cannot be added or subtracted through ordinary arithmetic. Two sound levels 10 dB apart differ in acoustic energy by a factor of 10. When the standard logarithmic decibel is A-weighted, an increase of 10 dBA is generally perceived as a doubling in loudness. For example, a 70-dBA sound is half as loud as an 80 dBA sound and twice as loud as a 60 dBA sound. When two identical sources are each producing sound of the same loudness, the resulting sound level at a given distance would be 3 dB higher than one source under the same conditions (Federal Highway Administration [FHWA] 2006). Under the decibel scale, three sources of equal loudness together would produce an increase of 5 dB (Caltrans 2013).

### Sound Propagation and Attenuation

Generally, sound spreads (propagates) uniformly outward in a spherical pattern, and the sound level decreases (attenuates) at a rate of approximately 6 dB for each doubling of distance from a stationary or point source. Sound from a line source, such as a highway, propagates outward in a cylindrical pattern, often referred to as cylindrical spreading. Sound levels attenuate at a rate of approximately 3 dB for each doubling of distance from a line source, such as a roadway, depending on ground surface characteristics. Similarly, a halving of the energy of a noise source would result in a 3 dB decrease. No excess attenuation is assumed for hard surfaces like a parking lot or a body of water. Soft surfaces, such as soft dirt or grass, can absorb sound, so an excess ground-attenuation value of 1.5 dB per doubling of distance is normally assumed (FHWA 2011).

Noise levels may also be reduced by intervening structures or landforms; generally, a single row of buildings between the receptor and the noise source reduces the noise level by approximately 5 dBA, while a solid wall or berm reduces noise levels by 5 to 10 dBA (FHWA 2006). The manner in which older homes in California were constructed generally provides a reduction of exterior-to-interior noise levels of approximately 20 to 25 dBA with closed windows. The exterior-to-interior reduction of newer residential units is generally 30 dBA or more.

## Noise Descriptors

The decibel scale alone does not adequately characterize how humans perceive noise. The dominant frequencies of a sound have a substantial effect on the human response to that sound. Several rating scales have been developed to analyze the adverse effect of community noise on people. Because environmental noise fluctuates over time, these scales consider that the effect of noise on people is largely dependent on the total acoustical energy content of the noise, as well as the time of day when the noise occurs. The equivalent continuous sound level ($L_{eq}$) is a measure of ambient noise, while the day-night average sound level ($L_{dn}$) and community noise equivalent (CNEL) are measures of community noise. Each is applicable to this analysis and defined in Table 3.6-1, Definitions of Acoustical Terms.

**TABLE 3.6-1 DEFINITIONS OF ACOUSTICAL TERMS**

| Term | Definition |
|---|---|
| Decibel, dB | A unit describing the amplitude of sound, equal to 20 times the logarithm to the base 10 of the ratio of the pressure of the sound measured to the reference pressure. The reference pressure for air is 20. |
| Sound Pressure Level | Sound pressure is the sound force per unit area, usually expressed in micropascals (or 20 micronewtons per square meter), where 1 pascal is the pressure resulting from a force of 1 newton exerted over an area of 1 square meter. The sound pressure level is expressed in decibels as 20 times the logarithm to the base 10 of the ratio between the pressures exerted by the sound to a reference sound pressure (i.e., 20 micropascals). Sound pressure level is the quantity that is directly measured by a sound level meter. |
| Frequency, Hz | The number of complete pressure fluctuations per second above and below atmospheric pressure. Normal human hearing is between 20 Hz and 20,000 Hz. Infrasonic sounds are below 20 Hz and ultrasonic sounds are above 20,000 Hz. |
| A-Weighted Sound Level, dBA | The sound pressure level in decibels as measured on a sound level meter using the A-weighting filter network. The A-weighting filter de-emphasizes the very low and very high frequency components of the sound in a manner similar to the frequency response of the human ear and correlates well with subjective reactions to noise. |
| Equivalent Noise Level, $L_{eq}$ | The average acoustic energy content of noise for a stated period of time. Thus, the $L_{eq}$ of a time-varying noise and that of a steady noise are the same if they deliver the same acoustic energy to the ear during exposure. For evaluating community impacts, this rating scale does not vary, regardless of whether the noise occurs during the day or the night. For example, $L_{eq}(1)$ is the equivalent noise level over a one-hour period and $L_{eq}(8)$ corresponds to an eight-hour period. |
| $L_{max}$, $L_{min}$ | The maximum and minimum A-weighted noise level during the measurement period. |
| $L_{01}$, $L_{10}$, $L_{50}$, $L_{90}$ | The A-weighted noise levels that are exceeded 1%, 10%, 50%, and 90% of the time during the measurement period. |
| Day/Night Noise Level, $L_{dn}$ or DNL | A 24-hour average $L_{eq}$ with a 10 dBA "weighting" added to noise during the hours of 10:00 p.m. to 7:00 a.m. to account for noise sensitivity in the nighttime. The logarithmic effect of these additions is that a 60 dBA 24-hour $L_{eq}$ would result in a measurement of 66.4 dBA $L_{dn}$. |
| Community Noise Equivalent Level, CNEL | A 24-hour average Leq with a 5 dBA "weighting" during the hours of 7:00 p.m. to 10:00 p.m. and a 10 dBA "weighting" added to noise during the hours of 10:00 p.m. to 7:00 a.m. to account for noise sensitivity in the evening and nighttime, respectively. The logarithmic effect of these additions is that a 60 dBA 24-hour $L_{eq}$ would result in a measurement of 66.7 dBA CNEL. |
| Ambient Noise Level | The composite of noise from all sources near and far. The normal or existing level of environmental noise at a given location. |
| Intrusive | That noise which intrudes over and above the existing ambient noise at a given location. The relative intrusiveness of a sound depends on its amplitude, duration, frequency, and time of occurrence and tonal or informational content as well as the prevailing ambient noise level. |

The A-weighted decibel sound level (dBA) scale gives greater weight to the frequencies of sound to which the human ear is most sensitive. Because sound levels can vary markedly over a short period of time, a method for describing either the average character of the sound or the statistical behavior of the variations must be utilized. Most commonly, environmental sounds are described in terms of an average level that has the same acoustical energy as the summation of all the time-varying events.

The scientific instrument used to measure noise is the sound level meter. Sound level meters can accurately measure environmental noise levels to within approximately plus or minus 1 dBA. Various computer models are used to predict environmental noise levels from sources, such as roadways and airports. The accuracy of the predicted models depends on the distance between the receptor and the noise source. Close to the noise source, the models are accurate to within approximately plus or minus 1 to 2 dBA.

### Human Response to Noise

The human response to environmental noise is subjective and varies considerably from individual to individual. Noise in the community has often been cited as a health problem, not in terms of actual physiological damage, such as hearing impairment, but in terms of inhibiting general well-being and contributing to undue stress and annoyance. The health effects of noise in the community arise from interference with human activities, including sleep, speech, recreation, and tasks that demand concentration or coordination. Hearing loss can occur at the highest noise intensity levels.

Noise environments and consequences of human activities are usually well represented by median noise levels during the day or night or over a 24-hour period. Environmental noise levels are generally considered low when the CNEL is below 60 dBA; moderate in the 60 to 70 dBA range; and high above 70 dBA. Examples of low daytime levels are isolated, natural settings with noise levels as low as 20 dBA and quiet, suburban, residential streets with noise levels around 40 dBA. Noise levels above 45 dBA at night can disrupt sleep. Examples of moderate-level noise environments are urban residential or semi-commercial areas (typically 55 to 60 dBA) and commercial locations (typically 60 dBA). People may consider louder environments adverse, but most will accept the higher levels associated with noisier urban residential or residential-commercial areas (60 to 75 dBA) or dense urban or industrial areas (65 to 80 dBA). Regarding increases in A-weighted noise levels, the following relationships should be noted in understanding this analysis:

- Except in carefully controlled laboratory experiments, a change of 1 dBA cannot be perceived by humans.
- Outside of the laboratory, a 3 dBA change is considered a just-perceivable difference.
- A change in level of at least 5 dBA is required before any noticeable change in community response would be expected. An increase of 5 dBA is typically considered substantial.
- A 10 dBA change is subjectively heard as an approximate doubling in loudness and would be anticipated to cause an adverse change in community response.

## Vibration

Ground vibration consists of oscillatory (i.e., rapidly fluctuating) motions or waves with an average motion of zero (i.e., the ground does not actually move from one place to another). Sources of earth-borne vibrations include natural phenomena (earthquakes, volcanic eruptions, sea waves, landslides, etc.) or man-made causes (explosions, machinery, traffic, trains, construction equipment, etc.). Vibration sources may be continuous (e.g., factory machinery) or transient (e.g., explosions).

Several different methods are typically used to quantify vibration amplitude. One is the peak particle velocity (PPV); another is the root mean square (RMS) velocity. The PPV is defined as the maximum instantaneous positive or negative peak of the vibration wave. The RMS velocity is defined as the average of the squared amplitude of the signal. Vibration decibels (VdB) are commonly used to measure the RMS vibration velocity level. The PPV and RMS vibration velocity amplitudes are used to evaluate human response to vibration.

Table 3.6-2, Human Reaction and Damage to Buildings for Continuous or Frequent Intermittent Vibration Levels, displays the reactions of people and the effects on buildings produced by continuous vibration levels. However, vibration may be found to be annoying at much lower levels than those listed, depending on the level of activity or the sensitivity of the individual. To sensitive individuals, vibrations approaching the threshold of perception can be annoying. Low-level vibrations frequently cause irritating secondary vibration, such as a slight rattling of windows, doors, or stacked dishes. The rattling sound can give rise to exaggerated vibration complaints, even though there is very little risk of actual structural damage.

**TABLE 3.6-2 HUMAN REACTION AND DAMAGE TO BUILDINGS FOR CONTINUOUS OR FREQUENT INTERMITTENT VIBRATION LEVELS**

| Peak Particle Velocity (inches/second) | Approximate Vibration Velocity Level (VdB) | Human Reaction | Effect on Buildings |
|---|---|---|---|
| 0.006–0.019 | 64–74 | Range of threshold of perception. | Vibrations unlikely to cause damage of any type. |
| 0.08 | 87 | Vibrations readily perceptible. | Recommended upper level to which ruins and ancient monuments should be subjected. |
| 0.1 | 92 | Level at which continuous vibrations may begin to annoy people, particularly those involved in vibration sensitive activities. | Virtually no risk of architectural damage to normal buildings. |
| 0.2 | 94 | Vibrations may begin to annoy people in buildings. | Threshold at which there is a risk of architectural damage to normal dwellings. |
| 0.4–0.6 | 98–104 | Vibrations considered unpleasant by people subjected to continuous vibrations and unacceptable to some people walking on bridges. | Architectural damage and possibly minor structural damage. |

Ground vibration can be a concern in instances where buildings shake and substantial rumblings occur. However, it is unusual for vibration from typical urban sources such as buses and heavy trucks to be perceptible. Common sources for groundborne vibration are planes, trains, and construction activities such as pile driving and vibratory compacting, which require the use of heavy-duty earth-moving equipment. For the purposes of this analysis, a PPV descriptor with units of inches per second (inch/sec) is used to evaluate construction-generated vibration for building damage and human complaints.

## Effects of Noise on People

### Hearing Loss

While physical damage to the ear from an intense noise impulse is rare, a degradation of auditory acuity can occur even within a community noise environment. Hearing loss occurs mainly due to chronic exposure to excessive noise, but may be due to a single event such as an explosion. Natural hearing loss associated with aging may also accelerate from chronic exposure to loud noise.

The Occupational Safety and Health Administration has a noise exposure standard that is set at the threshold where hearing loss may occur from long-term exposures. The maximum allowable level is 90 dBA averaged over 8 hours. If the noise level exceeds 90 dBA, the allowable exposure time is correspondingly shorter.

### Annoyance

Attitude surveys are used for measuring the annoyance felt in a community for noises intruding into homes or affecting outdoor activity areas. Causes for annoyance identified through such surveys include interference with speech and sleep; noise from radio and television; and house vibrations. The $L_{dn}$ as a measure of noise has been found to provide a valid correlation of noise level and the percentage of people annoyed. For ground vehicles, a noise level of approximately 55 dBA $L_{dn}$ is the threshold at which a substantial percentage of people begin to report annoyance.

### Sensitive Receptors

Noise-sensitive uses are generally considered to include those uses where noise exposure could result in health-related risks to individuals, as well as places where quiet is an essential element of their intended purpose. Potentially noise-sensitive uses in the City of Del Mar include residences (including residences for the elderly), hotels, schools, libraries, and churches.

The precise boundaries of construction activities associated with the planned Capital Improvement Program (CIP) projects are currently unknown, and such improvements would occur throughout the City, with surrounding land uses varying for each project location. However, it is anticipated that sensitive receptors would likely be located within proximity to the areas where improvements are planned. Existing conditions (and potential sensitive receptors) would be considered, as appropriate, at the time when individual projects are undertaken.

## 3.6.2. Regulatory Framework

### Federal

#### US Environmental Protection Agency

The US Environmental Protection Agency (EPA) offers guidelines for community noise exposure in the *Noise Effects Handbook – A Desk Reference to Health and Welfare Effects of Noise* (EPA 1981). The guidelines consider occupational noise exposure as well as noise exposure in residential homes. The EPA recognizes an exterior 55 dB day-night noise level (dB $L_{dn}$) as a general goal to protect the public from hearing loss, activity interference, sleep disturbance, and annoyance. The EPA and other federal agencies have adopted suggested land use compatibility guidelines that indicate that residential noise exposures of 55 to 65 dB $L_{dn}$ are acceptable. However, the EPA notes that these levels are not regulatory goals, but are levels defined by a negotiated scientific consensus, without concern for economic and technological feasibility or the needs and desires of any particular community.

### State

The California Governor's Office of Land Use and Climate Innovation's (LCI) noise element guidelines include recommended exterior and interior noise level standards for local jurisdictions to identify and prevent the creation of incompatible land uses due to noise. The guidelines contain a table that describes the compatibility of various land uses with a range of environmental noise levels in terms of the CNEL. Table 3.6-3, Land Use Compatibility for Community Noise Environments, presents guidelines for determining acceptable and unacceptable community noise exposure limits for various land use categories. The guidelines also present adjustment factors that may be used to arrive at noise acceptability standards that reflect the noise control goals of the community, the particular community's sensitivity to noise, and the community's assessment of the relative importance of noise pollution.

**TABLE 3.6-3 LAND USE COMPATIBILITY FOR COMMUNITY NOISE ENVIRONMENTS**

| Land Use Category | Normally Acceptable CNEL | Conditionally Acceptable CNEL | Normally Unacceptable CNEL | Clearly Unacceptable CNEL |
|---|---|---|---|---|
| Residential – Low Density, Single-Family, Duplex, Mobile Homes | 50–60 | 55–70 | 70–75 | 75–85 |
| Residential – Multiple Family | 50–65 | 60–70 | 70–75 | 70–85 |
| Transient Lodging – Motel, Hotels | 50–65 | 60–70 | 70–80 | 80–85 |
| Schools, Libraries, Churches, Hospitals, Nursing Homes | 50–70 | 60–70 | 70–80 | 80–85 |
| Auditoriums, Concert Halls, Amphitheaters | NA | 50–70 | NA | 65–85 |
| Sports Arenas, Outdoor Spectator Sports | NA | 50–75 | NA | 70–85 |
| Playgrounds, Neighborhood Parks | 50–70 | NA | 67.5–75 | 72.5–85 |
| Golf Courses, Riding Stables, Water Recreation, Cemeteries | 50–70 | NA | 70–80 | 80–85 |
| Office Buildings, Business Commercial and Professional | 50–70 | 67.5–77.5 | 75–85 | NA |
| Industrial, Manufacturing, Utilities, Agriculture | 50–75 | 70–80 | 75–85 | NA |

Source: California Governor's Office of Planning and Research 2017
Notes: NA: not applicable; CNEL: community noise equivalent level (or $L_{dn}$) in dBA; $L_{dn}$: average day/night sound level

Table 3.6-3, Notes continued:
Normally Acceptable – Specified land use is satisfactory, based upon the assumption that any buildings involved are of normal conventional construction, without any special noise insulation requirements.
Conditionally Acceptable – New construction or development should be undertaken only after a detailed analysis of the noise reduction requirements is made and needed noise insulation features included in the design. Conventional construction, but with closed windows and fresh air supply systems or air conditioning, will normally suffice.
Normally Unacceptable – New construction or development should be discouraged. If new construction or development does proceed, a detailed analysis of the noise reduction requirements must be applied and noise insulation features included in the design, as appropriate.
Clearly Unacceptable – New construction or development should generally not be undertaken.

## Local

### City of Del Mar Community Plan

The City's goals for transportation noise sources are identified in the Community Plan Transportation Element, Noise Section (March 1976, revised 2002). This section of the Community Plan identifies 65 dBA CNEL as the maximum noise level compatible with residential land uses. The Community Plan identifies the following objective and policies related to noise and vibration:

Objective D: Reduce the level of noise created by major transportation routes in the community.

Policy 1: Limit the speed of vehicular traffic along City streets, particularly Camino Del Mar.

Policy 2: Encourage sound reduction techniques in new buildings within the 65 decibel boundaries adjacent to Camino Del Mar and the railroad right-of-way.

### City of Del Mar Noise Ordinance

The relevant portions of DMMC Chapter 9.20, Noise Regulations, that are applicable to the proposed project are included below.

*Section 9.20.40, Sound Level Limits.*

A. Unless otherwise specified, it shall be unlawful for any person(s) to cause noise by any means to the extent that the one-hour average sound level exceeds the applicable limit given in the following table, at any location in the City of Del Mar beyond the premises on which the noise is produced, as measured pursuant to the provisions of this Chapter. The noise subject to these limits is that part of the total noise at the specified location that is due solely to the action of said person(s).

**TABLE OF APPLICABLE LIMITS**

| Property Receiving Noise | Time of Day | One-Hour Average Sound Level (dBA) |
|---|---|---|
| R1-5, R1-5B, R1-10, R1-10B, R-2, R1-14, R1-40, RM-East, RM-West, RM-Central, RM-South, OS Overlay | 7 a.m. to 10 p.m. | 50 |
| | 10 p.m. to 7 a.m. | 40 |
| NC, RC, CC, PC, BC, VC | 7 a.m. to 10 p.m. | 60 |
| | 10 p.m. to 7 a.m. | 50 |
| RR | 7 a.m. to 10 p.m. | 60 |
| | 10 p.m. to 7 a.m. | 55 |

B. The noise limits specified in Subsection A. above shall be adjusted as follows to account for the effects of time and duration on the impact of noise levels:

   a. Noise that is produced for no more than a cumulative period of 30 minutes in any hour may exceed the noise limit by three decibels.

   b. Noise that is produced for no more than a cumulative period of 15 minutes in any hour may exceed the noise limit by six decibels.

   c. Noise that is produced for no more than a cumulative period of ten minutes in any hour may exceed the noise limit by eight decibels.

   d. Noise that is produced for no more than a cumulative period of five minutes in any hour may exceed the noise limit by 11 decibels.

   e. Noise that is produced for no more than a cumulative period of two minutes in any hour may exceed the noise limit by 15 decibels.

C. For purposes of this Chapter, the peak decibel reading for a noise with a fluctuating noise level (such as live or recorded music) shall be considered as the noise level for the entire cumulative period of noise. Likewise, the time between repetitive intermittent noises (such as banging, pounding, or hammering) shall be included in the cumulative of the noise.

D. If the measured ambient level exceeds the applicable limit noted above, the allowable one hour average sound level shall be the ambient noise level.

E. The sound level limit at a location on a boundary between two zoning districts is the arithmetic mean of the respective limits of the two districts.

F. Fixed-location public utility distribution or transmission facilities located on or adjacent to a property line shall be subject to the noise level limits of this Chapter, measured at or beyond six feet from the boundary of the easement upon which the equipment is located.

*Section 9.20.050, Construction Noise.*

Any person who operates powered construction or landscape equipment and/or who erects, constructs, demolishes, excavates for, alters or repairs any building or structure within the City of Del Mar in such a manner as to cause noise to be received beyond the boundaries of the property on which the construction work is occurring shall comply with the following:

A. No construction work shall be performed on Sundays or City holidays.

B. No construction work shall be performed before 9:00 a.m. or after 7:00 p.m. on Saturday.

C. No construction work shall be performed before 7:00 a.m. or after 7:00 p.m. on Monday through Friday.

D. Construction activity shall not cause an hourly average sound level greater than 75 decibels on property zoned or used for residential purposes.

E. Exception: A person may perform construction work on the person's own property, provided such construction activity is not carried on for profit or livelihood, between the hours of 10:00 a.m. and 5:00 p.m. on Sundays and City holidays.

*Section 9.20.090, Public Nuisance Noise.*

A. It shall be unlawful for any person to make, continue or cause to be made or continued, within the limits of the City of Del Mar, any disturbing, excessive or offensive noise which causes discomfort or annoyance to any reasonable persons of normal sensitivity residing in the area.

B. In the absence of objective measurement by use of a sound level meter, the characteristics and conditions which shall be considered in determining whether a violation of the provisions of this Section exists shall include any or all of the following:

1. The level of the noise;

2. Whether the nature of the noise is usual or unusual;

3. Whether the origin of the noise is natural or unnatural;

4. The level of the ambient noise;

5. The proximity of the noise to sleeping facilities;

6. The nature and zoning of the area from which the noise emanates and the area where it is received;

7. The time of day or night the noise occurs;

8. The duration of the noise; or

9. Whether the noise is recurrent, intermittent or constant.

C. Identified Excessive Noises. The following activities, among others, are declared to cause disturbing, excessive, or offensive noises in violation of this Section but said enumeration shall not be deemed to be exclusive, namely:

1. *Horns, Signaling Devices, etc.* Unnecessary use or operation of horns, signaling devices, etc., on automobiles, motorcycles, or any other vehicle.

2. *Radios, Television Sets, Phonographs, Loud Speaking Amplifiers and Similar Devices.*

a. *Uses restricted.* The use, operation or permitting to be played, used, or operated, any sound production or reproduction device, radio receiving set, musical instrument, drums,

phonograph, television set, loud speakers and sound amplifiers or other machine or device for the producing or reproducing of sound in such a manner as to disturb the peace, quiet and comfort of any reasonable person of normal sensitivity in any residential or public area is prohibited. This provision shall not apply to any participant in a duly licensed parade, or to any person who has been otherwise duly authorized by the City of Del Mar to engage in such conduct.

b. *Prima Facie Violations.* The operation of any such set, instrument, phonograph, television set, machine, loud speakers or similar device between the hours of 10:00 p.m. and 8:00 a.m. in such a manner as to be plainly audible at a distance of 50 feet from the building, structure, or vehicle in which it is located, shall be prima facie evidence of a violation of this Section.

5. *Playing of Radios, Phonographs, and Other Sound Production or Reproduction Devices in Public Parks and Beach Areas and Public Parking Lots and Streets Adjacent Thereto.* The operation of any radio, phonograph, television set, or any other sound production or reproduction device in any public park or on any public beach or any public parking lot or street adjacent to such park or beach, without the prior written approval of the City Manager, in such a manner that such radio, phonograph, television set or sound production or reproduction device emits a sound level exceeding those found in the following table at any point ten feet or more from the noise source is prohibited:

**TABLE OF APPLICABLE LIMITS**

| Time of Day | Time Average Sound Level Limits |
|---|---|
| **7:00 a.m. to 7:00 p.m.** | 65 decibels |
| **7:01 p.m. to 6:59 a.m.** | 55 decibels |

## City of Del Mar Design Review Ordinance

The City's Design Review Ordinance is intended to implement the Community Plan. It requires most new development projects within the City to obtain a Design Review Permit in accordance with DMMC § 23.08. The City Council-appointed Design Review Board also applies the City Design Guidelines (City of Del Mar 2017) as applicable to new development. Although not binding, the Design Guidelines include quantifiable standards and criteria to add clarity, definition, and detail to the Design Review Ordinance's standards of review. The Design Review Board would not approve applications that include designs that would adversely affect the noise quality of the local neighborhood or fail to minimize noise created by a proposed project.

### 3.6.3. Significance Thresholds

The State of California has developed guidelines to address the significance of noise impacts based on Appendix G of the CEQA Guidelines. The proposed project would have a significant impact related to noise or vibration if it would result in:

1. Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies.

2. Generation of excessive groundborne vibration or groundborne noise levels.

3. For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, exposure of people residing or working in the project area to excessive noise levels.

### 3.6.4. Project Impacts and Mitigation Measures

#### *Exceed Noise Standards*

| | |
|---|---|
| **Impact 3.6-1** | **Although the project would not generate a substantial permanent increase in ambient noise levels, the project could potentially result in generation of a substantial temporary 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. Permanent operational noise impacts would be less than significant; however, although construction noise would be reduced with implementation of Mitigation Measure NOI-1, temporary noise impacts would still be considered significant and unavoidable.** |

#### Construction Impacts

**On-Site Construction Activities**

Groundborne noise and other types of construction-related noise impacts typically occur during the initial grading phase, which has the potential to create the highest levels of noise. Construction equipment produces maximum noise levels when equipment is operating under full power conditions (i.e., equipment engines at maximum speed). However, equipment used on construction sites typically operates under less than full power conditions, or part power. To characterize construction-period noise levels more accurately, the average ($L_{eq}$) noise level associated with each construction stage is calculated based on the quantity, type, and usage factors for each type of equipment that would be used during each construction stage. These noise levels are typically associated with multiple pieces of equipment simultaneously operating on part power.

As discussed in Chapter 2.0, Project Description, the proposed project is composed of numerous improvement projects related to public infrastructure and facilities. Due to the programmatic nature of the proposed project, the exact location and timing of future CIP projects are currently unknown. To analyze potential air quality impacts associated with the seven CIP categories, the four representative CIP

projects included in Chapter 2.0, Project Description. Refer to Section 2.4.4, Representative CIP Projects, for project information, including anticipated construction equipment and estimated duration of construction activities. As such, the following evaluation analyzes potential construction noise at various distances to determine whether a significant impact may occur.

Noise levels from construction equipment and activities were modeled using the Federal Highway Administration's Roadway Construction Noise Model (RCNM); refer to Appendix G, Noise Data, for results of the RCNM modeling. It is noted that not all construction equipment for a project would operate simultaneously. The modeled construction noise levels of Project Nos. 1 through 4 presented below also do not account for standard City construction noise abatement measures to reduce noise impacts included in Section 2.4.3, Regulatory Requirements and Standard City Measures, in Chapter 2.0. Further, the modeling did not account for intervening topography, vegetation, and structures, which would also reduce noise levels at nearby sensitive receptors. Therefore, modeled results in this analysis are conservative.

The impact analysis assumes that construction activities associated with the proposed project would comply with the City's permitted hours of construction as outlined in DMMC § 9.20.050 (see Section 3.6.2, Regulatory Framework).

*Project No. 1 – Utilities Undergrounding District 2 (Beach Colony)*

The estimated construction noise levels at varying distances associated with Project No. 1 are presented in Table 3.6-4, Project Nos. 1 and 2 Modeled Construction Noise Levels.

**TABLE 3.6-4 PROJECT NOS. 1 AND 2 MODELED CONSTRUCTION NOISE LEVELS**

| Estimated Construction Noise Level at 65 Feet (dBA $L_{eq}$) | Estimated Construction Noise Level at 117 Feet (dBA $L_{eq}$) | Estimated Construction Noise Level at 205 Feet (dBA $L_{eq}$) |
|---|---|---|
| 85.0 | 79.9 | 75.0 |

Source: Appendix G, Noise Data

dBA $L_{eq}$ = decibel equivalent continuous sound level

Note: Project Nos. 1 and 2 are both linear projects that involve include similar types of construction activities and equipment; therefore, construction noise levels are anticipated to be similar. RCNM does not include all of the construction equipment specified in Section 2.4.4, Representative CIP Projects. The missing equipment was replaced with the closest equivalent in RCNM.

Pursuant to the City's Noise Ordinance, construction noise must not cause noise levels greater than 75 dBA $L_{eq}$ (DMMC § 9.20.050). As shown in Table 3.6-4, the estimated construction noise level would be 75 dBA $L_{eq}$ at a distance of 205 feet; therefore, construction activities associated with Project No. 1 that occur within 205 feet of a noise-sensitive use (i.e., residences, hotels, schools, libraries, churches) could result in noise levels exceeding the City's construction noise level standard. However, such impacts would be temporary and intermittent in nature. Construction for linear CIP projects, such as Project No. 1, would progress sequentially along the alignment, and noise sources would move away from any given receptor as each project segment is completed. As such, any given receptor would be exposed to construction noise for only a few days. Additionally, construction would be limited to Monday through Friday from 7:00 a.m. to 7:00 p.m. and Saturday from 9:00 a.m. to 7:00 p.m. Given the short-term duration of temporary construction noise at any given noise-sensitive receptor, Project No. 1 would not generate a substantial temporary increase in ambient noise levels in the vicinity of the project, and impacts would be **less than significant**.

*Project No. 2 – Roadway Widening Project*

The estimated construction noise levels at varying distances associated with Project No. 2 are presented in Table 3.6-4. Project Nos. 1 and 2 are both linear projects that involve similar types of construction activities and equipment; therefore, construction noise levels are anticipated to be similar. Construction activities that occur within 205 feet of a noise-sensitive use could result in noise levels exceeding the City's construction noise level standard. However, similar to Project No. 1, given the short-term duration of temporary construction noise at any given noise-sensitive receptor, Project No. 2 would not generate a substantial temporary increase in ambient noise levels in the vicinity of the project, and impacts would be **less than significant**.

*Project No. 3 – Storm Water and Sewer Infrastructure Improvement Project*

The estimated construction noise levels at varying distances associated with Project No. 3 are presented in Table 3.6-5, Project No. 3 Modeled Construction Noise Levels.

**TABLE 3.6-5 PROJECT NO. 3 MODELED CONSTRUCTION NOISE LEVELS**

| Estimated Construction Noise Level at 66.5 Feet (dBA $L_{eq}$) | Estimated Construction Noise Level at 120 Feet (dBA $L_{eq}$) | Estimated Construction Noise Level at 210 Feet (dBA $L_{eq}$) |
|---|---|---|
| 85.0 | 79.9 | 75.0 |

Source: Appendix G, Noise Data

dBA $L_{eq}$ = decibel equivalent continuous sound level

Note: RCNM does not include all of the construction equipment specified in Section 2.4.4, Representative CIP Projects. The missing equipment was replaced with the closest equivalent in RCNM.

As shown in Table 3.6-5, the estimated construction noise level would be 75 dBA $L_{eq}$ at a distance of 205 feet; therefore, construction activities associated with Project No. 3 that occur within 210 feet from a noise-sensitive use could result noise levels exceeding the City's construction noise level standard. However, similar to Project Nos. 1 and 2, given the short-term duration of temporary construction noise at any given noise-sensitive receptor, Project No. 3 would not generate a substantial temporary increase in ambient noise levels in the vicinity of the project, and impacts would be **less than significant**.

*Project No. 4 – Shores Park Improvements Project*

The closest noise-sensitive use to the project site (i.e., Shores Park) is a residence located approximately 55 feet to the southwest. Construction activities would occur throughout the project site; however, operation of construction equipment closest to any given noise-sensitive use would occur intermittently over several days. Construction noise levels would decrease as equipment operations move farther from a given receptor.

The General Noise Assessment methodology prescribed in the FTA *Transit Noise and Vibration Impact Assessment Manual* (FTA 2018) recommends evaluating construction noise from the center of the site, stating under the variable distance in its construction noise calculation to "assume that all equipment operates at the center of the project." It is noted that modeling for Project No. 4 was based on the property line of the closest residence, which is approximately 35 feet from the project site. As such, the following evaluation analyzes construction noise levels based on the distance from the center of the site to closest noise-sensitive use, or approximately 260 feet.

The construction noise level from Project No. 4 would be 70.0 dBA $L_{eq}$ at 35 feet (see Appendix G). Because construction activities would not exceed the City's construction noise significance threshold of 75 dBA $L_{eq}$ at a noise-sensitive use, construction-related noise impacts would be **less than significant**.

*Conclusion*

Linear CIP Projects

Construction noise modeled for Project Nos. 1 through 3 is representative of linear CIP projects (i.e., most of the utilities undergrounding, water, sewer, storm water, and streets CIP projects), given that they all have similar construction activities and equipment types. Construction for linear CIP projects would progress sequentially along the alignment, and noise sources would move away from any given receptor as each project segment is completed.

As demonstrated in the above analysis, if linear CIP project construction activities occur within 210 feet of a noise-sensitive use, noise levels could exceed the City's 75 dBA $L_{eq}$ threshold. With implementation of standard City construction noise abatement measures in Section 2.4.3, Regulatory Requirements and Standard City Measures, including use of construction equipment that is maintained in accordance with manufacturer's recommendations and is equipped with properly operating and maintained mufflers and prohibiting equipment idling for more than 3 minutes, construction-generated noise levels would be reduced by approximately 5 dBA. Furthermore, construction for linear CIP projects would progress sequentially along the alignment, and noise sources would move away from any given receptor as each project segment is completed. As such, any given receptor would be exposed to construction noise for only a few days. Additionally, construction would be limited to Monday through Friday from 7:00 a.m. to 7:00 p.m. and Saturday from 9:00 a.m. to 7:00 p.m. Given the short-term and intermittent duration of temporary construction noise at any given noise-sensitive receptor, linear CIP projects would not generate a substantial temporary increase in ambient noise levels in the vicinity of the project, and impacts would be **less than significant**.

Non-Linear CIP Projects

Construction noise modeled for Project No. 4 is representative of CIP projects with a fixed location (i.e., non-linear projects), which is similar in nature to most of the facilities and open space CIP projects and potentially some of the water, sewer, storm water, and streets CIP projects.

As demonstrated in the above analysis, if the center of non-linear CIP project sites occurs within 260 feet of a noise-sensitive use, noise levels could exceed the City's 75 dBA $L_{eq}$ threshold. Because such projects are not linear, any given noise-sensitive receptor could be exposed to an increase in ambient noise levels for multiple weeks or months. If construction activities would result in noise levels exceeding 75 dBA $L_{eq}$ at a noise-sensitive receptor for more than five consecutive days, impacts could be **potentially significant**.

## Construction Trips

Construction of the CIP projects would also result in increased noise along routes throughout the City due to movement of equipment and workers, as well as equipment and material haul trips. According to the California Department of Transportation (Caltrans), a doubling of traffic (100 percent increase) on a roadway would result in a perceptible increase in traffic noise levels (3 dBA) (Caltrans 2013). As such, a

significant impact would occur if construction-related trips were to result in a doubling of existing traffic volumes.

Based on the CalEEMod results, it is anticipated that Projects No. 1 through 3 would generate a maximum of 30 worker trips per day and 1 vendor trip per day, and Project No. 4 would generate a maximum of 18 worker trips per day and 1 vendor trip per day. Given the programmatic nature and scale of the proposed project (i.e., streamlining implementation of the City's CIP projects), construction trips associated with the proposed project would be dispersed throughout the City. The anticipated nominal increase in vehicle trips during construction of CIP projects would not result in a perceptible increase in traffic noise levels, and impacts would be **less than significant**.

### Operational Impacts

Operational activities associated with CIP projects would be subject to compliance with the noise level limits established in DMMC § 9.20.40. The City's thresholds for stationary noise sources at noise-sensitive use are shown in Table 3.6-3, with 50 dBA $L_{eq}$ during daytime hours and 40 dBA $L_{eq}$ during nighttime hours as the most stringent.

Operation of most of the CIP projects would not result in a new noise source. Operational activities would be limited to continued, ongoing routine maintenance similar to existing conditions. Such activities would not generate a substantial permanent increase in ambient noise levels, and impacts would be less than significant.

The operation of some CIP projects, however, could result in permanent increase in ambient noise levels, including representative Project No. 4 (Shores Park Improvements Project) and planned Open Space CIP projects, as well as other potential future CIP projects such as relocations of the Public Works Facility and Fire Department buildings and water/sewer pump stations. Some CIP projects would result in additional people and vehicles in the community (e.g., future improvements to the North Beach City facilities and the Powerhouse Community Center).

CIP projects that would be accessed by large groups of people (such as the Shores Park Improvements Project and future improvements to the North Beach City facilities and the Powerhouse Community Center) would occur at existing recreational/public areas. Therefore, a substantial permanent increase in ambient noise levels would not occur from additional people at a given location.

Additionally, given the City's largely developed nature, traffic volumes on local roadways is in the hundreds to thousands of vehicles a day. As previously stated, a perceptible increase in traffic noise levels (3 dBA) would require a doubling of traffic (100 percent increase) on a roadway. Because operation of the CIP projects would result in a nominal increase in traffic volumes, and therefore would not double traffic volumes on local roadways. As such, no perceptible increase in noise levels would occur.

Noise is also likely to occur from new stationary operation-related sources, such as heating, ventilation, and air conditioning (HVAC) units, generators, landscape maintenance equipment, and pumping equipment. Some stationary noise sources, such as mechanical HVAC units and pumping equipment,

would have the potential to generate high noise levels. However, specific information on the HVAC units and pumping equipment (e.g., locations, sizes, manufacturers, models) is not known.

Noise emitted from a single point source, such as an HVAC unit or pump station, tends to decrease by about 6 dBA for each doubling of distance. While the exact location and timing of future CIP projects are currently unknown, they would be subject to discretionary permits and required to adhere to applicable federal, state, and local requirements for minimizing operational noise, including DMMC § 9.20.040 (Sound Level Limits), DMMC § 9.20.090 (Public Nuisance Noise), and DMMC Chapter 23.08 (Design Review Ordinance). Compliance with the City's Noise Ordinance and Design Review Ordinance is typically achieved through the inclusion of acoustical enclosures around the HVAC units and pump stations.

In conclusion, operation of CIP projects would not result in generation of a substantial permanent increase in ambient noise levels in the vicinity of the project in excess of applicable noise standards, and operational noise impacts would be **less than significant**.

**Mitigation Measures**

Implementation of the following mitigation measure would minimize potentially significant impacts associated with construction noise:

**NOI-1** **Temporary Noise Barriers.** For non-linear projects with the center of the site located within 260 feet of a noise-sensitive use, temporary noise barriers shall be required if use of heavy construction equipment will occur for more than five consecutive days at any given work location unless infeasible due to physical site constraints. Noise barriers shall be positioned to break the line-of-sight between the noise sources and the receptors and shall be made of materials with a Sound Transmission Class rating 30 or higher in accordance with ASTM International Test Method E90, or at least 2 pounds per square foot.

Implementation of Mitigation Measure NOI-1 would reduce noise levels associated with construction activities by approximately 5 dBA. Thus, non-linear project construction noise levels may exceed the City's 75 dBA $L_{eq}$ threshold if situated within 260 feet of sensitive uses. Under such circumstances, impacts would be considered **significant and unavoidable**.

**Level of Significance:** Significant and unavoidable impact.

### *Excessive Vibration*

| | |
|---|---|
| **Impact 3.6-2** | **The project would potentially result in the generation of excessive groundborne vibration or groundborne noise levels. Impacts would be less than significant with mitigation measures incorporated.** |

**Construction Impacts**

Project construction can generate varying degrees of groundborne vibration depending on the construction procedure and the construction equipment used. Operation of construction equipment

generates vibrations that spread through the ground and diminish in amplitude with distance from the source. The effect on buildings located in the vicinity of a construction site often varies depending on soil type, ground strata, and construction characteristics of the receiver building(s). The results from vibration can range from no perceptible effects at the lowest vibration levels, to low rumbling sounds and perceptible vibration at moderate levels, to slight damage at the highest levels. It is noted that groundborne vibrations from construction activities rarely reach levels that damage structures.

Although the City does not have an adopted significance threshold for construction and operational related vibration impacts, Caltrans' *Transportation and Construction Vibration Guidance Manual* identifies various vibration damage criteria for different building classes (Caltrans 2020). Evaluation of project-related vibration impacts used the Caltrans architectural damage criteria for continuous vibration at older residential buildings of 0.30 inch/sec PPV and at modern industrial/commercial buildings of 0.50 inch/sec PPV. The evaluation analyzes whether construction vibration levels at a receptor (i.e., a building) would exceed the Caltrans vibration damage criteria.

*Project Nos. 1 Through 3*

Project Nos. 1 through 3 are linear in nature and would generally occur within or along roadways, although the precise locations of future construction activities relative to receptors are currently unknown. Accordingly, to present the worst-case scenario, a distance of 10 feet was methodically chosen to evaluate potential vibration effects from construction activities, based on development standards in the DMMC Title 30, *Zoning*, which state that residential zones in the City have a street side setback requirement of 10 feet; this reflects the shortest setback requirement from roadways for residential zones.

The estimated construction vibration levels associated with Project Nos. 1 through 3 are presented in Table 3.6-6, Project No. 1 Through 3 Construction Vibration Levels.

**TABLE 3.6-6 PROJECT NO. 1 THROUGH 3 CONSTRUCTION VIBRATION LEVELS**

| Equipment | Park Particle Velocity (inch/second) Approximate Peak Particle Velocity at 25 Feet | Park Particle Velocity (inch/second) Approximate Peak Particle Velocity at 5 Feet |
|---|---|---|
| Large bulldozer | 0.089 | 0.2439 |
| Loaded trucks | 0.076 | 0.2082 |
| Jackhammer | 0.035 | 0.0959 |
| Small bulldozer | 0.003 | 0.0082 |

Notes: Calculated using the following formula:

$PPV_{equip} = PPV_{ref} \times (25/D)^{1.1}$

where: $PPV_{equip}$ = the peak particle velocity in in/sec of the equipment adjusted for the distance

$PPV_{ref}$ = the reference vibration level in in/sec from Table 7-4 of the FTA *Transit Noise and Vibration Impact Assessment Guidelines*

D = the distance from the equipment to the receiver

As shown in Table 3.6-6, construction vibration levels associated with Project Nos. 1 through 3 would be approximately 0.0082 to 0.2439 inch/sec PPV at 5 feet away. Because groundborne vibration associated would not exceed the 0.30 inch/sec PPV significance threshold for vibration at older residential dwellings or the 0.50 inch/sec PPV significance threshold for vibration at modern industrial/commercial buildings. Impacts would be **less than significant**.

*Project No. 4*

The closest structure to the project site of Project No. 4 is the Winston School building, which abuts the project site to the west/northwest. Although the project site abuts the existing structure, construction equipment would not operate directly at the property line due to size of the construction equipment and lack of clearance. However, construction activities may occur as close as 5 feet from the Winston School building.

The estimated construction vibration levels associated with Project No. 4 are presented in Table 3.6-7, Project No. 4 Construction Vibration Levels.

**TABLE 3.6-7 PROJECT NO. 4 CONSTRUCTION VIBRATION LEVELS**

| Equipment | Park Particle Velocity (inch/second) Approximate Peak Particle Velocity at 25 Feet | Park Particle Velocity (inch/second) Approximate Peak Particle Velocity at 5 Feet |
|---|---|---|
| Large bulldozer | 0.089 | 0.5227 |
| Loaded trucks | 0.076 | 0.4464 |
| Jackhammer | 0.035 | 0.2056 |
| Small bulldozer | 0.003 | 0.0176 |

Notes: Calculated using the following formula:

$PPV_{equip} = PPV_{ref} \times (25/D)^{1.1}$

where: $PPV_{equip}$ = the peak particle velocity in in/sec of the equipment adjusted for the distance

$PPV_{ref}$ = the reference vibration level in in/sec from Table 7-4 of the FTA *Transit Noise and Vibration Impact Assessment Guidelines*

D = the distance from the equipment to the receiver

As shown in Table 3.6-7, construction vibration levels associated with Project No. 4 would be approximately 0.0176 to 0.5227 inch/sec PPV at 5 feet away. Because the Winston School building is not a residential use, the Caltrans architectural damage criterion for continuous vibrations at modern industrial/commercial buildings of 0.50 inch/sec PPV was used. Groundborne vibration associated with construction of Project No. 4 would be capable of exceeding the 0.50 inch/sec PPV criterium for modern industrial/commercial buildings. Vibration velocities decrease as distance increases; and at a distance of 10 feet, vibration would be well below the 0.50 inch/sec PPV significance threshold (see Table 3.6-7). Impacts would be **less than significant**.

*Conclusion*

Linear CIP Projects

Similar to the noise impact analysis included in Impact 3.6-1, construction vibration calculated for Project Nos. 1 through 3 is representative of linear CIP projects (i.e., most of the utilities undergrounding, water, sewer, storm water, and streets CIP projects), given that they all have similar construction activities and equipment types. Construction for linear CIP projects would progress sequentially along the alignment, and noise sources would move away from any given receptor as each project segment is completed. Because groundborne vibration associated would not exceed the 0.30 inch/sec PPV significance threshold for vibration at older residential dwellings or the 0.50 inch/sec PPV significance threshold for vibration at modern industrial/commercial buildings, impacts would be **less than significant**.

Non-Linear CIP Projects

Similar to the noise impact analysis included in Impact 3.6-1, construction vibration calculated for Project No. 4 is representative of CIP projects with a fixed location (i.e., non-linear projects), which is similar in nature to most of the facilities and open space CIP projects and potentially some of the water, sewer, storm water, and streets CIP projects. As presented in Table 3.6-7, if non-linear CIP projects require use of large bulldozer or similar types of heavy construction equipment within 5 feet of a modern industrial/commercial building, groundborne vibration could exceed the 0.50 inch/sec PPV significance threshold. However, groundborne vibration at 5 feet would not exceed the 0.30 inch/sec PPV significance threshold for older residential dwellings. Therefore, if non-linear CIP project construction activities occur closer than 5 feet from a modern industrial/commercial building, and impacts could be **potentially significant**.

**Operational Impacts**

Operational activities would be limited to continued, ongoing routine maintenance similar to existing conditions, although some of the facilities and open space CIP projects could result in additional visitors to public facilities, such as the Powerhouse Community Center, parks, and other recreational areas. However, some water and sewer CIP projects could require pump stations. According to International Organization for Standardization (ISO) 10816-3, Vibration Severity Chart, typical industrial pump vibration levels are below the more stringent 0.30 inch/sec PPV significance threshold. Accordingly, operation of the CIP projects would not generate excessive groundborne vibration or groundborne noise levels, and impacts would be **less than significant**.

**Mitigation Measures**

**NOI-2** **Structural Vibration Evaluation.** For non-linear CIP projects utilizing large bulldozers/excavators, loaded trucks, concrete breakers, vibratory rollers/compactors, and/or pile drivers within 5 feet of a building, a preconstruction survey of all buildings within 5 feet of the maximum construction limits shall be conducted to document (both photographically and in writing) existing conditions of exterior fixtures and finishes prior to demolition, grading, or building permit approval. Any damage shall be repaired/restored to its preexisting condition.

**Level of Significance:** Less than significant with mitigation measures incorporated.

### *Public Airport or Private Airstrip*

| | |
|---|---|
| **Impact 3.6-3** | **The project would not be located in the vicinity of a private airstrip or an airport land use plan or within two miles of a public airport or public use airport, and would not expose people residing or working in the project area to excessive noise levels. No impact would occur.** |

No private airstrips or public use airports are located within the project site. The project site is also not in the vicinity of an airport land use plan. The closest public use airport is the McClellan-Palomar Airport, located approximately 12 miles north of the City. The closest non-public aircraft facility is Marine Corps

Air Station Miramar, located approximately 8 miles southeast of the City. As such, implementation of the proposed project would not expose people residing or working in the project area to excessive noise levels associated with airport land use compatibility, and **no impact** would occur.

**Mitigation Measures**: None required.

**Level of Significance:** No impact.

### *Cumulative Impacts*

| | |
|---|---|
| **Impact 3.6-4** | **Cumulative impacts associated with noise and vibration would be less than significant. Project impacts would not be cumulatively considerable.** |

When determining whether overall noise and vibration impacts from cumulative projects would be cumulatively significant, and whether the proposed project's incremental contribution to any significant cumulative impacts would be cumulatively considerable, it is important to note that noise and vibration are localized occurrences; as such, they decrease rapidly in magnitude as the distance from the source to the receptor increases. Therefore, only those cumulative projects identified in Table 3-1 and Figure 3-1 in Chapter 3.0 of this PEIR that are in the direct vicinity of the project site would have the potential to be considered in a cumulative context with the proposed project's incremental contribution.

Operational noise associated with the cumulative projects is not expected to generate a substantial permanent increase in ambient noise levels at a given receptor, as operational activities would be limited to routine maintenance of infrastructure (e.g., bridges, water/sewer pipelines, storm water drainage, retaining walls, bluff stabilization, railway).

Construction of the cumulative projects could potentially result in temporary cumulative noise impacts if two or more cumulative projects are constructed at the same time and would be perceptible at a given noise-sensitive use. Certain construction activities required for the cumulative projects may involve use of heavy construction equipment. If construction activities from cumulative projects would result in noise levels exceeding the City's 75 dBA $L_{eq}$ threshold at noise-sensitive uses, a significant cumulative impact would occur. However, adherence to DMMC Chapter 9.20, Noise Regulations, as well as implementation of standard City construction noise abatement measures and/or mitigation measures similar to the proposed project, would reduce construction noise at a given receptor. With these controls in place and given that construction activities would not be constant, but rather temporary and intermittent in nature at a one location, the combined effects of the proposed project and other cumulative projects are expected to result in **less than significant cumulative impacts** related to noise.

Some construction activities associated with the cumulative projects could include pile driving (e.g., for bluff stabilization and railway projects), which could cause high groundborne vibration levels at receptors in close proximity of a given receptor. Cumulative projects requiring heavy construction equipment (e.g., large bulldozer, pile drivers) would require implementation of standard City noise abatement measures and/or mitigation measures similar to the proposed project to minimize groundborne vibration impacts. With these controls in place and given that use of such heavy equipment would be temporary and

intermittent in nature at any given location, the combined effects of the proposed project and other cumulative projects are expected to result in **less than significant cumulative impacts** related to vibration.

**Mitigation Measures:** None required.

**Level of Significance:** Less than significant cumulative impacts; project impacts would not be cumulatively considerable.

## 3.7. Tribal Cultural Resources

Cultural resources include places, objects, and settlements that reflect group or individual religious, archaeological, architectural, or paleontological activities. By statute, "tribal cultural resources" are generally described as sites, features, places, cultural landscapes, sacred places, and objects with cultural value to a California Native American tribe and are further defined in PRC Section 21074(a)(1)(A)–(B).

This section discusses the environmental setting, existing conditions, regulatory context, and potential impacts of the proposed project in relation to tribal cultural resources. This section is based on consultation with Native American tribes in addition to relevant data and analysis from the following sources.

- *Programmatic Cultural and Paleontological Resources Assessment – City of Del Mar Capital Improvement Program Streamlining Project, Del Mar, California,* prepared by Michael Baker International (Appendix F).

The following table provides a summary of impacts and significance findings, based on the analysis provided in Section 3.7.4, Project Impacts and Mitigation Measures. No significant and unavoidable impacts were identified.

**SUMMARY BY CIP PROJECT CATEGORY OF IMPACTS ASSOCIATED WITH TRIBAL CULTURAL RESOURCES**

| Impact | UP | Water | Wastewater | Storm Water | Streets | Facilities | Open Space |
|---|---|---|---|---|---|---|---|
| Impact 3.7-1: Substantial adverse change in significance of listed or eligible resource identified in PRC Section 5020.1(k) or significant resource pursuant to subdivision (c) of PRC Section 5024.1 | LTS+M | LTS+M | LTS+M | LTS+M | LTS+M | LTS+M | LTS+M |
| Impact 3.7-2: Project's contribution to cumulative tribal cultural resources impacts | NCC | NCC | NCC | NCC | NCC | NCC | NCC |

Notes: LTS = Less than Significant; LTS+M = Less than Significant with Mitigation; NCC = Not Cumulatively Considerable; NI = No Impact; SU = Significant and Unavoidable

### 3.7.1. Environmental Setting

All CIP activities will occur within the boundaries of the City of Del Mar, which encompasses approximately 1,133 acres in western San Diego County. Overall, the City is generally characterized by a mix of urbanized corridors, coastal bluffs, lagoon margins, and open space areas.

The City is situated on the California coast at the mouth of the San Dieguito River. Zones of moderate to high archaeological sensitivity are present near the San Dieguito River, lagoon, and coastal bluff edges. The coastal bluff and lagoon environment has attracted human occupation for thousands of years, offering rich marine, estuarine, and terrestrial resources (fish, shellfish, game, freshwater, and diverse

plant foods). As post-glacial sea levels rose, the San Dieguito Lagoon formed and became a particularly productive estuary, supporting continuous or repeated human use from the early Holocene onward (over 11,000 years ago). The abundance of resources in the area has resulted in a dense archaeological record.

## Cultural Setting

The City lies within the traditional territory of the Kumeyaay Nation (also known as the Tipai-Ipai or Diegueño people); refer also to Section 3.3, Cultural Resources, for additional discussion. The Kumeyaay are a Yuman-speaking people who have lived in what is now San Diego and western Baja California for generations.

In coastal and lowland areas, the Kumeyaay followed a seasonal round strategy. During cooler months (roughly late fall through early spring), many groups moved toward the coast and river valleys, establishing camps near lagoons, streams, and other resource-rich areas. With the approach of summer and early fall, Kumeyaay bands would travel inland and upward in elevation. While some coastal villages may have been occupied year-round, it is likely that the Del Mar area was primarily used seasonally by bands whose main villages were located inland (i.e., along the San Dieguito River or at higher ground to the east), with tribal members visiting the lagoon and coast for subsistence during certain times of year.

Kumeyaay spiritual life and traditional knowledge were intimately tied to the landscape. Oral traditions recount the creation of specific landforms with rituals often centered on natural features. Distinctive rock formations, the junction of land and sea, or the lagoon itself may have cultural or sacred significance, as modern tribal representatives emphasize that the entire coastal area is part of their heritage landscape. Thus, tribal cultural resources, as defined by CEQA, may include not only archaeological sites but natural landscape features or gathering places known to Kumeyaay elders.

Kumeyaay descendants today are members of several federally recognized tribes in San Diego County (including bands such as San Pasqual, Jamul, Sycuan, Barona, Viejas, and Campo). Although Del Mar is not within the boundaries of any reservation, it is within the ancestral lands that these tribes consider culturally important. Through the AB 52 consultation process, tribes have conveyed that any ground disturbance could potentially affect buried tribal cultural resources, such as human remains or ceremonial items, given the long history of occupation. They also have indicated that areas near lagoons and wetlands are particularly sensitive, not only because of archaeological site potential but because such ecologies were central to traditional lifeways and may hold spiritual significance (Appendix F).

## Cultural Resources Inventory Results

### Records Search

The area of potential effect (APE) represents the area that would be affected by project development, and therefore could be subject to potential direct or indirect impacts on cultural resources if such resources are determined to be present. The boundaries of the APE analyzed include areas proposed for construction, vegetation removal, grading, trenching, stockpiling, staging, paving, and other such disturbance that may occur with the planned CIP improvements. The project site, which includes the majority of the City, is considered to be the APE for the proposed project.

On August 29, 2025, Michael Baker submitted a records search request for the APE to the South Coastal Information Center (SCIC), part of the California Historical Resources Information System (CHRIS) maintained by the Office of Historic Preservation, at San Diego State University. The CHRIS records search results were received on October 1, 2025, and identified 36 previously recorded cultural resources within the APE, including 9 precontact archaeological sites. Refer to Table 3.3-1, Previously Recorded Resources Sites within the City, in Section 3.3, Cultural Resources.

**Sacred Lands File Results**

The California Native American Heritage Commission (NAHC) identifies, catalogs, and protects Native American cultural resources on private and public lands in California. Cultural resources include graves, cemeteries, and places of special religious or social significance to Native Americans. The NAHC also records the historical territories of state recognized tribes into a database called the Sacred Lands File. A records search of the Sacred Lands File is conducted to ensure that the tribes potentially affected by a project are properly notified and consulted.

On September 10, 2025, Michael Baker requested that the NAHC search the Sacred Lands File for any tribal cultural resources that might be affected by the project. The NAHC responded in a letter dated September 17, 2025, stating that the search of the Sacred Lands File was negative, indicating that no specific sacred site or tribal cultural resource in Del Mar has been documented in the NAHC Sacred Lands File.

**Field Survey**

Due to the programmatic nature of the proposed project, as well as the extensive land area included in the project boundaries, a pedestrian field survey was not conducted. However, the results of field surveys conducted for other relevant cultural resources studies within the City were reviewed and considered in analyzing the project herein.

**Tribal Consultation**

On November 17, 2025, the City initiated the Native American tribal consultation process in accordance with AB 52. The 15 tribes that have requested to receive notification from the City pursuant to AB 52 were notified in writing on November 17, 2025, via U.S. Certified Mail. As part of this process, the City provided each of the tribes the opportunity to consult with the City regarding the proposed project. The tribes had 30 days to respond to the City's request for consultation pursuant to AB 52. No consultation request letters were received from any of the tribes, and as such, AB 52 tribal consultation for the proposed project has been concluded. It is also noted that the tribes will have the opportunity to comment on the Draft PEIR during a 45-day public review period.

### 3.7.2. Regulatory Framework

#### Federal

No federal regulations apply to the tribal cultural resources analysis for this PEIR.

## State

### Assembly Bill 52

California Assembly Bill (AB) 52 (2014) established a formal consultation process for California tribes in the CEQA process. The bill specifies that any project that may affect or cause a substantial adverse change to the significance of a tribal cultural resource would require a lead agency to "begin consultation with a California Native American tribe that is traditional and culturally affiliated with the geographic area of the proposed project." A tribal cultural resource is defined as a site, feature, place, cultural landscape, sacred place, or object with cultural value to a California Native American tribe that is:

- Listed or eligible for listing in the California Register of Historical Resources or a local register of historical resources;
- Determined by the lead agency to be significant pursuant to criteria set forth in PRC Section 5024.1;
- A geographically defined cultural landscape that meets one or more of these criteria; or
- A historical resource described in PRC Section 21084.1, a unique archaeological resource described in PRC Section 21083.2, or is a non-unique archaeological resource if it conforms with the above criteria.

AB 52 provides guidance for consultation between California Native American tribes and lead agencies to address potential impacts of development activities on known or unknown tribal cultural resources and to identify appropriate mitigation for such impacts. PRC Section 21074(a) defines tribal cultural resources, indicating that a project having the potential to cause a substantial adverse change to a tribal cultural resource is a project that may have an adverse environmental effect.

Under AB 52, tribes that wish to be notified of projects subject to CEQA are to send a letter to the lead agency making it known they wish to be notified. The City is then obligated to send notifications inviting consultation to the requesting tribe for all subsequent projects subject to CEQA.

### California Native American Graves Protection and Repatriation Act

The California Native American Graves Protection and Repatriation Act (25 U. S. Code 3001 et seq.) was enacted in 2001. Pursuant to the act, federal and state institutions and museums that receive federal funding and having possession or responsibility for collections of human remains or cultural artifacts are required to return Native American cultural items to their respective peoples. In addition, the act establishes a program of federal grants to assist in the repatriation process and authorizes the Secretary of the Interior to assess civil penalties on museums that fail to comply.

### California Health and Safety Code Sections 7050.5, 7051, and 7054

California Health and Safety Code Sections 7050.5, 7051, and 7054 collectively address the illegality of interference with human burial remains as well as the disposition of Native American burials in archaeological sites. The law protects such remains from disturbance, vandalism, or inadvertent

destruction and establishes procedures to be implemented if Native American skeletal remains are discovered during construction of a project, including the treatment of remains prior to, during, and after evaluation, and reburial procedures.

### Local

**City of Del Mar Community Plan**

The City of Del Mar Community Plan (which serves as the City's General Plan) is the primary source of long-range planning and policy direction used to guide growth and preserve the quality of life in the City. The following goals and objectives are relevant in protecting tribal cultural resources:

*Community Plan: Environmental Management*

Goal 1: Establish without delay a comprehensive program to preserve and acquire permanent open space sufficient to meet the long-range needs of the community, preserve and enhance natural resources, and protect areas and people susceptible to seismic and flooding hazards.

Objective K: Require development in areas of archeological significance to be reviewed by the City of Del Mar to ensure that such uses do not result in permanent destruction of any archeological sites or cultural information.

## 3.7.3. Significance Thresholds

According to Appendix G of the CEQA Guidelines, the proposed project would have a significant impact related to tribal cultural resources if the project would:

1. 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 size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:

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

    b. A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of PRC Section 5024.1. In applying the criteria set forth in subdivision (c) of PRC Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.

## 3.7.4. Project Impacts and Mitigation Measures

### *Tribal Cultural Resources*

| | |
|---|---|
| **Impact 3.7-1** | **The project could 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 size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe that is:**<br><br>**a. Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k), or**<br><br>**b. A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code § 5024.1. In applying the criteria set forth in subdivision (c) of Public Resource Code § 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.**<br><br>**Impacts would be less than significant with mitigation incorporated.** |

**Construction Impacts**

Due to the programmatic nature of this PEIR, this analysis focuses on reasonably foreseeable impacts and establishes standards for individual CIP project review. As discussed in Section 3.3, Cultural Resources, the analysis of potential impacts to precontact archaeological resources utilizes a citywide archaeological sensitivity map that classifies areas as high, moderate, low, or very low sensitivity, based on proximity of known archaeological sites and surface water (ocean, lagoon, or perennial stream), slope grading, soils, and present-day disturbance/land use (Figure 3.3-3, Archaeological Sensitivity Zones, in Section 3.3). Most of the approved CIP projects for FY 2026-2027 (included in Table 2-2 at the end of Chapter 2.0) would occur within the low and moderate archaeological sensitivity zones. Additionally, as previously stated, the results of the Sacred Lands File search were negative, indicating that no specific sacred site or tribal cultural resource in Del Mar has been documented in the NAHC Sacred Lands File.

As discussed under Impact 3.3-2 in Section 3.3, Cultural Resources, construction of the CIP projects in the moderate and high archaeological sensitivity zones could involve ground-disturbing activities such as grading and trenching that could encounter undiscovered precontact archaeological resources, or tribal cultural resources. As such, tribal cultural resources impacts in the moderate and high archaeological sensitivity zones could be **potentially significant**.

**Mitigation Measures:** CUL-2 and CUL-3 (see Section 3.3, Cultural Resources)

**Level of Significance**: Less than significant with mitigation incorporated.

## *Cumulative Impacts*

| | |
|---|---|
| **Impact 3.7-2** | **The cumulative projects would not result in a significant cumulative impact to tribal cultural resources. Project impacts would not be cumulatively considerable.** |

The anticipated impacts associated with the proposed project in conjunction with cumulative development in the City included in Table 3-1, Cumulative Projects, may result in incremental loss of tribal cultural resources. Each cumulative project would require separate discretionary permit approval and evaluation under CEQA, which would address potential tribal cultural resource impacts. However, most cumulative projects are in previously disturbed or urbanized areas, and those that could potentially significantly impact tribal cultural resources would be subject to regulatory requirements and mitigation measures, similar to the proposed project. With these controls in place, the combined effects of the proposed project and other cumulative projects are expected to result in **less than significant cumulative impacts** to tribal cultural resources.

**Mitigation Measures**: None required.

**Level of Significance**: Less than significant cumulative impacts; project impacts would not be cumulatively considerable.

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# 4.0 EFFECTS FOUND NOT TO BE SIGNIFICANT

California Public Resources Code Section 21003(f) states, "It is the policy of the state that…all persons and public agencies involved in the environmental review process be responsible for carrying out the process in the most efficient, expeditious manner in order to conserve the available financial, governmental, physical, and social resources with the objective that those resources may be better applied toward the mitigation of actual significant effects on the environment." This policy is reflected in California Environmental Quality Act (CEQA) Guidelines Section 15126.2(a), which states that "an EIR [environmental impact report] shall identify and focus on the significant impacts of the proposed project on the environment," and Section 15143, which states that "the EIR shall focus on the significant effects on the environment." As stated in Section 15128 of the CEQA Guidelines, "An EIR shall contain a statement briefly indicating the reasons that various possible significant effects of a project were determined not to be significant and were therefore not discussed in detail in the EIR."

In the course of this evaluation, certain impacts were found not to be significant (no impact) or to be less than significant because the characteristics of the proposed project would not result in such impacts. This section briefly describes such effects. However, other individual impacts found to be less than significant are evaluated in the various PEIR sections (Section 3.1 through Section 3.7) to more comprehensively discuss why impacts are less than significant in order to better inform decision-makers and the general public.

## 4.1. Aesthetics

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

The City of Del Mar is urban in character and largely built out. The Pacific Ocean provides the City's most dominant scenic vista and largest natural visual resource, as it trends along the entire western border of the City. The City also considers the North Bluff area, the San Dieguito Lagoon, and the Los Peñasquitos Lagoon as scenic vistas. Other features or elements having high scenic value include public streets from which views to these resources are experienced (Camino del Mar, the downtown Village Commercial District, and from some public streets serving local residential neighborhoods) (City of Del Mar 2020).

Some temporary disturbance would be visible during the construction phase of the planned Capital Improvement Program (CIP) projects but would be limited to the area in proximity to the CIP improvements. Additionally, due to the scale of most of the CIP projects identified, it is anticipated that a limited number of construction-related vehicles and equipment would be present at a given time within the areas where improvements would occur. All construction equipment and vehicles will be removed once construction is completed. Such temporary disturbance is therefore not anticipated to substantially degrade the existing scenic character or quality of the affected sites or their surroundings, or have a permanent effect on a scenic vista.

The majority of the infrastructure improvements would be underground or at ground level (utility undergrounding, water, sewer, storm water, and street improvements), and once completed, would generally not be discernible within the visual landscape. Such elements would therefore not adversely

affect existing scenic vistas. Aboveground improvements, such as those to open space or facilities, or for access (pathways and boardwalks), would generally occur on developed lands supporting existing similar public facilities, and would therefore not substantially change or degrade the existing visual setting.

Project design and potential impacts improvements may have to public scenic views would be reviewed and analyzed under the City's Design Review Ordinance (DMMC Chapter 23.08). Additionally, the City lies within the Coastal Zone, as defined in the California Coastal Act, and therefore all development is subject to conformance with the City's certified Local Coastal Program (LCP), as applicable through a Coastal Development Permit (CDP). The LCP is composed of the certified Land Use Plan (LUP) and Implementing Ordinances. The City's scenic vistas are provided protections via the Implementing Ordinances identified in DMMC Title 30, Zoning Ordinance, which include the Bluff, Slope, and Canyon Overlay Zones; Floodplain Overlay Zone; Historic Preservation Overlay Zone; and the Lagoon Overlay Zone. The overlay zones provide specific development regulations for the protection of sandstone bluffs, steep slopes, canyons, wetlands, historic properties, and other such resources that contribute to the City's scenic vistas. As applicable, future development facilitated by the CIP would be required to adhere to state and local requirements for avoiding violation of standards during construction and operations, including the City's Tree Ordinance (DMMC Chapter 23.50), the Design Review Ordinance (DMMC Chapter 23.08), Zoning Code (DMMC Title 30), and LCP. With conformance to such requirements, as appropriate to the individual CIP improvement projects, the proposed project would not have a substantial adverse effect on a scenic vista.

Based on the discussion above, the project would not have a substantial adverse effect on a scenic vista. Impacts would be **less than significant**.

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

There are no officially designated state scenic highways within the City of Del Mar. The closest officially designated state scenic highway to the City boundary is the segment of State Route 163 from the northern boundary of Balboa Park to the southern boundary of the park, approximately 15 miles south of the City. Interstate 5, just east of the City boundary, is identified as an eligible state scenic highway (Caltrans, n.d.).

The Community Plan identifies six roadways as scenic corridors: Camino del Mar, Turf Road, Crest Road, Carmel Valley Road, Coast Boulevard, and Del Mar Heights Road (City of Del Mar 1976). These roads are considered to offer important views of available natural resources and are afforded protections in order to maintain such views. Scenic views of the Pacific Ocean are offered from Camino del Mar, Coast Boulevard, and Del Mar Heights Road. Views of the San Dieguito River Valley, Crest Canyon, and the North Bluffs adjacent to North Beach are afforded from Crest Road. Carmel Valley Road offers views of Los Peñasquitos Lagoon (City of Del Mar 2020).

No rock outcroppings are located within the City of Del Mar. No such resources would be affected by implementation of the planned CIP improvements.

There are nine designated Historic Preservation landmarks identified under the City's Historic Preservation Ordinance; these landmarks are within the Historic Preservation Overlay Zone (DMMC

Chapter 30.58). Within this overlay zone, no building, improvement, structure, or portion thereof can be erected, constructed, demolished, relocated, converted, altered, or enlarged, nor can any lot or premises be excavated or graded unless approved by the City's Design Review Board. The Historic Preservation Overlay Zone protects the integrity of historically significant properties located within the City. Although no specific impacts to historical resources were identified with implementation of the proposed project, mitigation measures **CUL-1** to **CUL-3** are proposed to reduce potential impacts to unknown historical resources to less than significant if encountered during project implementation; refer to Section 3.3, Cultural Resources. Any future housing development facilitated by the CIP would require evaluation for potential impacts to historic resources.

Additionally, the majority of the planned CIP improvements would be underground and would not be visible to the public once construction is completed. Those projects that would result in above ground improvements would generally occur at existing facilities (i.e., parks and open space, public facilities) where existing development is already present. Planned maintenance, refurbishment, repair, upgrade, and/or replacement of existing public infrastructure and facilities with CIP implementation is not anticipated to substantially alter or damage any scenic resources on the affected project sites or in the vicinity.

As appropriate, CIP improvements undertaken with project implementation would be required to adhere to state and local requirements, including the City's Design Review Ordinance (DMMC Chapter 23.08), Tree Ordinance (DMMC Chapter 23.50), Zoning Code (DMMC Title 23), LCP, and other requirements for protection of private scenic views per the Trees, Scenic Views, and Sunlight Ordinance (DMMC Chapter 23.51). With such conformance, and the fact that there are no designated state scenic highways within the City, the proposed project would not substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, or historic buildings within a state scenic highway. Impacts would be **less than significant**.

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

Refer also to Response 4.1(b), above. The project site is located in an urbanized area as defined by CEQA Guidelines Section 15387.

As discussed under Responses 4.1(a) and 4.1(b) above, it is not anticipated that the proposed CIP improvements would adversely affect resources having scenic quality. The City's visual quality relies on "views of the ocean, lagoons, canyons, the community and its landscapes and urban forest character" (DMMC Chapter 23.51). A substantial degradation to such resources would occur where a project would alter the majority of an existing public view or result in strong visual contrast to a distinct landform within public view.

The project would not introduce new structures or elements that would disrupt or block existing views, including coastal and open space views, as the majority of proposed improvements would generally be located either below ground (utility undergrounding; water, sewer, storm water infrastructure) or at grade surface (streets, pathways) and generally in areas where public infrastructure and facilities are

already present. Existing scenic views of any such resources from surrounding public vantage points would remain once project construction is completed.

Future CIP projects would be reviewed to confirm compliance with applicable requirements to protect and enhance the City's visual character and public views, including the City's Community Plan, LCP, DMMC, Design Review Ordinance (DMMC § 23.08), and Tree Ordinance (DMMC § 23.50), as well as for land use compatibility. Conformance with City landscaping, setbacks, height, building articulation, and other design features would be required, as applicable, to ensure that the existing visual character and quality of public views is maintained.

Based on the above discussion, it is not anticipated that the project would conflict with applicable zoning and other regulations governing scenic quality. Impacts would be **less than significant**.

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

Some nighttime construction may be required to minimize potential service disruption to land uses within affected land areas (e.g., if water shut-offs are needed). Any such lighting would be restricted to the affected areas and would be limited to that required to ensure worker safety and visibility. Such activities would be subject to conformance with applicable City nighttime construction lighting requirements and approval by the City. Any such lighting would be shielded and directed downward to avoid the potential for light trespass or spillover onto adjacent properties. Temporary lighting fixtures used would be removed from the affected areas upon the completion of construction.

Upon completion of the proposed improvements, the majority of project-associated improvements would be below ground (water, sewer, storm water infrastructure) or at grade (streets) and therefore would not require illumination or incorporate elements with the potential for adverse lighting or glare effects. Potential new light sources may include lighting installed as part of other, aboveground CIP improvements, including at lifeguard towers, concessions, restrooms, sports courts, and other planned development. Any nighttime lighting would be limited to that required for operations and to ensure public safety and access. As applicable, project lighting would be in conformance with the California Green Building Standards Code (Part 11 of Title 24), the City's Community Plan, and the City's Design Review Ordinance (DMMC § 23.08), which generally require that outdoor lighting be shielded and directed downward away from surrounding properties and public rights-of-way.

Due to the nature of the proposed improvements, it is not anticipated that new sources of substantial glare would result with project implementation. As required on an individual project basis, based on the improvements undertaken, the City may require installation of glass with low reflectivity for new or renovated structures to minimize potential glare effects.

The proposed project would not create a new source of substantial light or glare that would adversely affect day or nighttime views in the area. Impacts would be **less than significant**.

*e) Would the project result in a significant cumulative impact related to aesthetics?*

The proposed project, in conjunction with other cumulative development as allowed by existing regulations, would occur within the City, which is largely built out under current conditions. Future infrastructure improvements facilitated with the proposed project could result in temporary impacts related to aesthetics, as construction activities could interfere with existing public views or scenic vistas, or result in nighttime lighting effects.

Potential aesthetic impacts of future improvements facilitated by the CIP would be site-specific and would require consideration on an individual basis, as appropriate to the improvements being undertaken and the existing setting, in accordance with the City's Community Plan and DMMC. Similarly, other cumulative development projects (unless otherwise exempted) would require separate discretionary approval and evaluation under CEQA, which would identify potential impacts relative to aesthetics and project-specific mitigation measures, as needed.

As impacts regarding aesthetics were determined to be less than significant, future CIP improvements facilitated by the proposed project are not anticipated to contribute to a significant cumulative environmental impact relative to preserving scenic vistas and other aesthetic resources, conflicts with applicable zoning, or potential light and glare effects. The project would not contribute to a cumulatively considerable impact related to aesthetics. Cumulative impacts would be **less than significant**.

## 4.2. Agriculture and Forestry Resources

*a) Would the project 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?*

The City of Del Mar is largely built out and maintains an urbanized character. No areas designated as Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland) according to the California Department of Conservation (CDC) are located within the City boundaries. The closest designated Farmland (Farmland of Local Importance) is located approximately 1 mile east of the City (CDC, n.d.-a).

Project implementation would not convert designated Farmland to a non-agricultural use. **No impact** would occur.

*b) Would the project conflict with existing zoning for agricultural use, or a Williamson Act contract?*

No lands within the City of Del Mar are zoned for agricultural use (City of Del Mar 2022), and no lands are under a Williamson Act Contract (CDC, n.d.-b). Implementation of the CIP projects would not conflict with existing zoning for agricultural use, nor with any Williamson Act contracts. **No impact** would occur.

*c) Would the project 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 lands within the City of Del Mar are zoned for forestland, timberland, or timberland production (City of Del Mar 2022). Project implementation would not conflict with existing zoning for, or cause the rezoning of, forestland, timberland, or timberland production. **No impact** would occur.

*d) Would the project result in the loss of forest land or conversion of forest land to non-forest use?*

Refer to Response 4.2(c). Project implementation would not result in the loss of forestland or conversion of forestland to non-forest use. **No impact** would occur.

*e) Would the project 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?*

Refer to Responses 4.2(a) to 4.2(d), above. Project implementation would not result in other changes in the existing environment that may lead to the conversion of Farmland to non-agricultural use or conversion of forestland to non-forest use, as no such lands are located within the City boundaries. **No impact** would occur.

*f) Would the project result in a significant cumulative impact related to agriculture and forestry resources?*

Refer to Responses 4.2(a) to 4.2(e). The project would not contribute to a cumulative impact related to agriculture and forestry resources, as no such resources would be affected by project implementation. A cumulative impact would not occur (**no impact**).

## 4.3. Energy

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

Implementation of the CIP would allow for continued maintenance, refurbishment, repair, upgrade, and/or replacement of existing public infrastructure and facilities, as well as the construction and operation and maintenance of new capital projects. It is not anticipated that the majority of CIP projects would require ongoing maintenance during operation or directly generate new traffic, with the exception of routine maintenance or for emergency repairs. A nominal amount of energy use would be required for operation of some planned public facilities (i.e., restrooms, concessions, lighting, lifeguard towers, and other public facilities). However, a substantial increase in energy demands for such operations would not occur as compared to existing conditions.

During construction, the project would consume energy in two general forms: (1) fuel energy consumed by construction vehicles and equipment; and (2) bound energy in construction materials, such as asphalt, steel, concrete, pipes, and manufactured or processed materials such as lumber and glass.

Fossil fuels used for construction vehicles and other energy-consuming equipment would be used during grading, paving, construction, and architectural coatings. Fuel energy consumed during construction would be temporary and would not represent a significant demand on energy resources. In addition, some incidental energy conservation would occur during construction through compliance with state requirements that equipment not in use for more than five minutes be turned off. Project construction equipment would also be required to comply with the latest US Environmental Protection Agency and California Air Resources Board engine emissions standards. These emissions standards require highly efficient combustion systems that maximize fuel efficiency and reduce unnecessary fuel consumption. In addition, because the cost of fuel and transportation is a significant aspect of construction budgets, contractors have a strong financial incentive to avoid wasteful, inefficient, and unnecessary consumption of energy during construction.

Significant reductions in energy inputs for construction materials can be achieved by selecting green building materials (as appropriate to the proposed CIP projects) composed of recycled materials that require less energy to produce than non-recycled materials. The integration of green building materials can help reduce environmental impacts associated with the extraction, transport, processing, fabrication, installation, reuse, recycling, and disposal of these source materials.

The project-related incremental increase in the use of energy bound in construction materials such as asphalt, steel, concrete, pipes, and manufactured or processed materials (e.g., lumber and gas) would not substantially increase demand for energy compared to overall local and regional demand for construction materials. It is noted that construction fuel use is temporary and would cease upon completion of construction activities. Further, the planned CIP projects would be implemented over an extended period of time (2025-2035 and beyond), thereby reducing the intensity of associated energy demands. There are no unusual project characteristics that would necessitate the use of construction equipment that would be less energy efficient than at comparable construction sites in the region or state. Therefore, construction fuel consumption would not be any more inefficient, wasteful, or unnecessary than other similar development projects of this nature. A **less than significant impact** would occur in this regard.

*b) Would the project conflict with or obstruct a state or local plan for renewable energy or energy efficiency?*

Refer to Response 4.3(a), above. Due to the nature of the planned utility undergrounding, water, sewer, storm water, and street improvements, minimal energy consumption during construction is anticipated. The project would be required to adhere to all applicable federal, state, and local requirements pertaining to energy efficiency during construction. Additionally, implementation of these CIP improvements would not result in a substantial increase in operational electricity, natural gas, or fuel consumption as compared to existing conditions. In this regard, the project is not anticipated to conflict with or obstruct any state plan for renewable energy or energy efficiency.

As appropriate, some planned CIP improvements (i.e., restrooms, concessions, lifeguard towers, fire station, public works facility) may be subject to compliance with the CALGreen Code (California Code of Regulations [CCR] Title 24, Part 11) and the California Energy Code (CCR Title 24, Part 6), which include provisions aimed at minimizing energy consumption. Future CIP improvements may also be subject to compliance with the policies included in the City's Community Plan and Climate Action Plan (CAP) pertaining to energy reduction.

Some planned CIP improvements may also enhance pedestrian connectivity or movement, thus reducing transportation energy demands. Such projects include the North Beach/Camino del Mar boardwalk improvements; expansion of public pathways connecting North Beach, Border Avenue, and North Bluff; extending the Riverpath Del Mar from the Grand Avenue bridge to the eastern City limit near Crest Canyon Trail; and Shores Property traffic calming. Such improvements would help reduce vehicle trips, automobile reliance, and transportation energy demands.

The planned CIP projects would be implemented consistent with applicable federal, state, and local laws, policies, and regulations related to renewable energy and energy efficiency. Impacts would be **less than significant**.

*c) Would the project result in a significant cumulative impact related to energy conservation and climate change?*

The geographic context for cumulative energy consumption impacts for electricity and natural gas is countywide and relative to San Diego Gas & Electric (SDG&E) service area. While the geographic context for transportation-related energy use is more difficult to define, it is meaningful to consider the project in the context of countywide consumption.

Future growth within San Diego County is anticipated to increase the demand for electricity, natural gas, and transportation energy, as well as the need for energy infrastructure. Implementation of the CIP would similarly contribute to increased energy demands, and would nominally increase off-road construction fuel consumption and on-road operations fuel consumption from limited, intermittent maintenance activities.

As appropriate to the individual CIP projects (i.e., community building, lifeguard towers, fire station, restrooms, etc.), future development facilitated by the CIP would be required to comply with the CALGreen Code (CCR Title 24, Part 11) and the California Energy Code (CCR Title 24, Part 6) in effect at the time of construction, which includes provisions related design aimed at minimizing energy consumption. It is anticipated that the project, as applicable to the CIP improvements, would meet Title 24 standards for energy efficiency and incorporate applicable energy efficiency measures (high efficiency lighting, energy-efficient appliances, etc.). Future CIP improvements would also be required to comply with the policies included in the City's Community Plan and Climate Action Plan aimed at reducing energy consumption. Compliance with Title 24 standards, which includes CALGreen, would ensure the project's consistency with building energy efficiency recommendations, which would further ensure project conformance with the state's energy reduction goals. Thus, the project and related cumulative projects would comply with energy conservation plans and efficiency standards in place to ensure that energy is used efficiently.

Potential impacts related to energy from future development of the cumulative projects considered would be site-specific and would require applications for development permits that would be evaluated on a case-by-case basis. Each cumulative project would undergo discretionary review and approval pursuant to CEQA requirements to address potential energy consumption impacts and identify necessary mitigation measures, as appropriate.

As described, future development facilitated by the CIP would not result in significant environmental impacts from the wasteful, inefficient, or unnecessary consumption of energy resources during construction or operation, nor would it conflict with or obstruct a state or local plan for renewable energy or energy efficiency. Implementation of the proposed project, considered in combination with other cumulative projects, would not result in a significant cumulative impact related to energy conservation and climate change. The project's contribution to a cumulative impact would be **less than significant**.

## 4.4. Hazards and Hazardous Materials

*a) Would the project create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?*

The routine transport, use, and disposal of hazardous materials can result in potential hazards to the public. Such hazards are typically associated with certain types of land uses, such as chemical manufacturing facilities, industrial processes, waste disposal, and storage and distribution facilities. None of these uses would occur with the proposed project.

Construction and periodic maintenance of the planned CIP projects would have the potential to expose construction workers and the public to temporary hazards related to the transport, use, and maintenance of construction equipment and/or materials (i.e., oil, diesel fuel, transmission fluids, and solvents). These activities would be short term in nature and the materials used would not be in such quantities or stored in such a manner as to pose a significant safety hazard. Construction would be required to implement standard construction best management practices (BMPs) related to the transport, use, storage, and disposal of hazardous materials and substances in conformance with applicable federal, state, and local regulations and under the oversight of the San Diego County Department of Environmental Health and Quality (Hazardous Materials Division) and the Del Mar Fire Department. Accordingly, typical use of construction-related hazardous materials for the proposed improvements would not create a significant hazard to the public or the environment, and construction impacts would be less than significant.

Similarly, the use of limited amounts of hazardous materials is anticipated during project operation. Intermittent use of hazardous materials (oils, diesel fuels, lubricating oils, and similar substances associated with maintenance equipment) may be required for routine maintenance or emergency repair of the water, sewer, storm water, utility undergrounding, and street improvements. For other open space and facilities maintenance, project operations may include use occasional use of pesticides and herbicides for landscape maintenance and commercially available maintenance and cleaning products, along with maintenance equipment requiring diesel fuel, lubricating oils, or similar substances. Any on-site storage of hazardous substances in substantial quantities (e.g., quantities required to be reported to a regulatory agency) would occur in accordance with applicable regulations and would not pose a risk to public health or safety.

Because the use, handling, transport, and disposal of hazardous materials and substances would involve limited quantities typical of similar improvement projects, and as project compliance with federal, state, and local hazardous materials regulations would be mandatory, the potential to create a significant hazard to the public or environment is considered **less than significant**.

*b) Would the project 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?*

Refer to Response 4.4(a), above. Project construction activities could result in the transport, use, and disposal of hazardous materials such as gasoline fuels, asphalt, lubricants, paint, and solvents. Although care would be taken to transport, use, and dispose of small quantities of these materials by licensed professionals, there is a possibility that upset or accidental conditions may arise, which could release hazardous materials into the environment. Accidental releases of hazardous materials are those releases that are unforeseen or that result from unforeseen circumstances, while reasonably foreseeable upset conditions are those release or exposure events that can be anticipated and planned for.

Project construction activities would occur in accordance with all applicable local standards adopted by the City of Del Mar, as well as state and federal health and safety requirements intended to minimize hazardous materials risk to the public, such as requirements of the California Occupational Safety Hazard Act, Resource Conservation and Recovery Act, Hazardous Waste Control Act, California Accidental Release Protection Program, and California Health and Safety Code.

As appropriate to the CIP improvements undertaken, storm water runoff from the affected sites, under both construction and post-construction development conditions, would be avoided through compliance with National Pollution Discharge Elimination System (NPDES) Permit regulations administered by the San Diego Regional Water Quality Control Board (RWQCB); refer also to Section 4.5, Hydrology and Water Quality. As applicable, construction of the CIP improvements may require implementation of a storm water pollution prevention plan (SWPPP) and compliance with Construction General Storm Water Permit requirements to ensure that storm water quality is maintained and free from hazardous substances. The construction contractor would be required to implement such regulations relative to the transport, handling, and disposal of any hazardous materials, including the use of standard construction controls and safety procedures that would avoid or minimize the potential for accidental release of such substances into the environment. Standard construction practices would be observed such that any materials released are appropriately contained and remediated as required by federal, state, and local laws.

Due to the nature of the planned CIP improvements, the project is not generally expected to involve the routine transport, use, or disposal of hazardous substances or materials in substantial quantities; however, such activities may be associated with daily operations, depending on the specific use or activity (i.e., open space and facility improvements). Once the project is operational, hazardous material use associated with landscaping and maintenance activities would generally be limited to the use of commercially available cleaning products, landscaping pesticides and fertilizers, and/or various other commercially available substances. The use of such substances is expected to occur in relatively small quantities and to be typical of that for maintenance and operation of the affected project-related uses

and associated maintenance. All such use would be subject to applicable federal, state, and local health and safety laws and regulations intended to minimize health risk to the public.

For the reasons above, the project is not anticipated to 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. Impacts would be **less than significant.**

*c) Would the project emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?*

As the proposed improvements would be located throughout the City, there is the potential for the construction of certain CIP projects to occur within proximity to existing (or future proposed) schools. Any improvements undertaken would be required to adhere to mandatory requirements and local, state, and federal regulations related to the emissions or handling of hazardous materials, substances, or waste within proximity to schools to reduce potential public health and safety risks. With such compliance, the project would not conflict with a state or local plan aimed at preventing emissions or handling of hazardous materials near schools. Impacts would be **less than significant**.

*d) Would the project 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, create a significant hazard to the public or the environment?*

Government Code Section 65962.5 requires the California Department of Toxic Substances Control (DTSC) and State Water Resources Control Board (SWRCB) to compile and update a regulatory sites listing. The California Department of Public Health is also required to compile and update, as appropriate, a list of all public drinking water wells that contain detectable levels of organic contaminants and that are subject to water analysis pursuant to Section 116395 of the Health and Safety Code. Section 65962.5 requires the local enforcement agency, as designated pursuant to Section 18051 of Title 14 of the CCR, to compile, as appropriate, a list of all solid waste disposal facilities from which there is a known migration of hazardous waste.

Research indicates that one hazardous materials site is located within the City boundaries (DTSC, n.d.; SWRCB 2025a). The site is identified as a Leaking Underground Storage Tank site (Case No. T10000019990), located at 941 Camino del Mar. No potential contaminants or media of concern are specified, and no site history is available, and no cleanup actions have occurred (SWRCB 2025b). The site is identified as an open case (site assessment) as of December 1, 2023. As no releases have been specified, and no cleanup actions have been required, it is not anticipated that this site represents a potential hazard relative to the proposed project. As future CIP projects are undertaken over time, it may be necessary to review the hazardous materials databases to confirm that no new hazardous sites have been listed within the City in proximity to an individual project site, or to verify whether any conditions with the one listed site have occurred, in order to ensure that public health and safety are maintained.

Based on the discussion above, the proposed project would not create a significant hazard to the public or the environment. Impacts would be **less than significant**.

*e) Would the project result in a safety hazard or excessive noise for people residing or working in the project area for a project located within an airport land use plan or, where such a plan has not been adopted, within 2 miles of a public airport or public use airport?*

The closest airport to the City is the Marine Corps Air Station Miramar, located approximately 7 miles south of the City boundary. The McClellan-Palomar Airport is located approximately 13 miles north in the City of Carlsbad. The City is not located within the airport influence areas of either airport and is not subject to noise, safety, or aircraft overflight impacts from airport operations. The proposed project would not result in a safety hazard or excessive noise for people residing or working in the area. **No impact** would occur.

*f) Would the project impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?*

Regionally, disaster response in San Diego County is coordinated by the County's Office of Emergency Services (OES), which is responsible for agency notification in the event of a disaster; coordinating the responding agencies; ensuring the adequacy, availability, and mobilization of resources; developing disaster response and recovery plans and procedures; and providing preparedness information to the public. The OES staffs the Operational Area Emergency Operations Center, which provides a regional coordinated emergency response. Additionally, the Unified Disaster Council, established through a joint powers agreement among all 18 incorporated cities and San Diego County, provides for coordination of plans and programs countywide to ensure protection of life and property.

The County of San Diego implements its countywide Multi-Jurisdictional Hazard Mitigation Plan (MHMP) to identify potential hazards and means to reduce damage that may result from both natural and man-made disasters. The MHMP serves as a comprehensive document to guide decision-making and compliance with state and federal requirements, ensure local hazard mitigation capabilities, and provide for inter-jurisdictional coordination.

The City participates in the County's MHMP, which includes identification of potential hazards for the City, as well as providing critical facility information and City-wide potential hazard/loss estimates to prioritize potential hazards. The MHMP also establishes priority actions, including preparation of a vulnerability assessment, preparation of a Sea Level Rise Adaptation Plan, and compliance with applicable Federal Emergency Management Act (FEMA) requirements. The MHMP and the Sea Level Rise Adaptation Plan have been incorporated into the City's Community Plan Safety Element by reference.

Additionally, the DMMC includes measures to address emergency planning and response. DMMC § 2.52, Emergency Services, provides that in emergencies (air pollution, fire, flood, storm, epidemic, riot, draught, sudden and severe energy shortage, plant or animal infestation or disease, earthquake) that may affect the safety of persons or property within the City, the City Manager/Director of Emergency Services is authorized to exercise certain powers when necessary to mitigate the emergency. DMMC § 2.52.070, Emergency Plan, also provides for preparation of an emergency plan and effective mobilization of all City resources to meet any condition constituting a federal, state, or local emergency or state of war.

Fire and emergency services to the City are primarily provided by the Del Mar Fire Department; however, the City contracts with the San Diego County Sheriff's Department for mutual aid and the City of Encinitas for emergency management services. In a large-scale emergency, the City would comply with emergency management and disaster response measures under the County of San Diego's Emergency Operations Plan, which coordinates the resources of various cities and unincorporated areas throughout the county in the event of an emergency.

Project construction occurring within public roadway rights-of-way may have the potential to temporarily affect vehicular circulation in the afflicted area. Lane closures and/or road detours could impair emergency vehicle response times and/or access, and/or interfere with emergency evacuations in the City. During project construction, the ability of the City's fire department and sheriff's department to maintain acceptable response times could be impacted due to temporary road segment and/or lane closures. Similarly, the construction phase could temporarily affect local evacuation routes. As discussed in Response 4.11(d), a traffic control plan would be prepared and implemented for roadways and intersections that would be affected by the construction of a CIP project. The traffic control plan would include maintaining access for emergency vehicles at all times and notifying police, fire, and emergency services about project details and timing of construction activities. With implementation of traffic control plans for CIP projects that occur in locations that could affect circulation, potential impacts on emergency response and emergency evacuation would be reduced to a less than significant level. Due to the nature of the proposed improvements, once operational, the planned CIP projects are not anticipated to conflict or interfere with emergency response or evacuation.

The project would not impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan. Impacts would be **less than significant**.

*g) Would the project expose people or structures, either directly or indirectly, to a significant risk of loss, injury, or death involving wildland fires?*

The majority of the City is designated as either a High Fire Hazard Severity Zone (FHSZ) or a Very High FHSZ, with some areas in the western portion having a Moderate level of wildfire risk or located outside of the FHSZ with minimal risk for wildfire occurrence (CalFire 2025a, 2025b). Therefore, lands within Del Mar are currently susceptible to the risk of wildfire events and resulting pollutant concentrations or uncontrolled spread of wildfire.

As many of the planned improvements would be unoccupied and underground (water, sewer, storm water infrastructure, utility undergrounding), once construction is completed, such components would not be exposed to potential hazards or loss caused by wildfire. Other planned improvements to public facilities may affect existing City parks and beach amenities, lifeguard towers, public works facilities, a community building, sports courts, and other such uses. As such, some facilities affected by the CIP improvements would be occupied by the public.

However, such conditions occur under present conditions, and therefore occupants of such public spaces are already currently exposed to the risk of wildfire. The planned CIP improvements would not exacerbate existing wildfire risks, nor increase the potential exposure of any public occupants to new health or safety risks. All planned improvements would be designed and constructed in accordance with applicable

standards and regulations intended to reduce potential risks from wildfire and ensure public safety. Impacts in this regard would be **less than significant**.

*h) Would the project result in a significant cumulative impact related to hazards and hazardous materials?*

Impacts associated with hazardous materials are generally site-specific. The proposed project, and other cumulative projects considered, would be required to comply with all applicable federal, state, and local regulations pertaining to the transport, handling, and disposal of hazardous materials and substances to reduce potential impacts.

As stated, construction of the planned CIP projects may have the potential to temporarily restrict access for emergency vehicles that would respond to incidents in the area. The Fire Department would review proposed development plans prior to project approval to ensure that adequate emergency access and circulation are maintained; further, implementation of a traffic control plan would be required as appropriate for individual CIP projects, as part of standard City traffic control measures. Other cumulative projects would similarly be required to coordinate with the Fire Department to ensure that they do not impede the implementation of an emergency plan or prevent emergency access in the affected area.

The City is identified as being within a Very High FHSZ and High FHSZ (CalFire 2025a). As appropriate to the improvements being undertaken, the CIP projects would be designed to reduce the risk of hazards from a wildfire event through ongoing maintenance and/or other design measures, to ensure that exposure of people or structures to a significant risk of loss, injury, or death from wildfires, or the risk or spread of wildfire, is reduced to the extent feasible; refer also to Section 4.13, Wildfire. The proposed project would be designed in compliance with guidelines from the City fire department related to fire prevention and subject to approval by the City's Public Works Department. While areas within the City are designated as Very High FHSZs, cumulative projects in such areas would similarly be required to implement mitigation (or design) measures to reduce the risk of wildfire occurrence and spread, such as buffering of on-site uses and establishment of fuel modification zones (as appropriate to the location and surrounding uses), and would be subject to fire department and City review relative to conformance with applicable regulations.

As with the proposed project, the cumulative projects listed in Table 3-1 would be required to avoid and/or mitigate impacts relative to hazards and hazardous materials. The proposed project would involve the storage, use, disposal, and transport of limited amounts of hazardous materials to varying degrees during construction and operation/occupancy. Impacts from these activities are anticipated to be less than significant, and similar development projects would also be required to comply with applicable federal, state, and local regulations and policies to avoid or minimize any such potential hazards.

The potential for any future development of other cumulative projects to be located on a known (listed) hazardous materials site, or to result in hazardous emissions or require the handling of hazardous materials or waste in proximity to local schools, would be evaluated on a project-specific basis. Any such impacts determined to be significant would be reduced to the extent feasible via incorporation of appropriate design or mitigation measures.

For the reasons above, the proposed project, in combination with other reasonably foreseeable development projects in the surrounding area, would not result in a significant impact relative to hazards and hazardous materials. Cumulative impacts would be **less than significant**.

## 4.5. Hydrology and Water Quality

*a) Would the project violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or groundwater quality?*

As part of Section 402 of the Clean Water Act, the US Environmental Protection Agency has established regulations under the NPDES program to control direct storm water discharges. In California, the SWRCB administers the NPDES program and is responsible for developing NPDES permitting requirements. The NPDES program regulates industrial pollutant discharges, which include construction activities. The SWRCB works in coordination with the Regional Water Quality Control Boards (RWQCB) to preserve, protect, enhance, and restore water quality. The CIP sites are located within the jurisdiction of San Diego RWQCB.

The NPDES Municipal Separate Storm Sewer System (MS4) Permit implements a regional strategy for water quality and mandates a watershed-based approach that encompasses multiple jurisdictions. The MS4 Permit regulates the City's ability to discharge storm water, specifically, into the ocean and lagoons. Conformance with the MS4 Permit entails considerations such as receiving water limitations (e.g., Basin Plan criteria), waste load allocations, and numeric water quality effluent limitations. The City is a co-permittee of the regional MS4 Permit and has implemented regulations to ensure conformance with MS4 Permit requirements.

Some of the CIP projects may require dewatering of the project site during construction, particularly for CIP projects with underground infrastructure (e.g., utility undergrounding, water, wastewater, and storm water CIP projects) in floodways and floodplains (see Figure 3.2-2, Del Mar Sensitive Area Overlay Zones, for the location of the City's Floodplain Overlay Zone). Water collected during dewatering activities would be treated on- or off-site to remove sediment and contamination prior to being discharged into the storm water or sewer system.

Additionally, the proposed CIP projects may result in temporary water quality impacts during short-term construction activities. Excavation and/or grading for project construction would result in exposed soils that may be subject to wind and water erosion. Potential pollutants associated with these activities could damage downstream waterbodies such as the San Dieguito Lagoon, Los Peñasquitos Lagoon, or the Pacific Ocean. The majority of the City is located in the San Dieguito Watershed; the southernmost portion of the City lies within the Peñasquitos watershed (City of Del Mar, n.d.-a).

Dischargers whose projects disturb one or more acres of soil are required to obtain coverage under the SWRCB's NPDES General Permit for Storm Water Discharges Associated with Construction and Land Disturbance Activities Order WQ 2022-0057-DWQ (Construction General Permit). The Construction General Permit requires the project applicant (i.e., the City) to prepare and implement a SWPPP to identify and implement specific BMPs to be used during project construction. Implementation of the BMPs would ensure runoff and discharges during the project construction do not violate any water quality standards.

Upon completion, the project applicant is required to submit a Notice of Termination to the SWRCB to indicate that construction has been completed. Compliance with the Construction General Permit and project-specific SWPPP, as appropriate, would reduce potential short-term construction-related impacts to water quality to less than significant levels.

Following construction, exposed areas disturbed by the proposed improvements would be resurfaced similar to existing conditions, as applicable. All improvement projects would be subject to conformance with state and regional water quality requirements to ensure that ongoing operations would not result in the violation of water quality standards or waste discharge requirements and would not otherwise substantially degrade surface or groundwater quality. Impacts would be **less than significant**.

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

The sites affected by the City's CIP are generally developed and are not used for groundwater extraction or groundwater recharge purposes. As stated in Response 4.5(b), some of the CIP projects may require dewatering of the project site during construction, particularly for CIP projects with underground infrastructure (e.g., utility undergrounding, water, wastewater, and storm water CIP projects) in floodways and floodplains. However, dewatering activities would short-term and would not result in a substantial decrease in groundwater supplies.

Future improvements implemented as part of the CIP (i.e., roadway widening) would have the potential to increase impervious surfaces and reduce ground infiltration and recharge, in particular on lands not currently developed (i.e., parks). As appropriate to the CIP projects, planned improvements may be required to incorporate features that would reduce impervious area to allow for infiltration, or employ treatment control or hydromodification measures for storm water retention and infiltration, in compliance with applicable local and state water quality standards.

Future CIP improvements requiring potable water service (i.e., restrooms, concessions, other public facilities) would be served by the City's Public Works Department. As such, future development occurring with the CIP would not substantially deplete groundwater supplies or substantially interfere with groundwater recharge.

As applicable, design and construction of the planned CIP improvements would be required to conform to federal, state, and local requirements to avoid or reduce potential construction and operational impacts on groundwater supplies. Adherence to the City's Storm Water Management and Discharge Control Ordinance (DMMC Chapter 11.30) may also apply, depending on the individual improvements proposed. With project conformance to such requirements, the proposed project is not anticipated to substantially decrease groundwater supplies or interfere substantially with groundwater recharge. Impacts would be **less than significant**.

c) *(i) Would the project substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would result in substantial erosion or siltation on- or off-site?*

The proposed CIP improvements would not alter the course of a stream or river. Storm water runoff from future CIP sites would be collected within the City's existing storm water conveyance system. The majority of planned CIP projects (utility undergrounding and water, sewer, and storm water infrastructure improvements) would generally be constructed underground and would not substantially alter existing drainage patterns. Other future CIP improvements (streets, open space, facilities) would not result in substantial changes to the City's overall drainage patterns. As applicable, the planned CIP improvements would be required to comply with applicable federal, state, and local regulations pertaining to discharge, grading, erosion, and sediment control and for avoiding construction and operational impacts that could substantially alter the existing drainage pattern. As some improvements would occur on undeveloped land, an increase in impervious surfaces could potentially increase storm water runoff to the City's drainage systems. However, a project-specific Storm Water Management Plan would be prepared to identify permanent BMPs to prevent erosion, minimize siltation, and protect water quality for such CIP projects.

As appropriate to the individual CIP improvements, DMMC Chapter 11, Article 30, Section 130, *City Stormwater Standards Manual,* would require preparation of a SWPPP. Adherence to the BMPs in the SWPPP would minimize soil erosion and siltation from project-related construction activities. Additionally, a Storm Water Management Plan would be prepared to identify permanent BMPs to prevent erosion, minimize siltation, and protect water quality.

With project conformance to such requirements, the proposed project would not substantially alter the existing drainage pattern of the site or area in a manner that would result in substantial erosion or siltation on- or off-site. Impacts would be **less than significant**.

c) *(ii) Would the project substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would substantially increase the rate or amount of surface runoff that would result in flooding on- or off-site?*

Refer to Response 4.5(c)(i). The planned CIP projects are not anticipated to substantially alter the existing drainage pattern of the affected sites. Some increase in the area of impervious surfaces would occur with construction, in particular with the street improvements (i.e., widening of pavement) and where new structures or pathways are proposed. Any such conditions would be evaluated on a site-specific basis, as needed, to ensure that flooding or overflow of any downstream water bodies due to any potential increased volume of discharge does not occur with project operations.

Additionally, the CIP projects include storm drain enhancements, replacements, and upgrades to ensure that resulting storm water flows can be adequately accommodated and the potential for flooding is minimized or avoided. Further, the planned CIP projects would be designed in conformance with applicable federal, state, and local regulations and engineering standards to ensure that flooding is not induced on-or off-site. A project-specific Storm Water Management Plan would be prepared to identify

permanent BMPs to prevent erosion, minimize siltation, and protect water quality for CIP projects that would occur on undeveloped land and/or could result in an increase in impervious surfaces, which could potentially increase storm water runoff to the City's drainage systems.

The proposed project would not substantially alter the existing drainage pattern of the site or area in a manner that would substantially increase the rate or amount of surface runoff that would result in flooding on- or off-site. Impacts would be **less than significant**.

c) *(iii) Would the project substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or through addition of impervious surfaces, in a manner which would create or contribute runoff water which would exceed the capacity of existing or planned storm water drainage systems or provide substantial additional sources of polluted runoff?*

Refer to Response 4.5(a) and 4.5(c)(i), above. Impacts would be **less than significant**.

c) *(iv) Would the project substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or through addition of impervious surfaces, in a manner which would impede or redirect flood flows?*

Refer to Responses 4.5(a) and 4.5(c)(ii), above. Impacts would be **less than significant**.

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

Refer to Responses 4.5(a), 4.5(c)(i), and 4.5(c)(ii) with regard to the potential release of pollutants from the proposed project.

Tsunamis are a type of earthquake-induced flooding that is produced by large-scale sudden disturbances of the sea floor. Tsunamis interact with the shallow sea floor topography upon approaching a landmass, resulting in an increase in wave height and a destructive wave surge into low-lying coastal areas. Areas north of Jimmy Durante Boulevard and San Dieguito Drive, as well as along the coastline, are located within a tsunami hazard zone (CGS, n.d.).

FEMA designates flood zones that define the local floodway and floodplain areas within the City of Del Mar. The FEMA zones have corresponding limits on development that identify the level of flood vulnerability. Areas designated as Special Flood Hazard Areas (i.e., AE Zone for river flooding and VE Zone for ocean flooding) represent lands vulnerable to flooding by the 1 percent annual chance flood, which the City maps and regulates as the Floodplain Overlay Zone.

Floodplain areas identified by the Federal Insurance Rate Maps (FIRM) are subject to regulations identified in the City's Floodway Zone (DMMC Chapter 30.29) and Floodplain Overlay Zone (DMMC Chapter 30.56), which are incorporated into City's LCP. Chapter 30.56 of the DMMC is intended to ensure that new development is appropriately sited and constructed so as to avoid potential damage and related hazards from flooding. The City's current FIRM map also accounts for potential flooding based on total water

levels, dune erosion, wave setup, wave run-up, seawall overtopping, overland wave propagation, and coastal structures, but does not account for projected sea level rise (City of Del Mar 2020).

The FIRM map and Floodplain Overlay Zone also apply to properties within the 500-year floodplain designated as having a low associated flood risk, representing a 0.2 percent annual chance of flood hazard, or 1 percent annual chance of flood with average depth less than one foot. These lower risk flood areas (e.g., Zone X) are subject to the requirements of the Floodplain Overlay Zone; however, no special floodplain design standards are required to meet FEMA standards.

The majority of planned improvements (water, wastewater, storm water, utility undergrounding) would be underground and not vulnerable to potential hazards from inundation aboveground, given that infrastructure would be encased in waterproof materials to ensure that any moisture (including from soil saturation associated with flooding and/or sea level rise) would not result in release of pollutants into surface water or groundwater. Additionally, the waterproofing of underground and above ground infrastructure would ensure that moisture (e.g., rain, floodwater, ocean water) would not affect the operation of the CIP improvements such as electrical transformers, fuse cabinets, and pedestals. As appropriate to the individual CIP projects, future development would be required to comply with regulations identified in the DMMC and LCP to minimize potential effects from flooding, including the release of pollutants due to project inundation. Impacts would be **less than significant**.

As stated in Response 4.5(a), some of the CIP projects may require dewatering of the project site during construction, particularly for CIP projects with underground infrastructure in floodways and floodplains, including Representative Project No. 1, Utilities Undergrounding (Beach Colony). Additionally, the proposed undergrounded infrastructure associated with Project No. 1 could be subject to future floodwaters from storm events and/or ocean water from sea level rise. However, infrastructure would be encased in waterproof materials so as not to result in release of pollutants into surface water or groundwater. Additionally, water collected during dewatering activities would be treated on- or off-site to remove sediment and contamination prior to being discharged into the storm water or sewer system. Project No. 1 would also be required to comply with regulations identified in the DMMC and LCP to minimize potential effects from flooding. Therefore, implementation of Project No. 1 and other underground CIP projects in floodways and floodplains would not result in the release of pollutants to surface or groundwater due to project site inundation. Impacts would be **less than significant**.

A seiche is a surface wave created when a body of water is shaken, usually by earthquake activity. Seiches are of concern to water storage facilities because inundation from a seiche can occur if the wave overflows a containment wall, such as the wall of a reservoir, water storage tank, dam, or other artificial body of water. The potential for seiche is considered low. The nearest enclosed or semi-enclosed body of water is Lake Hodges, which lies approximately 10 miles to the northeast. Therefore, a seiche would not result in the release of pollutants from the project site, as the site (City) would likely not be inundated as the result of a seiche. **No impact** would occur in this regard.

Future CIP improvements would be required to adhere to applicable federal, state, and local requirements for avoiding and minimizing impacts related to flood hazards, tsunami, and seiches, including applicable

DMMC standards and LCP policies. With project conformance to such regulations, impacts would be **less than significant**.

*e) Would the project conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?*

The Water Quality Control Plan for the San Diego Basin (Basin Plan) establishes water quality standards for ground and surface waters within the San Diego Region, which includes the City of Del Mar, and is the basis for the San Diego RWQCB's regulatory programs. The nearest impaired water bodies to the City under the jurisdiction of the Basin Plan are the San Dieguito Lagoon, which traverses the project site; the Los Peñasquitos Lagoon, which is directly south of the City's boundary; and the Del Mar shoreline. Pollutant stressors for the San Dieguito Lagoon include indicator bacteria, dissolved oxygen, phosphorus, turbidity, eutrophic conditions, sedimentation/siltation, and toxicity.

Conformance with the NPDES MS4 Permit includes considerations pertaining to receiving water limitations (e.g., Basin Plan criteria), waste load allocations, and numeric water quality effluent limitations. The City is a co-permittee of the regional MS4 Permit and implements regulations to ensure conformance with the MS4 requirements.

As discussed in Response 4.5(a), implementation of the proposed CIP improvements may result in water quality impacts during short-term construction activities. However, compliance with the Construction General Permit and project-specific SWPPP would reduce potential short-term construction-related impacts to water quality to less than significant levels. The SWPPP would specify BMPs to be used during project construction. Implementation of the BMPs would ensure that runoff and discharges during project construction would not violate any water quality standards. As appropriate, the improvements would provide means of filtration and treatment of runoff before discharging into the San Dieguito Lagoon pursuant to state and regional water quality requirements. Therefore, the proposed project would not conflict with or obstruct implementation of the Basin Plan.

Further, the City's Best Management Practices Design Manual identifies on-site post-construction storm water requirements and provides guidance for storm water BMP design and selection to meet performance standards of the MS4 Permit. The City's Storm Water Management and Discharge Control Ordinance (DMMC § 11.30) is also implemented to protect water resources and enhance water quality by requiring management practices that minimize potential effects of polluted runoff discharges.

The 2014 Sustainable Groundwater Management Act requires local public agencies and groundwater sustainability agencies in high- and medium-priority basins to develop and implement groundwater sustainability plans or prepare an alternative to a groundwater sustainability plan. The City is not located within a high- or medium-priority groundwater basin; therefore, no sustainable groundwater management plan applies to the City of Del Mar (DWR, n.d.). Further, as indicated in Response 4.5(b), the proposed project would not substantially deplete groundwater supplies or interfere with groundwater recharge. Impacts would be **less than significant**.

*f) Would the project result in a significant cumulative impact related to hydrology and water quality?*

Anticipated effects from implementation of the CIP projects, in conjunction with other cumulative development projects in the City, would generally include increased development within previously developed areas. As a result, changes in impermeable surfaces may occur, along with an increased potential for runoff, erosion, siltation, flooding, and/or other effects typically associated with development, and could result in impacts related to hydrology and water quality.

Potential impacts concerning hydrology and water quality would be site-specific and would require evaluation on a case-by-case basis at the project level when future development is proposed, including in accordance with the planned CIP projects, as appropriate. Other cumulative development projects would require separate discretionary permit approval and evaluation under CEQA, which would address potential hydrology and water quality impacts and identify necessary mitigation measures, where appropriate.

Consequently, development facilitated by the CIP and other cumulative development would not result in significant cumulative impacts concerning the violation of water quality standards or waste discharge requirements; decreased groundwater supplies or interference with groundwater recharge; alteration of existing drainage patterns; or conflict with water quality or groundwater plans. Therefore, the proposed project would not contribute to a significant cumulative impact relative to hydrology and water resources. Cumulative impacts would be **less than significant**.

## 4.6. Land Use and Planning

*a) Would the project physically divide an established community?*

The majority of the planned CIP projects generally include the undergrounding of utilities, improvement and widening of roadways, and storm water and sewer infrastructure improvements. Construction of such improvements would occur within public rights-of-way or public easements. Due to the nature of such improvements (i.e., below ground surface), it is not anticipated that such projects would create a physical division within the community. Temporary lane and/or road closures would occur during project construction, restricting or reducing public access; however, given the linear nature of such improvements, active construction areas would continuously proceed, with temporary, limited disturbance within a given area. Thus, such conditions would be short term and would not result in a permanent barrier or otherwise physically divide the affected neighborhoods.

Construction related to improvements to parks and other public facilities would occur on public lands, generally where existing public facilities already exist. Although use of, or access to, these facilities may temporarily occur during construction, no permanent physical division would result.

Further, the proposed CIP improvements would be consistent with existing uses and would not result in new land uses or operational characteristics that would conflict with or disrupt surrounding uses or established development patterns. No new roadways would be constructed that could represent a physical barrier, and the elimination of existing roads is not proposed. The planned roadway widening improvements would contribute to enhanced local circulation. The proposed project would also enhance

pedestrian access and connectivity in the City through the construction of new pathways, trails, and boardwalk elements.

Project implementation would not physically divide an established community. Impacts would be **less than significant**.

*b) Would the project cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?*

The majority of CIP projects would occur within public roadway rights-of-way, which are not assigned a Community Plan land use or zoning designation. Other affected public lands where CIP improvements are planned (i.e., parks, open space, and other public facilities) are currently designated and zoned for such uses under existing conditions (i.e., PP = Public Parkland Zone; PF = Public Facilities Zone). The project does not propose to change the existing land use of any affected properties, nor would the project revise any existing land use or zoning designations. No conflict would occur in this regard.

The City of Del Mar City lies within the coastal zone boundary. As applicable, the planned CIP improvements would be subject to goals, policies, and regulations provided in the City's certified LCP, which provide for the protection of environmentally sensitive resources, public scenic views, and coastal access. The City has the authority to issue Coastal Development Permits (CDP); under certain circumstances, City-issued CDP approvals for new development are appealable to the California Coastal Commission. As appropriate, the CIP projects would be required to conform to the LCP regulations, and no conflict is anticipated.

DMMC Chapter 30.52, Bluff, Slope, and Canyon Overlay Zone, is aimed at protecting public health, safety, and general welfare; regulating new development to protect the City's bluffs, steep slopes, and canyons; and protecting downstream resources from potential effects of erosion and sedimentation. Such landforms are considered valuable City resources that contribute to the visual character and enhance the overall quality of the City's coastal environment. Planned CIP improvements occurring within the Bluff, Slope, and Canyon Overlay Zone may require City approval of a Design Review Permit, depending on the nature of the project; no conflict is anticipated.

DMMC Chapter 23.50, Trees, provides protection for certain trees species within the City. The code refers to the preservation of natural vegetation, including tree species, and specifies that Monterey cypress (*Cupressus macrocarpa*) and Torrey pine (*Pinus torreyana*) meeting a certain size, and all tree species located within the Central Commercial Zone and the Open Space Overlay Zone, are of significance to the City. All tree species on public property or in the public right-of-way are protected, regardless of size. Approval of a Tree Removal Permit is required to cut, remove, destroy, or move a protected tree. The policy is aimed at protecting public health, safety, and welfare, as well as general community aesthetics and ecology. Additionally, the City's Public Tree Policy Manual provides standards and specifications for public tree maintenance, removal, and replacement, and tree protection during construction. As applicable, any tree removal occurring with the planned CIP improvements would be required to conform with such regulations; no conflict is anticipated.

Additionally, projects implemented with the CIP would be subject to the City's nighttime lighting policies, as appropriate. Chapter 23.08 of the DMMC and the Citywide Design Guidelines provide measures to ensure that new outdoor lighting (associated with structures and signs) would not result in adverse nighttime lighting effects. Limited nighttime lighting may be installed with several CIP projects; such lighting would conform with DMMC design requirements.

The proposed project would not cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect. Impacts would be **less than significant**.

*c) Would the project result in a significant cumulative impact related to land use and planning?*

Refer to Responses 4.6(a) to 4.6(b), above. Project implementation would not result in improvements that would create physical division within the Del Mar community or conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect. As such, the project would not contribute to a cumulative impact relative to land use and planning when considered with other development projects. Cumulative impacts would be **less than significant**.

## 4.7. Mineral Resources

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

The City's Community Plan does not address mineral resources; however, the majority of the City is classified as Mineral Resource Zone 3 (MRZ-3), indicating that the value of mineral resource deposits has not been evaluated. Portions of the City from Villa De Valle north to Racetrack View Drive, which includes the Del Mar Fairgrounds, are classified as MRZ-1, meaning that no mineral deposits are present (CGS 2017).

The potential areas of capital improvement projects within MRZ-3 regions to contain valuable mineral deposits are presently unknown. As much of the City is built out, and the project would generally affect existing infrastructure or facilities on developed lands, areas classified as MRZ-3 are presently not available for (or intended for) mineral resource recovery.

For these reasons, the project would not result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state. Impacts would be **less than significant**.

*b) Would the project 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?*

Refer to Response 4.7a). The City's Community Plan does not address mineral resources; City lands are identified as MRZ-3 and MRZ-1, with no known valuable mineral deposits. Therefore, the project would not 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. Impacts would be **less than significant**.

*c) Would the project result in a significant cumulative impact related to mineral resources?*

Refer to Responses 4.7(a) and 4.7(b). There are no important mineral resources within the project site. The project would not contribute to a cumulative impact on mineral resources. Cumulative impacts would be **less than significant**.

## 4.8. Population and Housing

*a) Would the project 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)?*

The CIP would result in improvements to the City's public infrastructure and facilities. The project would not include residential or commercial components and would not directly induce area population growth in this manner. Rather, the proposed project would allow for continued maintenance, refurbishment, repair, upgrade, and/or replacement of existing public infrastructure and facilities to ensure continued public health, safety, and welfare for the City's residents and visitors, and allow for the construction and operation and maintenance of new capital projects. Although some upgrades may occur to water or sewer lines to accommodate anticipated future demands, the City is largely built out and areas affected by any such upgrades already receive public utility services under existing conditions. The planned CIP improvements would not indirectly induce population growth as a result. Proposed roadway infrastructure improvements would address maintenance needs for the City's existing streets; maintenance, repairs, and rehabilitation would occur on existing street infrastructure, as the CIP does not identify construction of new or extension of existing roadways into areas not already served. Impacts would be **less than significant**.

*b) Would the project displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?*

The project would not require the removal or replacement of any existing housing or residents, as the areas affected by the planned CIP improvements are public lands which do not support residential uses. **No impact** would occur.

*c) Would the project result in a significant cumulative impact related to population and housing?*

See Responses 4.8(a) and 4.8(b), above. The proposed CIP projects are aimed at enhancement or new construction of the City's open space resources. As an infrastructure improvement project, implementation of the planned improvements would not contribute to substantially increased population growth. Cumulative impacts would be **less than significant**.

## 4.9. Public Services

*a) Would the project result in the need for new or physically altered governmental facilities, in order to maintain acceptable service ratios, response times, or other performance objectives, the construction of which could cause significant environmental impacts for the public service of:*

*i. Fire protection.*

The City of Del Mar Fire Department provides fire protection services for the City, which includes an operating service area of more than 2.5 square miles, fire department operates out of its station located at 2200 Jimmy Durante Boulevard and provides fire suppression and protection, emergency medical services, and response to vehicle accidents and hazardous incidents for the City and its visitors. The station is staffed by nine full-time staff consisting of three captains, three fire engineers, and three firefighters/paramedics. The station houses one front-line fire engine, one rescue unit, and one reserve fire engine (City of Del Mar, n.d.-b). The fire department has not adopted a firefighter/resident ratio or response time goal.

As part of the San Diego County's Operational Area Emergency Operations Plan, upon request, the City can also receive fire protection services from other fire departments located throughout San Diego County, via coordination through the Operational Area Fire and Rescue Coordinator dispatch center. The Del Mar Fire Department also provides fire protection services to the Cities of Solana Beach and Encinitas, and portions of San Diego under a mutual aid agreement (City of Del Mar, n.d.-b).

Implementation of the CIP projects would not result in the development of any residential units or other land uses that would have the potential to generate new population or increase demand for new or expanded fire protection services. Rather, the proposed project would allow for the continued maintenance, refurbishment, repair, upgrade, and/or replacement of existing public infrastructure and facilities, and for the construction and operation and maintenance of new capital improvement projects.

During construction, the project could potentially affect the ability of the Del Mar Fire Department to maintain acceptable response times due to temporary road segment and/or lane closures, which could result in a potentially significant impact to fire protection services. As discussed in Response 4.11(d), a traffic control plan would be prepared and implemented for roadways and intersections that would be affected by the construction of a CIP project. The traffic control plan would include maintaining access for emergency vehicles at all times and notifying fire protection services about project details and timing of construction activities. Implementation of a traffic control plan during project construction that would affect roadways and intersections would ensure that acceptable service ratios, response times, and/or other performance objectives are met.

The project would not result in the need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts relative to fire protection. Impacts would be **less than significant**.

*ii. Police protection.*

The City of Del Mar contracts with the San Diego County Sheriff's Department (SDCSD) for law enforcement services. The City is served from the Sheriff's North Coastal Station located at 175 North El Camino Real in the City of Encinitas; however, a satellite office is located at the City of Del Mar Civic Center at 1050 Camino del Mar. The North Coastal Station provides service to the Cities of Solana Beach and Encinitas, and the unincorporated communities of Rancho Santa Fe, Del Dios, Camp Pendleton, and San Onofre. The SDCSD also contracts with the 22nd District Agricultural Association to provide law enforcement services at the Del Mar Fairground (City of Del Mar, n.d.-c).

Staffing at the North Coastal Station is composed of 113 staff with 26 active members from the Senior Volunteer Unit. The North Coastal Station offers various divisions including patrol, traffic, motors, community service officers, senior volunteers, detectives, professional staff, and a community-oriented policing and problem-solving unit (County of San Diego, n.d.-b).

Project construction activities would be short term, and an increase in the demand for law enforcement services above existing conditions following project construction is not anticipated due to the nature of the proposed improvements. As appropriate, construction staging areas would be routinely secured during the construction phase to minimize the potential for theft or vandalism. Once operational, an increase in the potential for vandalism or other security risk is not anticipated at any of the affected sites (i.e., parks, lifeguard towers, other facilities). The proposed project would not include new residential units or other land uses that would require new or expanded law enforcement services.

During construction, the project could potentially affect the ability of the Del Mar Police Department to maintain acceptable response times due to temporary road segment and/or lane closures, which could result in a potentially significant impact to police services. However, with implementation of a traffic control plan during project construction (as part of standard City traffic control measures) as discussed in Response 4.11(d), potential impacts to police response times would be reduced to less than significant levels.

The project would not result in the need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts relative to police protection. Impacts would be **less than significant**.

*iii. Schools.*

There are no public schools located within the jurisdictional boundary of the City of Del Mar. Del Mar residents are provided access to public education by the school districts identified below.

The City lies within the boundaries of the Del Mar Union School District (DMUSD), which provides public education for elementary school students, kindergarten through sixth grade. Schools within the DMUSD include the following:

- Ashley Falls School, 13030 Ashley Falls Drive, San Diego
- Carmel Del Mar School 12345 Carmel Park Drive, San Diego

- Del Mar Heights School, 13555 Boquita Drive, San Diego
- Del Mar Hills Academy, 14085 Mango Drive, San Diego
- Ocean Air School, 11444 Canter Heights Drive, San Diego
- Sage Canyon School, 5290 Harvest Run Drive, San Diego
- Sycamore Ridge School, 5333 Old Carmel Valley Road, San Diego

The City lies within the boundaries of the San Dieguito Union High School District (SDUHSD), which provides public education for seventh through twelfth grades. Schools within the SDUHSD include the following:

**Middle Schools**

- Carmel Valley Middle School, 3800 Mykonos Lane, San Diego
- Diegueño Middle School, 2150 Village Park Way, Encinitas
- Earl Warren Middle School, 155 Stevens Avenue, Solana Beach
- Oak Crest Middle School, 675 Balour Drive, Encinitas
- Pacific Trail Middle School, 5975 Village Center Loop Road, San Diego

**High Schools**

- Canyon Crest Academy, 5951 Village Center Loop Road, San Diego
- La Costa Canyon High School, 1 Maverick Way, Carlsbad
- San Dieguito High School Academy, 800 Santa Fe Drive, Encinitas
- Sunset High School/North Coast Alternative, 684 Requeza Street, Encinitas
- Torrey Pines High School, 3710 Del Mar Heights Road, San Diego

Implementation of the planned public infrastructure and facility improvements would not induce population growth, introduce new land uses that would generate student-aged population, or increase the overall demand on local schools. As a result, the project would not result in the provision or need for new or physically altered governmental facilities relative to schools, the construction of which may have the potential to result in significant environmental impacts to maintain adopted service ratios or other performance objectives.

If construction of the proposed improvements (particularly those within the public road rights-of-way) would have the potential to temporarily disrupt or restrict circulation patterns associated with routes to nearby schools that serve the City, implementation of standard City traffic control measures would require individual traffic control plans, which would also address school routes, if appropriate; refer to Response 4.11(d). With regard to the provision of school services, **no impact** would occur to school facilities or to school service ratios or other performance objectives that would necessitate new or physically altered schools.

*iv. Parks.*

The City maintains a variety of parks and recreational resources, including 371 acres of passive and active recreational resources in neighborhood and community parks and other recreational facilities; 23 acres of public beach lands; and 7 acres of Crest Canyon (City of Del Mar 2020).

As discussed in Section 4.10, Recreation, as the proposed project would result in public infrastructure and facility improvements, the project would not induce area population growth or introduce new land uses that would generate population or increase demand on local or regional recreational resources, including parks. Rather, as the CIP identifies a number of park and open space improvements (new construction or enhancement of existing boardwalks/pathways; lifeguard towers; benches and drinking fountains; sports courts; community center improvements; public restrooms and concessions, etc.), such improvements would enhance the City's ability to better meet resident and visitor demand for recreational services. The potential for the construction of such facilities to result in a significant environmental impact has been evaluated in the PEIR at a programmatic level and mitigated to the extent feasible; refer to Chapter 3.0, Environmental Analysis.

Based on the discussion above, the project would not result in the provision or need for new or physically altered parks, the construction of which may have the potential to result in significant environmental impacts to maintain adopted service ratios or other performance objectives. A **less than significant impact** to parks facilities would occur.

*v. Other public facilities.*

Other public facilities include libraries, hospitals, and other public-serving uses. The San Diego County Library system provides library services throughout the county and operates 33 branches, two bookmobiles, and four 24/7 Library to Go kiosks, serving over one million residents (County of San Diego, n.d.-a). Public libraries serving the City include the Del Mar Branch at 1309 Camino Del Mar in Del Mar and the Carmel Valley Branch, east of Del Mar, at 3919 Townsgate Drive in San Diego.

Hospitals serving the City of Del Mar include Scripps Memorial Hospital in La Jolla at 9888 Genesee Avenue; Scripps Green Hospital in La Jolla at 10666 N. Torrey Pines Road; and Scripps Memorial Hospital in Encinitas at 354 Santa Fe Drive.

Due to the nonresidential nature of the project, the planned public infrastructure and facility improvements would not generate new population or result in land uses that would increase demand on existing governmental facilities or services. The project would not result in a substantial adverse physical impact associated with the provision of new or physically altered governmental facilities, or the 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. Impacts would be **less than significant**.

*b) Would the project result in a cumulatively considerable impact related to public services?*

Due to the nature of the proposed project, future public improvements facilitated by the CIP, in conjunction with other cumulative development within the City (and other neighboring communities also served by the same public service agencies as the City, such as the Del Mar Fire Department, SDCSD, DMUSD, SDUHSD, and San Diego County Library system), would not substantially increase demands for public services that could result in the need for facility expansion or new construction. Implementation of the CIP would result in improvements or enhancements to existing, or construction of new, City infrastructure and facilities. Due to the nature of the improvements, and the lack of population-generating

land uses, it is not anticipated to substantially increase the demand for public services, or otherwise adversely affect the ability of the agencies serving the City to provide adequate public services. For other cumulative projects, potential impacts resulting with future development would require consideration on a project-specific basis, pursuant to the discretionary process and CEQA requirements, to determine whether a significant impact on public services would occur and whether mitigation measures are required, as appropriate.

The proposed project would not contribute to a significant cumulative environmental impact relative to fire and police protection services, schools, parks, or other public facilities. Cumulative impacts would be **less than significant.**

## 4.10. Recreation

*a) Would the project 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?*

As part of the proposed CIP improvements, minor façade repairs and minor interior improvements, such as painting, new carpeting, replacement of repairs to plumbing, electrical, and heating, ventilation, and air conditioning units, security/fire system repairs, and roof repairs are planned for the City's infrastructure. Additionally, the proposed CIP projects for parks and open space include, but are not limited to, installation of hardscape features, such as benches, drinking fountains, streetlights, and traffic lights; sports courts; community center improvements; public restrooms, concessions, and lifeguard tower improvements; pathway and boardwalk improvements; and other related features on public lands.

Implementation of the CIP is intended to provide maintenance, refurbishment, repair, upgrade, and/or replacement of existing public infrastructure and facilities, and allow for the construction and operation and maintenance of new capital projects. Although the proposed improvements may increase use of the City's recreational resources as the intended improvements are made over time, no change in the land use of the existing facilities as public parks or open space would occur. No new residential or other uses are proposed that would otherwise generate new housing or population that may increase the demand on neighborhood or regional parks or other recreational facilities. Rather, project implementation would enhance the park and open space facilities that serve City residents and visitors and would not contribute to a substantial physical deterioration of recreational facilities.

The project would not cause a substantial increase in the use of existing neighborhood parks, regional parks, or other recreational facilities. Impacts would be **less than significant**.

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

Refer to Response 4.10(a), above. The project would result in CIP improvements in the form of new and enhanced public park and recreational elements that would be available for use by community residents and visitors to the City. The potential physical effects that may result with future construction and operation of the improvements envisioned in the CIP are considered throughout this PEIR and, where

necessary, mitigation measures are provided to ensure that impacts resulting with implementation of the CIP are avoided or reduced to the extent feasible. Impacts in this regard would be **less than significant**.

*c) Would the project result in a significant cumulative impact related to recreation?*

Refer to Responses 4.10(a) and 4.10(b), above. Due to the limited nature of the planned CIP improvements, it is not anticipated that the proposed project would contribute to a significant cumulative impact related to recreation. Rather, the CIP is intended to improve and enhance the City's recreational resources to better serve residents and visitors. Any impacts resulting from construction or operation have been evaluated in Chapter 3.0 and would be reduced to the extent feasible through the incorporation of mitigation measures. Cumulative impacts would be **less than significant**.

## 4.11. Transportation

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

The City of Del Mar Community Plan Transportation Element and the Complete Streets Policy address transportation goals, policies, and implementation programs that govern the systems of roadways, intersections, bicycle paths, pedestrian ways, and other components throughout the City's circulation system, which collectively provide for the movement of people and goods. The Community Plan identifies recommended transportation improvements within the City and identifies applicable policies aimed at maintaining City streets and associated public views, reduced vehicle speeds, and enhanced public access, safety, and facilities for pedestrians and bicyclists.

Policies for the provision and protection of public accessways to coastal areas are also provided in the City's LCP. Additional policies address the need to cooperate with local, state, and federal agencies in developing a system of pedestrian trails and bicycle paths to enhance public access and safety, as well as to improve or provide alternative transportation means with the goal of maintaining community character and sensitive views, while protecting sensitive environmental resources. Implementation of the CIP projects would be required to adhere to applicable City policies and requirements identified in the Community Plan, LCP, and DMMC.

The San Diego Association of Governments' *San Diego Forward: The Regional Plan* is intended to allow for sustainable, mixed-use communities conducive to public transit, walking, and biking. Such conditions would be achieved through focused growth along major existing regional transit and transportation corridors. A number of planned CIP projects would include improvements to City streets to enhance public safety and circulation, as well as to provide improved pedestrian and bicycle accessibility and safety. Such projects include, but are not limited to, bike route repairs along Jimmy Durante Boulevard, Camino del Mar, Carmel Valley Road, and Via de la Valle; paving and striping improvements on Jimmy Durante Boulevard; North Beach/Camino del Mar boardwalk construction; expansion/rehabilitation of public pathways connecting North Beach, Border Beach, and North Bluff; and extension of the Riverpath Del Mar from Grand Avenue Bridge to the eastern City limit near Crest Canyon Trail. Further, a number of CIP projects would enhance vehicular, pedestrian, and bicycle movement, safety, and access along Camino del Mar, near public transportation, and near recreational opportunities.

Additionally, as many of the proposed infrastructure improvements would be undergrounded, long-term operations would not affect surface circulation systems once construction is completed. At project completion, operation of these facilities would not conflict with any program plan, ordinance, or policy addressing the City's existing or future transit, bicycle, or pedestrian network. Further, any disturbance to affected roadways, transit, bicycle, or pedestrian facilities would be restored to pre-project conditions upon the completion of construction.

Overall, the project would not conflict with a program, plan, ordinance, or policy addressing the circulation system. Impacts would be **less than significant**.

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

The City has adopted thresholds of significance and screening criteria for vehicle miles traveled (VMT), which are provided in the *City of Del Mar Guidelines for Transportation Impact Analysis* (VMT Guidelines), dated June 1, 2020. The guidance is consistent with 2013 California Senate Bill 743 (SB 743), the Community Plan (General Plan), Del Mar CAP, and City Council Policy 114 (Complete Streets). The methodologies in the VMT Guidelines are consistent with the Governor's Office of Planning and Research[6] (currently OPR's *Technical Advisory on Evaluating Transportation Impacts in CEQA* [Technical Advisory]), dated December 2018, and the Institute of Transportation Engineers' *San Diego Regional Guidelines*, dated May 2019.

The VMT Guidelines apply to certain development projects and allow them to be screened out of the requirement to prepare a VMT analysis, based on the assumption that a project's VMT effects would be less than significant (unless substantial evidence is otherwise identified that indicates a project would generate a potentially significant level of VMT). The City's screening criteria were considered to evaluate whether a VMT analysis was necessary for the proposed project. Due to the general character and limited nature of the proposed improvements, and the programmatic level of analysis considered in the PEIR, such exceptions were determined to apply. However, depending on the type of improvements being undertaken, review of the VMT screening criteria may be required as individual CIP projects are implemented in the future.

Traffic generated by the proposed project would generally be limited to the construction phase. The proposed improvements would not include land uses that would generate a substantial increase in related vehicle trips; additionally, in general, the public facilities affected by the planned CIP improvements generate vehicle trips under existing conditions. Once construction is completed, vehicle trips would be limited to periodic maintenance or repair on an as-needed basis. Therefore, a VMT analysis is not required, and the project would not conflict or be inconsistent with CEQA Guidelines Section 15064.3, subdivision (b).

[6] The Governor's Office of Planning and Research was renamed to the Office of Land Use and Climate Innovation in July 2024.

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

During construction of the proposed CIP improvements, temporary lane closures may be required to allow for proposed infrastructure improvements (i.e., water, sewer, storm water facilities, and streets) within the affected rights-of-way. Construction-related traffic may temporarily affect vehicular (including buses), bicycle, and pedestrian movement along affected roadways, thereby potentially affecting public safety or restricting or delaying access to existing land uses. Implementation of standard City traffic control measures (see Section 2.4.3, Regulatory Requirements and Standard City Measures) would reduce potential safety hazards by requiring preparation and implementation of a traffic control plan for roadways and intersections affected by a CIP project. Requirements included in the project-specific traffic control plans would include, but not limited to, posting advance notices regarding pending construction activities to allow motorists to select alternative routes, restricting delivery of construction materials to non-peak travel periods, providing flagger-control as needed, and maintaining access for driveways and private roads to the extent possible. As such, temporary construction impacts would be **less than significant**.

The proposed improvements would not include new permanent design features or incompatible uses that could adversely affect vehicular or other means of transportation on affected roadways. Additionally, certain improvements are proposed to enhance public safety, access, and circulation, such as a new beach boardwalk to improve pedestrian access and expansion/rehabilitation of public pedestrian paths to increase connectivity. No physical design features or incompatible uses that could adversely affect public safety during project operations would result. Further, any disturbance to affected roadways, transit, bicycle, or pedestrian facilities would be restored to pre-project conditions upon the completion of construction. Due to the nature of the proposed infrastructure improvements, **no operational impacts would occur**.

*d) Would the project result in inadequate emergency access?*

As discussed in Response 4.17(c) above, planned construction for certain CIP improvements would result in disturbance within public roadway rights-of-way that may temporarily affect emergency access. Such activities may require lane closures and/or a reduction in the width of travel ways during the construction phase.

However, although construction activities would temporarily impact roadway rights-of-way (e.g., through partial lane closures), as discussed in Chapter 2.0, Project Description, a traffic control plan would be prepared and implemented for roadways and intersections that would be affected by the construction of a CIP project. The traffic control plan would include maintaining access for emergency vehicles at all times and notifying police, fire, and emergency services about project details and timing of construction activities. With implementation of traffic control plans for CIP projects that occur in locations that could affect circulation, potential impacts on emergency response and emergency evacuation would be reduced to a less than significant level. Potential measures such as construction signage, limitations on timing for lane closures to avoid peak hours, temporary striping plans, and having a construction flag person to direct traffic during heavy equipment use, among others, may be identified to ensure that emergency access is maintained during short-term project construction activities.

Additionally, the City has adopted the California Fire Code, which is incorporated in DMMC Chapter 10.04, Fire Code. The potential for future CIP projects to impact emergency access would be considered at the project level at the time of implementation. As appropriate to the individual CIP projects, compliance with applicable regulations for building and fire safety and the provision of emergency access would be required. Compliance with applicable state and local requirements would therefore ensure that emergency access remains adequate for the affected CIP sites.

The project would not result in inadequate emergency access. Impacts would be **less than significant**.

*e) Would the project result in a significant cumulative impact related to transportation?*

Future improvements undertaken with implementation of the CIP, in conjunction with other cumulative development projects in the City, could have the potential to result in transportation impacts. As construction of any cumulative projects may occur simultaneously, such activities may affect public access or safety along local roadways. As stated, implementation of traffic control plans for CIP projects that would affect roadways and intersections (as part of standard City traffic control measures) would be required to ensure that adequate circulation and safety conditions are maintained and that project impacts are reduced to less than significant.

Future cumulative projects would be subject to discretionary permitting and approval and would require evaluation pursuant to CEQA regulations at the project level, as appropriate to the type of development proposed. Such evaluation would address potential transportation impacts and identify necessary mitigation measures as needed to reduce impacts to the extent feasible.

Future development facilitated by the CIP, in consideration with other cumulative projects, would not result in significant environmental transportation-related impacts, nor would future development facilitated by the CIP conflict with or obstruct a state or local plan or regulation related to transportation. The proposed project's contribution to a cumulative transportation-related impact would be **less than significant** with mitigation incorporated.

## 4.12. Utilities and Services

*a) Would the project require or result in the relocation or construction of new or expanded water or wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?*

As discussed in Section 3.4, Project Components, the project is intended to allow for the continued maintenance, refurbishment, repair, upgrade, and/or replacement of existing public infrastructure and facilities, as well as for construction and operation and maintenance of new capital projects. Improvements would include utility undergrounding, as well as improvements to the City's existing water, wastewater, and storm water infrastructure.

The majority of the planned CIP improvements (utility undergrounding; water, wastewater, and storm water infrastructure; streets) would not require the use of electric power, natural gas, or telecommunications facilities. A limited number of open space and facility improvements (lifeguard

towers, concessions, restrooms, community building, and other public facilities) may require limited use of electric power, natural gas, and/or telecommunications facilities for operation. However, many of the existing public facilities affected by the project are presently served by such utility services. These CIP improvements are included as part of the proposed project; therefore, this IS/MND already analyzes the potential environmental effects of such projects (refer to Chapter 3.0, Environmental Analysis, and Chapter 4.0, Effects Found not to be Significant). Any potential environmental effects of such actions would be reduced to less than significant, with exception of significant and unavoidable impacts related to construction noise.

The project may result in the relocation or construction of new or expanded water or wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects. Impacts would be **less than significant**.

*b) Would the project have insufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry, and multiple dry years?*

The Del Mar Public Works water service area receives its water supply from the San Diego County Water Authority (SDCWA). The SDCWA relies on water purchases from the Metropolitan Water District (MWD) to meet its supplemental supply gap. The SDCWA's 2020 Urban Water Management Plan indicates that it is capable of meeting expected demands under normal and dry year conditions through 2045 (SDCWA 2021). Additionally, the MWD's 2020 Urban Water Management Plan indicates that it is similarly capable of meeting expected demands for its member agencies under normal and dry year conditions through 2045 (SDCWA 2021). It is therefore anticipated that sufficient water supplies would be available to serve the planned CIP improvement projects as analyzed in this PEIR (FY 2025-2036) as well as other future projects beyond the City's current CIP.

As appropriate, future CIP improvements undertaken would be subject to City discretionary review and compliance with relevant federal, state, and local requirements to ensure that sufficient water supplies are available. Such requirements include DMMC Title 21, Water Supply, and the City's CAP, which provides measures for water efficiencies. With conformance to such requirements, and consideration for the limited water demands resulting with the planned CIP improvements, it is anticipated that sufficient water supplies would be available to serve the project and reasonably foreseeable future development during normal, dry, and multiple dry years. Impacts would be **less than significant**.

*c) Would the project result in a determination by the wastewater treatment provider which serves, or may serve, the project that it has inadequate capacity to serve the project's projected demand in addition to the provider's existing commitments?*

See Response 4.12(a), above. No increase in area population or substantial demand for wastewater treatment services would occur as a result of the proposed improvements. The project would not result in a determination by the wastewater treatment provider which serves, or may serve, the project that it has inadequate capacity to serve the project's projected demand in addition to the provider's existing commitments. Impacts would be **less than significant**.

*d) Would the project generate solid waste in excess of state or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?*

Future development facilitated by the CIP would generate solid waste during construction and operation. EDCO, the City's waste hauler, would be responsible for solid waste collection and hauling during both construction and operational phases of the future CIP projects.

Solid waste generated during construction typically includes demolition of existing on-site structures, vegetation clearing, and grading would generate solid waste. Such waste would be separated on-site by source (e.g., wood, concrete, metal). Construction waste would then be transported off-site for reuse, recycling, or disposal at an approved facility.

It is anticipated solid waste from future development facilitated by the CIP would be disposed of at the landfill nearest the City, which is the West Miramar Landfill in the City of San Diego. This landfill is permitted to receive a maximum of 8,000 tons per day and has a remaining capacity of 13,965,730 cubic yards with a cease operation date of 2031 (CalRecycle 2025). Due to the nature of the proposed CIP projects, a substantial increase in the generation of solid waste or solid waste disposal is not anticipated and landfill capacity would be adequate to accommodate the proposed improvements.

Additionally, Assembly Bill (AB) 341 requires cities and counties to implement recycling programs, reduce refuse at the source, and compost waste to achieve a 75 percent diversion of solid waste from landfills. Further, EDCO provides outreach, education and monitoring services in accordance with AB 341. The City also monitors activities to identify those sending their organic material to the landfill and direct them towards proper organics diversion options pursuant to AB 1826 (i.e., applicable to planned CIP improvements such as new concessions at North Beach City facilities). The City also implements a trash compaction method and Zero Waste Plan to reduce solid waste flows to the Miramar Landfill with the intent to extend the life of the landfill. Future improvements occurring with the CIP would be required to adhere to all federal, state, and local requirements for solid waste reduction and recycling, including conformance with DMMC § 23.70.030, which requires preparation of a Waste Management Plan, as appropriate to the CIP projects undertaken.

The project would not generate solid waste in excess of state or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals. Impacts would be **less than significant**.

*e) Would the project not comply with federal, state, and local management and reduction statutes and regulations related to solid waste?*

Refer to Response 4.12(d), above. As appropriate, the planned CIP projects would be served by the City's contracted solid waste handling service. Project construction and operation would occur consistent with applicable federal, state, and local statutes and regulations aimed at management and reduction of solid waste. Impacts would be **less than significant**.

*f) Would the project result in a significant cumulative impact related to utilities?*

The project, in conjunction with other existing and future development in the City, would result in infrastructure and facility improvements within an urbanized area and could result in cumulative impacts to utilities and service systems. Due to the limited nature of the planned CIP improvements, it is not anticipated that the project would result in a significant impact related to utilities and services, as discussed above.

Potential impacts of the cumulative projects identified would be site-specific and would require evaluation on a case-by-case basis at the project level when future development is proposed. Each cumulative project would require separate discretionary approval and review under CEQA to address potential impacts to utilities and service systems and identify necessary mitigation measures, where appropriate. A such, implementation of the CIP projects would not result in significant environmental impacts from exceedance of existing utility and system capacities; insufficient water supplies; exceedance of wastewater treatment capacities; or interference with solid waste reduction goals or solid waste statutes or regulations. The proposed project would not contribute to a significant cumulative impact related to utilities and service systems. Cumulative impacts would be **less than significant**.

## 4.13. Wildfire

*a) Would the project substantially impair an adopted emergency response plan or emergency evacuation plan?*

The majority of improvements would occur underground (water, sewer, and storm drain infrastructure, and electrical and communication cables) and would not increase the risk of wildfire. Other planned improvements would generally affect existing City open space and park facilities, as well as beach areas.

As discussed in Response 4.4(f), project construction activities (in particular where infrastructure improvements would occur within public rights-of-way) could temporarily affect local evacuation routes. With implementation of a traffic control plan during project construction (refer to Response 4.11[d]), potential impacts related to substantially impairing an adopted emergency response plan or emergency evacuation plan would be reduced to less than significant levels. The need for a traffic control plan would depend on the type and location of CIP project being undertaken, and would be evaluated by the City at the appropriate time.

As appropriate, potential impacts related to substantially impairing an adopted emergency response plan or emergency evacuation plan would be **less than significant**.

*b) Would the project, 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?*

The majority of the City of Del Mar is designated as either a High Fire Hazard Severity Zone (FHSZ) or a Very High FHSZ, with some areas in the western portion having a Moderate level of wildfire risk. Lands in proximity to the beach and in the northern portion of the City (i.e., Dog Beach, Del Mar Surfside Race

Place) are identified as being within a Local Responsibility Area, with no FHSZ, and therefore have a minimal risk for wildfire occurrence (CalFire 2025a, 2025b). Therefore, lands within Del Mar are currently susceptible to the risk of wildfire events and resulting pollutant concentrations or uncontrolled spread of wildfire.

The majority of the planned CIP improvements would occur on relatively level lands and/or in areas previously disturbed by construction of existing infrastructure and facility improvements (i.e., roadways, utilities, trails and pathways, other public facilities). Additionally, as many of the improvements would affect underground pipelines and utility lines, once construction is completed, such components would not be exposed to potential hazards exacerbated by high winds, falling trees, or lightning, which could cause wildfires to ignite.

Other planned CIP improvements to public facilities may affect existing City parks and beach amenities, lifeguard towers, public works facilities, a community building, sports courts, and other such uses. As such, some facilities affected by the CIP improvements would be occupied by the public.

However, such conditions occur under present conditions, and therefore occupants of such public spaces are already currently exposed to the risk of wildfire. The planned CIP improvements would not exacerbate existing wildfire risks, nor increase the potential exposure of any public occupants to new health or safety risks related to project implementation. All planned improvements would be designed and constructed in accordance with applicable standards and regulations intended to reduce potential risks from wildfire and ensure public safety. Impacts in this regard would be **less than significant**.

*c) Would the project 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?*

The CIP identifies current and future capital infrastructure and facility needs and outlines plans for capital projects, major maintenance, and refurbishments. The majority of the City's infrastructure affected by the proposed improvements would be underground (water, sewer, and storm drain, and ultimately overhead utility lines) and would not cause an increased fire risk or ongoing impacts to the environment. No new roads, fuel breaks, or water sources would be required, due to the nature of the intended improvements. Although some individual projects would be constructed aboveground (i.e., parks, lifeguard tower, public pathways, lighting), such improvements or ongoing maintenance thereof are not anticipated to increase fire risk or result in ongoing impacts to the environment; however, such projects may be evaluated on a site-specific basis to ensure that any environmental effects are avoided or minimized. Impacts would be **less than significant**.

*d) Would the project 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?*

The majority of the planned improvements would be to the City's utility infrastructure systems (water, sewer, storm drain, and utility lines). As such infrastructure would be underground, it would not be subject to downslope or downstream flooding or landslides.

The City's open space, parks, and beach facilities would be occupied by the public. However, due to the limited nature of the CIP improvements identified, the project is not anticipated to result in changes that would substantially increase the exposure of people or structures to significant risks from runoff, post-fire slope instability, or drainage changes. The improvements proposed would generally occur on level lands at existing facilities and would not significantly increase potential risks associated with downslope or downstream flooding or landslides.

The project would not expose people or structures to significant risks as a result of runoff, post-fire slope instability, or drainage changes. Impacts would be **less than significant**.

*e) Would the project result in a significant cumulative impact related to wildfire?*

Although portions of the City are identified as being in a Very High FHSZ, the planned CIP improvements would not contribute to a significantly increased risk of wildfire or related impacts. All such future improvements would occur to the City's infrastructure systems and facilities and would not substantially change the potential for wildfire occurrence, level of risk exposure for occupants, or physical characteristics of the affected lands such that adverse effects (i.e., landslides or downstream flooding) following a wildfire event would be increased. The project would not contribute to a significant cumulative impact related to wildfire. Impacts would be **less than significant** in this regard.

# 5.0 ALTERNATIVES

## 5.1. Introduction

Section 15126.6(a) of the CEQA Guidelines requires that a PEIR describe a reasonable range of project alternatives that could feasibly attain the basic objectives of the project, while avoiding or reducing impacts associated with the project.

According to CEQA Guidelines Section 15126.6(a), the discussion of alternatives must focus on alternatives to the project, or to the project location, which will avoid or substantially reduce any significant effects of the project, even if the alternatives would be costlier or hinder to some degree the attainment of the project objectives.

The "No Project" Alternative must also be evaluated. The "No Project" analysis must discuss the existing conditions and what would reasonably be expected to occur in the foreseeable future if the proposed project was not approved.

The range of alternatives required is governed by a "rule of reason," meaning that the PEIR must only evaluate those alternatives necessary to permit a reasoned choice. The alternatives must be limited to only ones that would avoid or substantially lessen any of the significant effects of the proposed project.

Additionally, a PEIR should not consider an alternative whose effects cannot be reasonably ascertained and whose implementation is remote and speculative. The CEQA Guidelines also require a PEIR to state why an alternative is being rejected. If the City ultimately rejects any or all alternatives, the rationale for rejection will be presented in the findings that are required before the City certifies the PEIR and takes action on the proposed project.

According to Section 15126.6(f)(1) of the CEQA Guidelines, among the factors that may be taken into account when addressing feasibility of alternatives are environmental impacts, site suitability, economic viability, availability of infrastructure, general plan consistency, regulatory limitations, jurisdictional boundaries, and whether the applicant could reasonably acquire, control, or otherwise have access to the alternate site.

CEQA requires that an environmentally superior alternative be identified; that is, an alternative that would result in the fewest or least significant environmental impacts. If the No Project Alternative is the environmentally superior alternative, State CEQA Guidelines Section 15126.6(e)(2) requires that another alternative that could feasibly attain most of the project's basic objectives be chosen as the environmentally superior alternative.

## 5.2. Project Objectives

Currently, the City has no programmatic approach to completing environmental review pursuant to CEQA for its CIP projects and therefore must determine and implement appropriate compliance on a project-by-project basis. The purpose of the PEIR is to facilitate a streamlined approach to CEQA compliance for

the City's current and future CIP projects by establishing a clear procedural framework for CEQA compliance on a wide array of CIP project types.

The objectives of the proposed project are to:

- Streamline implementation of current and future CIP projects to ensure continued public health, safety, and welfare for the City's residents and visitors.
- Allow for the continued maintenance, refurbishment, repair, upgrade, and/or replacement of existing public infrastructure and facilities.
- Allow for the construction and operation and maintenance of new capital projects.
- Develop a mitigation framework to ensure consistent and effective implementation of environmental protections.

## 5.3. Impacts of the Proposed Project

Based on the analysis contained in Chapter 3.0, Environmental Analysis, impacts related to noise levels generated during certain construction activities that may be in close proximity to residences, schools, or other noise-sensitive uses, may not be able to be fully mitigated to a less than significant level. Therefore, construction noise impacts were determined to be significant and unavoidable. No other significant and unavoidable impacts were identified.

Impacts related to biological resources, cultural resources, geology and soils (paleontological resources), construction noise (vibration), and tribal cultural resources would be mitigated to less than significant with the incorporation of mitigation measures.

Impacts related to aesthetics, air quality, energy conservation, greenhouse gas emissions, hazards and hazardous materials, hydrology and water quality, land use and planning, public services, transportation, utilities and service systems, and wildfire were found to be less than significant. No impacts were identified relative to agriculture and forestry resources, mineral resources, population and housing, and recreation. No mitigation measures are therefore required.

## 5.4. Alternatives to the Proposed Project

This analysis focuses on alternatives capable of eliminating significant adverse environmental effects or reducing them to less than significant levels, even if these alternatives would impede, to some degree, the attainment of the proposed project objectives. As noted previously, the CEQA Guidelines (Section 15126.6[e][2]) require that the alternatives discussion include an analysis of the No Project Alternative. Pursuant to CEQA, the No Project Alternative refers to the analysis of existing conditions (i.e., implementation of current plans) and what would reasonably be expected to occur in the foreseeable future if the project was not approved. CEQA Section 15126.6(a) states that a PEIR need not consider every conceivable alternative to a project; rather, a PEIR need only consider a reasonable range of alternatives. The following alternatives have been identified for analysis in compliance with CEQA:

- No Project Alternative (Alternative 1)
- Reduced Streamlining Alternative (Alternative 2)

Table 5-1, Impact Comparison – Proposed Project Versus Project Alternatives, compares the potential impacts of the project alternatives to the impacts identified as resulting with implementation of the proposed project.

### 5.4.1. No Project Alternative (Alternative 1)

The City's CIP identifies numerous public infrastructure and facilities improvement projects that the City proposes to undertake over the next 10 years. The CIP analyzed in this PEIR includes FY 2026-2027 through FY 2035-2036. While the City's current CIP programs run through FY 2035-2036, this PEIR will continue to apply to CIP projects post FY 2035-2036 to the extent that future projects are deemed consistent with the types of projects evaluated herein; environmental conditions established in this PEIR have not changed substantially; and mitigation requirements are still deemed applicable and effective.

As described in Chapter 2.0, Project Description, the City does not currently have a programmatic approach to completing environmental review pursuant to CEQA for implementing its CIP projects, and individual projects must therefore undergo environmental review on a project-by-project basis. This PEIR is intended to streamline implementation of current and future CIP projects by establishing a clear procedural framework for CEQA compliance on a wide array of CIP project types.

Under the No Project Alternative (Alternative 1), the CIP PEIR would not be certified and the CEQA streamlining process to implement CIP projects evaluated herein would not be achieved. Without certification of this CIP PEIR, the City would continue to implement the improvements identified in its adopted CIP for the next 10 years, evaluating each improvement project on a project-by-project basis, pursuant to applicable CEQA requirements, as presently occurs. All identified CIP projects would still be undertaken with the No Project Alternative (Alternative 1), at the same locations, and would have the same construction and operational characteristics. However, without certification of the CIP PEIR, a mitigation framework to ensure consistent and effective implementation of environmental protections would not be provided. Effectively, this would result in decreased efficiency in implementing the CIP and increased costs and project schedules.

Potential effects of the No Project Alternative (Alternative 1) are analyzed below.

#### Issue Area

**Biological Resources**

Based on the results of the Biological Resources Technical Report (see Section 3.2, Biological Resources), the proposed project would require mitigation measures to reduce potential significant impacts to sensitive resources, which may include special-status species, riparian and sensitive natural communities, state or federal wetlands, and/or wildlife corridors, depending on the individual project and existing conditions at the time when improvements are implemented.

Potential impacts on sensitive biological resources may occur during site preparation or ground-disturbing activities. Such impacts would not be avoided or reduced with the No Project Alternative (Alternative 1), as all improvements identified in the City's adopted CIP would still be implemented as planned. Potential impacts would be evaluated at the project level for each improvement undertaken, as occurs under present conditions, and the streamlining of projects for efficiency as considered under this PEIR would not occur. The No Project Alternative (Alternative 1) would therefore be anticipated to result in similar potentially significant impacts to the proposed project. In areas of high to moderate biological sensitivity, mitigation measures may be required, as with the proposed project, to reduce such impacts to less than significant. Overall, impacts to sensitive biological resources would be the same as those identified with the proposed project.

**Cultural Resources**

Modeling for the proposed project (Michael Baker International 2025) identified high archaeological sensitivity along the San Dieguito River and Lagoon margins, coastal bluffs, and undeveloped open space. Most urbanized areas within the City have low sensitivity due to prior disturbance. The majority of CIP projects would be implemented within previously disturbed areas, limiting the potential for impacts to intact cultural resources. However, projects near the lagoon, river, or coastal bluffs or in open space may encounter significant archaeological resources. Direct impacts could occur as the result of ground disturbance, destruction, or alteration of sites; indirect impacts may be caused by increased erosion or exposure of sensitive areas during construction. Mitigation measures would be identified, as with the proposed project, to reduce project impacts to less than significant; site-specific investigations would be required for individual projects in sensitive areas.

As the No Project Alternative (Alternative 1) would implement the same CIP projects as the proposed project and would therefore require similar grading and excavation activities at the same locations, significant impacts to unknown cultural resources would have the potential to occur. Implementation of mitigation measures would be required, as with the proposed project, to reduce such impacts to less than significant. Impacts to cultural resources would be similar to those resulting from the proposed project.

**Geology and Soils (Paleontological Resources)**

Improvements implemented with the No Project Alternative (Alternative 1) would be located on various lands throughout the City of Del Mar, similar to the proposed project. No known active earthquake faults traverse the City. However, as the City lies within Southern California, the potential for adverse effects from seismic ground shaking, seismic-related ground failure, or unstable soils resulting in landslide, lateral spreading, liquefaction, or collapse does exist. Improvements undertaken with this alternative would therefore have the same potential to be subject to seismic events and resulting effects as the proposed project. With conformance to applicable state and local regulations pertaining to engineering design and/or project-specific geotechnical recommendations (if a site-specific study is undertaken), impacts would be less than significant in this regard.

Although a significant impact relative to landslides or liquefaction with the proposed project was not identified, the No Project Alternative (Alternative 1) would have a similar potential for such conditions to

occur, as the CIP projects would have the same location as with the project. Refer to Figure 3.4-2, Liquefaction Potential, and Figure 3.4-3, Landslide Potential.

Modeling for the proposed project identified high paleontological sensitivity in areas underlain by fossil-bearing geologic units (Michael Baker International 2025). Construction of CIP projects located near the lagoon, river, or coastal bluffs or in open space may encounter significant paleontological resources during grading or excavation; refer to Figure 3.4-5. Direct impacts could occur from ground disturbance, destruction, or alteration of fossils; indirect impacts may include increased erosion or exposure of sensitive areas. Mitigation measures would be identified to reduce such impacts to less than significant, similar to the proposed project; site-specific investigations would be required for individual projects in sensitive areas.

As the No Project Alternative (Alternative 1) would result in similar construction activities to implement the anticipated CIP projects, significant direct and indirect impacts to undiscovered paleontological resources would also be similar and would require implementation of mitigation measures to reduce such impacts to less than significant. Impacts to paleontological resources would be similar to those resulting with the proposed project.

**Noise and Vibration**

A significant and unavoidable impact related to construction noise was identified for the proposed project, due to potential proximity of project construction activities to sensitive receptors. A significant impact was also identified relative to construction-related vibration occurring within proximity of existing structures. As the same improvements and associated construction activities would occur for the proposed project and the No Project Alternative (Alternative 1), significant impacts would be similar and implementation of mitigation measures would be required, as appropriate to the improvement being undertaken, to reduce such impacts. As with the proposed project, a significant and unavoidable impact resulting from construction noise would result. Noise and vibration impacts resulting with the No Project Alternative (Alternative 1) would be the same as those identified for the proposed project.

**Tribal Cultural Resources**

Similar to cultural resources, potential impacts to unknown tribal cultural resources would generally occur during ground-disturbing activities, such as grading and excavation. Although no known tribal cultural resources have been identified in the City, the area is considered sensitive by Kumeyaay representatives (Michael Baker International 2025).

Similar to the proposed project, the No Project Alternative (Alternative 1) would have the potential for ground-disturbing activities to impact unknown tribal cultural resources. Implementation of mitigation measures would be required to reduce such impacts to less than significant. Impacts with this alternative would be similar to the proposed project.

### Summary

As shown in Table 5-1, Impact Comparison – Proposed Project Versus Project Alternatives, the No Project Alternative (Alternative 1) would result in similar impacts related to biological resources, cultural and

tribal cultural resources, geology and soils (paleontological resources), and construction noise and vibration as compared to the proposed project, as the same CIP projects would be undertaken. The No Project Alternative (Alternative 1) would therefore neither avoid nor reduce any significant impacts that would occur with the proposed project.

The No Project Alternative (Alternative 1) would not achieve the project objectives of streamlining implementation of current and future CIP projects to ensure continued public health, safety, and welfare for the City's residents and visitors, nor would it develop a mitigation framework to ensure consistent and effective implementation of environmental protections. As the CIP PEIR would not be certified, discretionary processing would not be streamlined using a programmatic approach and individual improvement projects would continue to be evaluated pursuant to CEQA regulations on a case-by-case basis.

### 5.4.2. Reduced Streamlining Alternative (Alternative 2)

Land cover in Del Mar is dominated by urban and developed uses; however, the City retains several ecologically important open space areas. Sensitive natural communities and aquatic resources within the City boundaries are generally located within the San Dieguito Lagoon; along the eastern City boundary adjacent to Torrey Pines State Natural Reserve Extension and Crest Canyon Open Space Park; in the northwestern portion of the City; along the hillsides between Crest Road and San Dieguito Drive; and along the coastline (refer to Figure 3.2-2, Del Mar Sensitive Area Overlay Zones, and Figure 3.2-3, Biological Resources Sensitivity Zones in Section 3.2, Biological Resources).

Additionally, much of the City has potential for undiscovered (buried) cultural and paleontological resources due to underlying geologic formations (refer to Figures 3.3-4a through 3.3-4g in Section 3.3, Cultural Resources; and Figure 3.4-6a through Figure 3.4-6g in Section 3.4, Geology and Soils).

As the sensitivity of the lands described above constitutes the bulk of the potential for impacts to the physical environment in Del Mar, Alternative 2 contemplates excluding CIP projects located in sensitive physical settings from being implemented using the Program EIR. In practice, this means that CIP projects proposed in sensitive environments would proceed in a "business as usual" manner of CEQA compliance and be analyzed on a project-by-project basis. This would effectively limit the streamlining program to implement only the most benign CIP projects exhibiting little to no potential to result in the need for further study and potential mitigation as prescribed in the proposed streamlining program. It is estimated this would result in an approximately 85 percent reduction in CIP projects eligible for streamlining under the program.

It is important to emphasize that CIP projects excluded from the CIP streamlining program would not be eliminated from the City's CIP. Rather, projects excluded from the CIP streamlining program would be required to undergo standalone CEQA analysis as occurs under the City's current environmental clearance process, which would likely result in similar impacts to biological resources as the proposed project, as well as similar mitigation requirements to reduce potential biological resources impacts to less than significant levels.

Potential effects of Alternative 2 are analyzed below.

### Issue Area

**Biological Resources**

Natural resources within the City are generally limited to those located in and adjacent to San Dieguito Lagoon; along the eastern City boundary adjacent to Torrey Pines State Natural Reserve Extension and Crest Canyon Open Space Park; in the northwestern portion of the City; along the hillsides between Crest Road and San Dieguito Drive; and along the coastline (refer to Figure 3.2-1, Vegetation Communities Map, and Figure 3.2-2, Del Mar Sensitive Area Overlay Zones). The northern portion of the City and lands in the vicinity of the lagoon and/or along the Crest Canyon Open Space Area may also serve as, or be adjacent to, critical habitat, aquatic resources, and/or wildlife corridors.

Certain lands east of Camino del Mar/south of Jimmy Durante Boulevard (described above) are considered to have a moderate or high sensitivity for biological resources, with some areas of low sensitivity; refer to Figure 3.2-3, Biological Resources Sensitivity Zones. Exclusion of specific CIP projects from the CIP streamlining program within this area under Alternative 2 would therefore have the potential to avoid or reduce potentially significant impacts on sensitive biological resources as compared to the proposed project. The CIP projects covered under Alternative 2 outside this area (i.e., in the low biological sensitivity zone) would be implemented if the projects are limited to minor improvements in developed areas. As such, it is anticipated that Alternative 2 could result in marginally reduced impacts related to biological resources as compared to the proposed project.

**Cultural Resources**

As shown in Figure 3.3-3, Archaeological Sensitivity Zones, the majority of the City is considered to have a very low to moderate sensitivity for the presence of archaeological resources. As discussed in Section 3.3, Cultural Resources, potential impacts on unknown cultural resources would occur with implementation of the City's CIP.

Certain lands east of Camino del Mar/south of Jimmy Durante Boulevard (described above) are considered to have a moderate sensitivity for archaeological resources; refer to Figure 3.3-3. Exclusion of specific CIP projects from the CIP streamlining program within this area under Alternative 2 would therefore have the potential to avoid or reduce significant impacts on unknown cultural resources as compared to the proposed project. The CIP projects covered under Alternative 2 would be implemented if the projects are limited to minor improvements in developed areas. As such, it is anticipated that Alternative 2 could result in marginally reduced impacts related to cultural resources as compared to the proposed project.

**Geology and Soils (Paleontological Resources)**

Improvements implemented with the Reduced Streamlining Alternative would be located on various lands throughout the City of Del Mar, similar to the proposed project. No known active earthquake faults traverse the City; however, as the City lies within Southern California, the potential for adverse effects from seismic ground shaking, seismic-related ground failure, or unstable soils resulting in landslide, lateral spreading, liquefaction, or collapse does exist. Improvements undertaken with the Alternative 2 would therefore have the same potential to be subject to seismic events and resulting effects as the proposed

project. With conformance to applicable state and local regulations pertaining to engineering design and/or project-specific geotechnical recommendations (if a site-specific study is undertaken), impacts would be less than significant in this regard.

Although a significant project impact relative to landslides or liquefaction with the proposed project was not identified, Alternative 2 would remove a number of planned CIP improvements from areas identified as having a high potential for such events to occur; refer to Figure 3.4-2, Liquefaction Potential, and Figure 3.4-3, Landslide Potential. This alternative would avoid such potential hazards in this portion of the City.

As shown on Figure 3.4-5, the majority of lands within the City is identified as having high sensitivity for paleontological resources to occur. As evaluated in Section 3.4, Geology and Soils, grading and excavation activities required to implement the CIP projects would have the potential to cause a significant impact to unknown paleontological resources.

Portions of lands east of Camino del Mar/south of Jimmy Durante Boulevard have a high potential for the presence of paleontological resources to occur. The Reduced Streamlining Alternative would result in exclusion of specific CIP projects from the CIP streamlining program within this area, thereby avoiding potential impacts to unknown paleontological resources as compared to the proposed project. The CIP projects covered under Alternative 2 would be implemented if the projects are limited to minor improvements in developed areas. As such, it is anticipated that Alternative 2 could result in marginally reduced impacts related to paleontological resources as compared to the proposed project.

**Noise and Vibration**

As indicated in Section 3.6, Noise and Vibration, significant construction noise and vibration impacts were identified for the proposed project, due to potential distance to sensitive receptors. Although not all CIP projects would result in a significant noise or vibration impact, as the City is largely built out, the potential for sensitive land uses to be located within proximity to planned CIP improvements is high.

The CIP projects covered under Alternative 2 would be implemented if the projects are limited to minor improvements in developed areas (e.g., interior or façade improvements at City facilities; bench and pedestrian light pole installation; landscaping along roadway medians; roadway restriping and minor pavement repairs; annual water valve replacements; minor annual improvements to existing water, wastewater, and storm water facilities in developed areas). As such, it is anticipated that Alternative 2 could result in marginally reduced impacts related to noise and vibration compared to the proposed project.

**Tribal Cultural Resources**

There is potential for tribal cultural resources within the City of Del Mar. Alternative 2 would avoid streamlined implementation of some CIP projects within the area south of Camino del Mar/Jimmy Durante Boulevard which supports lands identified as having a moderate or high archaeological resources sensitivity (refer to Figure 3.3-3, Archaeological Sensitivity Zones), meaning there is also potential for tribal cultural resources to be present. Exclusion of specific CIP projects from the CIP streamlining program within this area under Alternative 2 would therefore have the potential to avoid or reduce significant impacts on tribal cultural resources as compared to the proposed project. The CIP projects covered under

Alternative 2 would be implemented if the projects are limited to minor improvements in developed areas. As such, it is anticipated that Alternative 2 could result in marginally reduced impacts related to paleontological resources as compared to the proposed project.

**Summary**

As shown in Table 5-1, Impact Comparison – Proposed Project Versus Project Alternatives, it is anticipated that Alternative 2 could result in marginally reduced impacts related to biological, cultural, tribal cultural, and paleontological resources, and noise and vibration as compared to the proposed project, as a number of CIP projects in areas deemed to have a higher level of sensitivity would be analyzed at a project-specific level, outside the streamlining process enabled by the proposed project.

Because Alternative 2 would generally cover only the most straightforward CIP projects with minor improvements, it is estimated this would result in an approximately 85 percent reduction in CIP projects eligible for streamlining under the program.

It is important to emphasize that CIP projects excluded from the CIP streamlining program would not be eliminated from the City's CIP. Rather, projects excluded from the CIP streamlining program would be required to undergo standalone CEQA reviews, as occurs under the City's current environmental clearance process. This lessens efficiency by imparting redundant processes, extending processing timelines, and increasing paperwork – all specifically discouraged in CEQA Guidelines Section 15006, Reducing Delay and Paperwork.

## 5.5. Alternatives Considered but Rejected as Infeasible

In accordance with CEQA Guidelines Section 15126.6, a PEIR should identify any alternatives that were considered by the lead agency but were rejected as infeasible during the scoping process and should briefly explain the lead agency's determination. Among the factors that may be used to eliminate alternatives from detailed consideration in a PEIR are failure to meet most of the basic project objectives, infeasibility, or inability to avoid significant environmental effects. The following are alternatives that have been rejected by the lead agency and will not be analyzed further in this PEIR.

### 5.5.1. No Project/No CIP Alternative

The No Project/No CIP Alternative considers a scenario wherein the CIP is not implemented by the City. None of the CIP infrastructure and facility improvement projects identified for FY 2025-2036 would be undertaken, and no new construction, rehabilitation, or upgrades to the City's infrastructure or facilities would occur. As the CIP would not be implemented, provision of a streamlined approach to completing environmental reviews for the CIP projects pursuant to CEQA would no longer be appropriate; certification of a programmatic EIR would not occur.

This alternative would avoid the significant impacts (related to biological, cultural/tribal cultural, and paleontological resources, and noise (vibration) that may result with the proposed project, including the significant and unavoidable impact related to construction noise. However, other adverse indirect effects may result. With the lack of such planned CIP improvements or upgrades, public infrastructure may deteriorate or become inadequate over time, thereby affecting the City's ability to effectively provide

public services or accommodate population growth (i.e., water or wastewater services) or resulting in other hazardous conditions affecting public safety and welfare (i.e., flooding hazards caused by inadequate storm water infrastructure).

Further, a scenario wherein the City would not implement its CIP would generally not be reasonable. The City has already adopted CIP for FY 2025-2036 and is currently implementing the priority projects identified for FY 2026-2027. Although it could be reasonably assumed that some individual infrastructure improvements or upgrades would be implemented over time under a No Project/No CIP Alternative scenario, they may be more reactive in nature than planned (i.e., emergency replacement of failed water or sewer pipelines) and would not be implemented via a structured program like the CIP.

The No Project/No CIP Alternative would also not meet any of the project objectives. As no improvements would occur, the implementation of current and future CIP projects to ensure continued public health, safety, and welfare for the City's residents and visitors would not be streamlined, nor would related measures be put in place to allow for the continued maintenance, refurbishment, repair, upgrade, and/or replacement of existing public infrastructure and facilities. The construction and operation and maintenance of new capital projects would not occur, nor would a mitigation framework be developed to ensure consistent and effective implementation of environmental protections.

Based on the discussion above, the No Project/No CIP Alternative was considered but rejected from further evaluation in the PEIR.

### 5.5.2. Alternate Location for Utility Undergrounding Alternative

As the UP represents the most extensive of the planned linear improvements identified in the CIP, the Alternate Location for Utility Undergrounding Alternative was considered to reduce potential impacts that may result from construction of the proposed improvements. The maximum length of individual CIP utility undergrounding projects would be up to 32,000 linear feet (LF), but would be an average length of approximately 15,000 LF, with a maximum trench width of approximately 3 feet and a maximum excavation trench depth of no greater than 10 feet. With the adopted CIP, utility undergrounding improvements would occur within individual districts and would be phased but would ultimately affect most areas of the City.

At a programmatic level, it is assumed that this alternative would involve a similar total linear footage of undergrounded utility lines as the proposed project, but would instead relocate the utility alignments to alternate paths—either to avoid known sensitive resources (i.e., biological or cultural resources) or to avoid (or reduce) potential construction noise or vibration impacts on sensitive land uses. This alternative would implement the utility undergrounding projects based on the City's prioritization criteria. However, to enable utility undergrounding that would fully avoid sensitive resources or receptors, it is anticipated that the City would need to obtain alternate right-of-way or easement lands to accommodate the alternate linear routes. All other planned improvements identified in the adopted CIP (water, wastewater, storm water, streets, facilities, open space) would be implemented with this alternative.

The Alternate Location for Utility Undergrounding Alternative would still implement all of the improvements identified as part of the CIP and would achieve all of the project objectives. A streamlined approach for current and future CIP projects would be achieved, allowing for such projects to be constructed, operated, and maintained over time, while providing a mitigation framework to ensure consistent and effective implementation of environmental protections.

However, relocating the overhead utilities to alternative alignments to avoid sensitive resources or receptors may not be feasible in some instances, due to the need to provide continued utility service to the same area where the affected overhead lines are presently located (i.e., the need for the utility lines to remain in proximity to the ultimate user receiving service). Obtaining additional right-of-way or public lands to accommodate alternate utility routes may also require the City to utilize eminent domain or may raise other community concerns (i.e., as additional property owners would likely be affected). Further, the ability to accommodate such revised alignments once evaluated at a site-specific level may ultimately not be feasible; therefore, it cannot be guaranteed that this alternative could achieve the goal of avoiding all sensitive resources or receptors. For these reasons, the Alternate Location for Utility Undergrounding Alternative was considered but rejected from further evaluation in the PEIR.

### 5.5.3. Alternate Sites Alternative

Per CEQA Guidelines Section 15126.6(f)(2)(A), the key question and first step in considering an alternate project location is whether any of the significant effects resulting with a project would be avoided or substantially lessened by relocating the project. Only locations that would avoid or substantially lessen any of the significant effects of a project need to be considered for inclusion in the EIR.

The Alternate Sites Alternative considers the option of identifying and making similar needed public infrastructure and facility improvements as the proposed projects, but at other locations within the City. Although the City has adopted its CIP and identified priority and other needed infrastructure improvements through the year 2036, this alternative would result in the identification of other CIP improvement projects that may be needed, and thus would affect similar public rights-of-way, easements, or lands not currently affected by the City's CIP.

Although other street segments, open space lands, and existing public infrastructure and facilities throughout the City would be affected by the Alternate Site Alternative, it is anticipated at a programmatic level of analysis that potential impacts would be similar to those resulting with the proposed project. It can reasonably be assumed that such improvements, occurring in the same seven categories as the proposed project (see Section 2.4.3, Proposed Project Activities), would be of similar scope (Citywide) and would have similar construction requirements and operational characteristics.

As such, some CIP projects would likely still occur within proximity to sensitive receptors (i.e., residences, schools) and may therefore result in significant and unavoidable construction noise impacts, as with the proposed project. Potential significant impacts relative to construction vibration effects would also be anticipated to be similar and reduced to less than significant with mitigation incorporated. Similarly, as the alternate sites would occur throughout the City, locations having a high potential for sensitive biological resources, or for unknown cultural, tribal cultural, or paleontological resources, may be

affected, and impacts would be anticipated to remain similar to those identified with the proposed project; mitigation measures would therefore be required to reduce such impacts to less than significant.

As with the proposed project, the Alternate Site Alternative would meet all of the project objectives. However, as the City has adopted its CIP which extends over the next 10 years and has identified priority and other needed CIP improvements as part of the program, identifying similar improvement projects on alternate sites would result in conflict with the City's adopted CIP. Although infrastructure improvements beyond those identified in the adopted CIP would likely be needed throughout the City over the next 10 years, implementing similar improvements on alternate lands would not achieve established City goals or infrastructure improvement priorities. Additionally, the Alternate Sites Alternative would not avoid or substantially reduce any significant impacts as compared to the proposed project. Therefore, this alternative was considered but rejected from further evaluation in the PEIR.

## 5.6. Environmentally Superior Alternative

CEQA requires a lead agency to identify an environmentally superior alternative—that is, an alternative that would result in the fewest or least significant environmental impacts, while still achieving the main objectives of the proposed project. If the No Project Alternative is the environmentally superior alternative, CEQA Guidelines Section 15126.6(e)(2) requires that another alternative that could feasibly attain most of the project's basic objectives be chosen as the environmentally superior alternative. The No Project Alternative would not reduce any significant impacts compared to the proposed project. Similar to the proposed project, the No Project Alternative would result in a significant and unavoidable impact from construction noise and would therefore also not avoid or reduce this impact below that resulting with the proposed project.

As described, it is anticipated that the Reduced Streamlining Alternative could result in marginally reduced impacts related to biological, cultural, and paleontological resources, and noise and vibration as compared to the proposed project. However, because Alternative 2 would generally cover only the most straightforward CIP projects with minor improvements, it is estimated this would result in an approximately 85 percent reduction in CIP projects eligible for streamlining under the program. Nonetheless, it is noted that the CIP projects excluded from the CIP streamlining program would not be eliminated from the City's CIP, and would therefore be implemented by the City separate from the City's proposed CIP streamlining program.

Each CIP project excluded from the CIP streamlining program would still be required to undergo independent CEQA reviews, which lessens efficiency by imparting redundant processes, extending processing timelines, and increasing paperwork – all specifically discouraged in CEQA Guidelines Section 15006, Reducing Delay and Paperwork. As shown in Table 5-1, Impact Comparison – Proposed Project Versus Project Alternatives, it is anticipated that Alternative 2 could result in slightly reduced environmental impacts as compared to the proposed project. As a result, Alternative 2 would marginally be considered the environmentally superior alternative. The independent CEQA reviews of the CIP project excluded from Alternative 2 would likely result in similar environmental impacts as the proposed project, as well as similar mitigation requirements to reduce potential impacts.

**TABLE 5-1 IMPACT COMPARISON – PROPOSED PROJECT VERSUS PROJECT ALTERNATIVES**

| Topic | Proposed Project | No Project Alternative (Alternative 1) | Reduced Streamlining Alternative (Alternative 2) |
|---|---|---|---|
| Biological Resources | LTS with Mitigation | = | < |
| Cultural Resources | LTS with Mitigation | = | < |
| Geology and Soils (Paleontological Resources) | LTS with Mitigation | = | < |
| Noise and Vibration | SU | = | < |
| Tribal Cultural Resources | LTS with Mitigation | = | < |

Notes:
LTS+M Less than Significant with Mitigation Incorporated
SU Significant and Unavoidable
= Impact is equivalent to impact of proposed project.
< Impact potential is marginally less than impact of proposed project.

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# 6.0 OTHER CEQA CONSIDERATIONS

This section addresses those topics requiring evaluation under CEQA Guidelines Section 15126, which requires that all aspects of a project be considered when evaluating its impact on the environment, including planning, acquisition, development, and operation. As part of this analysis, a PEIR must also identify: (1) significant irreversible environmental changes that would result from implementation of the proposed project; and (2) growth-inducing impacts of the proposed project. Each of these topics is discussed in greater detail below.

It is noted that CEQA Guidelines Section 15126 requires a PEIR to identify significant and unavoidable environmental effects of the proposed project, which is included in the Executive Summary of this PEIR.

## 6.1. Significant and Irreversible Environmental Changes

Section 15126.2(d) of the CEQA Guidelines requires a PEIR to discuss the significant irreversible environmental changes that would result from implementation of a proposed project. Examples include a project's primary or secondary impacts that would generally commit future generations to similar uses (i.e., highway improvements at the access point); uses of nonrenewable resources during the initial and continued phases of the project (because a large commitment of such resources make removal or non-use thereafter unlikely); and/or irreversible damage that could result from any potential environmental accidents associated with the project.

The physical effects of project implementation on the environment are addressed in Sections 3.1 through 3.7 and Chapter 4.0 of this PEIR.

Due to the nature of the projects and the improvements to be implemented over time, long-term irreversible environmental changes (such as an increase in local and regional traffic and associated air pollutants and greenhouse gas emissions; an increase in the volumes of solid waste and wastewater generated in the area; or an increase in water consumption) are not anticipated, as they would be anticipated for a typical development project (i.e., a residential subdivision or commercial building).

Project construction and maintenance of the planned infrastructure improvements would require the commitment of energy, natural resources, and building materials. Nonrenewable and limited resources that may be consumed with project development would include oil, natural gas, gasoline, sand and gravel, asphalt, water, steel, and similar materials. Nonrenewable fuels would be used by construction equipment, haul trucks, and worker vehicles.

Nonrenewable energy would also be expended during the harvesting and mining of natural resources such as wood and aggregate, and during the subsequent manufacturing of construction materials such as concrete and wood framing (i.e., framing for retaining walls; expansion of the Community Building at Shores Park). Post-construction consumption of nonrenewable resources would include the use of electricity and water for ongoing maintenance purposes. This energy use would be a long-term commitment and irretrievable.

However, the proposed project would not result in an unusually high demand for nonrenewable resources and would be consistent with applicable state and local goals and policies directed at reducing reliance on fossil fuels and encouraging renewable energy. As applicable, some project components (e.g., addition to Community Building at Shores Park; public restrooms and concessions at North Beach) would be required to meet Title 24 energy efficiency requirements in place at the time when improvements are undertaken, thereby resulting in structures that achieve greater energy efficiency. Adherence to applicable state and local regulations may further reduce energy demands through restrictions placed on the use of construction equipment (i.e., turning off idling equipment after five minutes, or more energy-efficient equipment). Refer to Section 3.2, Air Quality, and Section 4.3, Energy Conservation, for additional discussion.

## 6.2. Growth-Inducing Impacts

CEQA Guidelines Section 15126.2(e) requires that a PEIR discuss a project's potential to foster economic or population growth, or the construction of additional housing, either directly or indirectly, in the surrounding environment. The CEQA Guidelines also indicate that it must not be assumed that growth in any area is necessarily beneficial, detrimental, or of little significance to the environment. This section analyzes such potential growth-inducing impacts, based on criteria suggested in the CEQA Guidelines.

In general terms, a project may foster spatial, economic, or population growth in a geographic area if it meets any one of the following criteria:

- Removes an impediment to growth (e.g., establishes an essential public service or provides new access to an area).
- Fosters economic expansion or growth (e.g., changes revenue base, expands employment).
- Fosters population growth (e.g., constructs additional housing), either directly or indirectly.
- Establishes a precedent-setting action (e.g., an innovation, a change in zoning, or a general plan amendment approval).
- Develops or encroaches on an isolated or adjacent area of open space (distinct from an infill type of project).

Should a project meet any one of the above-listed criteria, it may be considered growth inducing. Potential growth-inducing impacts of the proposed project are evaluated against these five criteria in this section.

CEQA Guidelines Section 15126.2(e) requires that a PEIR "discuss the ways in which the proposed project could foster economic or population growth" and "discuss the characteristic of some projects which may encourage and facilitate other activities that could significantly affect the environment, either individually or cumulatively." However, the CEQA Guidelines do not require that a PEIR predict (or speculate) specifically where such growth would occur, in what form it would occur, or when it would occur. The answers to such questions require speculation, which CEQA discourages (see CEQA Guidelines Section 15145).

### 6.2.1. Removal of a Barrier to Growth

Obstacles to growth are primarily due to the existing developed condition of the surrounding area, feasibility of development, economic constraints, permitting, or other development restrictions and regulations promulgated by local agencies. Several types of projects can induce population growth by removing obstacles that prevent growth. An example would be the expansion of a wastewater treatment plant that would accommodate additional sewer connections within a service area and therefore would allow for future construction and growth that may not have otherwise been feasible. Extension of utility lines (e.g., water, sewer) or other infrastructure or services (e.g., fire protection services) may also induce growth, as such improvements allow for not only the development responsible for expanding the infrastructure, but also other projects proposed in the surrounding area due to the availability of new (i.e., previously inaccessible) infrastructure.

As the City is largely built out, properties within the City are generally either served by existing utilities and adequate public services (i.e., water, sewer, fire protection services), have the ability to connect to existing utilities, or can be served by public services within the vicinity. Project implementation would result in improvements to and/or replacement of existing infrastructure facilities, generally prioritized on failure risk and/or consequences, as well as limited new construction at public facilities. The CIP improvements identified with the project would not remove barriers to growth related to the unavailability or inadequate access to existing utility systems or service infrastructure. As such, the project would not induce growth as a result of newly available infrastructure or services.

As the proposed project would allow the implementation of the City's planned and future CIP projects, the project would be consistent with and would not modify approved land use and zoning designations, which generally do not apply to public property, easements, and/or rights-of-way (i.e., utilities and roadways) or where certain facility improvements may occur on lands with designated land use and zoning classifications (i.e., open space or parkland).

For the reasons above, project implementation would not directly or indirectly foster growth, remove growth constraints, or otherwise stimulate growth. Growth-inducing impacts are therefore precluded as the project would not affect the feasibility of development in the area, remove an obstacle to growth, or affect adopted development restrictions.

### 6.2.2. Economic Growth

The timing, magnitude, and location of land development and population growth in a community or region are based on various interrelated land use and economic variables. Key variables include regional economic trends, market demand for residential and nonresidential uses, land availability and cost, the availability and quality of transportation facilities and public services, proximity to employment centers, the supply and cost of housing, and/or regulatory policies or conditions.

The project would have the potential to contribute to economic growth as the result of construction. Project construction would be performed by independent contractors hired by the City. In general, construction workers are anticipated to come from the local labor pool, which would therefore not result in new growth in the area, due to the short-term and temporary nature of their employment. Although

some anticipated CIP projects may require longer durations to complete, given the short-term nature of construction, such activities are not expected to substantially affect the City's economic growth.

Over the long-term, project operations are not anticipated to foster substantial economic growth. Due to the nature of the improvements, it is expected that project operation and maintenance would be performed by current City staff and there would be no requirement to hire new City staff to oversee or manage implementation of the City's CIP projects; however, this may be determined on a project-by-project basis. If new staffing is required, it is anticipated that such staffing would be met by the existing local employment market available in San Diego County. Project operations would therefore not increase demand for new housing in the area, nor induce related population growth. A new source of substantial economic growth would not be generated.

### 6.2.3. Population Growth

The majority of the approved CIP projects for FY 2026-2027 (included in Table 2-2 at the end of Chapter 2.0) are non-capacity related improvements and would not directly or indirectly induce growth; no new housing or facilities that would enable substantial new population growth would result. Rather, the anticipated CIP improvements are aimed at minimizing the risk of upset or failure of existing facilities and providing enhancements to meet other anticipated public recreational and safety needs. The proposed replacement and/or rehabilitation improvements, generally based upon age and/or condition, would improve the integrity of such facilities over the long term. Due to the nature of the proposed improvements, the project is not anticipated to directly or indirectly induce population growth within the City.

### 6.2.4. Establishment of a Precedent-Setting Action

The CIP is intended to identify and plan for the City's current and future capital infrastructure and facility needs, and outlines plans for capital projects, major maintenance, refurbishments, and substantial equipment purchases. Improvements planned with the CIP are not considered to be precedent-setting actions (defined as any act, decision, or case that serves as a guide or justification for subsequent situations), and similar projects are commonly undertaken on a regular basis by jurisdictions.

Due to the nature of the CIP improvements identified, such projects are not considered to have growth-inducing effects, and their potential to enable or encourage growth is not anticipated with buildout of the Community Plan. Implementation of the CIP program would be consistent with the City's Community Plan and Local Coastal Program, as applicable, and would allow for improvements and maintenance activities needed to support buildout of the Community Plan over time as intended by the City. Therefore, the project would not represent a precedent-setting action that would encourage or allow for unplanned future growth within the area.

### 6.2.5. Encroachment on Open Space

All construction activities would occur within publicly owned property or easements and public rights-of-way, generally on developed and disturbed lands that presently support the facilities to be replaced or improved over time (water, sewer, storm water, streets) with project implementation. As such, the majority of lands that would be affected by the project is not designated as open space.

However, as indicated in Chapter 2.0, the CIP includes open space projects to address maintenance needs for the City's existing and future open space amenities, including City parks, trail connections, the beach, and lifeguard facilities. The proposed improvements are consistent with the goals and policies relating to parks, recreation, environmental management, and public safety identified in the Environmental Management section of the Community Plan.

Construction related to improvements and repairs of existing and future public open space facilities include minor interior and exterior repairs. As stated, the majority of such construction activities would occur on City property or within public rights-of-way within or along existing roadways. No encroachment into designated open space lands, or conversion of designated open space lands to a developed condition, would occur with the proposed project. Project implementation would therefore not cause a growth-inducing impact as a result of development or encroachment on an isolated or adjacent area of open space.

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# APPENDIX A
# NOTICE OF PREPARATION (NOP) AND NOP RESPONSES

# Notice of Preparation

**To:** State Clearinghouse
P.O. Box 3044
Sacramento, CA 95812-3044 (Address)

**From:** City of Del Mar, Planning and Community Development
1050 Camino del Mar
Del Mar, CA 92014 (Address)

**Subject: Notice of Preparation of a Draft Environmental Impact Report**

City of Del Mar will be the Lead Agency and will prepare an environmental impact report for the project identified below. We need to know the views of your agency as to the scope and content of the environmental information which is germane to your agency's statutory responsibilities in connection with the proposed project. Your agency will need to use the EIR prepared by our agency when considering your permit or other approval for the project.

The project description, location, and the potential environmental effects are contained in the attached materials. A copy of the Initial Study ( ☐ is ☒ is not ) attached.

Due to the time limits mandated by State law, your response must be sent at the earliest possible date but not later than 30 days after receipt of this notice.

Please send your response to Jennifer Gavin, Associate Planner at the address shown above. We will need the name for a contact person in your agency.

**Project Title:** City of Del Mar Capital Improvement Program (CIP) PEIR

**Project Applicant, if any:** City of Del Mar

Date 11/14/2025

Signature _____

Title Associate Planner

Telephone 858-793-6148

**Reference:** California Code of Regulations, Title 14, (CEQA Guidelines) Sections 15082(a), 15103, 15375.

# City of Del Mar
# Notice of Preparation of a Draft PEIR

Date: November 13, 2025

To: Responsible and Trustee Agents, and Interested Organizations and Individuals

Subject: **Notice of Preparation of a Draft Program Environmental Impact Report (PEIR) for the City of Del Mar Capital Improvement Program (CIP)**

**Lead Agency:**

**CITY OF DEL MAR**
Planning and Community Development Department
1050 Camino del Mar
Del Mar, CA 92414

This Notice of Preparation (NOP) includes a project description and a list of the environmental issues to be examined in the Program Environmental Impact Report (PEIR).

Due to the time limits mandated by State law, your response must be sent at the earliest possible date, but no later than 30 days after receipt of this notice.

Please send your written response to Jennifer Gavin at the City of Del Mar; address and email provided below. Please include the name, phone number, email, and address of a contact person in your response.

**Project Title**: City of Del Mar Capital Improvement Program (CIP) PEIR

**Location**: City-wide

## Project Setting

Incorporated in 1959, the City of Del Mar is a small, residential community located along the Pacific Coast, west of Interstate 5 and approximately 20 miles north of downtown San Diego. The City boundary is long and narrow in shape, bordering approximately 2.5 miles of the coast, and extending inland less than one mile at its widest point. The City has a small downtown village and three neighborhood types including a beach level neighborhood referred to as North Beach, bluff top neighborhoods along the South Bluff that sit approximately 75 feet in height above the sandy beach, and neighborhoods located on the hillside that runs along the eastern boundary of the City.

Del Mar is the smallest incorporated jurisdiction in San Diego County with a population of around 4,000 persons and an area of roughly two and a half square miles. While the City of Del Mar has a small population, the public use and demand for public facilities, utilities, and infrastructure is exponentially high due to the millions of people who visit Del Mar each year.

The City's coastal location, climate, and small-village atmosphere attract a large number of visitors to the community each year. Popular destinations include Del Mar's beaches, parks, local trails and the coast to crest regional trail system as well as the Del Mar Fairgrounds regional entertainment venue located in the northeastern portion of the City. The City consistently records over 3 million visitors per year for beach attendance alone. The high volume of visitors in Del Mar creates the need for local jobs in the government, commercial service, and retail industries, including jobs at the Del Mar Fairgrounds which is the largest employer in Del Mar. The frequency and intensity of use of the City's infrastructure and public facilities is a factor that directly correlates to the need to anticipate and plan for future capital infrastructure and facility needs.

The City is vigilant in its protection of the natural environment including the ocean, coastal bluffs, inland sandstone bluffs, canyons, and wetlands, which are protected by the City of Del Mar's Community Plan (General Plan) and certified Local Coastal Program (LCP). Protected natural resource areas include the San Dieguito Lagoon (to the north) and Los Penasquitos Lagoon (to the south), the Crest Canyon Open Space Preserve (along eastern boundary of the City) and North Bluff Preserve (to the northwest). Much of the northern portion of the City lies within the floodplain of the Pacific Ocean and San Dieguito River. Where development is proposed within or adjacent to these areas it is subject to compliance with the City's certified LCP.

## Project Overview

### Background

The CIP is a 10-year strategic planning and budgeting tool for addressing the City's current and future capital infrastructure and facility needs, and is revised over time in noticed public meetings of the City Council in consideration of City Council priorities, the condition of existing facilities and infrastructure, and funding availability. The CIP outlines plans for capital projects, major maintenance, refurbishments, and substantial equipment purchases. Every year, the City undertakes multiple CIP projects involving work on City properties, within City rights-of-way, and within public easements. This PEIR will continue to apply to future CIP projects, beyond the current 10 year CIP program, to the extent proposed projects are deemed consistent with the types of projects evaluated herein, that environmental conditions established in this PEIR have not changed substantially, and that the mitigation requirements in this PEIR are still deemed applicable and effective.

Currently, the City has no programmatic approach to completing environmental review pursuant to CEQA for its CIP projects, and therefore, must undergo environmental review on a project-by-project basis. Timely implementation of the CIP projects is necessary to ensure continued public health, safety, and welfare for the City's residents and visitors. This PEIR will help streamline the implementation of current and future CIP projects to ensure continued public health, safety, and welfare for the City's residents, businesses, and visitors by establishing a clear procedural framework for CEQA compliance on a wide array of CIP project types.

### CIP Projects List

On an ongoing basis, the City maintains a 10-year CIP program that includes a comprehensive list of CIP facility and infrastructure needs that are anticipated to be completed by the City over the next 10 years. Each year, the City Council adopts a two-year budget that allocates budget for specific projects from the CIP project list. The proposed activities included as part of the CIP analyzed in this PEIR are included in the City Council-approved City Work Plan for FY 2025-26 through FY 2026-27, which includes a list of the CIP projects the City intends to process during the next two fiscal years.

### Proposed Project Activities

The PEIR will apply to the CIP projects listed in the approved City Work Plan for FY 2025-26 through FY 2026-27, as well as future CIP projects not included on the current CIP list to the extent that individual future projects are reviewed and considered as follows:

- The project is deemed consistent with the types of projects evaluated herein;
- The environmental conditions analyzed in this PEIR have not changed substantially; and
- The PEIR mitigation requirements identified are still deemed applicable and effective.

The proposed project components analyzed in the PEIR include the typical construction and operation protocols for various types of individual CIP projects. The CIP projects covered under the PEIR have been

divided into seven categories. A general overview of the types of proposed activities and individual CIP projects for each of these categories is provided below.

***Undergrounding Program***

The City's Undergrounding Program focuses on removing unsightly utility poles and replacing overhead cable lines for electricity and telecommunications with undergrounded lines. In addition to improving views by removal of the utility poles and overhead lines, the Undergrounding Program reduces fire hazards and other safety risks caused by downed lines and increases the reliability of utility systems. The Underground Program is identified as a community priority that is consistent with the goals and policies included throughout the Del Mar Community Plan.

Construction activities involve trenching, installation of utility lines and conduit in the trenches, backfilling trenches, resurfacing pavement and replacement of vegetation that is disturbed during construction, installation of utility structures, and the removal of utility poles and associated equipment. Other construction activities may include retaining walls to support the installation of above ground utility structures. The majority of construction activities would occur within public rights-of-way within or along existing roadways. Installation of underground utility lines would also occur outside public rights-of-way at locations where overhead services currently exist in order to maintain service connections to existing residences and businesses. Construction activities associated with utility undergrounding would occur at an average rate of approximately 100 linear feet (LF) per day, with a maximum rate per day of 400 LF. The maximum length of individual CIP utility undergrounding projects would be up to 32,000 LF, but would have an average length of approximately 15,000 LF. Average trench widths for these projects would be approximately 2 feet, with a maximum trench width of approximately 3 feet. Average trench depth would be approximately 3 feet, and maximum trench depth would be no greater than 10 feet.

***Water***

The CIP includes water infrastructure improvement projects to continue to provide a reliable water supply to support the health and quality of life of the City's residents, businesses, and visitors. The City's water facilities are also essential for safety via fire protection services. The proposed water infrastructure improvements in the CIP are consistent with the goals and policies in the Environmental Management and Transportation sections of the Del Mar Community Plan.

Construction related to improvements, repairs, and rehabilitation of existing or future potable and recycled water pipelines, valves, pressure reducing stations, pressure relief stations, water pumping stations, water meters, backflow preventers, and fire hydrants would generally include trenching, backfilling, and resurfacing activities. In-situ pipeline repairs and interior lining would not require excavation. The majority of such construction activities would occur within public rights-of-way within or along existing roadways. Construction activities associated with water pipelines would occur at an average rate of approximately 200 LF per day, with a maximum rate per day of 400 LF. The maximum length of individual CIP water infrastructure projects would be up to 5,000 LF, but would have an average length of approximately 1,000 LF. Average trench widths for these projects would be approximately 2.5 feet, with a maximum trench width of approximately 4.5 feet. Average trench depth would be approximately 4 feet, and maximum trench depth would be no greater than 10 feet. Construction related to water reservoir improvements and rehabilitation would generally include mechanical and electrical improvements.

***Wastewater***

The CIP includes wastewater (sewer) infrastructure improvement projects to address maintenance needs for the City's wastewater system, including repair needs for failing pipelines. The proposed wastewater improvements in the CIP are consistent with the goals and policies in the Environmental Management and Transportation sections of the Del Mar Community Plan.

Construction related to improvements, repairs, and rehabilitation of existing or future sewer gravity and force main pipelines, pump stations, manholes, and cleanouts would generally include trenching, backfilling, and resurfacing activities. The majority of such construction activities would occur within public rights-of-way within or along existing roadways. Construction activities associated with sewer pipelines would occur at an average rate of approximately 200 LF per day, with a maximum rate per day of 400 LF, similar to water pipelines. The maximum length of individual CIP wastewater infrastructure projects would be up to 6,000 LF, but would have an average length of approximately 1,250 LF. Average trench widths for these projects would be approximately 2.5 feet, with a maximum trench width of approximately 3.5 feet. Average trench depth would be approximately 8 feet, and maximum trench depth would be no greater than 15 feet. Construction related to sewer pump station improvements and rehabilitation would generally include mechanical and electrical improvements.

***Storm Water***

The CIP includes storm water infrastructure improvement projects to address maintenance needs for the City's wastewater system. These projects would address a combination of short-term and long-term storm water infrastructure needs and include emergency repair projects and improvement projects relating to storm drains and storm water permit compliance needs. The City Public Works Department, in consultation with the Clean Water Program consultant, identify various storm water improvements as needed to comply with applicable federal and State laws relating to water quality. The proposed storm water improvements in the CIP are consistent with the goals and policies in the Environmental Management and Transportation sections of the Community Plan.

Construction related to improvements, repairs, and rehabilitation of existing or future storm water pipelines/culverts, manholes, cleanouts, inlets, outlets, catch basins, headwalls, open channel, cobble/hardscape open swales, infiltration pits, and low flow diverters would generally include trenching, excavation, backfilling, and resurfacing activities. The majority of such construction activities would occur within public rights-of-way within or along existing roadways. Construction activities associated with storm water pipelines and culverts would occur at an average rate of approximately 50 LF per day, with a maximum rate per day of 100 LF. The maximum length of individual CIP storm water infrastructure projects would be up to 1,000 LF, but would have an average length of approximately 200 LF. Average trench widths for these projects would be approximately 3 feet, with a maximum trench width of approximately 4 feet. Average trench depth would be approximately 3 feet, and maximum trench depth would be no greater than 10 feet.

***Streets***

The CIP includes streets infrastructure improvement projects to address maintenance needs for the City's existing and future roadways. Improvements would generally include annual pavement rehabilitation and Americans with Disabilities Act (ADA) upgrades. The proposed street improvements in the CIP are consistent with the goals and policies in the Environmental Management and Transportation sections of the Del Mar Community Plan.

Construction related to improvements, repairs, and rehabilitation of existing or future public roadways, including pavement, concrete curb and gutter, sidewalks, and ADA curb ramps, would generally include excavation, backfill, and resurfacing activities. The majority of such construction activities would occur within public rights-of-way within or along existing roadways. Construction activities associated with roadway construction/improvements would occur at an average rate of approximately 500 LF per day, with a maximum rate per day of 2,000 LF. The maximum length of individual CIP roadway projects would be up to 7,500 LF, but would have an average length of approximately 2,500 LF. Additionally, construction activities associated with curb and gutter construction/improvements would occur at an average rate of approximately 250 LF per day, with a maximum rate per day of 500 LF. The maximum length of individual CIP curb and gutter projects would be up to 3,000 LF, but would have an average length of approximately

500 LF. Construction related to installation of retaining walls in slopes would generally include excavation, backfill, and installation of irrigation and landscaping.

***Facilities***

The CIP includes facilities projects to address maintenance needs for the City's existing public facilities. The projects relate to various short-term and long-term facility needs related to public safety operations. The proposed CIP facility improvements are consistent with the goals and policies of the Environmental Management and Community Development sections of the Del Mar Community Plan.

Construction related to improvements and repairs of existing public facilities would generally include minor exterior façade repairs such as painting and minor interior improvements such as painting; new carpeting; replacement of/repairs to plumbing, electrical, and heating, ventilation, and air conditioning (HVAC) units; security/fire system repairs; and roof repairs. Additionally, CIP facilities projects would include the installation of hardscape features (e.g., benches, drinking fountains, streetlights, traffic lights, etc.) on City property and public rights-of-way. Construction activities associated with the relocation of the fire station and the Public Works building from the floodway may include reconstruction of the buildings to minimize potential impacts associated with flooding. This would be accomplished by either: (1) reconstruction at the existing location through recontouring of the project site or by other means to elevate the new building foundations above the flood elevation; and/or (2) reconstruction at a new location outside the flood zone.

***Open Space***

The CIP includes open space projects to address maintenance needs for the City's existing and future open space amenities, including City parks, trail connections, the beach, and lifeguard facilities. The proposed improvements are consistent with the goals and policies relating to parks, recreation, environmental management, and public safety with the Environmental Management section of the Del Mar Community Plan.

Construction related to improvements and repairs of existing and future public open space facilities would generally include excavation, backfill, and resurfacing activities and the installation of irrigation and landscaping for outdoor improvements. Minor exterior façade repairs associated with lifeguard building improvements would generally include painting, and minor interior improvements would generally include painting; new carpeting; replacement of/repairs to plumbing, electrical, and HVAC units; security/fire system repairs; and roof repairs. The majority of such construction activities would occur on City property or within public rights-of-way within or along existing roadways.

### A. Required Approvals

The City of Del Mar is the lead agency for the project, as it is the agency with primary authority over the proposed CIP's discretionary approvals. As the lead agency, the City will be responsible for certification of the Final PEIR, as well as adoption of the associated Mitigation Monitoring and Reporting Program.

## Environmental Issues to be Evaluated in the PEIR

The proposed project is subject to environmental review under CEQA. Pursuant to CEQA Guidelines Section 15063(a), if a lead agency determines that an EIR will clearly be required for a project, an Initial Study is not required. In this case, the City has already determined that a PEIR will need to be prepared for the project to comply with CEQA. Therefore, a PEIR will be prepared to fully evaluate the potential environmental impacts associated with the proposed project. The PEIR will consider the full range of environmental topics contemplated under CEQA and the CEQA Guidelines. The following environmental issue areas are anticipated to require detailed analysis in the PEIR:

- Air Quality
- Biological Resources
- Cultural Resources
- Geology and Soils

- Greenhouse Gas Emissions
- Noise and Vibration
- Tribal Cultural Resources

The PEIR will address the short-term and long-term effects of the proposed project on the environment. It will also evaluate the potential for the proposed project to cause direct and indirect growth-inducing impacts, as well as cumulative impacts. Alternatives to the proposed project will be evaluated that may reduce impacts that are determined to be significant in the PEIR. Mitigation may be proposed for those impacts that are determined to be significant. A Mitigation Monitoring and Reporting Program (MMRP) will also be developed as required by CEQA Guidelines Section 15097.

This NOP is subject to a 30-day public review period pursuant to Public Resources Code Section 21080.4 and CEQA Guidelines Section 15082. Public agencies, interested organizations, and individuals have the opportunity to comment on the proposed project and the scope of the PEIR, including the identified environmental topics to be analyzed in detail.

## Public Review Period

CEQA requires a 30-day public review period for an NOP. In accordance with CEQA, should you have any comments, please provide a written response to this NOP within the 30-day public scoping period for the PEIR.

**Public Review Period: November 13, 2025 to December 15, 2025**

The City is requesting comments and guidance on the scope and content of the PEIR from Responsible and Trustee agencies, interested public agencies, organizations, and the general public (pursuant to CEQA Guidelines Section 15082). All parties that have submitted their names and mailing addresses will be notified as part of the project's CEQA review process. If you wish to be placed on the mailing list or have any questions or need additional information, please contact the lead agency contact noted below.

**Public Agencies**

The City requests each Responsible and Trustee agency's views on the scope and content of environmental issues relevant to your agency's statutory responsibilities in connection with the proposed Project, in a manner consistent with California Code of Regulations, Title 14, Section 15082(b). Your agency may use the Program EIR prepared by the City when considering any permits that your agency must issue, or other approvals for the project.

## Public Comments

The City requests your careful review and consideration of this notice, and invites ***written comments*** from interested agencies, persons, and organizations regarding the preparation of the PEIR. Please send your written comments to:

City of Del Mar
Planning and Community Development Department
Attn: Jennifer Gavin, Associate Planner
1050 Camino del Mar
Del Mar, CA 92014
Fax: (858) 755-2794
Email: jgavin@delmar.ca.us
Phone: (858) 793-6148

Please include the name, phone number, email, and address of a contact person in your response. Comments in response to this NOP must be submitted to the City by close of business **(5:30 p.m.) on Monday, December 15, 2025.**

## Public Scoping Meeting

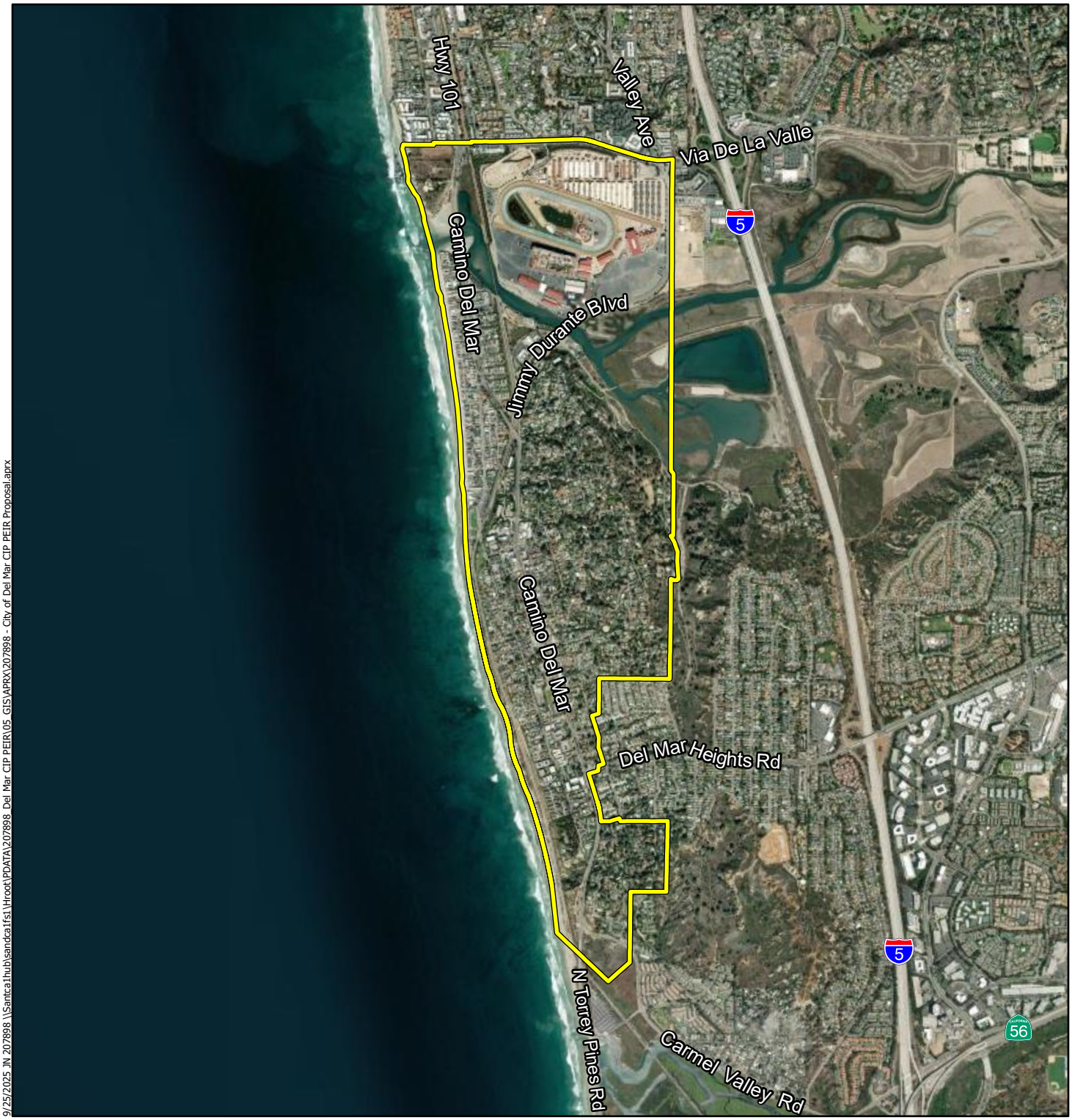
Pursuant to CEQA Guidelines Section 15082(c), a scoping meeting is not required except for projects of statewide, regional, or areawide significance, or projects that may affect highways or other facilities under the jurisdiction of the California Department of Transportation. The City has determined that the proposed project does not meet the criteria of statewide, regional, or areawide significance, pursuant to CEQA Guidelines Section 15206. Additionally, the project does not involve impacts to highways or other California Department of Transportation facilities. Accordingly, the City will not be hosting a public scoping meeting for the PEIR.

### Public Agencies

If your public agency is interested in a scoping meeting presentation and discussion, please contact Jennifer Gavin, Associate Planner, to set up a time.

**Attachments:**

Figure 1 – Program Vicinity Map




9/25/2025 JN 207898 \\Santca1hub\sandca1fs1\Hroot\PDATA\207898 Del Mar CIP PEIR\05 GIS\APRX\207898 - City of Del Mar CIP PEIR Proposal.aprx

**Legend**

Project Site

CITY OF DEL MAR CAPITAL IMPROVEMENT PROGRAM PEIR
NOTICE OF PREPARATION

# Program Vicinity Map

Michael Baker INTERNATIONAL

0 0.25 0.5 Miles

Source: Esri, ArcGIS Online, City of Del Mar, San Diego County

Figure 1

**California Department of Transportation**

DISTRICT 11
4050 TAYLOR STREET, MS-240
SAN DIEGO, CA 92110
(619) 985-1587 | FAX (619) 688-4299 TTY 711
www.dot.ca.gov

December 11, 2025

11-SD-5, 56
PM VAR
City of Del Mar Capital Improvement Program (CIP) EIR
NOP/SCH#2025110661

Ms. Jennifer Gavin
Associate Planner
City of Del Mar
1050 Camino Del Mar
Del Mar, CA, 92014

Dear Ms. Gavin:

Thank you for including the California Department of Transportation (Caltrans) in the environmental review process for the Notice of Preparation (NOP) for the City of Del Mar Capital Improvement Program (CIP) located near Interstate 5 & State Route 56 (I-5, SR-56). The mission of Caltrans is to provide a safe and reliable transportation network that serves all people and respects the environment. The Local Development Review (LDR) Program reviews land use projects and plans to ensure consistency with our mission and state planning priorities.

Safety is one of Caltrans' strategic goals. Caltrans strives to make the year 2050 the first year without a single death or serious injury on California's roads. We are striving for more equitable outcomes for the transportation network's diverse users. To achieve these ambitious goals, we will pursue meaningful collaboration with our partners. We encourage the implementation of new technologies, innovations, and best practices that will enhance the safety on the transportation network. These pursuits are both ambitious and urgent, and their accomplishment involves a focused departure from the status quo as we continue to institutionalize safety in all our work.

Caltrans is committed to prioritizing projects that are equitable and provide meaningful benefits to historically underserved communities, to ultimately improve transportation accessibility and quality of life for people in the communities we serve.

We look forward to working with the City of Del Mar in areas where the City and Caltrans have joint jurisdiction to improve the transportation network and connections

between various modes of travel, with the goal of improving the experience of those who use the transportation system.

Caltrans has the following comments:

**Traffic Impact Study**

- A Vehicle Miles of Travel (VMT) based Traffic Impact Study (TIS) should be provided for this project. Please use the Governor's Office of Planning and Research Guidance to identify VMT related impacts.[1]

- The TIS may also need to identify the proposed project's near-term and long-term safety or operational issues, on or adjacent any existing or proposed State facilities.

- For the Draft Environmental Impact Report please reference the Caltrans "Local Development Review (LDR) Safety Review Practitioner's Guidance" https://dot.ca.gov/-/media/dot-media/programs/safety-programs/documents/202402-ldr-safety-review-practitioners-guidance-a11y.pdf to determine if the project meets both of the screening criteria. If both screening criteria are not met, then a safety review will be needed.

**Complete Streets and Mobility Network**

Caltrans views all transportation improvements as opportunities to improve safety, access and mobility for all travelers in California and recognizes bicycle, pedestrian and transit modes as integral elements of the transportation network. Caltrans supports improved transit accommodation through the provision of Park and Ride facilities, improved bicycle and pedestrian access and safety improvements, signal prioritization for transit, bus on shoulders, ramp improvements, or other enhancements that promotes a complete and integrated transportation network. Early coordination with Caltrans, in locations that may affect both Caltrans and the City of Del Mar, is encouraged.

To reduce greenhouse gas emissions and achieve California's Climate Change target, Caltrans is implementing Complete Streets and Climate Change policies into State Highway Operations and Protection Program (SHOPP) projects to meet multi-modal mobility needs. Caltrans looks forward to working with the City to evaluate potential Complete Streets projects.

[1] California Governor's Office of Planning and Research (OPR) 2018. "Technical Advisory on Evaluating Transportation Impacts in CEQA." https://opr.ca.gov/docs/20190122-743_Technical_Advisory.pdf

Bicycle, pedestrian, and public transit access during construction is important. Mitigation to maintain bicycle, pedestrian, and public transit access during construction is in accordance with Caltrans' goals and policies.

**Land Use and Smart Growth**

Caltrans recognizes there is a strong link between transportation and land use. Development can have a significant impact on traffic and congestion on State transportation facilities. In particular, the pattern of land use can affect both local vehicle miles traveled and the number of trips. Caltrans supports collaboration with local agencies to work towards a safe, functional, interconnected, multi-modal transportation network integrated through applicable "smart growth" type land use planning and policies.

The City should continue to coordinate with Caltrans to implement necessary improvements at intersections and interchanges where the agencies have joint jurisdiction.

**Environmental**

Caltrans welcomes the opportunity to be a Responsible Agency under the California Environmental Quality Act (CEQA), as we have some discretionary authority of a portion of the project that is in Caltrans' Right-of-Way (R/W) through the form of an encroachment permit process. We look forward to the coordination of our efforts to ensure that Caltrans can adopt the alternative and/or mitigation measure for our R/W. We would appreciate meeting with you to discuss the elements of the Environmental Document that Caltrans will use for our subsequent environmental compliance.

An encroachment permit will be required for any work within the Caltrans' R/W prior to construction. As part of the encroachment permit process, the applicant must provide approved final environmental documents for this project, corresponding technical studies, and necessary regulatory and resource agency permits. Specifically, CEQA determination or exemption. The supporting documents must address all environmental impacts within the Caltrans' R/W and address any impacts from avoidance and/or mitigation measures.

We recommend that this project specifically identifies and assesses potential impacts caused by the project or impacts from mitigation efforts that occur within Caltrans' R/W that includes impacts to the natural environment, infrastructure including but not limited to highways, roadways, structures, intelligent transportation systems elements, on-ramps and off-ramps, and appurtenant features including but not limited to

fencing, lighting, signage, drainage, guardrail, slopes and landscaping. Caltrans is interested in any additional mitigation measures identified for the project's draft Environmental Document.

**Sustainability**

Caltrans recommends collaboration between our agency and the City of Del Mar on the proposed transportation related topics including adaptation strategies to help improve the City's resilience to potential climate change impacts and strategies to reduce vehicle miles traveled (VMT), and off-road and on-road greenhouse gas (GHG) emissions.

Caltrans recognizes that transportation is a leading contributor to GHG emissions in the region and is dedicated to reducing and mitigating transportation related emissions. We recommend collaborating with Caltrans on the following measures such as increasing the use of zero emission vehicles, installing electric vehicle (EV) charging stations, identifying R/W areas to be used for carbon sequestration, and complete streets.

The existing climate hazards discussed in this document will have an impact of the transportation system. We recommend working with Caltrans on determining the preventative strategies the Caltrans can take to keep roadways operational and ensure their longevity against climate stressors such as increased temperatures, changes in precipitation patterns, wildfire, and flooding. Caltrans recognizes the central role that transportation planning plays in safety and ensuring that when these natural hazards do occur, citizens have a reliable evacuation route.

**Right-of-Way**

Per Business and Profession Code 8771, perpetuation of survey monuments by a licensed land surveyor is required, if they are being destroyed by any construction.

Any work performed within Caltrans' R/W will require discretionary review and approval by Caltrans and an encroachment permit will be required for any work within the Caltrans' R/W prior to construction.

Additional information regarding encroachment permits may be obtained by visiting the website at https://dot.ca.gov/programs/traffic-operations/ep. Projects with the following:

- require a Caltrans Encroachment Permit
- have completed the Caltrans Local Development Review (LDR) process

- have an approved environmental document

need to have documents submitted for Quality Management Assessment Process (QMAP) process via email to D11.QMAP.Permits@dot.ca.gov. Early coordination with Caltrans is strongly advised for all encroachment permits.

If you have any questions or concerns, please contact Shannon Aston, LDR Coordinator, at (619) 992-0628 or by e-mail sent to shannon.aston@dot.ca.gov.

Sincerely,

*Kimberly D. Dodson*

KIMBERLY D. DODSON, GISP
Branch Chief
Local Development Review

# NATIVE AMERICAN HERITAGE COMMISSION

CHAIRPERSON
**Reginald Pagaling**
*Chumash*

VICE-CHAIRPERSON
**Buffy McQuillen**
*Yokayo Pomo, Yuki, Nomlaki*

SECRETARY
**Isaac Bojorquez**
*Ohlone-Costanoan*

PARLIAMENTARIAN
**Wayne Nelson**
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COMMISSIONER
**Sara Dutschke**
*Miwok*

COMMISSIONER
**Stanley Rodriguez**
*Kumeyaay*

COMMISSIONER
**Bennae Calac**
*Pauma-Yuima Band of Luiseño Indians*

COMMISSIONER
**Vacant**

COMMISSIONER
**Vacant**

EXECUTIVE SECRETARY
**Andrew Alejandre**
*Paskenta Band of Nomlaki Indians*

**NAHC HEADQUARTERS**
1550 Harbor Boulevard
Suite 100
West Sacramento,
California 95691
(916) 373-3710
nahc@nahc.ca.gov

November 18, 2025

Jennifer Gavin
City of Del Mar
1050 Camino del Mar
Del Mar CA 92014

**Re: 2025110661 City of Del Mar Capital Improvement Program (CIP) PEIR Project, San Diego County**

Dear Ms. Gavin:

The Native American Heritage Commission (NAHC) has received the Notice of Preparation (NOP), Draft Environmental Impact Report (DEIR) or Early Consultation for the project referenced above. The California Environmental Quality Act (CEQA) (Pub. Resources Code §21000 et seq.), specifically Public Resources Code §21084.1, states that a project that may cause a substantial adverse change in the significance of a historical resource, is a project that may have a significant effect on the environment. (Pub. Resources Code § 21084.1; Cal. Code Regs., tit.14, §15064.5 (b) (CEQA Guidelines §15064.5 (b)). If there is substantial evidence, in light of the whole record before a lead agency, that a project may have a significant effect on the environment, an Environmental Impact Report (EIR) shall be prepared. (Pub. Resources Code §21080 (d); Cal. Code Regs., tit. 14, § 5064 subd.(a)(1) (CEQA Guidelines §15064 (a)(1)). In order to determine whether a project will cause a substantial adverse change in the significance of a historical resource, a lead agency will need to determine whether there are historical resources within the area of potential effect (APE).

CEQA was amended significantly in 2014. Assembly Bill 52 (Gatto, Chapter 532, Statutes of 2014) (AB 52) amended CEQA to create a separate category of cultural resources, "tribal cultural resources" (Pub. Resources Code §21074) and provides that a project with an effect that may cause a substantial adverse change in the significance of a tribal cultural resource is a project that may have a significant effect on the environment. (Pub. Resources Code §21084.2). Public agencies shall, when feasible, avoid damaging effects to any tribal cultural resource. (Pub. Resources Code §21084.3 (a)). **AB 52 applies to any project for which a notice of preparation, a notice of negative declaration, or a mitigated negative declaration is filed on or after July 1, 2015.** If your project involves the adoption of or amendment to a general plan or a specific plan, or the designation or proposed designation of open space, on or after March 1, 2005, it may also be subject to Senate Bill 18 (Burton, Chapter 905, Statutes of 2004) (SB 18). **Both SB 18 and AB 52 have tribal consultation requirements**. If your project is also subject to the federal National Environmental Policy Act (42 U.S.C. § 4321 et seq.) (NEPA), the tribal consultation requirements of Section 106 of the National Historic Preservation Act of 1966 (154 U.S.C. 300101, 36 C.F.R. §800 et seq.) may also apply.

The NAHC recommends consultation with California Native American tribes that are traditionally and culturally affiliated with the geographic area of your proposed project as early as possible in order to avoid inadvertent discoveries of Native American human remains and best protect tribal cultural resources. Below is a brief summary of portions of AB 52 and SB 18 as well as the NAHC's recommendations for conducting cultural resources assessments.

**Consult your legal counsel about compliance with AB 52 and SB 18 as well as compliance with any other applicable laws**.

AB 52

AB 52 has added to CEQA the additional requirements listed below, along with many other requirements:

**1.** Fourteen Day Period to Provide Notice of Completion of an Application/Decision to Undertake a Project: Within fourteen (14) days of determining that an application for a project is complete or of a decision by a public agency to undertake a project, a lead agency shall provide formal notification to a designated contact of, or tribal representative of, traditionally and culturally affiliated California Native American tribes that have requested notice, to be accomplished by at least one written notice that includes:

- **a.** A brief description of the project.
- **b.** The lead agency contact information.
- **c.** Notification that the California Native American tribe has 30 days to request consultation. (Pub. Resources Code §21080.3.1 (d)).
- **d.** A "California Native American tribe" is defined as a Native American tribe located in California that is on the contact list maintained by the NAHC for the purposes of Chapter 905 of Statutes of 2004 (SB 18). (Pub. Resources Code §21073).

**2.** Begin Consultation Within 30 Days of Receiving a Tribe's Request for Consultation and Before Releasing a Negative Declaration, Mitigated Negative Declaration, or Environmental Impact Report: A lead agency shall begin the consultation process within 30 days of receiving a request for consultation from a California Native American tribe that is traditionally and culturally affiliated with the geographic area of the proposed project. (Pub. Resources Code §21080.3.1, subds. (d) and (e)) and prior to the release of a negative declaration, mitigated negative declaration or Environmental Impact Report. (Pub. Resources Code §21080.3.1(b)).

- **a.** For purposes of AB 52, "consultation shall have the same meaning as provided in Gov. Code §65352.4 (SB 18). (Pub. Resources Code §21080.3.1 (b)).

**3.** Mandatory Topics of Consultation If Requested by a Tribe: The following topics of consultation, if a tribe requests to discuss them, are mandatory topics of consultation:

- **a.** Alternatives to the project.
- **b.** Recommended mitigation measures.
- **c.** Significant effects. (Pub. Resources Code §21080.3.2 (a)).

**4.** Discretionary Topics of Consultation: The following topics are discretionary topics of consultation:

- **a.** Type of environmental review necessary.
- **b.** Significance of the tribal cultural resources.
- **c.** Significance of the project's impacts on tribal cultural resources.
- **d.** If necessary, project alternatives or appropriate measures for preservation or mitigation that the tribe may recommend to the lead agency. (Pub. Resources Code §21080.3.2 (a)).

**5.** Confidentiality of Information Submitted by a Tribe During the Environmental Review Process: With some exceptions, any information, including but not limited to, the location, description, and use of tribal cultural resources submitted by a California Native American tribe during the environmental review process shall not be included in the environmental document or otherwise disclosed by the lead agency or any other public agency to the public, consistent with Government Code §6254 (r) and §6254.10. Any information submitted by a California Native American tribe during the consultation or environmental review process shall be published in a confidential appendix to the environmental document unless the tribe that provided the information consents, in writing, to the disclosure of some or all of the information to the public. (Pub. Resources Code §21082.3 (c)(1)).

**6.** Discussion of Impacts to Tribal Cultural Resources in the Environmental Document: If a project may have a significant impact on a tribal cultural resource, the lead agency's environmental document shall discuss both of the following:

- **a.** Whether the proposed project has a significant impact on an identified tribal cultural resource.
- **b.** Whether feasible alternatives or mitigation measures, including those measures that may be agreed to pursuant to Public Resources Code §21082.3, subdivision (a), avoid or substantially lessen the impact on the identified tribal cultural resource. (Pub. Resources Code §21082.3 (b)).

**7.** Conclusion of Consultation: Consultation with a tribe shall be considered concluded when either of the following occurs:

**a.** The parties agree to measures to mitigate or avoid a significant effect, if a significant effect exists, on a tribal cultural resource; or

**b.** A party, acting in good faith and after reasonable effort, concludes that mutual agreement cannot be reached. (Pub. Resources Code §21080.3.2 (b)).

**8.** Recommending Mitigation Measures Agreed Upon in Consultation in the Environmental Document: Any mitigation measures agreed upon in the consultation conducted pursuant to Public Resources Code §21080.3.2 shall be recommended for inclusion in the environmental document and in an adopted mitigation monitoring and reporting program, if determined to avoid or lessen the impact pursuant to Public Resources Code §21082.3, subdivision (b), paragraph 2, and shall be fully enforceable. (Pub. Resources Code §21082.3 (a)).

**9.** Required Consideration of Feasible Mitigation: If mitigation measures recommended by the staff of the lead agency as a result of the consultation process are not included in the environmental document or if there are no agreed upon mitigation measures at the conclusion of consultation, or if consultation does not occur, and if substantial evidence demonstrates that a project will cause a significant effect to a tribal cultural resource, the lead agency shall consider feasible mitigation pursuant to Public Resources Code §21084.3 (b). (Pub. Resources Code §21082.3 (e)).

**10.** Examples of Mitigation Measures That, If Feasible, May Be Considered to Avoid or Minimize Significant Adverse Impacts to Tribal Cultural Resources:

**a.** Avoidance and preservation of the resources in place, including, but not limited to:

**i.** Planning and construction to avoid the resources and protect the cultural and natural context.

**ii.** Planning greenspace, parks, or other open space, to incorporate the resources with culturally appropriate protection and management criteria.

**b.** Treating the resource with culturally appropriate dignity, taking into account the tribal cultural values and meaning of the resource, including, but not limited to, the following:

**i.** Protecting the cultural character and integrity of the resource.

**ii.** Protecting the traditional use of the resource.

**iii.** Protecting the confidentiality of the resource.

**c.** Permanent conservation easements or other interests in real property, with culturally appropriate management criteria for the purposes of preserving or utilizing the resources or places.

**d.** Protecting the resource. (Pub. Resource Code §21084.3 (b)).

**e.** Please note that a federally recognized California Native American tribe or a non-federally recognized California Native American tribe that is on the contact list maintained by the NAHC to protect a California prehistoric, archaeological, cultural, spiritual, or ceremonial place may acquire and hold conservation easements if the conservation easement is voluntarily conveyed. (Civ. Code §815.3 (c)).

**f.** Please note that it is the policy of the state that Native American remains and associated grave artifacts shall be repatriated. (Pub. Resources Code §5097.991).

**11.** Prerequisites for Certifying an Environmental Impact Report or Adopting a Mitigated Negative Declaration or Negative Declaration with a Significant Impact on an Identified Tribal Cultural Resource: An Environmental Impact Report may not be certified, nor may a mitigated negative declaration or a negative declaration be adopted unless one of the following occurs:

**a.** The consultation process between the tribes and the lead agency has occurred as provided in Public Resources Code §21080.3.1 and §21080.3.2 and concluded pursuant to Public Resources Code §21080.3.2.

**b.** The tribe that requested consultation failed to provide comments to the lead agency or otherwise failed to engage in the consultation process.

**c.** The lead agency provided notice of the project to the tribe in compliance with Public Resources Code §21080.3.1 (d) and the tribe failed to request consultation within 30 days. (Pub. Resources Code §21082.3 (d)).

The NAHC's PowerPoint presentation titled, "Tribal Consultation Under AB 52: Requirements and Best Practices" may be found online at: http://nahc.ca.gov/wp-content/uploads/2015/10/AB52TribalConsultation_CalEPAPDF.pdf

SB 18

SB 18 applies to local governments and requires local governments to contact, provide notice to, refer plans to, and consult with tribes prior to the adoption or amendment of a general plan or a specific plan, or the designation of open space. (Gov. Code §65352.3). Local governments should consult the Governor's Office of Planning and Research's "Tribal Consultation Guidelines," which can be found online at: https://www.opr.ca.gov/docs/09_14_05_Updated_Guidelines_922.pdf.

Some of SB 18's provisions include:

**1.** Tribal Consultation: If a local government considers a proposal to adopt or amend a general plan or a specific plan, or to designate open space it is required to contact the appropriate tribes identified by the NAHC by requesting a "Tribal Consultation List." If a tribe, once contacted, requests consultation the local government must consult with the tribe on the plan proposal. **A tribe has 90 days from the date of receipt of notification to request consultation unless a shorter timeframe has been agreed to by the tribe.** (Gov. Code §65352.3 (a)(2)).

**2.** No Statutory Time Limit on SB 18 Tribal Consultation. There is no statutory time limit on SB 18 tribal consultation.

**3.** Confidentiality: Consistent with the guidelines developed and adopted by the Office of Planning and Research pursuant to Gov. Code §65040.2, the city or county shall protect the confidentiality of the information concerning the specific identity, location, character, and use of places, features and objects described in Public Resources Code §5097.9 and §5097.993 that are within the city's or county's jurisdiction. (Gov. Code §65352.3 (b)).

**4.** Conclusion of SB 18 Tribal Consultation: Consultation should be concluded at the point in which:

- **a.** The parties to the consultation come to a mutual agreement concerning the appropriate measures for preservation or mitigation; or
- **b.** Either the local government or the tribe, acting in good faith and after reasonable effort, concludes that mutual agreement cannot be reached concerning the appropriate measures of preservation or mitigation. (Tribal Consultation Guidelines, Governor's Office of Planning and Research (2005) at p. 18).

Agencies should be aware that neither AB 52 nor SB 18 precludes agencies from initiating tribal consultation with tribes that are traditionally and culturally affiliated with their jurisdictions before the timeframes provided in AB 52 and SB 18. For that reason, we urge you to continue to request Native American Tribal Contact Lists and "Sacred Lands File" searches from the NAHC. The request forms can be found online at: http://nahc.ca.gov/resources/forms/.

NAHC Recommendations for Cultural Resources Assessments

To adequately assess the existence and significance of tribal cultural resources and plan for avoidance, preservation in place, or barring both, mitigation of project-related impacts to tribal cultural resources, the NAHC recommends the following actions:

**1.** Contact the appropriate regional California Historical Research Information System (CHRIS) Center (https://ohp.parks.ca.gov/?page_id=30331) for an archaeological records search. The records search will determine:

- **a.** If part or all of the APE has been previously surveyed for cultural resources.
- **b.** If any known cultural resources have already been recorded on or adjacent to the APE.
- **c.** If the probability is low, moderate, or high that cultural resources are located in the APE.
- **d.** If a survey is required to determine whether previously unrecorded cultural resources are present.

**2.** If an archaeological inventory survey is required, the final stage is the preparation of a professional report detailing the findings and recommendations of the records search and field survey.

- **a.** The final report containing site forms, site significance, and mitigation measures should be submitted immediately to the planning department. All information regarding site locations, Native American human remains, and associated funerary objects should be in a separate confidential addendum and not be made available for public disclosure.
- **b.** The final written report should be submitted within 3 months after work has been completed to the appropriate regional CHRIS center.

**3.** Contact the NAHC for:

**a.** A Sacred Lands File search. Remember that tribes do not always record their sacred sites in the Sacred Lands File, nor are they required to do so. A Sacred Lands File search is not a substitute for consultation with tribes that are traditionally and culturally affiliated with the geographic area of the project's APE.

**b.** A Native American Tribal Consultation List of appropriate tribes for consultation concerning the project site and to assist in planning for avoidance, preservation in place, or, failing both, mitigation measures.

**4.** Remember that the lack of surface evidence of archaeological resources (including tribal cultural resources) does not preclude their subsurface existence.

**a.** Lead agencies should include in their mitigation and monitoring reporting program plan provisions for the identification and evaluation of inadvertently discovered archaeological resources per Cal. Code Regs., tit. 14, §15064.5(f) (CEQA Guidelines §15064.5(f)). In areas of identified archaeological sensitivity, a certified archaeologist and a culturally affiliated Native American with knowledge of cultural resources should monitor all ground-disturbing activities.

**b.** Lead agencies should include in their mitigation and monitoring reporting program plans provisions for the disposition of recovered cultural items that are not burial associated in consultation with culturally affiliated Native Americans.

**c.** Lead agencies should include in their mitigation and monitoring reporting program plans provisions for the treatment and disposition of inadvertently discovered Native American human remains. Health and Safety Code §7050.5, Public Resources Code §5097.98, and Cal. Code Regs., tit. 14, §15064.5, subdivisions (d) and (e) (CEQA Guidelines §15064.5, subds. (d) and (e)) address the processes to be followed in the event of an inadvertent discovery of any Native American human remains and associated grave goods in a location other than a dedicated cemetery.

If you have any questions or need additional information, please contact me at my email address: Andrew.Green @NAHC.ca.gov.

Sincerely,

Andrew Green

Andrew Green
Cultural Resources Analyst

cc: State Clearinghouse

**CITY OF SOLANA BEACH** www.cityofsolanabeach.org
**635 SOUTH HIGHWAY 101 • SOLANA BEACH, CA 92075 • (858) 720-2400 • Fax (858) 720-2455**

December 15, 2025

City of Del Mar
Planning and Community Development Department
Attn: Jennifer Gavin, Associate Planner
1050 Camino Del Mar
Del Mar, CA 92014

**RE: City of Del Mar Notice of Preparation of a Draft PEIR for the City of Del Mar Capital Improvement Program**

Dear Ms. Gavin:

The City of Solana Beach (City) received Del Mar's Notice of Preparation (NOP) of a Draft Environmental Impact Report (PEIR) for your Capital Improvement Program (CIP) and appreciates the opportunity to respectfully submit preliminary comments. Overall, the City is strongly supportive of the proposed CIP project list. Solana Beach requests that communication between the cities throughout this process, and as CIP projects are being developed and implemented, remains of utmost importance especially as it relates to projects that are adjacent to or may have potential direct, indirect or cumulative impacts on our community. Ongoing communication and coordination are imperative so that we can keep our community informed well in advance of any potential impacts with the implementation of projects on our shared border. The cities currently have a great relationship and do communicate openly on upcoming projects and special events that may impact our respective communities. Therefore, we respectfully request that this collaboration continues as Del Mar contemplates its 10-year strategic CIP plan.

Sincerely,

Alyssa Muto
City Manager

# APPENDIX B
# CITY OF DEL MAR WORK PLAN FOR FY 2026-2027

| TIER 1: Essential Services (State Mandated/Legally or Contractually Required) | | | | |
|---|---|---|---|---|
| **Reference No.** | **Item Name** | **Description** | **Status** | **Department(s)** |
| 1 | **Affordable Housing on City-Owned Properties at 10th Street (6th Cycle Housing Element Program 3B)** | Pursue declaration as exempt per Surplus Lands Act and process accordingly including noticing, RFP for developer solicitation, and ground lease agreement. As first priority, facilitate development project on City-owned vacant lot on 10th Street (i.e., CEQA and entitlements to develop 4-8 units for lower income households and building permit by 2027. City Council allocated $500,000 to program for FY 2026-2027. | In-process. City Council Resolution February 17, 2025 to declare 10th Street SLA exempt. City is implementing additional steps in consultation with HCD per SLA and pursuing project financing opportunities. | Planning |
| 2 | **Affordable Housing on City-Owned Properties at 28th Street (6th Cycle Housing Element Program 3B)** | Pursue declaration as exempt per Surplus Lands Act and process accordingly including noticing, RFP for developer solicitation, and ground lease agreement. Facilitate development project on City-owned vacant lot on 28th Street (i.e., CEQA and entitlements to develop 3-4 units for lower income households and building permit by 2027. City Council allocated $500,000 to program for FY 2026-2027. | In-process. City Council Resolution to declare 28th Street SLA exempt. City is implementing additional steps in consultation with HCD per SLA and pursuing project financing opportunities. Targeting Spring 2026 | Planning |
| 3 | **Camino del Mar Bridge Replacement Project** | Replace Camino del Mar Bridge over San Dieguito River in accordance within Federal Highway Bridge Program requirements. | Design and permitting documents complete; working through Caltrans/FHWA review and approval. Hiring Construction Management & Inspection firm. Bid phase anticipated to begin July 2026, construction award in December 2026. | Public Works<br>Planning |
| 4 | **Riverpath Del Mar Phase 3** | Extend Riverpath Del Mar from Grand Avenue Bridge to Crest Canyon. | The City has received preliminary approval for a $1.3M pass-through grant from the Wildlife Conservation Board/National Parks Service. Construction mostly likely needs to occur in 2027 to accommodate next steps in grant process. These grant funds will significantly reduce project funding gap to enable project to proceed with certainty next calendar year. | Public Works<br>Planning |
| 5 | **Utility Undergrounding District X1A (Crest Canyon)** | Undergrounding of above ground dry utilities into joint trench and underground service laterals. | Council awarded the City construction contract and the SDG&E cost agreement in September 2025. The City construction notice to proceed was issued in October 2025, with completion anticipated by October 2026. Staff estimates the utility companies completion, including pole removals, by Spring 2027. | Public Works<br>City Manager's Office |
| 6 | **Utility Undergrounding District 1B (Stratford North)** | Undergrounding of above ground dry utilities into joint trench and underground service laterals. | SDG&E 60% design completed in February 2026, and under review by City. Final design and bidding anticipated in CY 2026. Construction start anticipated the second half of FY2026-27. | Public Works<br>City Manager's Office |
| 7 | **Utility Undergrounding District 25th Street (20A)** | Undergrounding of above ground dry utilities into joint trench and underground service laterals. Funding included as part of Rule 20A. | Design to start in FY 2025-26, as part of District 2 design. Construction needs to be completed by December 2030 to use 20A funds. | Public Works<br>City Manager's Office |
| 8 | **Utility Undergrounding District 2 (Beach Colony)** | Undergrounding of above ground dry utilities into joint trench and underground service laterals. | Design of entire District to begin in FY2025-26, with construction to occur in two phases (2A & 2B), with the potential to construct entire District by 2030 pending funding availability. | Public Works<br>City Manager's Office |

| TIER 2: Important Items that Support City Operations/Values (Not Mandated/Legally Required) | | | | |
|---|---|---|---|---|
| **Reference No.** | **Item Name** | **Description** | **Status** | **Department(s)** |
| 1 | **Shores Park Master Plan** | Coordinate with a consultant to develop three master plan alternatives for Shores Park. The three draft designs will then be refined to a final park Master Plan, which will include cost estimates for the future construction of the park and community building. | Estimated completion by Fall 2026. | City Manager's Office |
| 2 | **San Dieguito Lagoon Shoreline Protection Planning Project (Levee/Trails) and Implementation of State Parks Grant Funding** | City and San Dieguito River Park JPA are coordinating on a joint project to develop living levees and trails along the north and south banks of the San Dieguito River. State Parks awarded $500,000 grant funding to City and $1.3 million to the SDRP JPA. The City executed task orders with Dudek ($500,000) and kicked off work in January 2025 to complete environmental, engineering, and permitting task orders. A MOU with SDRP JPA will be executed to facilitate completion of additional task orders using grant funds through June 2027. This effort correlates to new City CIP project. | In-process through June 2027. | Planning<br>Public Works |
| 3 | **San Dieguito Drive Improvements** | Construction of San Dieguito Drive between Racetrack View Drive and Oribia Road as part of an approved assessment district. | Construction anticipated after Work Zone 1 of UUD X1A (Crest Canyon) in FY 2026-2027, with a likely start of Summer 2026. | Public Works<br>City Manager's Office<br>Planning |
| 4 | **29th Street Seawall and Beach Access** | Design and permit the northern half of the sea wall and beach access. | Conceptual design and cost estimate completed FY 2025-2026. Design and permitting is targeted to begin CY 2026 and construction start in FY2026-2027. | Public Works |
| 5 | **Minor Bridge Repairs** | Critical bridge infrastructure repairs recommended by Caltrans as a result of annual inspection; concrete repairs at 3 of the City's bridges (Via de la Valle, San Dieguito River at Jimmy Durante Blvd, and Camino del Mar at Jimmy Durante Blvd). | Project will need to be designed and put out for public bid. NCTD permit required for two railroad overhead bridges. | Public Works |
| 6 | **Stratford Court South Pavement Improvements** | Paving improvements for the Stratford Court South area following the undergrounding project. Grind & overlay improvements for low PCI (Pavement Condition Index) streets of Stratford Court from 4th St to 12th St, Little Orphan Alley, and Melanie Way. Pavement sealing application for other streets within the Stratford Court South UUD 1A District with trench lines. | Construction targeted after UUD 1A (Stratford Ct South) in FY 2026-2027. | Public Works |
| 7 | **Crest Canyon Pavement Improvements** | Paving Improvements for the Crest Canyon area following the undergrounding project. Grind & overlay improvements for portions of low PCI (Pavement Condition Index) streets of Zuni Dr, Avenida Primavera, and Serpentine Dr. Pavement sealing application for Crest Road and adjacent streets with trench lines. | Construction targeted after UUD X1A (Crest Canyon) end in FY 2027-2028. | Public Works |
| 8 | **Stratford Court North Pavement Improvements *(New)*** | Paving improvements for the Stratford Court North area following the undergrounding project. Grind & overlay improvements for low PCI (Pavement Condition Index) streets and pavement sealing application for other streets within the Stratford Court North UUD 1B District with trench lines. | Construction targeted after UUD 1B (Stratford Ct North) in FY 2027-2028. | Public Works |
| 9 | **City Hall IPE Wood Refinishing Project *(New)*** | The project requires power washing, sanding, cleaning, staining, and sealing of all the IPE wood at the Del Mar Civic Center located at 1050 Camino del Mar. | Project to be bid and completed in FY 2026-27. | Public Works |
| 10 | **Coast Boulevard Stormwater Analysis and Infrastructure Alternatives Study *(New)*** | Historically, the Coast Boulevard area from 17th Street to 22nd Street has been subject to heavy flooding. A technical study with conceptual cost estimates would be completed that analyzes existing hydrologic/hydraulic conditions, summarizes environmental impacts, and develops alternatives to mitigate stormwater drainage issues. | Study to be completed during first half of FY 2026-27. | Public Works |

| TIER 3: Non-Essential Work Plan Items That Could be Deferred or Eliminated (Not Required) | | | | |
|---|---|---|---|---|
| **Reference No.** | **Item Name** | **Description** | **Status** | **Department(s)** |
| 1 | Major Arterial Median Improvements | Design of drought tolerant landscaping and irrigation efficiency enhancements along major arterial median segments, currently planned for four locations as Phase I of project.<br><br>CDM 15th Street to San Dieguito River Bridge; Jimmy Durante Blvd/Via De La Valle Triangle; Jimmy Durante Roundabout to CDM Merge; and CDM 4th to 9th Street. | Conceptual design completed in FY 2025-2026. Final design is anticipated to start CY 2026 with first phase of construction FY2027-2028. Work will continue on this project as time permits based on CIP project management staff capacity. | Public Works |
| 2 | Public Works Facility Improvements ***(New)*** | Replace antiquated facilities with new office modular building, Locker Building, Warehouse, Workshop, Wash Rack, and Equipment Enclosure. | Schedule Coincides with San Dieguito Lagoon Shoreline Protection Project which will require partial demolition of Del Mar Public Works Facility. | Public Works<br>City Manager's Office |

| Significant Annual Public Works Maintenance/Repair Projects | | | | |
|---|---|---|---|---|
| **Reference No.** | **Item Name** | **Description** | **Status** | **Department(s)** |
| 1 | **Annual Wastewater System Priority Improvements** | Wastewater System repairs and improvements. | In FY 2025-2026, grant application, federal environmental reviews, and work plan were prepared for the USEPA-funded wastewater and storm drain improvements project (FY24 Community Grants). In FY 2026-2027, design to be completed. | Public Works |
| 2 | **Annual Storm Drain System Priority Improvement** | Replace storm drain facilities that have surpassed their useful life. | In FY 2025-2026, grant application, federal environmental reviews, and work plan were prepared for the USEPA-funded wastewater and storm drain improvements project. In FY 2026-2027, design to be completed. | Public Works |
| 3 | **Annual Bike Route Repairs** | Repair bike lanes on major arterials; CDM, JDB, Via de la Valle, Carmel Valley Road. | In FY 2026-2027, work will be completed under the scheduled Pavement Management Program. | Public Works |
| 4 | **Annual Pavement Management Program** | Expanded annual pavement program to perform roadway repairs to major arterials and residential streets. | In FY 2026-2027, proposed pavement improvements to be completed in various areas around the City, as described in Pavement Management Program Update (Attachment F). | Public Works |
| 5 | **Annual Small Area Pavement Repairs** | Citywide small area asphalt paving/repairs. | Occurs once or twice per year depending on repair needs. | Public Works |
| 6 | **Major Facility Repairs** | Essential building (City Hall, Library, Public Works, Community Services, etc.) repairs including exterior, doors/windows, electrical, plumbing, HVAC, fire and security systems. | In FY 2026-2027 staff will complete repairs as may be needed to essential facilities, such as public restrooms, Council Chambers, Civic Center, Powerhouse, etc. | Public Works |

# APPENDIX C
# DEL MAR CIP STREAMLINING PROGRAM CHECKLIST

# DEL MAR CIP STREAMLINING PROGRAM CHECKLIST

This appendix includes an interactive checklist developed for use by City of Del Mar staff. The checklist is a Microsoft Word file and is intended to help staff evaluate projects in a consistent and efficient manner.

The following pages include three versions of the checklist to illustrate how it could be used:

1. Blank Checklist – A template with no project-specific information entered and no questions answered.
2. Sample Project A – An example showing a project that does not require mitigation.
3. Sample Project B – An example showing a project where mitigation measures may be required, with all potential options displayed.

# DEL MAR CIP STREAMLINING PROGRAM CHECKLIST: BLANK CHECKLIST

CITY OF DEL MAR

# Capital Improvement Program (CIP) Project
# CEQA Streamlining Checklist

The purpose of this checklist is to determine if additional evaluation under the California Environmental Quality Act (CEQA) is required for individual CIP projects pursuant to Section 15168 of the CEQA Guidelines, as well as applicable mitigation measures from the *City of Del Mar Capital Improvement Program Streamlining Project Program Environmental Impact Report*.

**Press the TAB key after selecting each answer to ensure checklist functions properly.**

## A. Checklist Questions

**CIP Project Name:** **City ID No. (if applicable):**

Q1. **Brief Project Description** (Briefly describe project type, location, current condition of project site, method of construction, duration of construction, construction staging/laydown areas, types of construction equipment, if there will be any post-construction activities such as monthly/quarter maintenance, etc. [Attach additional pages as necessary.] Also attach a project location map and the project site plan.):

Q2. **Date:**

Q3. **City Project Manager:**

Q4. Will the project include **ground disturbance** (e.g., trenching, excavation, or grading) **and/or vegetation clearing or trimming** within a **moderate or high biological resource sensitivity zone** (refer to Figure 1)? Select Answer

**Answer Q4 before proceeding.**

4a. Did the results of the site-specific biological resources assessment determine that there is a moderate or high potential for special-status plants to occur in the construction area? Select Answer

4b. Did the results of the site-specific biological resources assessment determine that there is habitat suitable for special-status wildlife (animals) to occur in the construction area? Select Answer

4c. Did the results of the site-specific biological resources assessment determine that aquatic resources occur in the construction area? Select Answer

4d. Did the results of the site-specific biological resources assessment determine that there will be impacts (temporary or permanent) to sensitive vegetation communities? Select Answer

Q5. Does the site contain structures 50 years of age or older? Select Answer

**Answer Q5 before proceeding.**

CITY OF DEL MAR

# Capital Improvement Program (CIP) Project
# CEQA Streamlining Checklist

Q5a. Does development involve the alteration or demolition of a structure greater than 50 years old? Select Answer

Q5b. Was the property determined to be a historical resource pursuant to CEQA? Select Answer

Q6. Will the project include **ground disturbance** (e.g., trenching, excavation, or grading) **in previously undisturbed soils** wholly or partially within **moderate or high archaeological resources sensitivity zones** (refer to Figure 2) where an archaeological survey has not been completed within the previous five (5) years? Select Answer

Q7. Will the project include **ground disturbance** (e.g., trenching, excavation, or grading) at **depths of 5 feet or more** below ground surface in **previously undisturbed soils** wholly or partially within **moderate or high paleontological resources sensitivity zones** (refer to Figure 3) where an paleontological review/survey has not been completed within the previous five (5) years? Select Answer

Q8. Is the project a **non-linear project**[1] with the center of the site **located within 260 feet of a noise-sensitive use** (e.g., residences [including residences for the elderly], hotels, schools, libraries, or churches)? Select Answer

Q8a. Will use of heavy construction equipment occur for more than five consecutive days at any given work location? Select Answer

Q9. Is the project a **non-linear project**[1] that is **utilizing heavy equipment** (i.e., large bulldozers/excavators, loaded trucks, concrete breakers, vibratory rollers/compactors, and/or pile drivers) **within 5 feet of a building**? Select Answer

Q10. Are there any unique circumstances[2] with the project or its setting that could result in impacts to the physical environment in resource areas not addressed above or within the *Del Mar Capital Improvement Program Streamlining Project Program Environmental Impact Report*? Select Answer

**To complete this checklist, select "Complete" here**
**AND press the TAB key for all fields to update.**
Select Answer

---

[1] Non-Linear Projects: Projects with construction activities confined to a fixed location rather than a linear alignment. Examples of "non-linear projects" include park projects, installation of a sewer pump station, and improvements/repairs of existing public buildings.

Linear Projects: Construction of "linear projects" progress along a linear alignment, so noise sources move away from any given receptor as each segment is completed. Examples of "linear projects" include utility undergrounding, installation of pipelines, and roadway resurfacing.

[2] "Unique circumstances" includes unusual features of the project or its setting that distinguish it from typical projects, including peculiarities of the site or surroundings. Examples include presence of biological habitat, presence of bird nesting sites, bluffs, and regulated waters. Please consult with City Planning Department staff if you have any questions or require clarification.

## B. Findings

See the table below for the mitigation measures required for this project. Refer to Attachment A for the complete text of applicable measures. The required mitigation measures must be reviewed and approved by the City Planning Director (or their designee).

| Finding Based on Checklist Responses | MM | Mitigation Measure Topic |
|---|---|---|
| Not required based on the response to Q4. | BIO-1 | Biological Resources Technical Report |
| Not required based on the response to Q4a. | BIO-2 | Focused Special-Status Plant Surveys and Compensation |
| Not required based on the response to Q4b. | BIO-3 | Focused Special-Status Wildlife Surveys |
| Not required to address the response to Q4b. | BIO-4 | Pre-construction Wildlife Surveys |
| Not required to address the response to Q4b. | BIO-5 | Special-Status Species Avoidance and Construction Monitoring |
| Not required based on the response to Q4d. | BIO-6 | Sensitive Vegetation Communities Compensation |
| Not required based on the response to Q4c. | BIO-7 | Aquatic Resources Delineation, Avoidance, and Compensation |
| Please revisit responses to Q5a and Q5b to determine mitigation measure applicability. | CUL-1 | Evaluation for Listing in the CRHR |
| Not required to address the response to Q6. | CUL-2 | Archaeological Surveys |
| Not required to address the response to Q6. | CUL-3 | Cultural Resources Monitoring Program |
| Not required based on the response to Q7. | GEO-1 | Paleontological Resources Monitoring Program |
| Not required based on the response to Q8a. | NOI-1 | Temporary Noise Barriers |
| Not required based on the response to Q9. | NOI-2 | Structural Vibration Evaluation |

**ATTACHMENT A – POTENTIALLY APPLICABLE MITIGATION MEASURES**

## C. Mitigation Measures

**BIO-1, Biological Resources Technical Report**

Prior to clearing, grubbing, grading, or vegetation removal activities associated with CIP projects wholly and/or partially within moderate or high biological resource sensitivity zones as depicted in Figure 1, the City shall retain a qualified biologist to conduct a project-specific biological resources technical report. Preparation of a project-specific biological resources technical report shall, at a minimum, include a comprehensive database and literature review, biological site survey, and consideration and evaluation for the habitat types and species occurrences identified in Table 2, Vegetation Communities and Land Cover Types; Table 3, Special Status Plants Expected to Occur within the City of Del Mar; and Table 5, Special-Status Wildlife Expected to Occur within the City of Del Mar, of Appendix E of the PEIR. Project-specific biological resources technical reports shall: (1) delineate vegetation communities and land covers, including riparian habitat or other sensitive natural communities; (2) identify aquatic resources including potential jurisdictional wetlands and non-wetlands waters of the US and/or State; (3) identify the extent or absence of habitat that may support special-status plants or wildlife; (4) evaluate the potential for direct and indirect impacts from proposed activities; (5) outline avoidance and minimization measures to avoid direct and indirect impacts; and (6) specify any additional compensatory mitigation measures to reduce direct and indirect impacts below a level of significance.

**BIO-2, Focused Special-Status Plant Surveys and Compensation**

Based on the results of the project-specific biological resources technical report conducted pursuant to BIO-1, if it is determined that there is a moderate or high potential for special-status plant species to occur in the construction area, a qualified biologist shall conduct a focused botanical survey for special-status plants during the appropriate bloom period for each species following the California Department of Fish and Wildlife's (CDFW) "*Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations*." Focal species shall include plant species that are listed as threatened or endangered or are candidate species for listing under the federal and/or California Endangered Species Act, and/or are assigned as CRPR 1A, 1B, 2B, or 2B. If special-status species are not detected, no further surveys or mitigation would be necessary. If any individuals or populations are detected, the location(s) shall be mapped, and a mitigation and monitoring plan focused on compensating for impacts to special-status plants shall be developed and include the following elements and criteria:

- A description of any areas of habitat occupied by special-status plants to be preserved and/or removed by the project;
- Identification and evaluation of the suitability of on-site or off-site areas for preservation, restoration, enhancement, or translocation;

## ATTACHMENT A – POTENTIALLY APPLICABLE MITIGATION MEASURES

- Analysis of species-specific requirements and considerations and specific criteria for success relative to the project's impact on this species and restoration, enhancement, or translocation;
- A description of proposed methods of preservation, restoration, enhancement, and/or translocation;
- A description of specific performance standards, including a required replacement ratio and minimum success standard of 1:1 for impacted individuals or populations;
- A monitoring and reporting program to ensure mitigation success; and
- A description of adaptive management and associated remedial measures to be implemented in the event that performance standards are not achieved.

**BIO-3, Focused Special-Status Wildlife Surveys**

Based on the results of the project-specific biological resources technical report conducted pursuant to BIO-1, if it is determined that there is habitat suitable for special-status wildlife species in the construction area, a qualified biologist shall conduct a focused survey for special-status wildlife during the appropriate seasonal survey window for each species prior to any clearing, grubbing, grading, or vegetation removal activities. Focal species shall include wildlife species that are listed as threatened or endangered, or are candidate species for listing under the federal and/or California Endangered Species Acts.

If special-status species are not detected, no further surveys or mitigation is necessary. If any individuals are detected, the location(s) shall be mapped, and a mitigation and monitoring plan focused on compensating for impacts to special-status wildlife shall be developed and include the elements and criteria included in BIO-2.

**BIO-4, Preconstruction Wildlife Surveys**

Based on the results of the project-specific biological resources technical report conducted pursuant to BIO-1, if it is determined that there is habitat suitable for special-status wildlife species in the construction area, a qualified biologist shall conduct pre-construction surveys to determine if special-status wildlife species are present no more than two weeks prior to the beginning of clearing, grubbing, grading, or vegetation removal activities.

If special-status wildlife species are observed within the construction area prior to or during construction activities, the biologist shall relocate such individuals out of the area affected by construction activities to nearby habitat that has equivalent value to support the species. The biologist shall identify suitable habitats as potential release sites prior to start of construction activities. If the special-status species is a federally- or state-listed as threatened or endangered, the biologist shall notify the United States Fish and Wildlife Service (USFWS) and/or CDFW, as appropriate, prior to capture and relocation to obtain approval.

Species-specific survey requirements include:

**ATTACHMENT A – POTENTIALLY APPLICABLE MITIGATION MEASURES**

- Coastal California Gnatcatcher: If construction activities occur within the coastal California gnatcatcher nesting season (February 15 to August 31), a qualified biologist shall survey for active nests within a 500-foot radius (or as practicable due to surrounding conditions, as determined by the biologist) within two weeks of noise-producing activity (including mobilization of construction equipment). If an active gnatcatcher nest is identified, the biologist shall notify the City and coordinate with the USFWS within 48 hours to determine if additional avoidance measures are necessary to prevent take. Such measures may include establishing buffers or delaying construction activities until nests are no longer occupied, as determined by a qualified biologist (DMMC § 30.92.050.B.5.d).

**BIO-5, Special-Status Species Avoidance and Construction Monitoring**

Based on the results of the project-specific biological resources technical report conducted pursuant to BIO-1, if it is determined that there is habitat suitable for special-status species in the construction area, prior to any clearing, grubbing, grading, or vegetation removal activities, high-visibility exclusion fencing shall be installed around all adjacent special-status species habitat identified during the preconstruction surveys within the project work areas and surrounding 300 feet, as feasible (if 300 feet is not feasible, then at a distance deemed appropriate by the qualified biologist). Exclusion fencing shall be located so as to preclude encroachment within the root-zone of any special-status plants by construction crews or vehicles. Exclusion fencing shall be retained during project construction. A biological monitor shall accompany the work crew during installation of fencing to prevent harm to species that may be active present and moving along the fence route.

A qualified biologist shall monitor vegetation removal and ground-disturbing activities (i.e., clearing, grubbing, grading) during all work hours for off-pavement work or once a week for all other construction activities. During the avian breeding season (February 1 through August 31), the monitor shall check the exclusion fencing and buffers for active nesting birds once a week, and shall verify when juveniles have fledged if found present prior to the start of construction (see BIO-6). The biologist shall have stop-work authority in the event that a special-status species is found within the active construction footprint. During construction, the biological monitor shall keep a daily observation log and a photo log to describe monitoring activities, remedial actions, non-compliance, and other issues and actions taken.

**BIO-6, Sensitive Vegetation Communities Compensation**

Based on the results of the project-specific biological resources technical report conducted pursuant to BIO-1, if direct impacts to sensitive vegetation communities occur, the City shall mitigate via on-site and/or off-site measures. On-site measures shall include rehabilitation for areas temporarily impacted at a 1:1 mitigation ratio, and enhancement for areas permanently impacted at a 2:1 mitigation ratio. Areas temporarily impacted shall be returned to conditions similar to those that existed prior to grading and/or ground-disturbing activities. Areas permanently impacted shall be mitigated through on-site enhancement activities including

removal of non-native and invasive species for a minimum of three years. If additional area is needed to compensate for permanent impacts at a 2:1 ratio, then an off-site location will be identified and evaluated. A Habitat Mitigation and Monitoring Plan shall be prepared and implemented to compensate for the loss of all sensitive vegetation communities (see below).

The Habitat Mitigation and Monitoring Plan shall detail the habitat restoration activities and shall specify the criteria and standards by which the revegetation and restoration actions will compensate for impacts of the proposed project on sensitive vegetation communities and shall at a minimum include discussion of the following:

- The rehabilitation and enhancement objectives, type, and amount of revegetation to be implemented taking into account enhanced areas where non-native invasive vegetation is removed and replanting specifications that take into account natural regeneration of native species when applicable.
- The specific methods to be employed for revegetation.
- Success criteria, monitoring requirements, and adaptive management strategies to ensure vegetation community restoration success.

**BIO-7, Aquatic Resources Delineation, Avoidance, and Compensation**

Based on the results of the project-specific biological resources technical report conducted pursuant to BIO-1, if it is determined that there are aquatic resources in the construction area, a qualified biologist shall conduct a formal aquatic resources jurisdictional delineation to determine the extent of jurisdictional aquatic resources regulated by the US Army Corps of Engineers, Regional Water Quality Control Board, and/or CDFW within the impact area.

CIP projects shall be designed to avoid jurisdictional aquatic resources regulated by the US Army Corps of Engineers, Regional Water Quality Control Board, and CDFW through design changes or implementation of alternative construction methodologies. Staking, flagging, and/or fencing shall be established to demarcate no-work areas, which shall include jurisdictional aquatic resources plus the required buffer established by the applicable regulatory agencies (typically, a minimum 100-foot buffer), to be avoided.

For CIP projects that will directly or indirectly impact jurisdictional aquatic resources, the City shall obtain the required federal and/or state permits from the US Army Corps of Engineers, Regional Water Quality Control Board, and/or CDFW, pursuant to Sections 404 and 401 of the Clean Water Act and Section 1600 et seq. of the California Fish and Game Code, respectively. Permits are required to be obtained by the City before the impact to the resources. Permits may include additional conditions of approval, such as compensatory mitigation.

**CUL-1, Evaluation for Listing in the CRHR**

Prior to construction activities for CIP projects located on sites containing structures 50 years of age or older that has not previously been evaluated, a qualified architectural historian shall

conduct a formal survey, recordation, and CRHR evaluation of the subject resource to determine if it is a historical resource under CEQA (CEQA Section 15064.5[a]). The architectural historian shall prepare comprehensive documentation of the evaluation, including methodology, analysis, and findings. This documentation must provide a clear determination of the site's eligibility for listing in the CRHR and be submitted to the appropriate regulatory agencies for review and concurrence.

Where development would involve the alteration or demolition of a structure greater than 50 years old, a historic evaluation by a Secretary of Interior's Standards for Architectural Historian or Historic Architect shall be provided to determine if the resource meets the definition of a historic resource as defined in CEQA Guidelines Section 15064.5.

For properties that have already been formally evaluated and determined to be historical resources, no additional CRHR eligibility evaluation is required. These resources shall be treated as historical resources for the purposes of CEQA.

If the structure is determined to be a historic resource, any proposed alteration shall follow mitigation guidelines contained in CEQA Guidelines Section 15126.4(b). Mitigation standards may include, but are not limited to avoidance and preservation, conducting alterations in a manner consistent with the Secretary of the Interior's Standards for the Treatment of Historic Properties (including as applicable, standards for Preservation, Rehabilitation, Restoration and Reconstruction), and documenting resources. The approach to comply with these standards shall be prepared by an Architectural Historian or Historic Architect and provided to the City.

Demolition and/or significant diminution of designated historic landmarks shall be prohibited.

**CUL-2, Archaeological Surveys**

For CIP project locations where no previous archaeological survey data is available, prior to ground-disturbing construction activities in previously undisturbed soils for CIP projects wholly and/or partially within moderate or high archaeological sensitivity zones as depicted in Figure 2, the City shall retain a qualified archaeologist to conduct an archaeological survey to evaluate the presence of cultural resources and the need for project-specific impact mitigation by preservation, relocation, or other methods. An archaeological resource report shall include the methods used to determine the presence or absence of archaeological resources, identify potential impacts from the proposed project, and evaluate the significance of any archaeological resources identified. If there are potentially significant impacts to an identified archaeological/cultural resource, the report shall also recommend appropriate mitigation required during ground-disturbing activities to reduce impacts to below a level of significance.

**CUL-3, Cultural Resources Monitoring Program**

During ground-disturbing construction activities in previously undisturbed soils for CIP projects wholly and/or partially within moderate or high archaeological sensitivity zones as depicted in

## ATTACHMENT A – POTENTIALLY APPLICABLE MITIGATION MEASURES

Figure 2, a Cultural Resource Mitigation Monitoring Program shall be conducted to provide for the identification, evaluation, treatment, and protection of any cultural resources that are affected by or may be discovered during the construction of the proposed project. The monitoring shall consist of the full-time presence of a qualified archaeologist and a traditionally and culturally affiliated Native American monitor shall be retained to monitor all ground-disturbing activities associated with project construction, including vegetation removal, clearing, grading, trenching, excavation, or other activities that may disturb the ground.

The qualified archaeologist and/or Native American monitor may halt ground-disturbing activities if archaeological artifact deposits or cultural features are discovered. In general, ground disturbing activities shall be directed away from these deposits for a short time to allow a determination of potential significance, the subject of which shall be determined by the qualified archaeologist and the Native American monitor. Ground-disturbing activities shall not resume until the qualified archaeologist, in consultation with the Native American monitor, deems the cultural resource or feature has been appropriately documented and/or protected. At the qualified archaeologist's discretion, the location of ground disturbing activities may be relocated elsewhere on the project site to avoid further disturbance of cultural resources.

The City shall relinquish ownership of all tribal cultural resources, including associated with burial and/or funerary goods, collected during the cultural resource mitigation monitoring program to the Most Likely Descendant as determined by the Native American Heritage Commission per California Public Resources Code Section 5097.98 for respectful and dignified treatment and disposition, including reburial, in accordance with the affiliated tribe's cultural and spiritual traditions.

Upon completion of construction monitoring, a Monitoring Report and/or Evaluation Report, which describes the results, analysis and conclusions of the cultural resource mitigation monitoring efforts (such as, but not limited to, the Research Design and Data Recovery Program) shall be submitted by the qualified archaeologist, along with the Native American monitor's notes and comments, to the City's Planning & Community Development Director.

**GEO-1, Paleontological Resources Monitoring Program**

For CIP project locations where no previous paleontological survey data is available that are wholly and/or partially within moderate or high paleontological sensitivity zones as depicted in Figure 3 that could encounter sensitive formations during grading or excavation at depths of 5 feet below ground surface or more in previously undisturbed soils, the City shall retain a Society of Vertebrate Paleontology (SVP)-qualified paleontologist (i.e., possesses a graduate degree in paleontology, geology, or related field, with demonstrated experience in the vertebrate, invertebrate, or botanical paleontology of California, as well as at least one year of full-time professional experience or equivalent specialized training in paleontological research and at least four months of supervised field and analytic experience in general North American paleontology) to provide or supervise a paleontological sensitivity training to all personnel

involved with earth-moving activities. The training session shall focus on how to identify paleontological resources, such as fossils that may be encountered, and the procedures to follow if encountered during construction.

The qualified paleontologist shall monitor earthwork affecting the aforementioned geological units or supervise the monitoring of these activities by a paleontological monitor. If any paleontological resources are encountered on the project site, the qualified paleontologist or the paleontological monitor shall halt all ground-disturbing activities within 50 feet of the find until a significance determination is made. If the fossils are determined to be significant, the qualified paleontologist shall prepare and implement a data recovery plan. The plan shall include, but not be limited to, the following measures:

- The paleontologist shall ensure that all significant fossils collected are cleaned, identified, catalogued, and permanently curated with an appropriate institution with a research interest in the materials (such as the San Diego Natural History Museum);
- The paleontologist shall ensure that specialty studies are completed, as appropriate, for any significant fossil collected; and
- The paleontologist shall ensure that curation of fossils is completed in consultation with the City. A letter of acceptance from the curation institution shall be submitted to the City.

The qualified paleontologist will determine when work within the immediate vicinity of the find may resume, or otherwise expand or reduce the construction exclusion buffer as warranted to ensure proper treatment of resources. The qualified paleontologist may reduce the frequency of monitoring, or cease monitoring altogether if observations of specific site conditions warrant.

**NOI-1, Temporary Noise Barriers**

For non-linear projects with the center of the site located within 260 feet of a noise-sensitive use, temporary noise barriers shall be required if use of heavy construction equipment will occur for more than five consecutive days at any given work location unless infeasible due to physical site constraints. Noise barriers shall be positioned to break the line-of-sight between the noise sources and the receptors and shall be made of materials with a Sound Transmission Class rating 30 or higher in accordance with ASTM International Test Method E90, or at least 2 pounds per square foot.

**NOI-2, Structural Vibration Evaluation**

For non-linear CIP projects utilizing large bulldozers/excavators, loaded trucks, concrete breakers, vibratory rollers/compactors, and/or pile drivers within 5 feet of a building, a preconstruction survey of all buildings within 5 feet of the maximum construction limits shall be conducted to document (both photographically and in writing) existing conditions of exterior fixtures and finishes prior to demolition, grading, or building permit approval. Any damage shall be repaired/restored to its preexisting condition.

# Capital Improvement Program (CIP) Project
# CEQA Streamlining Checklist

## ATTACHMENT B – FIGURES

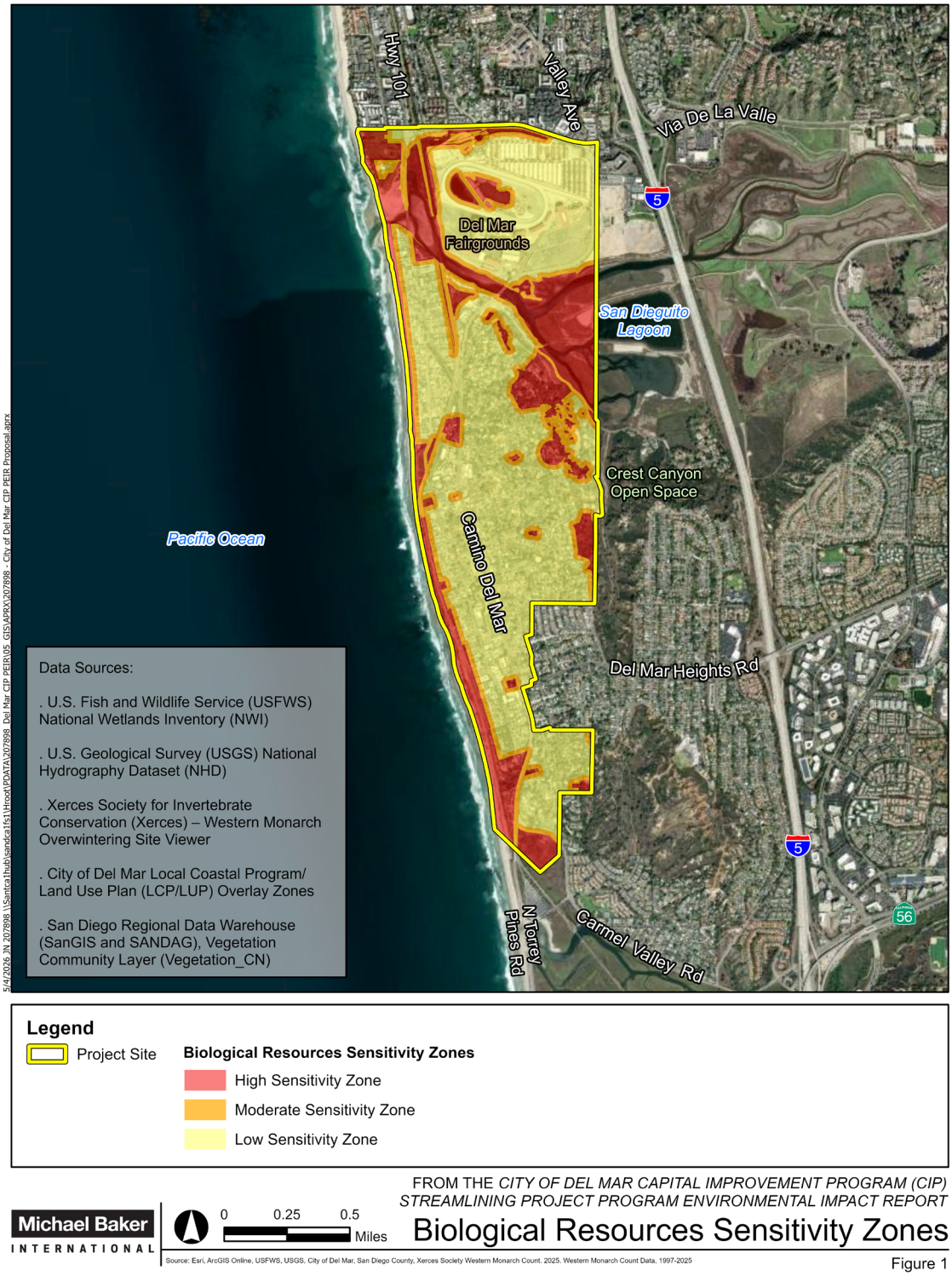


**Figure 1. Biological Resources Sensitivity Zones**

# Capital Improvement Program (CIP) Project
# CEQA Streamlining Checklist

## ATTACHMENT B – FIGURES

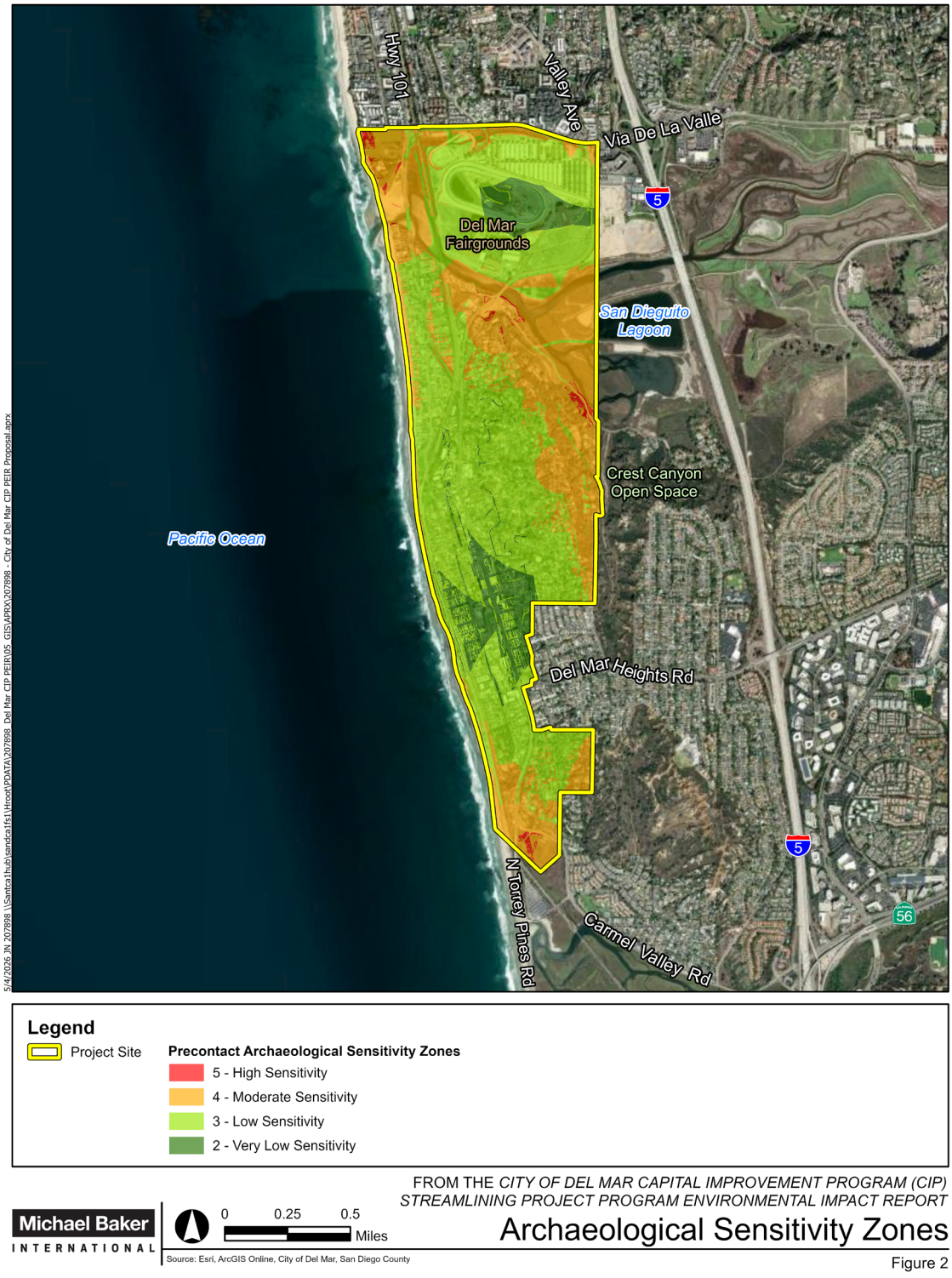


**Figure 2. Archaeological Resources Sensitivity Zones**

# Capital Improvement Program (CIP) Project
# CEQA Streamlining Checklist

## ATTACHMENT B – FIGURES

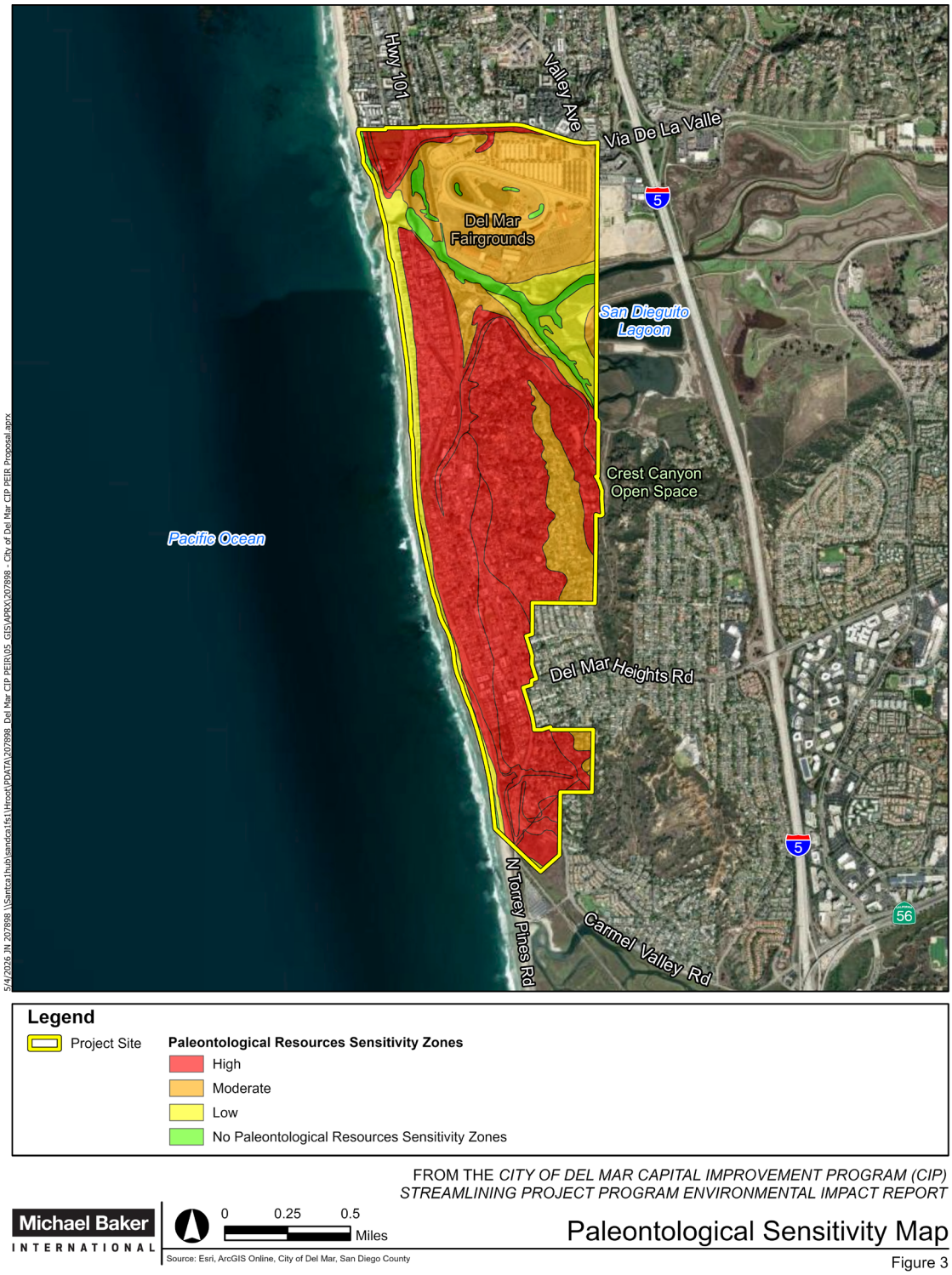


**Figure 3. Paleontological Resources Sensitivity Zones**

CITY OF DEL MAR

# Capital Improvement Program (CIP) Project
# CEQA Streamlining Checklist

## ATTACHMENT C – BIOLOGICAL RESOURCES TECHNICAL REPORT

Site-specific biological resources technical report is not required based on the response to Q4.

CITY OF DEL MAR

# Capital Improvement Program (CIP) Project
# CEQA Streamlining Checklist

## ATTACHMENT D – HISTORICAL RESOURCES ASSESSMENT REPORT

Site-specific Historical Resources Assessment Report is not required based on the response to Q5.

# DEL MAR CIP STREAMLINING PROGRAM CHECKLIST: SAMPLE PROJECT A

CITY OF DEL MAR

# Capital Improvement Program (CIP) Project
# CEQA Streamlining Checklist

The purpose of this checklist is to determine if additional evaluation under the California Environmental Quality Act (CEQA) is required for individual CIP projects pursuant to Section 15168 of the CEQA Guidelines, as well as applicable mitigation measures from the *City of Del Mar Capital Improvement Program Streamlining Project Program Environmental Impact Report*.

**Press the TAB key after selecting each answer to ensure checklist functions properly.**

## A. Checklist Questions

**CIP Project Name:** Sample Project A **City ID No. (if applicable):**

Q1. **Brief Project Description** (Briefly describe project type, location, current condition of project site, method of construction, duration of construction, construction staging/laydown areas, types of construction equipment, if there will be any post-construction activities such as monthly/quarter maintenance, etc. [Attach additional pages as necessary.] Also attach a project location map and the project site plan.):

This project is a sample of this checklist to show the results when all questions are answered as "No" or "N/A."

Q2. **Date:** May 4, 2026

Q3. **City Project Manager:** Project Manager's Name

Q4. Will the project include **ground disturbance** (e.g., trenching, excavation, or grading) **and/or vegetation clearing or trimming** within a **moderate or high biological resource sensitivity zone** (refer to Figure 1)? No

Q4 answer is no; therefore:

biological resources technical report is not required. Type N/A here and for the answers to questions 4a through 4d: N/A

4a. Project construction will NOT occur wholly and/or partially within a moderate or high biological resource sensitivity zone; therefore, no BRA is required and there is no requirement to address special-status plants. Select N/A here: N/A

4b. Project construction will NOT occur wholly and/or partially within a moderate or high biological resource sensitivity zone; therefore, no BRA is required and there is no requirement to address special-status wildlife. Select N/A here: N/A

4c. Project construction will NOT occur wholly and/or partially within a moderate or high biological resource sensitivity zone; therefore, no BRA is required and there is no requirement to address aquatic resources. Select N/A here: N/A

4d. Project construction will NOT occur wholly and/or partially within a moderate or high biological resource sensitivity zone; therefore, no BRA is required and there is no requirement to address sensitive vegetation communities. Select N/A here: N/A

Q5. Does the site contain structures 50 years of age or older? No

Q5 answer is no; therefore:

Historical Resources Assessment is not required. Type N/A here and for the answers to questions 5a and 5b: N/A

Q5a. The site does not contain structures 50 years of age or older and, therefore, development does not involve the alteration or demolition of a structure greater than 50 years old. Select N/A here: N/A

Q5b. The site does not contain structures 50 years of age or older and, therefore, the property is not a historical resource. Select N/A here: N/A

Q6. Will the project include **ground disturbance** (e.g., trenching, excavation, or grading) **in previously undisturbed soils** wholly or partially within **moderate or high archaeological resources sensitivity zones** (refer to Figure 2) where an archaeological survey has not been completed within the previous five (5) years? No

Q7. Will the project include **ground disturbance** (e.g., trenching, excavation, or grading) at **depths of 5 feet or more** below ground surface in **previously undisturbed soils** wholly or partially within **moderate or high paleontological resources sensitivity zones** (refer to Figure 3) where an paleontological review/survey has not been completed within the previous five (5) years? No

Q8. Is the project a **non-linear project**[1] with the center of the site **located within 260 feet of a noise-sensitive use** (e.g., residences [including residences for the elderly], hotels, schools, libraries, or churches)? No

8a. The project is NOT a non-linear project with the center of the site located within 260 feet of a noise-sensitive use; therefore use of heavy construction equipment does not require review. Select N/A here: N/A

Q9. Is the project a **non-linear project**[1] that is **utilizing heavy equipment** (i.e., large bulldozers/excavators, loaded trucks, concrete breakers, vibratory rollers/compactors, and/or pile drivers) **within 5 feet of a building**? No

[1] Non-Linear Projects: Projects with construction activities confined to a fixed location rather than a linear alignment. Examples of "non-linear projects" include park projects, installation of a sewer pump station, and improvements/repairs of existing public buildings.
Linear Projects: Construction of "linear projects" progress along a linear alignment, so noise sources move away from any given receptor as each segment is completed. Examples of "linear projects" include utility undergrounding, installation of pipelines, and roadway resurfacing.

Q10. Are there any unique circumstances[2] with the project or its setting that could result in impacts to the physical environment in resource areas not addressed above or within the *Del Mar Capital Improvement Program Streamlining Project Program Environmental Impact Report*? No

**To complete this checklist, select "Complete" here**
**AND press the TAB key for all fields to update.**

Complete

[2] "Unique circumstances" includes unusual features of the project or its setting that distinguish it from typical projects, including peculiarities of the site or surroundings. Examples include presence of biological habitat, presence of bird nesting sites, bluffs, and regulated waters. Please consult with City Planning Department staff if you have any questions or require clarification.

## B. Findings

See the table below for the mitigation measures required for this project. Refer to Attachment A for the complete text of applicable measures. The required mitigation measures must be reviewed and approved by the City Planning Director (or their designee).

| Finding Based on Checklist Responses | MM | Mitigation Measure Topic |
|---|---|---|
| Not required based on the response to Q4. | BIO-1 | Biological Resources Technical Report |
| Not required based on the response to Q4a. | BIO-2 | Focused Special-Status Plant Surveys and Compensation |
| Not required based on the response to Q4b. | BIO-3 | Focused Special-Status Wildlife Surveys |
| Not required to address the response to Q4b. | BIO-4 | Pre-construction Wildlife Surveys |
| Not required to address the response to Q4b. | BIO-5 | Special-Status Species Avoidance and Construction Monitoring |
| Not required based on the response to Q4d. | BIO-6 | Sensitive Vegetation Communities Compensation |
| Not required based on the response to Q4c. | BIO-7 | Aquatic Resources Delineation, Avoidance, and Compensation |
| Not required based on responses to Q5a and Q5b. | CUL-1 | Evaluation for Listing in the CRHR |
| Not required to address the response to Q6. | CUL-2 | Archaeological Surveys |
| Not required to address the response to Q6. | CUL-3 | Cultural Resources Monitoring Program |
| Not required based on the response to Q7. | GEO-1 | Paleontological Resources Monitoring Program |
| Not required based on the response to Q8a. | NOI-1 | Temporary Noise Barriers |
| Not required based on the response to Q9. | NOI-2 | Structural Vibration Evaluation |

**ATTACHMENT A – POTENTIALLY APPLICABLE MITIGATION MEASURES**

## C. Mitigation Measures

**BIO-1, Biological Resources Technical Report**

Prior to clearing, grubbing, grading, or vegetation removal activities associated with CIP projects wholly and/or partially within moderate or high biological resource sensitivity zones as depicted in Figure 1, the City shall retain a qualified biologist to conduct a project-specific biological resources technical report. Preparation of a project-specific biological resources technical report shall, at a minimum, include a comprehensive database and literature review, biological site survey, and consideration and evaluation for the habitat types and species occurrences identified in Table 2, Vegetation Communities and Land Cover Types; Table 3, Special Status Plants Expected to Occur within the City of Del Mar; and Table 5, Special-Status Wildlife Expected to Occur within the City of Del Mar, of Appendix E of the PEIR. Project-specific biological resources technical reports shall: (1) delineate vegetation communities and land covers, including riparian habitat or other sensitive natural communities; (2) identify aquatic resources including potential jurisdictional wetlands and non-wetlands waters of the US and/or State; (3) identify the extent or absence of habitat that may support special-status plants or wildlife; (4) evaluate the potential for direct and indirect impacts from proposed activities; (5) outline avoidance and minimization measures to avoid direct and indirect impacts; and (6) specify any additional compensatory mitigation measures to reduce direct and indirect impacts below a level of significance.

**BIO-2, Focused Special-Status Plant Surveys and Compensation**

Based on the results of the project-specific biological resources technical report conducted pursuant to BIO-1, if it is determined that there is a moderate or high potential for special-status plant species to occur in the construction area, a qualified biologist shall conduct a focused botanical survey for special-status plants during the appropriate bloom period for each species following the California Department of Fish and Wildlife's (CDFW) "*Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations*." Focal species shall include plant species that are listed as threatened or endangered or are candidate species for listing under the federal and/or California Endangered Species Act, and/or are assigned as CRPR 1A, 1B, 2B, or 2B. If special-status species are not detected, no further surveys or mitigation would be necessary. If any individuals or populations are detected, the location(s) shall be mapped, and a mitigation and monitoring plan focused on compensating for impacts to special-status plants shall be developed and include the following elements and criteria:

- A description of any areas of habitat occupied by special-status plants to be preserved and/or removed by the project;
- Identification and evaluation of the suitability of on-site or off-site areas for preservation, restoration, enhancement, or translocation;

## ATTACHMENT A – POTENTIALLY APPLICABLE MITIGATION MEASURES

- Analysis of species-specific requirements and considerations and specific criteria for success relative to the project's impact on this species and restoration, enhancement, or translocation;
- A description of proposed methods of preservation, restoration, enhancement, and/or translocation;
- A description of specific performance standards, including a required replacement ratio and minimum success standard of 1:1 for impacted individuals or populations;
- A monitoring and reporting program to ensure mitigation success; and
- A description of adaptive management and associated remedial measures to be implemented in the event that performance standards are not achieved.

**BIO-3, Focused Special-Status Wildlife Surveys**

Based on the results of the project-specific biological resources technical report conducted pursuant to BIO-1, if it is determined that there is habitat suitable for special-status wildlife species in the construction area, a qualified biologist shall conduct a focused survey for special-status wildlife during the appropriate seasonal survey window for each species prior to any clearing, grubbing, grading, or vegetation removal activities. Focal species shall include wildlife species that are listed as threatened or endangered, or are candidate species for listing under the federal and/or California Endangered Species Acts.

If special-status species are not detected, no further surveys or mitigation is necessary. If any individuals are detected, the location(s) shall be mapped, and a mitigation and monitoring plan focused on compensating for impacts to special-status wildlife shall be developed and include the elements and criteria included in BIO-2.

**BIO-4, Preconstruction Wildlife Surveys**

Based on the results of the project-specific biological resources technical report conducted pursuant to BIO-1, if it is determined that there is habitat suitable for special-status wildlife species in the construction area, a qualified biologist shall conduct pre-construction surveys to determine if special-status wildlife species are present no more than two weeks prior to the beginning of clearing, grubbing, grading, or vegetation removal activities.

If special-status wildlife species are observed within the construction area prior to or during construction activities, the biologist shall relocate such individuals out of the area affected by construction activities to nearby habitat that has equivalent value to support the species. The biologist shall identify suitable habitats as potential release sites prior to start of construction activities. If the special-status species is a federally- or state-listed as threatened or endangered, the biologist shall notify the United States Fish and Wildlife Service (USFWS) and/or CDFW, as appropriate, prior to capture and relocation to obtain approval.

Species-specific survey requirements include:

**ATTACHMENT A – POTENTIALLY APPLICABLE MITIGATION MEASURES**

- Coastal California Gnatcatcher: If construction activities occur within the coastal California gnatcatcher nesting season (February 15 to August 31), a qualified biologist shall survey for active nests within a 500-foot radius (or as practicable due to surrounding conditions, as determined by the biologist) within two weeks of noise-producing activity (including mobilization of construction equipment). If an active gnatcatcher nest is identified, the biologist shall notify the City and coordinate with the USFWS within 48 hours to determine if additional avoidance measures are necessary to prevent take. Such measures may include establishing buffers or delaying construction activities until nests are no longer occupied, as determined by a qualified biologist (DMMC § 30.92.050.B.5.d).

**BIO-5, Special-Status Species Avoidance and Construction Monitoring**

Based on the results of the project-specific biological resources technical report conducted pursuant to BIO-1, if it is determined that there is habitat suitable for special-status species in the construction area, prior to any clearing, grubbing, grading, or vegetation removal activities, high-visibility exclusion fencing shall be installed around all adjacent special-status species habitat identified during the preconstruction surveys within the project work areas and surrounding 300 feet, as feasible (if 300 feet is not feasible, then at a distance deemed appropriate by the qualified biologist). Exclusion fencing shall be located so as to preclude encroachment within the root-zone of any special-status plants by construction crews or vehicles. Exclusion fencing shall be retained during project construction. A biological monitor shall accompany the work crew during installation of fencing to prevent harm to species that may be active present and moving along the fence route.

A qualified biologist shall monitor vegetation removal and ground-disturbing activities (i.e., clearing, grubbing, grading) during all work hours for off-pavement work or once a week for all other construction activities. During the avian breeding season (February 1 through August 31), the monitor shall check the exclusion fencing and buffers for active nesting birds once a week, and shall verify when juveniles have fledged if found present prior to the start of construction (see BIO-6). The biologist shall have stop-work authority in the event that a special-status species is found within the active construction footprint. During construction, the biological monitor shall keep a daily observation log and a photo log to describe monitoring activities, remedial actions, non-compliance, and other issues and actions taken.

**BIO-6, Sensitive Vegetation Communities Compensation**

Based on the results of the project-specific biological resources technical report conducted pursuant to BIO-1, if direct impacts to sensitive vegetation communities occur, the City shall mitigate via on-site and/or off-site measures. On-site measures shall include rehabilitation for areas temporarily impacted at a 1:1 mitigation ratio, and enhancement for areas permanently impacted at a 2:1 mitigation ratio. Areas temporarily impacted shall be returned to conditions similar to those that existed prior to grading and/or ground-disturbing activities. Areas permanently impacted shall be mitigated through on-site enhancement activities including

removal of non-native and invasive species for a minimum of three years. If additional area is needed to compensate for permanent impacts at a 2:1 ratio, then an off-site location will be identified and evaluated. A Habitat Mitigation and Monitoring Plan shall be prepared and implemented to compensate for the loss of all sensitive vegetation communities (see below).

The Habitat Mitigation and Monitoring Plan shall detail the habitat restoration activities and shall specify the criteria and standards by which the revegetation and restoration actions will compensate for impacts of the proposed project on sensitive vegetation communities and shall at a minimum include discussion of the following:

- The rehabilitation and enhancement objectives, type, and amount of revegetation to be implemented taking into account enhanced areas where non-native invasive vegetation is removed and replanting specifications that take into account natural regeneration of native species when applicable.
- The specific methods to be employed for revegetation.
- Success criteria, monitoring requirements, and adaptive management strategies to ensure vegetation community restoration success.

**BIO-7, Aquatic Resources Delineation, Avoidance, and Compensation**

Based on the results of the project-specific biological resources technical report conducted pursuant to BIO-1, if it is determined that there are aquatic resources in the construction area, a qualified biologist shall conduct a formal aquatic resources jurisdictional delineation to determine the extent of jurisdictional aquatic resources regulated by the US Army Corps of Engineers, Regional Water Quality Control Board, and/or CDFW within the impact area.

CIP projects shall be designed to avoid jurisdictional aquatic resources regulated by the US Army Corps of Engineers, Regional Water Quality Control Board, and CDFW through design changes or implementation of alternative construction methodologies. Staking, flagging, and/or fencing shall be established to demarcate no-work areas, which shall include jurisdictional aquatic resources plus the required buffer established by the applicable regulatory agencies (typically, a minimum 100-foot buffer), to be avoided.

For CIP projects that will directly or indirectly impact jurisdictional aquatic resources, the City shall obtain the required federal and/or state permits from the US Army Corps of Engineers, Regional Water Quality Control Board, and/or CDFW, pursuant to Sections 404 and 401 of the Clean Water Act and Section 1600 et seq. of the California Fish and Game Code, respectively. Permits are required to be obtained by the City before the impact to the resources. Permits may include additional conditions of approval, such as compensatory mitigation.

**CUL-1, Evaluation for Listing in the CRHR**

Prior to construction activities for CIP projects located on sites containing structures 50 years of age or older that has not previously been evaluated, a qualified architectural historian shall

conduct a formal survey, recordation, and CRHR evaluation of the subject resource to determine if it is a historical resource under CEQA (CEQA Section 15064.5[a]). The architectural historian shall prepare comprehensive documentation of the evaluation, including methodology, analysis, and findings. This documentation must provide a clear determination of the site's eligibility for listing in the CRHR and be submitted to the appropriate regulatory agencies for review and concurrence.

Where development would involve the alteration or demolition of a structure greater than 50 years old, a historic evaluation by a Secretary of Interior's Standards for Architectural Historian or Historic Architect shall be provided to determine if the resource meets the definition of a historic resource as defined in CEQA Guidelines Section 15064.5.

For properties that have already been formally evaluated and determined to be historical resources, no additional CRHR eligibility evaluation is required. These resources shall be treated as historical resources for the purposes of CEQA.

If the structure is determined to be a historic resource, any proposed alteration shall follow mitigation guidelines contained in CEQA Guidelines Section 15126.4(b). Mitigation standards may include, but are not limited to avoidance and preservation, conducting alterations in a manner consistent with the Secretary of the Interior's Standards for the Treatment of Historic Properties (including as applicable, standards for Preservation, Rehabilitation, Restoration and Reconstruction), and documenting resources. The approach to comply with these standards shall be prepared by an Architectural Historian or Historic Architect and provided to the City.

Demolition and/or significant diminution of designated historic landmarks shall be prohibited.

**CUL-2, Archaeological Surveys**

For CIP project locations where no previous archaeological survey data is available, prior to ground-disturbing construction activities in previously undisturbed soils for CIP projects wholly and/or partially within moderate or high archaeological sensitivity zones as depicted in Figure 2, the City shall retain a qualified archaeologist to conduct an archaeological survey to evaluate the presence of cultural resources and the need for project-specific impact mitigation by preservation, relocation, or other methods. An archaeological resource report shall include the methods used to determine the presence or absence of archaeological resources, identify potential impacts from the proposed project, and evaluate the significance of any archaeological resources identified. If there are potentially significant impacts to an identified archaeological/cultural resource, the report shall also recommend appropriate mitigation required during ground-disturbing activities to reduce impacts to below a level of significance.

**CUL-3, Cultural Resources Monitoring Program**

During ground-disturbing construction activities in previously undisturbed soils for CIP projects wholly and/or partially within moderate or high archaeological sensitivity zones as depicted in

## ATTACHMENT A – POTENTIALLY APPLICABLE MITIGATION MEASURES

Figure 2, a Cultural Resource Mitigation Monitoring Program shall be conducted to provide for the identification, evaluation, treatment, and protection of any cultural resources that are affected by or may be discovered during the construction of the proposed project. The monitoring shall consist of the full-time presence of a qualified archaeologist and a traditionally and culturally affiliated Native American monitor shall be retained to monitor all ground-disturbing activities associated with project construction, including vegetation removal, clearing, grading, trenching, excavation, or other activities that may disturb the ground.

The qualified archaeologist and/or Native American monitor may halt ground-disturbing activities if archaeological artifact deposits or cultural features are discovered. In general, ground disturbing activities shall be directed away from these deposits for a short time to allow a determination of potential significance, the subject of which shall be determined by the qualified archaeologist and the Native American monitor. Ground-disturbing activities shall not resume until the qualified archaeologist, in consultation with the Native American monitor, deems the cultural resource or feature has been appropriately documented and/or protected. At the qualified archaeologist's discretion, the location of ground disturbing activities may be relocated elsewhere on the project site to avoid further disturbance of cultural resources.

The City shall relinquish ownership of all tribal cultural resources, including associated with burial and/or funerary goods, collected during the cultural resource mitigation monitoring program to the Most Likely Descendant as determined by the Native American Heritage Commission per California Public Resources Code Section 5097.98 for respectful and dignified treatment and disposition, including reburial, in accordance with the affiliated tribe's cultural and spiritual traditions.

Upon completion of construction monitoring, a Monitoring Report and/or Evaluation Report, which describes the results, analysis and conclusions of the cultural resource mitigation monitoring efforts (such as, but not limited to, the Research Design and Data Recovery Program) shall be submitted by the qualified archaeologist, along with the Native American monitor's notes and comments, to the City's Planning & Community Development Director.

**GEO-1, Paleontological Resources Monitoring Program**

For CIP project locations where no previous paleontological survey data is available that are wholly and/or partially within moderate or high paleontological sensitivity zones as depicted in Figure 3 that could encounter sensitive formations during grading or excavation at depths of 5 feet below ground surface or more in previously undisturbed soils, the City shall retain a Society of Vertebrate Paleontology (SVP)-qualified paleontologist (i.e., possesses a graduate degree in paleontology, geology, or related field, with demonstrated experience in the vertebrate, invertebrate, or botanical paleontology of California, as well as at least one year of full-time professional experience or equivalent specialized training in paleontological research and at least four months of supervised field and analytic experience in general North American paleontology) to provide or supervise a paleontological sensitivity training to all personnel

involved with earth-moving activities. The training session shall focus on how to identify paleontological resources, such as fossils that may be encountered, and the procedures to follow if encountered during construction.

The qualified paleontologist shall monitor earthwork affecting the aforementioned geological units or supervise the monitoring of these activities by a paleontological monitor. If any paleontological resources are encountered on the project site, the qualified paleontologist or the paleontological monitor shall halt all ground-disturbing activities within 50 feet of the find until a significance determination is made. If the fossils are determined to be significant, the qualified paleontologist shall prepare and implement a data recovery plan. The plan shall include, but not be limited to, the following measures:

- The paleontologist shall ensure that all significant fossils collected are cleaned, identified, catalogued, and permanently curated with an appropriate institution with a research interest in the materials (such as the San Diego Natural History Museum);
- The paleontologist shall ensure that specialty studies are completed, as appropriate, for any significant fossil collected; and
- The paleontologist shall ensure that curation of fossils is completed in consultation with the City. A letter of acceptance from the curation institution shall be submitted to the City.

The qualified paleontologist will determine when work within the immediate vicinity of the find may resume, or otherwise expand or reduce the construction exclusion buffer as warranted to ensure proper treatment of resources. The qualified paleontologist may reduce the frequency of monitoring, or cease monitoring altogether if observations of specific site conditions warrant.

**NOI-1, Temporary Noise Barriers**

For non-linear projects with the center of the site located within 260 feet of a noise-sensitive use, temporary noise barriers shall be required if use of heavy construction equipment will occur for more than five consecutive days at any given work location unless infeasible due to physical site constraints. Noise barriers shall be positioned to break the line-of-sight between the noise sources and the receptors and shall be made of materials with a Sound Transmission Class rating 30 or higher in accordance with ASTM International Test Method E90, or at least 2 pounds per square foot.

**NOI-2, Structural Vibration Evaluation**

For non-linear CIP projects utilizing large bulldozers/excavators, loaded trucks, concrete breakers, vibratory rollers/compactors, and/or pile drivers within 5 feet of a building, a preconstruction survey of all buildings within 5 feet of the maximum construction limits shall be conducted to document (both photographically and in writing) existing conditions of exterior fixtures and finishes prior to demolition, grading, or building permit approval. Any damage shall be repaired/restored to its preexisting condition.

# Capital Improvement Program (CIP) Project
# CEQA Streamlining Checklist

## ATTACHMENT B – FIGURES

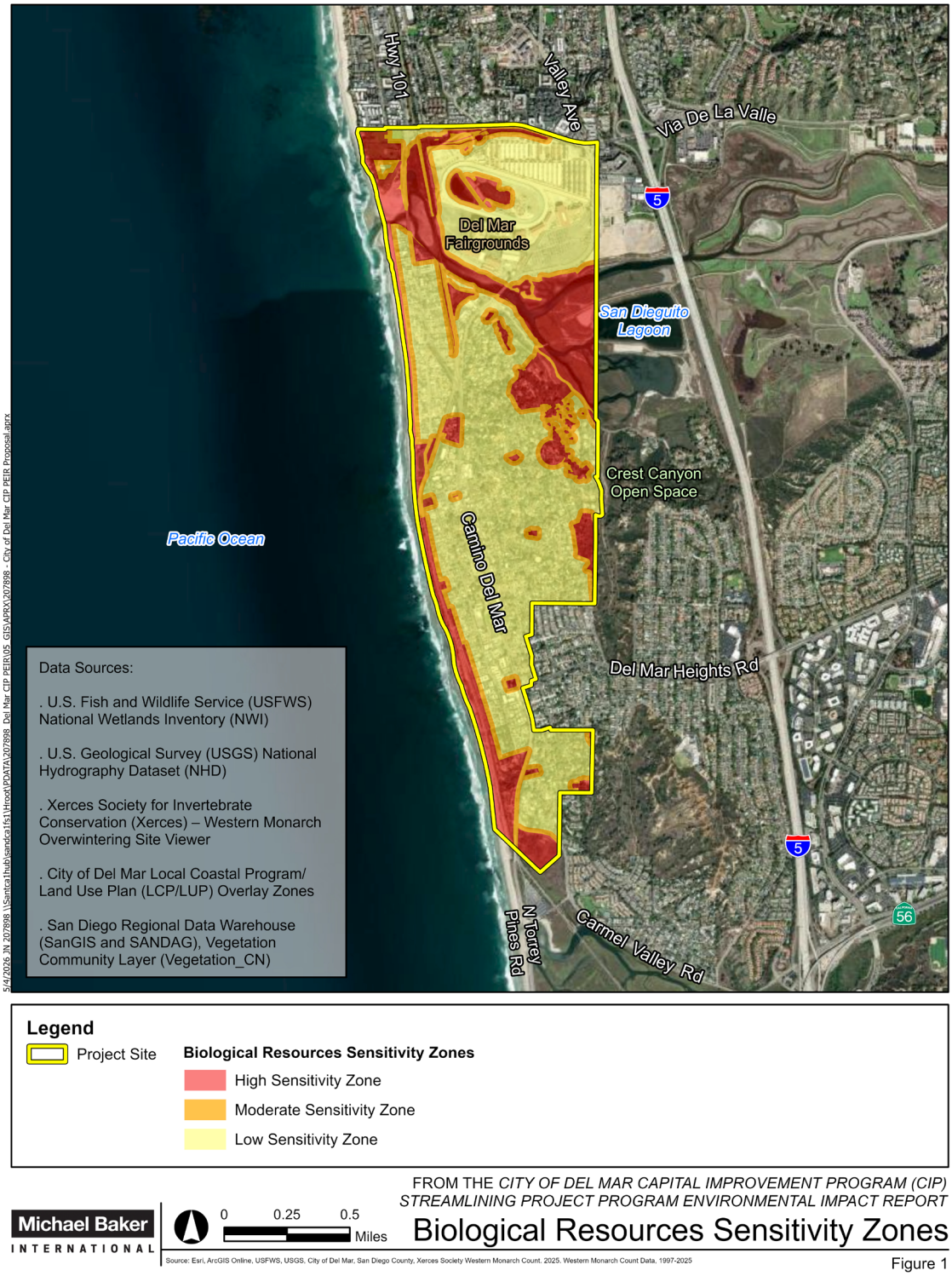


**Figure 1. Biological Resources Sensitivity Zones**

# Capital Improvement Program (CIP) Project
# CEQA Streamlining Checklist

## ATTACHMENT B – FIGURES

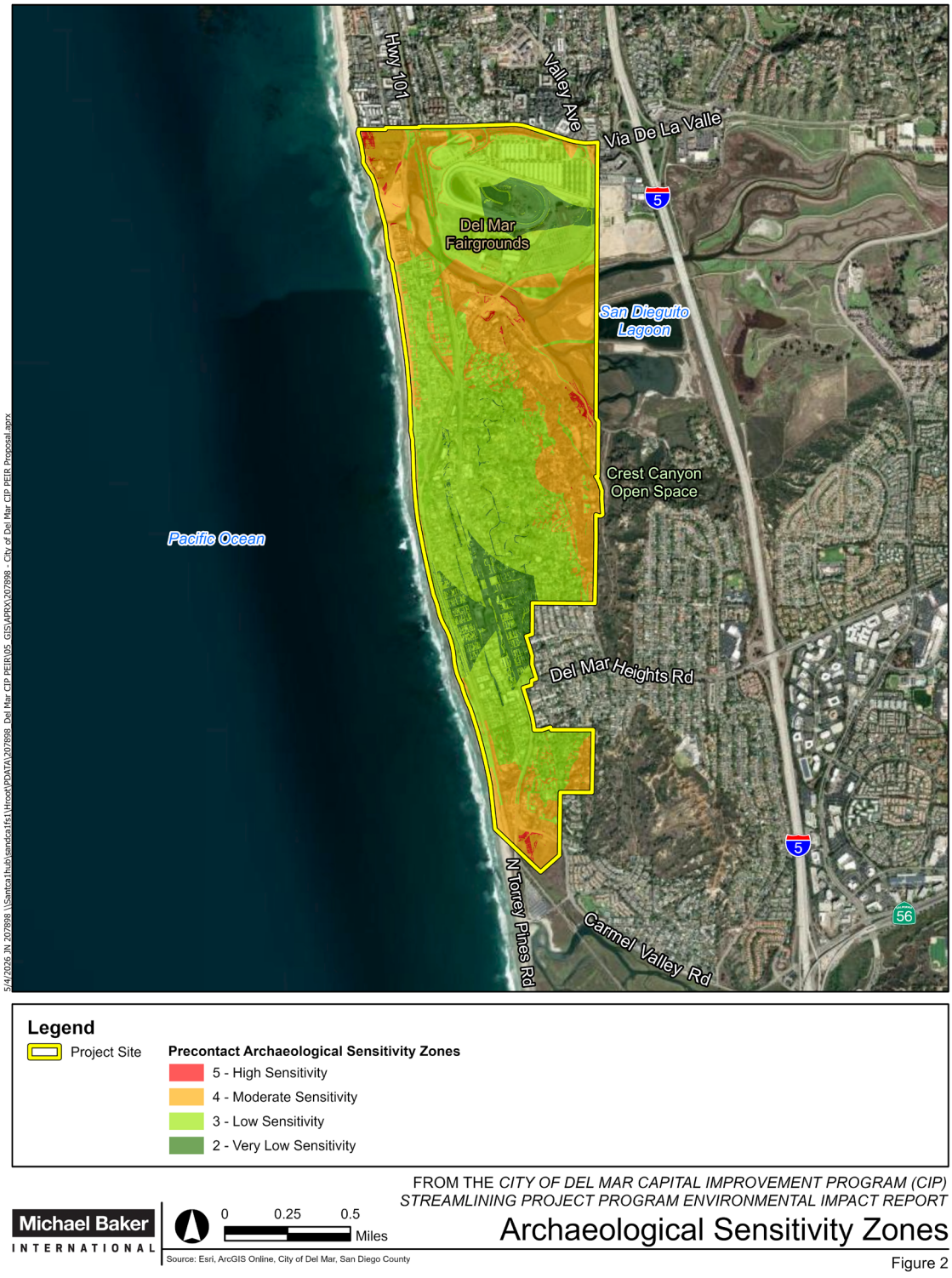


**Figure 2. Archaeological Resources Sensitivity Zones**

# Capital Improvement Program (CIP) Project
# CEQA Streamlining Checklist

## ATTACHMENT B – FIGURES

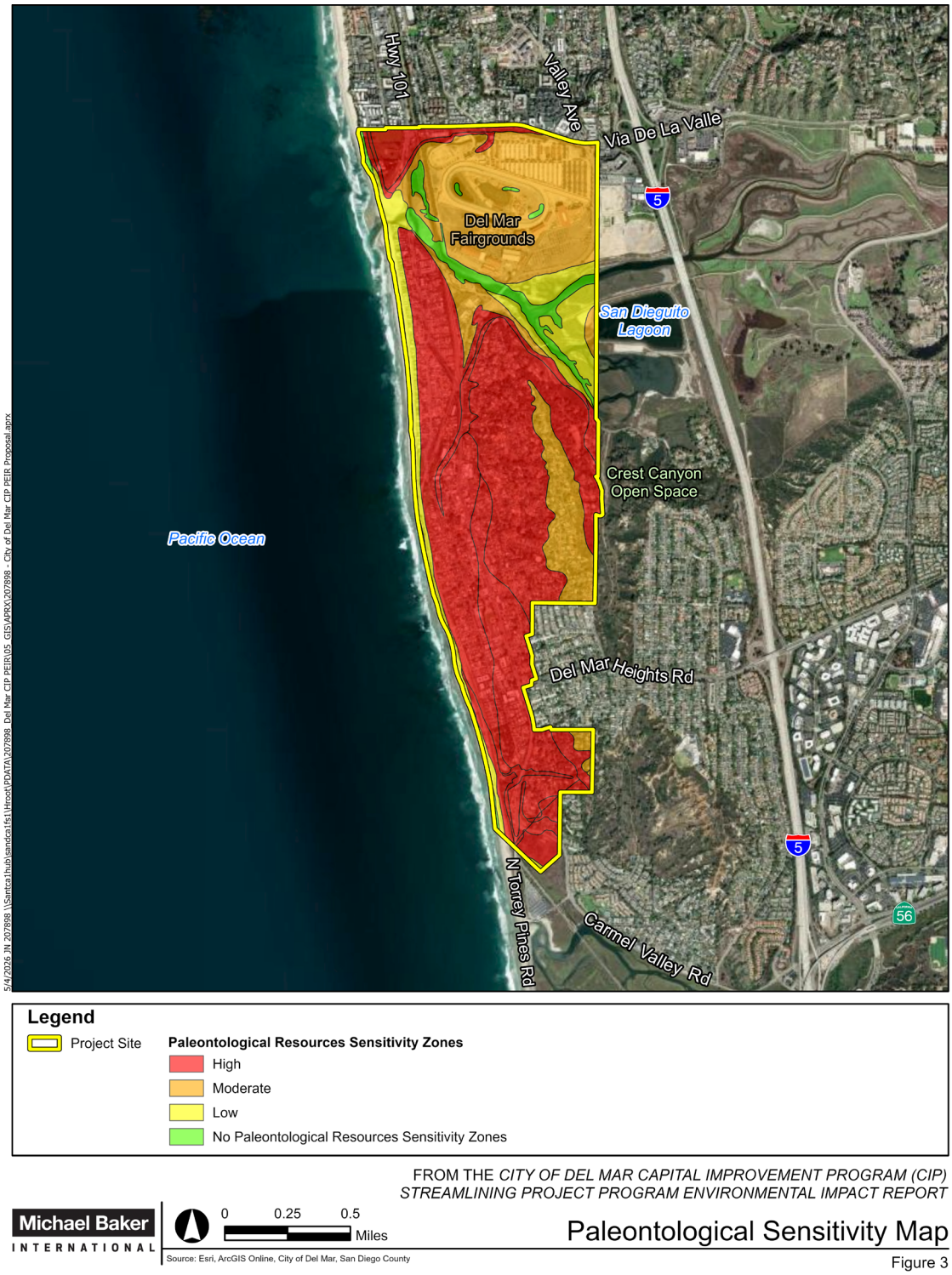


**Figure 3. Paleontological Resources Sensitivity Zones**

CITY OF DEL MAR

# Capital Improvement Program (CIP) Project
# CEQA Streamlining Checklist

## ATTACHMENT C – BIOLOGICAL RESOURCES TECHNICAL REPORT

Site-specific biological resources technical report is not required based on the response to Q4.

CITY OF DEL MAR

# Capital Improvement Program (CIP) Project
# CEQA Streamlining Checklist

## ATTACHMENT D – HISTORICAL RESOURCES ASSESSMENT REPORT

Site-specific Historical Resources Assessment Report is not required based on the response to Q5.

# DEL MAR CIP STREAMLINING PROGRAM CHECKLIST: SAMPLE PROJECT B

CITY OF DEL MAR

# Capital Improvement Program (CIP) Project
# CEQA Streamlining Checklist

The purpose of this checklist is to determine if additional evaluation under the California Environmental Quality Act (CEQA) is required for individual CIP projects pursuant to Section 15168 of the CEQA Guidelines, as well as applicable mitigation measures from the *City of Del Mar Capital Improvement Program Streamlining Project Program Environmental Impact Report*.

**Press the TAB key after selecting each answer to ensure checklist functions properly.**

## A. Checklist Questions

**CIP Project Name:** Sample Project B **City ID No. (if applicable):**

Q1. **Brief Project Description** (Briefly describe project type, location, current condition of project site, method of construction, duration of construction, construction staging/laydown areas, types of construction equipment, if there will be any post-construction activities such as monthly/quarter maintenance, etc. [Attach additional pages as necessary.] Also attach a project location map and the project site plan.):

This project is a sample of this checklist to show the results when all questions are answered as "Yes."

Q2. **Date:** May 4, 2026

Q3. **City Project Manager:** Project Manager's Name

Q4. Will the project include **ground disturbance** (e.g., trenching, excavation, or grading) **and/or vegetation clearing or trimming** within a **moderate or high biological resource sensitivity zone** (refer to Figure 1)? Yes

Q4 answer is yes; therefore, a qualified biologist must have completed a site-specific biological resources technical report within the past five (5) years. Mitigation Measure BIO-1 must be completed in order to complete this checklist. **Enter the title, author, and date of the site-specific biological resources technical report here and attach the report to this form**. Use the site-specific biological resources technical report to answer questions 4a through 4d. Sample Project B Biological Resources Technical Report, by Qualified Consultant Company, dated April 2026

4a. Did the results of the site-specific biological resources assessment determine that there is a moderate or high potential for special-status plants to occur in the construction area? Yes

4b. Did the results of the site-specific biological resources assessment determine that there is habitat suitable for special-status wildlife (animals) to occur in the construction area? Yes

4c. Did the results of the site-specific biological resources assessment determine that aquatic resources occur in the construction area? Yes

4d. Did the results of the site-specific biological resources assessment determine that there will be impacts (temporary or permanent) to sensitive vegetation communities? Yes

Q5. Does the site contain structures 50 years of age or older? Yes

Q5 answer is yes; therefore, a qualified architectural historian must have conducted a site-specific Historical Resources Assessment within the past five (5) years. **Enter the title, author, and date of the site-specific Historical Resources Assessment Report here and attach the report to this form.** Use the site-specific Historical Resources Assessment Report to answer questions 5a and 5b. Sample Project B Historical Resources Assessment Report, by Qualified Consultant Company, dated April 2026

Q5a. Does development involve the alteration or demolition of a structure greater than 50 years old? Yes

Q5b. Was the property determined to be a historical resource pursuant to CEQA? Yes

Q6. Will the project include **ground disturbance** (e.g., trenching, excavation, or grading) **in previously undisturbed soils** wholly or partially within **moderate or high archaeological resources sensitivity zones** (refer to Figure 2) where an archaeological survey has not been completed within the previous five (5) years? Yes

Q7. Will the project include **ground disturbance** (e.g., trenching, excavation, or grading) at **depths of 5 feet or more** below ground surface in **previously undisturbed soils** wholly or partially within **moderate or high paleontological resources sensitivity zones** (refer to Figure 3) where an paleontological review/survey has not been completed within the previous five (5) years? Yes

Q8. Is the project a **non-linear project**[1] with the center of the site **located within 260 feet of a noise-sensitive use** (e.g., residences [including residences for the elderly], hotels, schools, libraries, or churches)? Yes

Q8a. Will use of heavy construction equipment occur for more than five consecutive days at any given work location? Yes

Q9. Is the project a **non-linear project**[1] that is **utilizing heavy equipment** (i.e., large bulldozers/excavators, loaded trucks, concrete breakers, vibratory rollers/compactors, and/or pile drivers) **within 5 feet of a building**? Yes

---

[1] Non-Linear Projects: Projects with construction activities confined to a fixed location rather than a linear alignment. Examples of "non-linear projects" include park projects, installation of a sewer pump station, and improvements/repairs of existing public buildings.

Linear Projects: Construction of "linear projects" progress along a linear alignment, so noise sources move away from any given receptor as each segment is completed. Examples of "linear projects" include utility undergrounding, installation of pipelines, and roadway resurfacing.

Q10. Are there any unique circumstances[2] with the project or its setting that could result in impacts to the physical environment in resource areas not addressed above or within the *Del Mar Capital Improvement Program Streamlining Project Program Environmental Impact Report*? Yes

**Please coordinate with the Planning and Community Development Department staff for next steps. If it is determined that the project would have effects that were not examined in the PEIR and the project is not otherwise exempt from CEQA, a new Initial Study will need to be prepared leading to either an EIR or a Negative Declaration.**

**To complete this checklist, select "Complete" here**
**AND press the TAB key for all fields to update.**

Complete

[2] "Unique circumstances" includes unusual features of the project or its setting that distinguish it from typical projects, including peculiarities of the site or surroundings. Examples include presence of biological habitat, presence of bird nesting sites, bluffs, and regulated waters. Please consult with City Planning Department staff if you have any questions or require clarification.

## B. Findings

Since Q10 was answered Yes, please coordinate with the Planning and Community Development Department staff for next steps. If it is determined that the project would have effects that were not examined in the PEIR and the project is not otherwise exempt from CEQA, a new Initial Study will need to be prepared leading to either an EIR or a Negative Declaration.

See the table below for the mitigation measures required for this project. Refer to Attachment A for the complete text of applicable measures. The required mitigation measures must be reviewed and approved by the City Planning Director (or their designee).

| Finding Based on Checklist Responses | MM | Mitigation Measure Topic |
|---|---|---|
| **REQUIRED by response to Q4. Project includes ground disturbance and/or vegetation clearing or trimming within a moderate or high biological resource sensitivity zone (Figure 1).** | BIO-1 | Biological Resources Technical Report |
| **REQUIRED by response to Q4a. Site-specific biological resources technical report determined there is a moderate or high potential for special-status plants to occur in the construction area.** | BIO-2 | Focused Special-Status Plant Surveys and Compensation |
| **REQUIRED by response to Q4b. Site-specific biological resources technical report determined there is habitat suitable for special-status wildlife (animals) to occur in the construction area.** | BIO-3 | Focused Special-Status Wildlife Surveys |
| **REQUIRED by response to Q4b. Site-specific biological resources technical report determined there is habitat suitable for special-status wildlife (animals) to occur in the construction area.** | BIO-4 | Pre-construction Wildlife Surveys |
| **REQUIRED by response to Q4b. Site-specific biological resources technical report determined there is habitat suitable for special-status wildlife (animals) to occur in the construction area.** | BIO-5 | Special-Status Species Avoidance and Construction Monitoring |

CITY OF DEL MAR

# Capital Improvement Program (CIP) Project
# CEQA Streamlining Checklist

| Finding Based on Checklist Responses | MM | Mitigation Measure Topic |
|---|---|---|
| **REQUIRED by response to Q4d. Site-specific biological resources technical report determined there will be impacts (temporary or permanent) to sensitive vegetation communities.** | BIO-6 | Sensitive Vegetation Communities Compensation |
| **REQUIRED by response to Q4c. Site-specific biological resources technical report determined aquatic resources occur in the construction area.** | BIO-7 | Aquatic Resources Delineation, Avoidance, and Compensation |
| **REQUIRED by response to Q5a and Q5b. The project involves alteration of demolition of a historical resource pursuant to CEQA and shall follow mitigation guidelines contained in CEQA Guidelines Section 15126.4(b), as written in CUL-1.** | CUL-1 | Evaluation for Listing in the CRHR |
| **REQUIRED by response to Q6. The project includes ground disturbance (e.g., trenching, excavation, or grading) within moderate or high archaeological resources sensitivity zones (Figure 2).** | CUL-2 | Archaeological Surveys |
| **REQUIRED by response to Q6. The project includes ground disturbance (e.g., trenching, excavation, or grading) within moderate or high archaeological resources sensitivity zones (Figure 2).** | CUL-3 | Cultural Resources Monitoring Program |
| **REQUIRED by response to Q7. The project will include grading or excavation at depths of 5 feet below ground surface or more in previously undisturbed soils within moderate or high paleontological resources sensitivity zones (Figure 3).** | GEO-1 | Paleontological Resources Monitoring Program |

CITY OF DEL MAR

# Capital Improvement Program (CIP) Project
# CEQA Streamlining Checklist

| Finding Based on Checklist Responses | MM | Mitigation Measure Topic |
|---|---|---|
| **REQUIRED by response to Q8a. The project is a non-linear project with the center of the site located within 260 feet of a noise-sensitive use (e.g., residences [including residences for the elderly], hotels, schools, libraries, or churches, AND the project will use heavy construction equipment for more than five consecutive days at any given work location.** | NOI-1 | Temporary Noise Barriers |
| **REQUIRED by response to Q9. The project is a non-linear project utilizing large bulldozers/excavators, loaded trucks, concrete breakers, vibratory rollers/compactors, and/or pile drivers within 5 feet of a building.** | NOI-2 | Structural Vibration Evaluation |

**ATTACHMENT A – POTENTIALLY APPLICABLE MITIGATION MEASURES**

## C. Mitigation Measures

**BIO-1, Biological Resources Technical Report**

Prior to clearing, grubbing, grading, or vegetation removal activities associated with CIP projects wholly and/or partially within moderate or high biological resource sensitivity zones as depicted in Figure 1, the City shall retain a qualified biologist to conduct a project-specific biological resources technical report. Preparation of a project-specific biological resources technical report shall, at a minimum, include a comprehensive database and literature review, biological site survey, and consideration and evaluation for the habitat types and species occurrences identified in Table 2, Vegetation Communities and Land Cover Types; Table 3, Special Status Plants Expected to Occur within the City of Del Mar; and Table 5, Special-Status Wildlife Expected to Occur within the City of Del Mar, of Appendix E of the PEIR. Project-specific biological resources technical reports shall: (1) delineate vegetation communities and land covers, including riparian habitat or other sensitive natural communities; (2) identify aquatic resources including potential jurisdictional wetlands and non-wetlands waters of the US and/or State; (3) identify the extent or absence of habitat that may support special-status plants or wildlife; (4) evaluate the potential for direct and indirect impacts from proposed activities; (5) outline avoidance and minimization measures to avoid direct and indirect impacts; and (6) specify any additional compensatory mitigation measures to reduce direct and indirect impacts below a level of significance.

**BIO-2, Focused Special-Status Plant Surveys and Compensation**

Based on the results of the project-specific biological resources technical report conducted pursuant to BIO-1, if it is determined that there is a moderate or high potential for special-status plant species to occur in the construction area, a qualified biologist shall conduct a focused botanical survey for special-status plants during the appropriate bloom period for each species following the California Department of Fish and Wildlife's (CDFW) "*Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations*." Focal species shall include plant species that are listed as threatened or endangered or are candidate species for listing under the federal and/or California Endangered Species Act, and/or are assigned as CRPR 1A, 1B, 2B, or 2B. If special-status species are not detected, no further surveys or mitigation would be necessary. If any individuals or populations are detected, the location(s) shall be mapped, and a mitigation and monitoring plan focused on compensating for impacts to special-status plants shall be developed and include the following elements and criteria:

- A description of any areas of habitat occupied by special-status plants to be preserved and/or removed by the project;
- Identification and evaluation of the suitability of on-site or off-site areas for preservation, restoration, enhancement, or translocation;

## ATTACHMENT A – POTENTIALLY APPLICABLE MITIGATION MEASURES

- Analysis of species-specific requirements and considerations and specific criteria for success relative to the project's impact on this species and restoration, enhancement, or translocation;
- A description of proposed methods of preservation, restoration, enhancement, and/or translocation;
- A description of specific performance standards, including a required replacement ratio and minimum success standard of 1:1 for impacted individuals or populations;
- A monitoring and reporting program to ensure mitigation success; and
- A description of adaptive management and associated remedial measures to be implemented in the event that performance standards are not achieved.

**BIO-3, Focused Special-Status Wildlife Surveys**

Based on the results of the project-specific biological resources technical report conducted pursuant to BIO-1, if it is determined that there is habitat suitable for special-status wildlife species in the construction area, a qualified biologist shall conduct a focused survey for special-status wildlife during the appropriate seasonal survey window for each species prior to any clearing, grubbing, grading, or vegetation removal activities. Focal species shall include wildlife species that are listed as threatened or endangered, or are candidate species for listing under the federal and/or California Endangered Species Acts.

If special-status species are not detected, no further surveys or mitigation is necessary. If any individuals are detected, the location(s) shall be mapped, and a mitigation and monitoring plan focused on compensating for impacts to special-status wildlife shall be developed and include the elements and criteria included in BIO-2.

**BIO-4, Preconstruction Wildlife Surveys**

Based on the results of the project-specific biological resources technical report conducted pursuant to BIO-1, if it is determined that there is habitat suitable for special-status wildlife species in the construction area, a qualified biologist shall conduct pre-construction surveys to determine if special-status wildlife species are present no more than two weeks prior to the beginning of clearing, grubbing, grading, or vegetation removal activities.

If special-status wildlife species are observed within the construction area prior to or during construction activities, the biologist shall relocate such individuals out of the area affected by construction activities to nearby habitat that has equivalent value to support the species. The biologist shall identify suitable habitats as potential release sites prior to start of construction activities. If the special-status species is a federally- or state-listed as threatened or endangered, the biologist shall notify the United States Fish and Wildlife Service (USFWS) and/or CDFW, as appropriate, prior to capture and relocation to obtain approval.

Species-specific survey requirements include:

**ATTACHMENT A – POTENTIALLY APPLICABLE MITIGATION MEASURES**

- Coastal California Gnatcatcher: If construction activities occur within the coastal California gnatcatcher nesting season (February 15 to August 31), a qualified biologist shall survey for active nests within a 500-foot radius (or as practicable due to surrounding conditions, as determined by the biologist) within two weeks of noise-producing activity (including mobilization of construction equipment). If an active gnatcatcher nest is identified, the biologist shall notify the City and coordinate with the USFWS within 48 hours to determine if additional avoidance measures are necessary to prevent take. Such measures may include establishing buffers or delaying construction activities until nests are no longer occupied, as determined by a qualified biologist (DMMC § 30.92.050.B.5.d).

**BIO-5, Special-Status Species Avoidance and Construction Monitoring**

Based on the results of the project-specific biological resources technical report conducted pursuant to BIO-1, if it is determined that there is habitat suitable for special-status species in the construction area, prior to any clearing, grubbing, grading, or vegetation removal activities, high-visibility exclusion fencing shall be installed around all adjacent special-status species habitat identified during the preconstruction surveys within the project work areas and surrounding 300 feet, as feasible (if 300 feet is not feasible, then at a distance deemed appropriate by the qualified biologist). Exclusion fencing shall be located so as to preclude encroachment within the root-zone of any special-status plants by construction crews or vehicles. Exclusion fencing shall be retained during project construction. A biological monitor shall accompany the work crew during installation of fencing to prevent harm to species that may be active present and moving along the fence route.

A qualified biologist shall monitor vegetation removal and ground-disturbing activities (i.e., clearing, grubbing, grading) during all work hours for off-pavement work or once a week for all other construction activities. During the avian breeding season (February 1 through August 31), the monitor shall check the exclusion fencing and buffers for active nesting birds once a week, and shall verify when juveniles have fledged if found present prior to the start of construction (see BIO-6). The biologist shall have stop-work authority in the event that a special-status species is found within the active construction footprint. During construction, the biological monitor shall keep a daily observation log and a photo log to describe monitoring activities, remedial actions, non-compliance, and other issues and actions taken.

**BIO-6, Sensitive Vegetation Communities Compensation**

Based on the results of the project-specific biological resources technical report conducted pursuant to BIO-1, if direct impacts to sensitive vegetation communities occur, the City shall mitigate via on-site and/or off-site measures. On-site measures shall include rehabilitation for areas temporarily impacted at a 1:1 mitigation ratio, and enhancement for areas permanently impacted at a 2:1 mitigation ratio. Areas temporarily impacted shall be returned to conditions similar to those that existed prior to grading and/or ground-disturbing activities. Areas permanently impacted shall be mitigated through on-site enhancement activities including

removal of non-native and invasive species for a minimum of three years. If additional area is needed to compensate for permanent impacts at a 2:1 ratio, then an off-site location will be identified and evaluated. A Habitat Mitigation and Monitoring Plan shall be prepared and implemented to compensate for the loss of all sensitive vegetation communities (see below).

The Habitat Mitigation and Monitoring Plan shall detail the habitat restoration activities and shall specify the criteria and standards by which the revegetation and restoration actions will compensate for impacts of the proposed project on sensitive vegetation communities and shall at a minimum include discussion of the following:

- The rehabilitation and enhancement objectives, type, and amount of revegetation to be implemented taking into account enhanced areas where non-native invasive vegetation is removed and replanting specifications that take into account natural regeneration of native species when applicable.
- The specific methods to be employed for revegetation.
- Success criteria, monitoring requirements, and adaptive management strategies to ensure vegetation community restoration success.

**BIO-7, Aquatic Resources Delineation, Avoidance, and Compensation**

Based on the results of the project-specific biological resources technical report conducted pursuant to BIO-1, if it is determined that there are aquatic resources in the construction area, a qualified biologist shall conduct a formal aquatic resources jurisdictional delineation to determine the extent of jurisdictional aquatic resources regulated by the US Army Corps of Engineers, Regional Water Quality Control Board, and/or CDFW within the impact area.

CIP projects shall be designed to avoid jurisdictional aquatic resources regulated by the US Army Corps of Engineers, Regional Water Quality Control Board, and CDFW through design changes or implementation of alternative construction methodologies. Staking, flagging, and/or fencing shall be established to demarcate no-work areas, which shall include jurisdictional aquatic resources plus the required buffer established by the applicable regulatory agencies (typically, a minimum 100-foot buffer), to be avoided.

For CIP projects that will directly or indirectly impact jurisdictional aquatic resources, the City shall obtain the required federal and/or state permits from the US Army Corps of Engineers, Regional Water Quality Control Board, and/or CDFW, pursuant to Sections 404 and 401 of the Clean Water Act and Section 1600 et seq. of the California Fish and Game Code, respectively. Permits are required to be obtained by the City before the impact to the resources. Permits may include additional conditions of approval, such as compensatory mitigation.

**CUL-1, Evaluation for Listing in the CRHR**

Prior to construction activities for CIP projects located on sites containing structures 50 years of age or older that has not previously been evaluated, a qualified architectural historian shall

conduct a formal survey, recordation, and CRHR evaluation of the subject resource to determine if it is a historical resource under CEQA (CEQA Section 15064.5[a]). The architectural historian shall prepare comprehensive documentation of the evaluation, including methodology, analysis, and findings. This documentation must provide a clear determination of the site's eligibility for listing in the CRHR and be submitted to the appropriate regulatory agencies for review and concurrence.

Where development would involve the alteration or demolition of a structure greater than 50 years old, a historic evaluation by a Secretary of Interior's Standards for Architectural Historian or Historic Architect shall be provided to determine if the resource meets the definition of a historic resource as defined in CEQA Guidelines Section 15064.5.

For properties that have already been formally evaluated and determined to be historical resources, no additional CRHR eligibility evaluation is required. These resources shall be treated as historical resources for the purposes of CEQA.

If the structure is determined to be a historic resource, any proposed alteration shall follow mitigation guidelines contained in CEQA Guidelines Section 15126.4(b). Mitigation standards may include, but are not limited to avoidance and preservation, conducting alterations in a manner consistent with the Secretary of the Interior's Standards for the Treatment of Historic Properties (including as applicable, standards for Preservation, Rehabilitation, Restoration and Reconstruction), and documenting resources. The approach to comply with these standards shall be prepared by an Architectural Historian or Historic Architect and provided to the City.

Demolition and/or significant diminution of designated historic landmarks shall be prohibited.

**CUL-2, Archaeological Surveys**

For CIP project locations where no previous archaeological survey data is available, prior to ground-disturbing construction activities in previously undisturbed soils for CIP projects wholly and/or partially within moderate or high archaeological sensitivity zones as depicted in Figure 2, the City shall retain a qualified archaeologist to conduct an archaeological survey to evaluate the presence of cultural resources and the need for project-specific impact mitigation by preservation, relocation, or other methods. An archaeological resource report shall include the methods used to determine the presence or absence of archaeological resources, identify potential impacts from the proposed project, and evaluate the significance of any archaeological resources identified. If there are potentially significant impacts to an identified archaeological/cultural resource, the report shall also recommend appropriate mitigation required during ground-disturbing activities to reduce impacts to below a level of significance.

**CUL-3, Cultural Resources Monitoring Program**

During ground-disturbing construction activities in previously undisturbed soils for CIP projects wholly and/or partially within moderate or high archaeological sensitivity zones as depicted in

## ATTACHMENT A – POTENTIALLY APPLICABLE MITIGATION MEASURES

Figure 2, a Cultural Resource Mitigation Monitoring Program shall be conducted to provide for the identification, evaluation, treatment, and protection of any cultural resources that are affected by or may be discovered during the construction of the proposed project. The monitoring shall consist of the full-time presence of a qualified archaeologist and a traditionally and culturally affiliated Native American monitor shall be retained to monitor all ground-disturbing activities associated with project construction, including vegetation removal, clearing, grading, trenching, excavation, or other activities that may disturb the ground.

The qualified archaeologist and/or Native American monitor may halt ground-disturbing activities if archaeological artifact deposits or cultural features are discovered. In general, ground disturbing activities shall be directed away from these deposits for a short time to allow a determination of potential significance, the subject of which shall be determined by the qualified archaeologist and the Native American monitor. Ground-disturbing activities shall not resume until the qualified archaeologist, in consultation with the Native American monitor, deems the cultural resource or feature has been appropriately documented and/or protected. At the qualified archaeologist's discretion, the location of ground disturbing activities may be relocated elsewhere on the project site to avoid further disturbance of cultural resources.

The City shall relinquish ownership of all tribal cultural resources, including associated with burial and/or funerary goods, collected during the cultural resource mitigation monitoring program to the Most Likely Descendant as determined by the Native American Heritage Commission per California Public Resources Code Section 5097.98 for respectful and dignified treatment and disposition, including reburial, in accordance with the affiliated tribe's cultural and spiritual traditions.

Upon completion of construction monitoring, a Monitoring Report and/or Evaluation Report, which describes the results, analysis and conclusions of the cultural resource mitigation monitoring efforts (such as, but not limited to, the Research Design and Data Recovery Program) shall be submitted by the qualified archaeologist, along with the Native American monitor's notes and comments, to the City's Planning & Community Development Director.

**GEO-1, Paleontological Resources Monitoring Program**

For CIP project locations where no previous paleontological survey data is available that are wholly and/or partially within moderate or high paleontological sensitivity zones as depicted in Figure 3 that could encounter sensitive formations during grading or excavation at depths of 5 feet below ground surface or more in previously undisturbed soils, the City shall retain a Society of Vertebrate Paleontology (SVP)-qualified paleontologist (i.e., possesses a graduate degree in paleontology, geology, or related field, with demonstrated experience in the vertebrate, invertebrate, or botanical paleontology of California, as well as at least one year of full-time professional experience or equivalent specialized training in paleontological research and at least four months of supervised field and analytic experience in general North American paleontology) to provide or supervise a paleontological sensitivity training to all personnel

involved with earth-moving activities. The training session shall focus on how to identify paleontological resources, such as fossils that may be encountered, and the procedures to follow if encountered during construction.

The qualified paleontologist shall monitor earthwork affecting the aforementioned geological units or supervise the monitoring of these activities by a paleontological monitor. If any paleontological resources are encountered on the project site, the qualified paleontologist or the paleontological monitor shall halt all ground-disturbing activities within 50 feet of the find until a significance determination is made. If the fossils are determined to be significant, the qualified paleontologist shall prepare and implement a data recovery plan. The plan shall include, but not be limited to, the following measures:

- The paleontologist shall ensure that all significant fossils collected are cleaned, identified, catalogued, and permanently curated with an appropriate institution with a research interest in the materials (such as the San Diego Natural History Museum);
- The paleontologist shall ensure that specialty studies are completed, as appropriate, for any significant fossil collected; and
- The paleontologist shall ensure that curation of fossils is completed in consultation with the City. A letter of acceptance from the curation institution shall be submitted to the City.

The qualified paleontologist will determine when work within the immediate vicinity of the find may resume, or otherwise expand or reduce the construction exclusion buffer as warranted to ensure proper treatment of resources. The qualified paleontologist may reduce the frequency of monitoring, or cease monitoring altogether if observations of specific site conditions warrant.

**NOI-1, Temporary Noise Barriers**

For non-linear projects with the center of the site located within 260 feet of a noise-sensitive use, temporary noise barriers shall be required if use of heavy construction equipment will occur for more than five consecutive days at any given work location unless infeasible due to physical site constraints. Noise barriers shall be positioned to break the line-of-sight between the noise sources and the receptors and shall be made of materials with a Sound Transmission Class rating 30 or higher in accordance with ASTM International Test Method E90, or at least 2 pounds per square foot.

**NOI-2, Structural Vibration Evaluation**

For non-linear CIP projects utilizing large bulldozers/excavators, loaded trucks, concrete breakers, vibratory rollers/compactors, and/or pile drivers within 5 feet of a building, a preconstruction survey of all buildings within 5 feet of the maximum construction limits shall be conducted to document (both photographically and in writing) existing conditions of exterior fixtures and finishes prior to demolition, grading, or building permit approval. Any damage shall be repaired/restored to its preexisting condition.

# Capital Improvement Program (CIP) Project
# CEQA Streamlining Checklist

## ATTACHMENT B – FIGURES

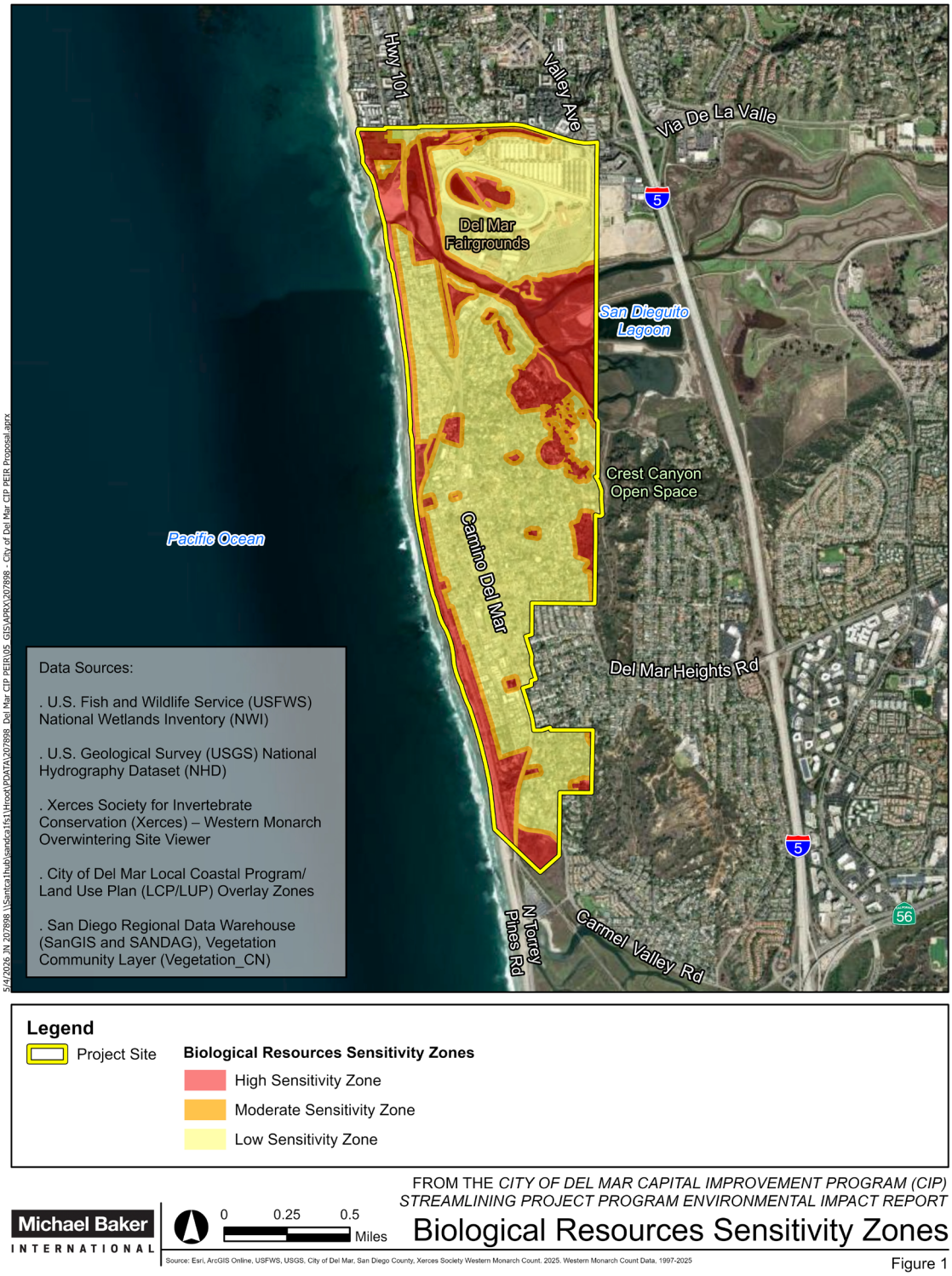


**Figure 1. Biological Resources Sensitivity Zones**

# Capital Improvement Program (CIP) Project
# CEQA Streamlining Checklist

## ATTACHMENT B – FIGURES

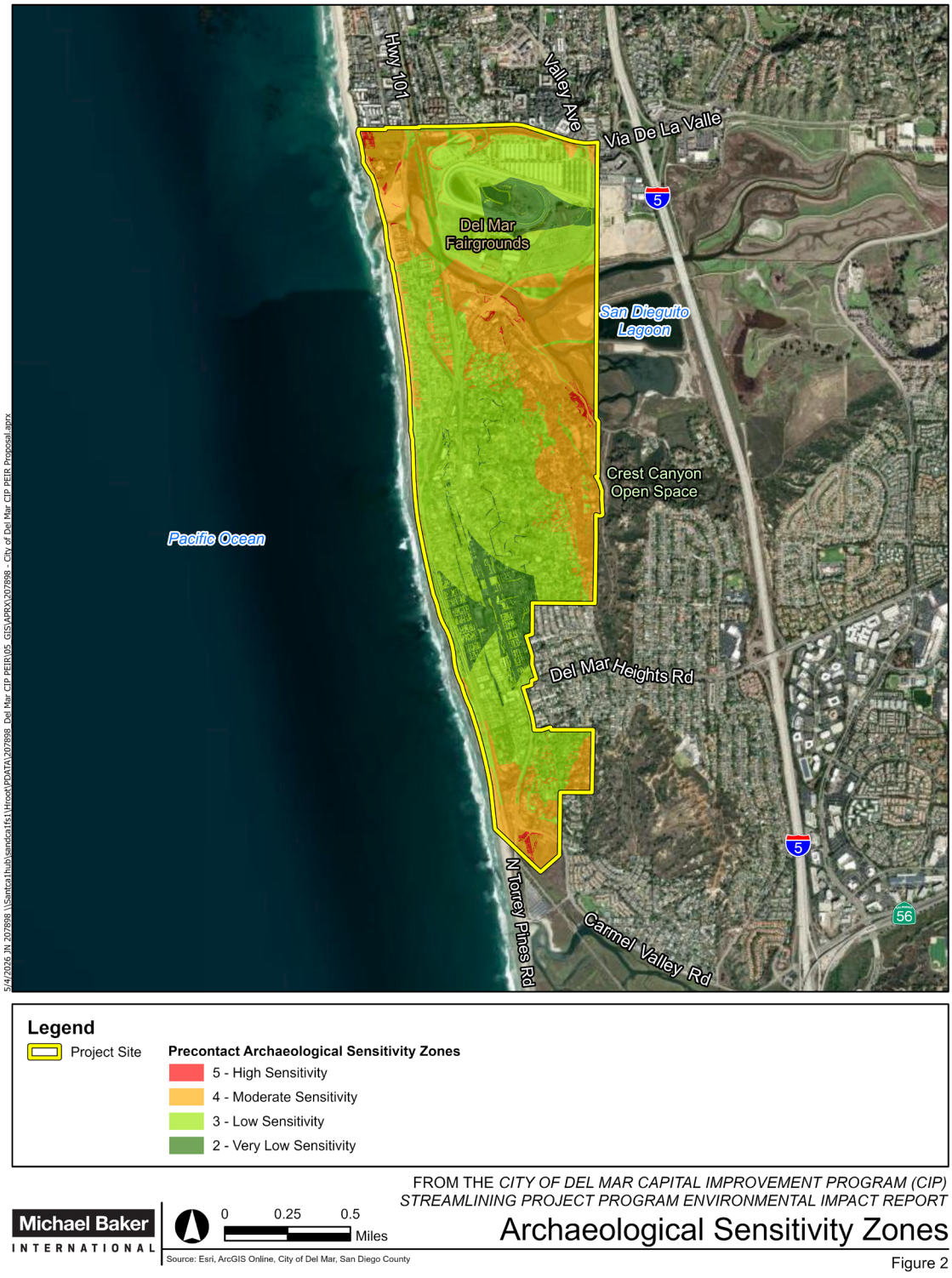


**Figure 2. Archaeological Resources Sensitivity Zones**

# Capital Improvement Program (CIP) Project
# CEQA Streamlining Checklist

## ATTACHMENT B – FIGURES

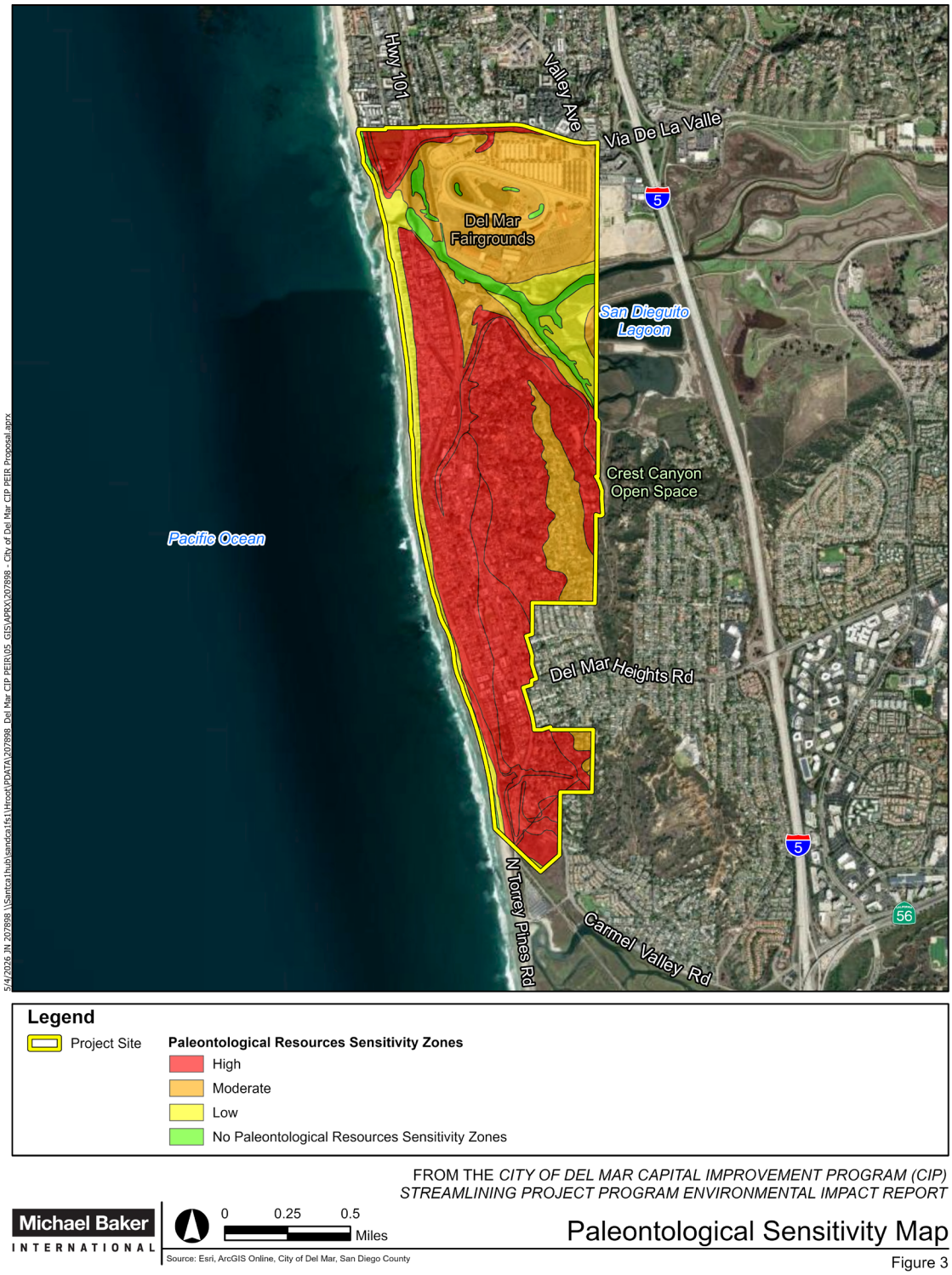


**Figure 3. Paleontological Resources Sensitivity Zones**

CITY OF DEL MAR

# Capital Improvement Program (CIP) Project
# CEQA Streamlining Checklist

## ATTACHMENT C – BIOLOGICAL RESOURCES TECHNICAL REPORT

Project includes ground disturbance and/or vegetation clearing or trimming within a moderate or high biological resource sensitivity zone (Figure 1). Site-specific biological resources technical report is required.

CITY OF DEL MAR

# Capital Improvement Program (CIP) Project
# CEQA Streamlining Checklist

## ATTACHMENT D – HISTORICAL RESOURCES ASSESSMENT REPORT

Project site contains structures 50 years of age or older. A site-specific Historical Resources Assessment Report is required.

# Utilities Undergrounding District 2 (Beach Colony) Detailed Report

## Table of Contents


1. Basic Project Information
   1.1. Basic Project Information
   1.2. Land Use Types
   1.3. User-Selected Emission Reduction Measures by Emissions Sector
2. Emissions Summary
   2.1. Construction Emissions Compared Against Thresholds
   2.2. Construction Emissions by Year, Unmitigated
   2.3. Construction Emissions by Year, Mitigated
3. Construction Emissions Details
   3.1. Linear, Drainage, Utilities, & Sub-Grade (2026) - Unmitigated
   3.2. Linear, Drainage, Utilities, & Sub-Grade (2026) - Mitigated
4. Operations Emissions Details
   4.10. Soil Carbon Accumulation By Vegetation Type
      4.10.1. Soil Carbon Accumulation By Vegetation Type - Unmitigated
      4.10.2. Above and Belowground Carbon Accumulation by Land Use Type - Unmitigated
      4.10.3. Avoided and Sequestered Emissions by Species - Unmitigated
      4.10.4. Soil Carbon Accumulation By Vegetation Type - Mitigated
      4.10.5. Above and Belowground Carbon Accumulation by Land Use Type - Mitigated
      4.10.6. Avoided and Sequestered Emissions by Species - Mitigated
5. Activity Data
   5.1. Construction Schedule
   5.2. Off-Road Equipment
      5.2.1. Unmitigated
      5.2.2. Mitigated
   5.3. Construction Vehicles
      5.3.1. Unmitigated
      5.3.2. Mitigated
   5.4. Vehicles
      5.4.1. Construction Vehicle Control Strategies
   5.5. Architectural Coatings
   5.6. Dust Mitigation
      5.6.1. Construction Earthmoving Activities
      5.6.2. Construction Earthmoving Control Strategies

5.7. Construction Paving
5.8. Construction Electricity Consumption and Emissions Factors
5.18. Vegetation
5.18.1. Land Use Change
5.18.1.1. Unmitigated
5.18.1.2. Mitigated
5.18.1. Biomass Cover Type
5.18.1.1. Unmitigated
5.18.1.2. Mitigated
5.18.2. Sequestration
5.18.2.1. Unmitigated
5.18.2.2. Mitigated
6. Climate Risk Detailed Report
6.1. Climate Risk Summary
6.2. Initial Climate Risk Scores
6.3. Adjusted Climate Risk Scores
6.4. Climate Risk Reduction Measures
7. Health and Equity Details
7.1. CalEnviroScreen 4.0 Scores
7.2. Healthy Places Index Scores
7.3. Overall Health & Equity Scores
7.4. Health & Equity Measures
7.5. Evaluation Scorecard
7.6. Health & Equity Custom Measures
8. User Changes to Default Data

# 1 Basic Project Information

## 1.1 Basic Project Information

| Data Field | Value |
|---|---|
| Project Name | Utilities Undergrounding District 2 (Beach Colony) |
| Construction Start Date | 1/1/2026 |
| Lead Agency | — |
| Land Use Scale | Project/site |
| Analysis Level for Defaults | County |
| Windspeed (m/s) | 2.60 |
| Precipitation (days) | 15.4 |
| Location | Del Mar, CA 92014, USA |
| County | San Diego |
| City | Del Mar |
| Air District | San Diego County APCD |
| Air Basin | San Diego |
| TAZ | 6382 |
| EDFZ | 12 |
| Electric Utility | San Diego Gas & Electric |
| Gas Utility | San Diego Gas & Electric |
| App Version | 2022.1.1.30 |

## 1.2 Land Use Types

| Land Use Subtype | Size | Unit | Lot Acreage | Building Area (sq ft) | Landscape Area (sq ft) | Special Landscape Area (sq ft) | Population | Description |
|---|---|---|---|---|---|---|---|---|
| Road Construction | 2.23 | Mile | 1.00 | 0.00 | — | — | — | — |

## 1.3 User-Selected Emission Reduction Measures by Emissions Sector

| Sector | # | Measure Title |
|---|---|---|
| Construction | C-10-A | Water Exposed Surfaces |
| Construction | C-10-C | Water Unpaved Construction Roads |
| Construction | C-11 | Limit Vehicle Speeds on Unpaved Roads |
| Construction | C-12 | Sweep Paved Roads |

# 2 Emissions Summary

## 2.1 Construction Emissions Compared Against Thresholds

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

| Un/Mit. | TOG | ROG | NOx | CO | SO2 | PM10E | PM10D | PM10T | PM2.5E | PM2.5D | PM2.5T | BCO2 | NBCO2 | CO2T | CH4 | N2O | R | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Daily, Summer (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Unmit. | 1.58 | 1.32 | 10.7 | 15.6 | 0.02 | 0.46 | 0.74 | 1.21 | 0.43 | 0.11 | 0.53 | — | 2,490 | 2,490 | 0.10 | 0.03 | 0.81 | 2,501 |
| Mit. | 1.58 | 1.32 | 10.7 | 15.6 | 0.02 | 0.46 | 0.35 | 0.81 | 0.43 | 0.06 | 0.49 | — | 2,490 | 2,490 | 0.10 | 0.03 | 0.81 | 2,501 |
| % Reduced | — | — | — | — | — | — | 53% | 33% | — | 40% | 8% | — | — | — | — | — | — | — |
| Average Daily (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Unmit. | 0.51 | 0.43 | 3.47 | 5.02 | 0.01 | 0.15 | 0.24 | 0.39 | 0.14 | 0.03 | 0.17 | — | 801 | 801 | 0.03 | 0.01 | 0.11 | 805 |
| Mit. | 0.51 | 0.43 | 3.47 | 5.02 | 0.01 | 0.15 | 0.11 | 0.26 | 0.14 | 0.02 | 0.16 | — | 801 | 801 | 0.03 | 0.01 | 0.11 | 805 |
| % Reduced | — | — | — | — | — | — | 53% | 33% | — | 40% | 8% | — | — | — | — | — | — | — |
| Annual (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Unmit. | 0.09 | 0.08 | 0.63 | 0.92 | < 0.005 | 0.03 | 0.04 | 0.07 | 0.03 | 0.01 | 0.03 | — | 133 | 133 | 0.01 | < 0.005 | 0.02 | 133 |
| Mit. | 0.09 | 0.08 | 0.63 | 0.92 | < 0.005 | 0.03 | 0.02 | 0.05 | 0.03 | < 0.005 | 0.03 | — | 133 | 133 | 0.01 | < 0.005 | 0.02 | 133 |
| % Reduced | — | — | — | — | — | — | 53% | 33% | — | 40% | 8% | — | — | — | — | — | — | — |

## 2.2 Construction Emissions by Year, Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

| Year | TOG | ROG | NOx | CO | SO2 | PM10E | PM10D | PM10T | PM2.5E | PM2.5D | PM2.5T | BCO2 | NBCO2 | CO2T | CH4 | N2O | R | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Daily - Summer (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| 2026 | 1.58 | 1.32 | 10.7 | 15.6 | 0.02 | 0.46 | 0.74 | 1.21 | 0.43 | 0.11 | 0.53 | — | 2,490 | 2,490 | 0.10 | 0.03 | 0.81 | 2,501 |
| Daily - Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Average Daily | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| 2026 | 0.51 | 0.43 | 3.47 | 5.02 | 0.01 | 0.15 | 0.24 | 0.39 | 0.14 | 0.03 | 0.17 | — | 801 | 801 | 0.03 | 0.01 | 0.11 | 805 |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| 2026 | 0.09 | 0.08 | 0.63 | 0.92 | < 0.005 | 0.03 | 0.04 | 0.07 | 0.03 | 0.01 | 0.03 | — | 133 | 133 | 0.01 | < 0.005 | 0.02 | 133 |

## 2.3 Construction Emissions by Year, Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

| Year | TOG | ROG | NOx | CO | SO2 | PM10E | PM10D | PM10T | PM2.5E | PM2.5D | PM2.5T | BCO2 | NBCO2 | CO2T | CH4 | N2O | R | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Daily - Summer (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| 2026 | 1.58 | 1.32 | 10.7 | 15.6 | 0.02 | 0.46 | 0.35 | 0.81 | 0.43 | 0.06 | 0.49 | — | 2,490 | 2,490 | 0.10 | 0.03 | 0.81 | 2,501 |
| Daily - Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Average Daily | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| 2026 | 0.51 | 0.43 | 3.47 | 5.02 | 0.01 | 0.15 | 0.11 | 0.26 | 0.14 | 0.02 | 0.16 | — | 801 | 801 | 0.03 | 0.01 | 0.11 | 805 |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| 2026 | 0.09 | 0.08 | 0.63 | 0.92 | <0.005 | 0.03 | 0.02 | 0.05 | 0.03 | <0.005 | 0.03 | — | 133 | 133 | 0.01 | <0.005 | 0.02 | 133 |

# 3 Construction Emissions Details

## 3.1 Linear, Drainage, Utilities, & Sub-Grade (2026) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

| Location | TOG | ROG | NOx | CO | SO2 | PM10E | PM10D | PM10T | PM2.5E | PM2.5D | PM2.5T | BCO2 | NBCO2 | CO2T | CH4 | N2O | R | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Onsite | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Daily, Summer (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Off-Road Equipment | 1.47 | 1.23 | 10.7 | 14.6 | 0.02 | 0.46 | — | 0.46 | 0.43 | — | 0.43 | — | 2,258 | 2,258 | 0.09 | 0.02 | — | 2,265 |
| Dust From Material Movement | — | — | — | — | — | — | 0.53 | 0.53 | — | 0.06 | 0.06 | — | — | — | — | — | — | — |
| Onsite truck | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Average Daily | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Off-Road Equipment | 0.48 | 0.40 | 3.45 | 4.71 | 0.01 | 0.15 | — | 0.15 | 0.14 | — | 0.14 | — | 730 | 730 | 0.03 | 0.01 | — | 732 |
| Dust From Material Movement | — | — | — | — | — | — | 0.17 | 0.17 | — | 0.02 | 0.02 | — | — | — | — | — | — | — |
| Onsite truck | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Off-Road Equipment | 0.09 | 0.07 | 0.63 | 0.86 | <0.005 | 0.03 | — | 0.03 | 0.03 | — | 0.03 | — | 121 | 121 | <0.005 | <0.005 | — | 121 |
| Dust From Material Movement | — | — | — | — | — | — | 0.03 | 0.03 | — | <0.005 | <0.005 | — | — | — | — | — | — | — |
| Onsite truck | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Offsite | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Daily, Summer (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Worker | 0.11 | 0.09 | 0.07 | 1.08 | 0.00 | 0.00 | 0.21 | 0.21 | 0.00 | 0.05 | 0.05 | — | 232 | 232 | 0.01 | 0.01 | 0.81 | 236 |
| Vendor | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Hauling | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Average Daily | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Worker | 0.03 | 0.03 | 0.03 | 0.31 | 0.00 | 0.00 | 0.07 | 0.07 | 0.00 | 0.02 | 0.02 | — | 71.6 | 71.6 | <0.005 | <0.005 | 0.11 | 72.6 |
| Vendor | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Hauling | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Worker | 0.01 | 0.01 | <0.005 | 0.06 | 0.00 | 0.00 | 0.01 | 0.01 | 0.00 | <0.005 | <0.005 | — | 11.9 | 11.9 | <0.005 | <0.005 | 0.02 | 12.0 |
| Vendor | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Hauling | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |

## 3.2 Linear, Drainage, Utilities, & Sub-Grade (2026) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

| Location | TOG | ROG | NOx | CO | SO2 | PM10E | PM10D | PM10T | PM2.5E | PM2.5D | PM2.5T | BCO2 | NBCO2 | CO2T | CH4 | N2O | R | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Onsite | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Daily, Summer (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Off-Roa d Equipm ent | 1.47 | 1.23 | 10.7 | 14.6 | 0.02 | 0.46 | — | 0.46 | 0.43 | — | 0.43 | — | 2,258 | 2,258 | 0.09 | 0.02 | — | 2,265 |
| Dust From Material Movement | — | — | — | — | — | — | 0.14 | 0.14 | — | 0.01 | 0.01 | — | — | — | — | — | — | — |
| Onsite truck | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Average Daily | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Off-Roa d Equipm ent | 0.48 | 0.40 | 3.45 | 4.71 | 0.01 | 0.15 | — | 0.15 | 0.14 | — | 0.14 | — | 730 | 730 | 0.03 | 0.01 | — | 732 |
| Dust From Material Movement | — | — | — | — | — | — | 0.04 | 0.04 | — | <0.005 | <0.005 | — | — | — | — | — | — | — |
| Onsite truck | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Off-Roa d Equipm ent | 0.09 | 0.07 | 0.63 | 0.86 | <0.005 | 0.03 | — | 0.03 | 0.03 | — | 0.03 | — | 121 | 121 | <0.005 | <0.005 | — | 121 |
| Dust From Material Movement | — | — | — | — | — | — | 0.01 | 0.01 | — | <0.005 | <0.005 | — | — | — | — | — | — | — |
| Onsite truck | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Offsite | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Daily, Summer (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Worker | 0.11 | 0.09 | 0.07 | 1.08 | 0.00 | 0.00 | 0.21 | 0.21 | 0.00 | 0.05 | 0.05 | — | 232 | 232 | 0.01 | 0.01 | 0.81 | 236 |
| Vendor | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Hauling | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Average Daily | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Worker | 0.03 | 0.03 | 0.03 | 0.31 | 0.00 | 0.00 | 0.07 | 0.07 | 0.00 | 0.02 | 0.02 | — | 71.6 | 71.6 | <0.005 | <0.005 | 0.11 | 72.6 |
| Vendor | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Hauling | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Worker | 0.01 | 0.01 | <0.005 | 0.06 | 0.00 | 0.00 | 0.01 | 0.01 | 0.00 | <0.005 | <0.005 | — | 11.9 | 11.9 | <0.005 | <0.005 | 0.02 | 12.0 |
| Vendor | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Hauling | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |

# 4 Operations Emissions Details

## 4.10 Soil Carbon Accumulation By Vegetation Type

### 4.10.1 Soil Carbon Accumulation By Vegetation Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

| Vegetati on | TOG | ROG | NOx | CO | SO2 | PM10E | PM10D | PM10T | PM2.5E | PM2.5D | PM2.5T | BCO2 | NBCO2 | CO2T | CH4 | N2O | R | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Daily, Summer (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Total | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Total | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Total | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |

## 4.10.2 Above and Belowground Carbon Accumulation by Land Use Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

| Land Use | TOG | ROG | NOx | CO | SO2 | PM10E | PM10D | PM10T | PM2.5E | PM2.5D | PM2.5T | BCO2 | NBCO2 | CO2T | CH4 | N2O | R | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Daily, Summer (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Total | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Total | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Total | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |

## 4.10.3 Avoided and Sequestered Emissions by Species - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

| Species | TOG | ROG | NOx | CO | SO2 | PM10E | PM10D | PM10T | PM2.5E | PM2.5D | PM2.5T | BCO2 | NBCO2 | CO2T | CH4 | N2O | R | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Daily, Summer (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Avoided | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Subtotal | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Sequestered | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Subtotal | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Removed | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Subtotal | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Avoided | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Subtotal | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Sequestered | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Subtotal | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Removed | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Subtotal | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Avoided | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Subtotal | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Sequestered | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Subtotal | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Removed | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Subtotal | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |

## 4.10.4 Soil Carbon Accumulation By Vegetation Type - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

| Vegetati on | TOG | ROG | NOx | CO | SO2 | PM10E | PM10D | PM10T | PM2.5E | PM2.5D | PM2.5T | BCO2 | NBCO2 | CO2T | CH4 | N2O | R | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Daily, Summer (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Total | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Total | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Total | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |

## 4.10.5 Above and Belowground Carbon Accumulation by Land Use Type - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

| Land Use | TOG | ROG | NOx | CO | SO2 | PM10E | PM10D | PM10T | PM2.5E | PM2.5D | PM2.5T | BCO2 | NBCO2 | CO2T | CH4 | N2O | R | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Daily, Summer (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Total | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Total | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Total | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |

## 4.10.6 Avoided and Sequestered Emissions by Species - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

| Species | TOG | ROG | NOx | CO | SO2 | PM10E | PM10D | PM10T | PM2.5E | PM2.5D | PM2.5T | BCO2 | NBCO2 | CO2T | CH4 | N2O | R | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Daily, Summer (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Avoided | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Subtotal | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Sequestered | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Subtotal | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Removed | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Subtotal | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Avoided | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Subtotal | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Sequestered | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Subtotal | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Removed | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Subtotal | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Avoided | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Subtotal | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Sequestered | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Subtotal | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Removed | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Subtotal | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |

# 5 Activity Data

## 5.1 Construction Schedule

| Phase Name | Phase Type | Start Date | End Date | Days Per Week | Work Days per Phase | Phase Description |
|---|---|---|---|---|---|---|
| Linear, Drainage, Utilities, & Sub-Grade | Linear, Drainage, Utilities, & Sub-Grade | 4/3/2026 | 9/15/2026 | 5.00 | 118 | — |

## 5.2 Off-Road Equipment

### 5.2.1 Unmitigated

| Phase Name | Equipment Type | Fuel Type | Engine Tier | Number per Day | Hours Per Day | Horsepower | Load Factor |
|---|---|---|---|---|---|---|---|
| Linear, Drainage, Utilities, & Sub-Grade | Tractors/Loaders/Back hoes | Diesel | Average | 1.00 | 8.00 | 84.0 | 0.37 |
| Linear, Drainage, Utilities, & Sub-Grade | Skid Steer Loaders | Diesel | Average | 1.00 | 8.00 | 71.0 | 0.37 |
| Linear, Drainage, Utilities, & Sub-Grade | Dumpers/Tenders | Diesel | Average | 2.00 | 8.00 | 16.0 | 0.38 |
| Linear, Drainage, Utilities, & Sub-Grade | Sweepers/Scrubbers | Diesel | Average | 1.00 | 8.00 | 36.0 | 0.46 |
| Linear, Drainage, Utilities, & Sub-Grade | Pavers | Diesel | Average | 1.00 | 8.00 | 81.0 | 0.42 |
| Linear, Drainage, Utilities, & Sub-Grade | Rollers | Diesel | Average | 1.00 | 8.00 | 36.0 | 0.38 |
| Linear, Drainage, Utilities, & Sub-Grade | Cement and Mortar Mixers | Diesel | Average | 1.00 | 8.00 | 10.0 | 0.56 |
| Linear, Drainage, Utilities, & Sub-Grade | Graders | Diesel | Average | 1.00 | 8.00 | 148 | 0.41 |
| Linear, Drainage, Utilities, & Sub-Grade | Other Material Handling Equipment | Diesel | Average | 1.00 | 8.00 | 93.0 | 0.40 |

### 5.2.2 Mitigated

| Phase Name | Equipment Type | Fuel Type | Engine Tier | Number per Day | Hours Per Day | Horsepower | Load Factor |
|---|---|---|---|---|---|---|---|
| Linear, Drainage, Utilities, & Sub-Grade | Tractors/Loaders/Back hoes | Diesel | Average | 1.00 | 8.00 | 84.0 | 0.37 |
| Linear, Drainage, Utilities, & Sub-Grade | Skid Steer Loaders | Diesel | Average | 1.00 | 8.00 | 71.0 | 0.37 |
| Linear, Drainage, Utilities, & Sub-Grade | Dumpers/Tenders | Diesel | Average | 2.00 | 8.00 | 16.0 | 0.38 |
| Linear, Drainage, Utilities, & Sub-Grade | Sweepers/Scrubbers | Diesel | Average | 1.00 | 8.00 | 36.0 | 0.46 |
| Linear, Drainage, Utilities, & Sub-Grade | Pavers | Diesel | Average | 1.00 | 8.00 | 81.0 | 0.42 |
| Linear, Drainage, Utilities, & Sub-Grade | Rollers | Diesel | Average | 1.00 | 8.00 | 36.0 | 0.38 |
| Linear, Drainage, Utilities, & Sub-Grade | Cement and Mortar Mixers | Diesel | Average | 1.00 | 8.00 | 10.0 | 0.56 |
| Linear, Drainage, Utilities, & Sub-Grade | Graders | Diesel | Average | 1.00 | 8.00 | 148 | 0.41 |
| Linear, Drainage, Utilities, & Sub-Grade | Other Material Handling Equipment | Diesel | Average | 1.00 | 8.00 | 93.0 | 0.40 |

## 5.3 Construction Vehicles

### 5.3.1 Unmitigated

| Phase Name | Trip Type | One-Way Trips per Day | Miles per Trip | Vehicle Mix |
|---|---|---|---|---|
| Linear, Drainage, Utilities, & Sub-Grade | — | — | — | — |
| Linear, Drainage, Utilities, & Sub-Grade | Worker | 25.0 | 12.0 | LDA,LDT1,LDT2 |
| Linear, Drainage, Utilities, & Sub-Grade | Vendor | 0.00 | 7.63 | HHDT,MHDT |
| Linear, Drainage, Utilities, & Sub-Grade | Hauling | 0.00 | 20.0 | HHDT |
| Linear, Drainage, Utilities, & Sub-Grade | Onsite truck | — | — | HHDT |

### 5.3.2 Mitigated

| Phase Name | Trip Type | One-Way Trips per Day | Miles per Trip | Vehicle Mix |
|---|---|---|---|---|
| Linear, Drainage, Utilities, & Sub-Grade | — | — | — | — |
| Linear, Drainage, Utilities, & Sub-Grade | Worker | 25.0 | 12.0 | LDA,LDT1,LDT2 |
| Linear, Drainage, Utilities, & Sub-Grade | Vendor | 0.00 | 7.63 | HHDT,MHDT |
| Linear, Drainage, Utilities, & Sub-Grade | Hauling | 0.00 | 20.0 | HHDT |
| Linear, Drainage, Utilities, & Sub-Grade | Onsite truck | — | — | HHDT |

## 5.4 Vehicles

### 5.4.1 Construction Vehicle Control Strategies

Non-applicable. No control strategies activated by user.

## 5.5 Architectural Coatings

| Phase Name | Residential Interior Area Coated (sq ft) | Residential Exterior Area Coated (sq ft) | Non-Residential Interior Area Coated (sq ft) | Non-Residential Exterior Area Coated (sq ft) | Parking Area Coated (sq ft) |
|---|---|---|---|---|---|

## 5.6 Dust Mitigation

### 5.6.1 Construction Earthmoving Activities

| Phase Name | Material Imported (cy) | Material Exported (cy) | Acres Graded (acres) | Material Demolished (sq. ft.) | Acres Paved (acres) |
|---|---|---|---|---|---|
| Linear, Drainage, Utilities, & Sub-Grade | — | — | 1.00 | 0.00 | — |

### 5.6.2 Construction Earthmoving Control Strategies

Non-applicable. No control strategies activated by user.

## 5.7 Construction Paving

| Land Use | Area Paved (acres) | % Asphalt |
|---|---|---|
| Road Construction | 1.00 | 100% |

## 5.8 Construction Electricity Consumption and Emissions Factors

kWh per Year and Emission Factor (lb/MWh)

| Year | kWh per Year | CO2 | CH4 | N2O |
|---|---|---|---|---|
| 2026 | 0.00 | 589 | 0.03 | <0.005 |

## 5.18 Vegetation

### 5.18.1 Land Use Change

#### 5.18.1.1 Unmitigated

| Vegetation Land Use Type | Vegetation Soil Type | Initial Acres | Final Acres |
|---|---|---|---|

#### 5.18.1.2 Mitigated

| Vegetation Land Use Type | Vegetation Soil Type | Initial Acres | Final Acres |
|---|---|---|---|

### 5.18.1 Biomass Cover Type

#### 5.18.1.1 Unmitigated

| Biomass Cover Type | Initial Acres | Final Acres |
|---|---|---|

#### 5.18.1.2 Mitigated

| Biomass Cover Type | Initial Acres | Final Acres |
|---|---|---|

### 5.18.2 Sequestration

#### 5.18.2.1 Unmitigated

| Tree Type | Number | Electricity Saved (kWh/year) | Natural Gas Saved (btu/year) |
|---|---|---|---|

#### 5.18.2.2 Mitigated

| Tree Type | Number | Electricity Saved (kWh/year) | Natural Gas Saved (btu/year) |
|---|---|---|---|

# 6 Climate Risk Detailed Report

## 6.1 Climate Risk Summary

Cal-Adapt midcentury 2040–2059 average projections for four hazards are reported below for your project location. These are under Representation Concentration Pathway (RCP) 8.5 which assumes GHG emissions will continue to rise strongly through 2050 and then plateau around 2100.

| Climate Hazard | Result for Project Location | Unit |
|---|---|---|
| Temperature and Extreme Heat | 9.66 | annual days of extreme heat |
| Extreme Precipitation | 2.00 | annual days with precipitation above 20 mm |
| Sea Level Rise | — | meters of inundation depth |
| Wildfire | 0.00 | annual hectares burned |

Temperature and Extreme Heat data are for grid cell in which your project are located. The projection is based on the 98th historical percentile of daily maximum/minimum temperatures from observed historical data (32 climate model ensemble from Cal-Adapt, 2040–2059 average under RCP 8.5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.

Extreme Precipitation data are for the grid cell in which your project are located. The threshold of 20 mm is equivalent to about ¾ an inch of rain, which would be light to moderate rainfall if received over a full day or heavy rain if received over a period of 2 to 4 hours. Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.

Sea Level Rise data are for the grid cell in which your project are located. The projections are from Radke et al. (2017), as reported in Cal-Adapt (Radke et al., 2017, CEC-500-2017-008), and consider inundation location and depth for the San Francisco Bay, the Sacramento-San Joaquin River Delta and California coast resulting different increments of sea level rise coupled with extreme storm events. Users may select from four scenarios to view the range in potential inundation depth for the grid cell. The four scenarios are: No rise, 0.5 meter, 1.0 meter, 1.41 meters Wildfire data are for the grid cell in which your project are located. The projections are from UC Davis, as reported in Cal-Adapt (2040–2059 average under RCP 8.5), and consider historical data of climate, vegetation, population density, and large (> 400 ha) fire history. Users may select from four model simulations to view the range in potential wildfire probabilities for the grid cell. The four simulations make different assumptions about expected rainfall and temperature are: Warmer/drier (HadGEM2-ES), Cooler/wetter (CNRM-CM5), Average conditions (CanESM2), Range of different rainfall and temperature possibilities (MIROC5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.

## 6.2 Initial Climate Risk Scores

| Climate Hazard | Exposure Score | Sensitivity Score | Adaptive Capacity Score | Vulnerability Score |
|---|---|---|---|---|
| Temperature and Extreme Heat | N/A | N/A | N/A | N/A |
| Extreme Precipitation | N/A | N/A | N/A | N/A |
| Sea Level Rise | 1 | 0 | 0 | N/A |
| Wildfire | 1 | 0 | 0 | N/A |
| Flooding | 0 | 0 | 0 | N/A |
| Drought | N/A | N/A | N/A | N/A |
| Snowpack Reduction | N/A | N/A | N/A | N/A |
| Air Quality Degradation | N/A | N/A | N/A | N/A |

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.

The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.

The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores do not include implementation of climate risk reduction measures.

## 6.3 Adjusted Climate Risk Scores

| Climate Hazard | Exposure Score | Sensitivity Score | Adaptive Capacity Score | Vulnerability Score |
|---|---|---|---|---|
| Temperature and Extreme Heat | N/A | N/A | N/A | N/A |
| Extreme Precipitation | N/A | N/A | N/A | N/A |
| Sea Level Rise | 1 | 1 | 1 | 2 |
| Wildfire | 1 | 1 | 1 | 2 |
| Flooding | 1 | 1 | 1 | 2 |
| Drought | N/A | N/A | N/A | N/A |
| Snowpack Reduction | N/A | N/A | N/A | N/A |
| Air Quality Degradation | N/A | N/A | N/A | N/A |

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure. The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt. The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores include implementation of climate risk reduction measures.

## 6.4 Climate Risk Reduction Measures

# 7 Health and Equity Details

## 7.1 CalEnviroScreen 4.0 Scores

The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.

| Indicator | Result for Project Census Tract |
|---|---|
| Exposure Indicators | — |
| AQ-Ozone | 37.6 |
| AQ-PM | 36.0 |
| AQ-DPM | 63.9 |
| Drinking Water | 31.4 |
| Lead Risk Housing | 9.48 |
| Pesticides | 2.97 |
| Toxic Releases | 10.2 |
| Traffic | 43.2 |
| Effect Indicators | — |
| CleanUp Sites | 46.1 |
| Groundwater | 14.3 |
| Haz Waste Facilities/Generators | 5.57 |
| Impaired Water Bodies | 77.3 |
| Solid Waste | 80.0 |
| Sensitive Population | — |
| Asthma | 0.56 |
| Cardio-vascular | 9.73 |
| Low Birth Weights | 14.8 |
| Socioeconomic Factor Indicators | — |
| Education | 0.00 |
| Housing | 41.4 |
| Linguistic | 0.00 |
| Poverty | 11.4 |
| Unemployment | 21.1 |

## 7.2 Healthy Places Index Scores

The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

| Indicator | Result for Project Census Tract |
|---|---|
| Economic | — |
| Above Poverty | 96.04773515 |
| Employed | 95.85525472 |
| Median HI | 88.73347876 |
| Education | — |
| Bachelor's or higher | 96.93314513 |
| High school enrollment | 100 |
| Preschool enrollment | 95.7141024 |
| Transportation | — |
| Auto Access | 52.22635699 |
| Active commuting | 45.82317464 |
| Social | — |
| 2-parent households | 91.62068523 |
| Voting | 98.6141409 |
| Neighborhood | — |
| Alcohol availability | 64.64776081 |
| Park access | 81.35506224 |
| Retail density | 61.24727319 |
| Supermarket access | 13.11433338 |
| Tree canopy | 75.70896959 |
| Housing | — |
| Homeownership | 47.09354549 |
| Housing habitability | 79.27627358 |
| Low-inc homeowner severe housing cost burden | 81.0727576 |
| Low-inc renter severe housing cost burden | 63.01809316 |
| Uncrowded housing | 96.93314513 |
| Health Outcomes | — |
| Insured adults | 47.91479533 |
| Arthritis | 0.0 |
| Asthma ER Admissions | 97.3 |
| High Blood Pressure | 0.0 |
| Cancer (excluding skin) | 0.0 |
| Asthma | 0.0 |
| Coronary Heart Disease | 0.0 |
| Chronic Obstructive Pulmonary Disease | 0.0 |
| Diagnosed Diabetes | 0.0 |
| Life Expectancy at Birth | 97.2 |
| Cognitively Disabled | 90.0 |
| Physically Disabled | 91.7 |
| Heart Attack ER Admissions | 96.2 |
| Mental Health Not Good | 0.0 |
| Chronic Kidney Disease | 0.0 |
| Obesity | 0.0 |
| Pedestrian Injuries | 55.3 |

| Indicator | Result for Project Census Tract |
|---|---|
| Physical Health Not Good | 0.0 |
| Stroke | 0.0 |
| Health Risk Behaviors | — |
| Binge Drinking | 0.0 |
| Current Smoker | 0.0 |
| No Leisure Time for Physical Activity | 0.0 |
| Climate Change Exposures | — |
| Wildfire Risk | 18.4 |
| SLR Inundation Area | 43.4 |
| Children | 94.5 |
| Elderly | 5.9 |
| English Speaking | 90.4 |
| Foreign-born | 36.9 |
| Outdoor Workers | 34.9 |
| Climate Change Adaptive Capacity | — |
| Impervious Surface Cover | 56.3 |
| Traffic Density | 20.5 |
| Traffic Access | 23.0 |
| Other Indices | — |
| Hardship | 0.8 |
| Other Decision Support | — |
| 2016 Voting | 98.3 |

### 7.2.1 Overall Health & Equity Scores

| Metric | Result for Project Census Tract |
|---|---|
| CalEnviroScreen 4.0 Score for Project Location (a) | 3.00 |
| Healthy Places Index Score for Project Location (b) | 96.0 |
| Project Located in a Designated Disadvantaged Community (Senate Bill 535) | No |
| Project Located in a Low-Income Community (Assembly Bill 1550) | No |
| Project Located in a Community Air Protection Program Community (Assembly Bill 617) | No |

a: The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.
b: The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

### 7.2.2 Health & Equity Measures

No Health & Equity Measures selected.

## 7.3 Evaluation Scorecard

Health & Equity Evaluation Scorecard not completed.

## 7.4 Health & Equity Custom Measures

No Health & Equity Custom Measures created.

# 8 User Changes to Default Data

| Screen | Justification |
|---|---|
| Construction: Off-Road Equipment | Based on the Applicant |
| Construction: Construction Phases | The City proposes to remove existing utility poles and replace existing overhead cable lines for electricity and telecommunications with undergrounded lines. |

# Roadway Widening Project Detailed Report

## Table of Contents


1. Basic Project Information
   1.1. Basic Project Information
   1.2. Land Use Types
   1.3. User-Selected Emission Reduction Measures by Emissions Sector
2. Emissions Summary
   2.1. Construction Emissions Compared Against Thresholds
   2.2. Construction Emissions by Year, Unmitigated
   2.3. Construction Emissions by Year, Mitigated
3. Construction Emissions Details
   3.1. Linear, Grading & Excavation (2026) - Unmitigated
   3.2. Linear, Grading & Excavation (2026) - Mitigated
   3.3. Linear, Drainage, Utilities, & Sub-Grade (2026) - Unmitigated
   3.4. Linear, Drainage, Utilities, & Sub-Grade (2026) - Mitigated
   3.5. Linear, Paving (2026) - Unmitigated
   3.6. Linear, Paving (2026) - Mitigated
4. Operations Emissions Details
   4.10. Soil Carbon Accumulation By Vegetation Type
      4.10.1. Soil Carbon Accumulation By Vegetation Type - Unmitigated
      4.10.2. Above and Belowground Carbon Accumulation by Land Use Type - Unmitigated
      4.10.3. Avoided and Sequestered Emissions by Species - Unmitigated
      4.10.4. Soil Carbon Accumulation By Vegetation Type - Mitigated
      4.10.5. Above and Belowground Carbon Accumulation by Land Use Type - Mitigated
      4.10.6. Avoided and Sequestered Emissions by Species - Mitigated
5. Activity Data
   5.1. Construction Schedule
   5.2. Off-Road Equipment
      5.2.1. Unmitigated
      5.2.2. Mitigated
   5.3. Construction Vehicles
      5.3.1. Unmitigated
      5.3.2. Mitigated
   5.4. Vehicles
      5.4.1. Construction Vehicle Control Strategies

5.5. Architectural Coatings
5.6. Dust Mitigation
5.6.1. Construction Earthmoving Activities
5.6.2. Construction Earthmoving Control Strategies
5.7. Construction Paving
5.8. Construction Electricity Consumption and Emissions Factors
5.18. Vegetation
5.18.1. Land Use Change
5.18.1.1. Unmitigated
5.18.1.2. Mitigated
5.18.1. Biomass Cover Type
5.18.1.1. Unmitigated
5.18.1.2. Mitigated
5.18.2. Sequestration
5.18.2.1. Unmitigated
5.18.2.2. Mitigated
6. Climate Risk Detailed Report
6.1. Climate Risk Summary
6.2. Initial Climate Risk Scores
6.3. Adjusted Climate Risk Scores
6.4. Climate Risk Reduction Measures
7. Health and Equity Details
7.1. CalEnviroScreen 4.0 Scores
7.2. Healthy Places Index Scores
7.3. Overall Health & Equity Scores
7.4. Health & Equity Measures
7.5. Evaluation Scorecard
7.6. Health & Equity Custom Measures
8. User Changes to Default Data

# 1 Basic Project Information

## 1.1 Basic Project Information

| Data Field | Value |
|---|---|
| Project Name | Roadway Widening Project |
| Construction Start Date | 1/1/2026 |
| Lead Agency | — |
| Land Use Scale | Project/site |
| Analysis Level for Defaults | County |
| Windspeed (m/s) | 2.60 |
| Precipitation (days) | 15.4 |
| Location | Del Mar, CA 92014, USA |
| County | San Diego |
| City | Del Mar |
| Air District | San Diego County APCD |
| Air Basin | San Diego |
| TAZ | 6382 |
| EDFZ | 12 |
| Electric Utility | San Diego Gas & Electric |
| Gas Utility | San Diego Gas & Electric |
| App Version | 2022.1.1.30 |

## 1.2 Land Use Types

| Land Use Subtype | Size | Unit | Lot Acreage | Building Area (sq ft) | Landscape Area (sq ft) | Special Landscape Area (sq ft) | Population | Description |
|---|---|---|---|---|---|---|---|---|
| Road Widening | 0.50 | Mile | 2.50 | 0.00 | — | — | — | — |

## 1.3 User-Selected Emission Reduction Measures by Emissions Sector

| Sector | # | Measure Title |
|---|---|---|
| Construction | C-10-A | Water Exposed Surfaces |
| Construction | C-10-C | Water Unpaved Construction Roads |
| Construction | C-11 | Limit Vehicle Speeds on Unpaved Roads |
| Construction | C-12 | Sweep Paved Roads |

# 2 Emissions Summary

## 2.1 Construction Emissions Compared Against Thresholds

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

| Un/Mit. | TOG | ROG | NOx | CO | SO2 | PM10E | PM10D | PM10T | PM2.5E | PM2.5D | PM2.5T | BCO2 | NBCO2 | CO2T | CH4 | N2O | R | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Unmit. | 1.35 | 1.13 | 9.53 | 15.2 | 0.02 | 0.38 | 0.73 | 1.11 | 0.35 | 0.10 | 0.46 | — | 2,456 | 2,456 | 0.10 | 0.03 | 0.02 | 2,467 |
| Mit. | 1.35 | 1.13 | 9.53 | 15.2 | 0.02 | 0.38 | 0.33 | 0.72 | 0.35 | 0.06 | 0.41 | — | 2,456 | 2,456 | 0.10 | 0.03 | 0.02 | 2,467 |
| % Reduced | — | — | — | — | — | — | 54% | 35% | — | 41% | 9% | — | — | — | — | — | — | — |
| Average Daily (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Unmit. | 0.03 | 0.03 | 0.23 | 0.35 | <0.005 | 0.01 | 0.02 | 0.03 | 0.01 | <0.005 | 0.01 | — | 56.4 | 56.4 | <0.005 | <0.005 | 0.01 | 56.6 |
| Mit. | 0.03 | 0.03 | 0.23 | 0.35 | <0.005 | 0.01 | 0.01 | 0.02 | 0.01 | <0.005 | 0.01 | — | 56.4 | 56.4 | <0.005 | <0.005 | 0.01 | 56.6 |
| % Reduced | — | — | — | — | — | — | 53% | 34% | — | — | — | — | — | — | — | — | — | — |
| Annual (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Unmit. | 0.01 | 0.01 | 0.04 | 0.06 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | — | 9.33 | 9.33 | <0.005 | <0.005 | <0.005 | 9.38 |
| Mit. | 0.01 | 0.01 | 0.04 | 0.06 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | — | 9.33 | 9.33 | <0.005 | <0.005 | <0.005 | 9.38 |
| % Reduced | — | — | — | — | — | — | 53% | 34% | — | 40% | 9% | — | — | — | — | — | — | — |

## 2.2 Construction Emissions by Year, Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

| Year | TOG | ROG | NOx | CO | SO2 | PM10E | PM10D | PM10T | PM2.5E | PM2.5D | PM2.5T | BCO2 | NBCO2 | CO2T | CH4 | N2O | R | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Daily - Summer (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Daily - Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| 2026 | 1.35 | 1.13 | 9.53 | 15.2 | 0.02 | 0.38 | 0.73 | 1.11 | 0.35 | 0.10 | 0.46 | — | 2,456 | 2,456 | 0.10 | 0.03 | 0.02 | 2,467 |
| Average Daily | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| 2026 | 0.03 | 0.03 | 0.23 | 0.35 | <0.005 | 0.01 | 0.02 | 0.03 | 0.01 | <0.005 | 0.01 | — | 56.4 | 56.4 | <0.005 | <0.005 | 0.01 | 56.6 |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| 2026 | 0.01 | 0.01 | 0.04 | 0.06 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | — | 9.33 | 9.33 | <0.005 | <0.005 | <0.005 | 9.38 |

## 2.3 Construction Emissions by Year, Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

| Year | TOG | ROG | NOx | CO | SO2 | PM10E | PM10D | PM10T | PM2.5E | PM2.5D | PM2.5T | BCO2 | NBCO2 | CO2T | CH4 | N2O | R | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Daily - Summer (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Daily - Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| 2026 | 1.35 | 1.13 | 9.53 | 15.2 | 0.02 | 0.38 | 0.33 | 0.72 | 0.35 | 0.06 | 0.41 | — | 2,456 | 2,456 | 0.10 | 0.03 | 0.02 | 2,467 |
| Average Daily | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| 2026 | 0.03 | 0.03 | 0.23 | 0.35 | <0.005 | 0.01 | 0.01 | 0.02 | 0.01 | <0.005 | 0.01 | — | 56.4 | 56.4 | <0.005 | <0.005 | 0.01 | 56.6 |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| 2026 | 0.01 | 0.01 | 0.04 | 0.06 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | — | 9.33 | 9.33 | <0.005 | <0.005 | <0.005 | 9.38 |

# 3 Construction Emissions Details

## 3.1 Linear, Grading & Excavation (2026) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

| Location | TOG | ROG | NOx | CO | SO2 | PM10E | PM10D | PM10T | PM2.5E | PM2.5D | PM2.5T | BCO2 | NBCO2 | CO2T | CH4 | N2O | R | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Onsite | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Daily, Summer (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Off-Road Equipment | 1.25 | 1.05 | 9.43 | 14.3 | 0.02 | 0.38 | — | 0.38 | 0.35 | — | 0.35 | — | 2,234 | 2,234 | 0.09 | 0.02 | — | 2,241 |
| Dust From Material Movement | — | — | — | — | — | — | 0.53 | 0.53 | — | 0.06 | 0.06 | — | — | — | — | — | — | — |
| Onsite truck | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Average Daily | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Off-Road Equipment | 0.02 | 0.01 | 0.13 | 0.20 | <0.005 | 0.01 | — | 0.01 | <0.005 | — | <0.005 | — | 30.6 | 30.6 | <0.005 | <0.005 | — | 30.7 |
| Dust From Material Movement | — | — | — | — | — | — | 0.01 | 0.01 | — | <0.005 | <0.005 | — | — | — | — | — | — | — |
| Onsite truck | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Off-Road Equipment | <0.005 | <0.005 | 0.02 | 0.04 | <0.005 | <0.005 | — | <0.005 | <0.005 | — | <0.005 | — | 5.07 | 5.07 | <0.005 | <0.005 | — | 5.08 |
| Dust From Material Movement | — | — | — | — | — | — | <0.005 | <0.005 | — | <0.005 | <0.005 | — | — | — | — | — | — | — |
| Onsite truck | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Offsite | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Daily, Summer (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Worker | 0.09 | 0.08 | 0.07 | 0.86 | 0.00 | 0.00 | 0.19 | 0.19 | 0.00 | 0.04 | 0.04 | — | 198 | 198 | 0.01 | 0.01 | 0.02 | 200 |
| Vendor | <0.005 | <0.005 | 0.03 | 0.02 | <0.005 | <0.005 | 0.01 | 0.01 | <0.005 | <0.005 | <0.005 | — | 24.6 | 24.6 | <0.005 | <0.005 | <0.005 | 25.7 |
| Hauling | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Average Daily | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Worker | <0.005 | <0.005 | <0.005 | 0.01 | 0.00 | 0.00 | <0.005 | <0.005 | 0.00 | <0.005 | <0.005 | — | 2.73 | 2.73 | <0.005 | <0.005 | <0.005 | 2.77 |
| Vendor | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | — | 0.34 | 0.34 | <0.005 | <0.005 | <0.005 | 0.35 |
| Hauling | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Worker | <0.005 | <0.005 | <0.005 | <0.005 | 0.00 | 0.00 | <0.005 | <0.005 | 0.00 | <0.005 | <0.005 | — | 0.45 | 0.45 | <0.005 | <0.005 | <0.005 | 0.46 |
| Vendor | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | — | 0.06 | 0.06 | <0.005 | <0.005 | <0.005 | 0.06 |
| Hauling | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |

## 3.2 Linear, Grading & Excavation (2026) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

| Location | TOG | ROG | NOx | CO | SO2 | PM10E | PM10D | PM10T | PM2.5E | PM2.5D | PM2.5T | BCO2 | NBCO2 | CO2T | CH4 | N2O | R | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Onsite | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Daily, Summer (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Off-Road Equipment | 1.25 | 1.05 | 9.43 | 14.3 | 0.02 | 0.38 | — | 0.38 | 0.35 | — | 0.35 | — | 2,234 | 2,234 | 0.09 | 0.02 | — | 2,241 |
| Dust From Material Movement | — | — | — | — | — | — | 0.14 | 0.14 | — | 0.01 | 0.01 | — | — | — | — | — | — | — |
| Onsite truck | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Average Daily | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Off-Road Equipment | 0.02 | 0.01 | 0.13 | 0.20 | <0.005 | 0.01 | — | 0.01 | <0.005 | — | <0.005 | — | 30.6 | 30.6 | <0.005 | <0.005 | — | 30.7 |
| Dust From Material Movement | — | — | — | — | — | — | <0.005 | <0.005 | — | <0.005 | <0.005 | — | — | — | — | — | — | — |
| Onsite truck | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Off-Road Equipment | <0.005 | <0.005 | 0.02 | 0.04 | <0.005 | <0.005 | — | <0.005 | <0.005 | — | <0.005 | — | 5.07 | 5.07 | <0.005 | <0.005 | — | 5.08 |
| Dust From Material Movement | — | — | — | — | — | — | <0.005 | <0.005 | — | <0.005 | <0.005 | — | — | — | — | — | — | — |
| Onsite truck | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Offsite | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Daily, Summer (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Worker | 0.09 | 0.08 | 0.07 | 0.86 | 0.00 | 0.00 | 0.19 | 0.19 | 0.00 | 0.04 | 0.04 | — | 198 | 198 | 0.01 | 0.01 | 0.02 | 200 |
| Vendor | <0.005 | <0.005 | 0.03 | 0.02 | <0.005 | <0.005 | 0.01 | 0.01 | <0.005 | <0.005 | <0.005 | — | 24.6 | 24.6 | <0.005 | <0.005 | <0.005 | 25.7 |
| Hauling | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Average Daily | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Worker | <0.005 | <0.005 | <0.005 | 0.01 | 0.00 | 0.00 | <0.005 | <0.005 | 0.00 | <0.005 | <0.005 | — | 2.73 | 2.73 | <0.005 | <0.005 | <0.005 | 2.77 |
| Vendor | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | — | 0.34 | 0.34 | <0.005 | <0.005 | <0.005 | 0.35 |
| Hauling | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Worker | <0.005 | <0.005 | <0.005 | <0.005 | 0.00 | 0.00 | <0.005 | <0.005 | 0.00 | <0.005 | <0.005 | — | 0.45 | 0.45 | <0.005 | <0.005 | <0.005 | 0.46 |
| Vendor | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | — | 0.06 | 0.06 | <0.005 | <0.005 | <0.005 | 0.06 |
| Hauling | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |

## 3.3 Linear, Drainage, Utilities, & Sub-Grade (2026) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

| Location | TOG | ROG | NOx | CO | SO2 | PM10E | PM10D | PM10T | PM2.5E | PM2.5D | PM2.5T | BCO2 | NBCO2 | CO2T | CH4 | N2O | R | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Onsite | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Daily, Summer (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Off-Road Equipment | 1.27 | 1.06 | 8.75 | 11.8 | 0.02 | 0.36 | — | 0.36 | 0.33 | — | 0.33 | — | 1,786 | 1,786 | 0.07 | 0.01 | — | 1,792 |
| Dust From Material Movement | — | — | — | — | — | — | 0.53 | 0.53 | — | 0.06 | 0.06 | — | — | — | — | — | — | — |
| Onsite truck | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Average Daily | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Off-Road Equipment | 0.01 | 0.01 | 0.07 | 0.10 | <0.005 | <0.005 | — | <0.005 | <0.005 | — | <0.005 | — | 14.7 | 14.7 | <0.005 | <0.005 | — | 14.7 |
| Dust From Material Movement | — | — | — | — | — | — | <0.005 | <0.005 | — | <0.005 | <0.005 | — | — | — | — | — | — | — |
| Onsite truck | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Off-Road Equipment | <0.005 | <0.005 | 0.01 | 0.02 | <0.005 | <0.005 | — | <0.005 | <0.005 | — | <0.005 | — | 2.43 | 2.43 | <0.005 | <0.005 | — | 2.44 |
| Dust From Material Movement | — | — | — | — | — | — | <0.005 | <0.005 | — | <0.005 | <0.005 | — | — | — | — | — | — | — |
| Onsite truck | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Offsite | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Daily, Summer (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Worker | 0.08 | 0.07 | 0.06 | 0.76 | 0.00 | 0.00 | 0.17 | 0.17 | 0.00 | 0.04 | 0.04 | — | 176 | 176 | 0.01 | 0.01 | 0.02 | 178 |
| Vendor | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Hauling | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Average Daily | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Worker | <0.005 | <0.005 | <0.005 | 0.01 | 0.00 | 0.00 | <0.005 | <0.005 | 0.00 | <0.005 | <0.005 | — | 1.46 | 1.46 | <0.005 | <0.005 | <0.005 | 1.48 |
| Vendor | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Hauling | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Worker | <0.005 | <0.005 | <0.005 | <0.005 | 0.00 | 0.00 | <0.005 | <0.005 | 0.00 | <0.005 | <0.005 | — | 0.24 | 0.24 | <0.005 | <0.005 | <0.005 | 0.24 |
| Vendor | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Hauling | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |

## 3.4 Linear, Drainage, Utilities, & Sub-Grade (2026) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

| Location | TOG | ROG | NOx | CO | SO2 | PM10E | PM10D | PM10T | PM2.5E | PM2.5D | PM2.5T | BCO2 | NBCO2 | CO2T | CH4 | N2O | R | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Onsite | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Daily, Summer (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Off-Road Equipment | 1.27 | 1.06 | 8.75 | 11.8 | 0.02 | 0.36 | — | 0.36 | 0.33 | — | 0.33 | — | 1,786 | 1,786 | 0.07 | 0.01 | — | 1,792 |
| Dust From Material Movement | — | — | — | — | — | — | 0.14 | 0.14 | — | 0.01 | 0.01 | — | — | — | — | — | — | — |
| Onsite truck | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Average Daily | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Off-Road Equipment | 0.01 | 0.01 | 0.07 | 0.10 | <0.005 | <0.005 | — | <0.005 | <0.005 | — | <0.005 | — | 14.7 | 14.7 | <0.005 | <0.005 | — | 14.7 |
| Dust From Material Movement | — | — | — | — | — | — | <0.005 | <0.005 | — | <0.005 | <0.005 | — | — | — | — | — | — | — |
| Onsite truck | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Off-Road Equipment | <0.005 | <0.005 | 0.01 | 0.02 | <0.005 | <0.005 | — | <0.005 | <0.005 | — | <0.005 | — | 2.43 | 2.43 | <0.005 | <0.005 | — | 2.44 |
| Dust From Material Movement | — | — | — | — | — | — | <0.005 | <0.005 | — | <0.005 | <0.005 | — | — | — | — | — | — | — |
| Onsite truck | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Offsite | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Daily, Summer (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Worker | 0.08 | 0.07 | 0.06 | 0.76 | 0.00 | 0.00 | 0.17 | 0.17 | 0.00 | 0.04 | 0.04 | — | 176 | 176 | 0.01 | 0.01 | 0.02 | 178 |
| Vendor | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Hauling | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Average Daily | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Worker | <0.005 | <0.005 | <0.005 | 0.01 | 0.00 | 0.00 | <0.005 | <0.005 | 0.00 | <0.005 | <0.005 | — | 1.46 | 1.46 | <0.005 | <0.005 | <0.005 | 1.48 |
| Vendor | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Hauling | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Worker | <0.005 | <0.005 | <0.005 | <0.005 | 0.00 | 0.00 | <0.005 | <0.005 | 0.00 | <0.005 | <0.005 | — | 0.24 | 0.24 | <0.005 | <0.005 | <0.005 | 0.24 |
| Vendor | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Hauling | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |

## 3.5 Linear, Paving (2026) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

| Location | TOG | ROG | NOx | CO | SO2 | PM10E | PM10D | PM10T | PM2.5E | PM2.5D | PM2.5T | BCO2 | NBCO2 | CO2T | CH4 | N2O | R | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Onsite | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Daily, Summer (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Off-Roa Equipmen | 0.59t | 0.50 | 4.75 | 7.16 | 0.01 | 0.20 | — | 0.20 | 0.18 | — | 0.18 | — | 1,089 | 1,089 | 0.04 | 0.01 | — | 1,093 |
| Onsite truck | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Average Daily | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Off-Road Equipment | <0.005 | <0.005 | 0.03 | 0.04 | <0.005 | <0.005 | — | <0.005 | <0.005 | — | <0.005 | — | 5.97 | 5.97 | <0.005 | <0.005 | — | 5.99 |
| Onsite truck | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Off-Road Equipment | <0.005 | <0.005 | <0.005 | 0.01 | <0.005 | <0.005 | — | <0.005 | <0.005 | — | <0.005 | — | 0.99 | 0.99 | <0.005 | <0.005 | — | 0.99 |
| Onsite truck | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Offsite | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Daily, Summer (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Worker | 0.05 | 0.04 | 0.04 | 0.48 | 0.00 | 0.00 | 0.11 | 0.11 | 0.00 | 0.02 | 0.02 | — | 110 | 110 | 0.01 | <0.005 | 0.01 | 111 |
| Vendor | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Hauling | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Average Daily | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Worker | <0.005 | <0.005 | <0.005 | <0.005 | 0.00 | 0.00 | <0.005 | <0.005 | 0.00 | <0.005 | <0.005 | — | 0.61 | 0.61 | <0.005 | <0.005 | <0.005 | 0.62 |
| Vendor | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Hauling | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Worker | <0.005 | <0.005 | <0.005 | <0.005 | 0.00 | 0.00 | <0.005 | <0.005 | 0.00 | <0.005 | <0.005 | — | 0.10 | 0.10 | <0.005 | <0.005 | <0.005 | 0.10 |
| Vendor | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Hauling | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |

## 3.6 Linear, Paving (2026) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

| Location | TOG | ROG | NOx | CO | SO2 | PM10E | PM10D | PM10T | PM2.5E | PM2.5D | PM2.5T | BCO2 | NBCO2 | CO2T | CH4 | N2O | R | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Onsite | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Daily, Summer (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Off-Road Equipment | 0.59 | 0.50 | 4.75 | 7.16 | 0.01 | 0.20 | — | 0.20 | 0.18 | — | 0.18 | — | 1,089 | 1,089 | 0.04 | 0.01 | — | 1,093 |
| Onsite truck | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Average Daily | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Off-Road Equipment | <0.005 | <0.005 | 0.03 | 0.04 | <0.005 | <0.005 | — | <0.005 | <0.005 | — | <0.005 | — | 5.97 | 5.97 | <0.005 | <0.005 | — | 5.99 |
| Onsite truck | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Off-Road Equipment | <0.005 | <0.005 | <0.005 | 0.01 | <0.005 | <0.005 | — | <0.005 | <0.005 | — | <0.005 | — | 0.99 | 0.99 | <0.005 | <0.005 | — | 0.99 |
| Onsite truck | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Offsite | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Daily, Summer (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Worker | 0.05 | 0.04 | 0.04 | 0.48 | 0.00 | 0.00 | 0.11 | 0.11 | 0.00 | 0.02 | 0.02 | — | 110 | 110 | 0.01 | <0.005 | 0.01 | 111 |
| Vendor | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Hauling | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Average Daily | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Worker | <0.005 | <0.005 | <0.005 | <0.005 | 0.00 | 0.00 | <0.005 | <0.005 | 0.00 | <0.005 | <0.005 | — | 0.61 | 0.61 | <0.005 | <0.005 | <0.005 | 0.62 |
| Vendor | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Hauling | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Worker | <0.005 | <0.005 | <0.005 | <0.005 | 0.00 | 0.00 | <0.005 | <0.005 | 0.00 | <0.005 | <0.005 | — | 0.10 | 0.10 | <0.005 | <0.005 | <0.005 | 0.10 |
| Vendor | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Hauling | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |

# 4 Operations Emissions Details

## 4.10 Soil Carbon Accumulation By Vegetation Type

### 4.10.1 Soil Carbon Accumulation By Vegetation Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

| Vegetati on | TOG | ROG | NOx | CO | SO2 | PM10E | PM10D | PM10T | PM2.5E | PM2.5D | PM2.5T | BCO2 | NBCO2 | CO2T | CH4 | N2O | R | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Daily, Summer (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Total | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Total | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Total | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |

### 4.10.2 Above and Belowground Carbon Accumulation by Land Use Type – Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

| Land Use | TOG | ROG | NOx | CO | SO2 | PM10E | PM10D | PM10T | PM2.5E | PM2.5D | PM2.5T | BCO2 | NBCO2 | CO2T | CH4 | N2O | R | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Daily, Summer (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Total | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Total | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Total | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |

### 4.10.3 Avoided and Sequestered Emissions by Species – Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

| Species | TOG | ROG | NOx | CO | SO2 | PM10E | PM10D | PM10T | PM2.5E | PM2.5D | PM2.5T | BCO2 | NBCO2 | CO2T | CH4 | N2O | R | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Daily, Summer (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Avoided | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Subtotal | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Sequest ered | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Subtotal | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Removed | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Subtotal | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Avoided | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Subtotal | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Sequest ered | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Subtotal | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Removed | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Subtotal | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Avoided | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Subtotal | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Sequest ered | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Subtotal | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Removed | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Subtotal | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |

### 4.10.4 Soil Carbon Accumulation By Vegetation Type – Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

| Vegetati on | TOG | ROG | NOx | CO | SO2 | PM10E | PM10D | PM10T | PM2.5E | PM2.5D | PM2.5T | BCO2 | NBCO2 | CO2T | CH4 | N2O | R | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Daily, Summer (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Total | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Total | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Total | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |

4.10.5 Above and Belowground Carbon Accumulation by Land Use Type – Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

| Land Use | TOG | ROG | NOx | CO | SO2 | PM10E | PM10D | PM10T | PM2.5E | PM2.5D | PM2.5T | BCO2 | NBCO2 | CO2T | CH4 | N2O | R | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Daily, Summer (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Total | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Total | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Total | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |

4.10.6 Avoided and Sequestered Emissions by Species – Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

| Species | TOG | ROG | NOx | CO | SO2 | PM10E | PM10D | PM10T | PM2.5E | PM2.5D | PM2.5T | BCO2 | NBCO2 | CO2T | CH4 | N2O | R | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Daily, Summer (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Avoided | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Subtotal | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Sequestered | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Subtotal | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Removed | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Subtotal | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Avoided | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Subtotal | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Sequestered | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Subtotal | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Removed | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Subtotal | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Avoided | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Subtotal | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Sequestered | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Subtotal | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Remove | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Subtotal | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |

# 5 Activity Data

## 5.1 Construction Schedule

| Phase Name | Phase Type | Start Date | End Date | Days Per Week | Work Days per Phase | Phase Description |
|---|---|---|---|---|---|---|
| Linear, Grading & Excavation | Linear, Grading & Excavation | 1/3/2026 | 1/10/2026 | 5.00 | 5.00 | — |
| Linear, Drainage, Utilities, & Sub-Grade | Linear, Drainage, Utilities, & Sub-Grade | 1/11/2026 | 1/15/2026 | 5.00 | 3.00 | — |
| Linear, Paving | Linear, Paving | 1/16/2026 | 1/18/2026 | 5.00 | 2.00 | — |

# 5.2 Off-Road Equipment

## 5.2.1 Unmitigated

| Phase Name | Equipment Type | Fuel Type | Engine Tier | Number per Day | Hours Per Day | Horsepower | Load Factor |
|---|---|---|---|---|---|---|---|
| Linear, Grading & Excavation | Graders | Diesel | Average | 1.00 | 8.00 | 148 | 0.41 |
| Linear, Grading & Excavation | Cement and Mortar Mixers | Diesel | Average | 1.00 | 8.00 | 10.0 | 0.56 |
| Linear, Grading & Excavation | Rollers | Diesel | Average | 1.00 | 8.00 | 36.0 | 0.38 |
| Linear, Grading & Excavation | Skid Steer Loaders | Diesel | Average | 1.00 | 8.00 | 71.0 | 0.37 |
| Linear, Grading & Excavation | Dumpers/Tenders | Diesel | Average | 1.00 | 8.00 | 16.0 | 0.38 |
| Linear, Grading & Excavation | Tractors/Loaders/Back hoes | Diesel | Average | 4.00 | 8.00 | 84.0 | 0.37 |
| Linear, Drainage, Utilities, & Sub-Grade | Tractors/Loaders/Back hoes | Diesel | Average | 1.00 | 8.00 | 84.0 | 0.37 |
| Linear, Drainage, Utilities, & Sub-Grade | Sweepers/Scrubbers | Diesel | Average | 1.00 | 8.00 | 36.0 | 0.46 |
| Linear, Drainage, Utilities, & Sub-Grade | Rough Terrain Forklifts | Diesel | Average | 1.00 | 8.00 | 96.0 | 0.40 |
| Linear, Drainage, Utilities, & Sub-Grade | Plate Compactors | Diesel | Average | 1.00 | 8.00 | 8.00 | 0.43 |
| Linear, Drainage, Utilities, & Sub-Grade | Pumps | Diesel | Average | 1.00 | 8.00 | 11.0 | 0.74 |
| Linear, Drainage, Utilities, & Sub-Grade | Air Compressors | Diesel | Average | 1.00 | 8.00 | 37.0 | 0.48 |
| Linear, Drainage, Utilities, & Sub-Grade | Graders | Diesel | Average | 1.00 | 8.00 | 148 | 0.41 |
| Linear, Drainage, Utilities, & Sub-Grade | Generator Sets | Diesel | Average | 1.00 | 8.00 | 14.0 | 0.74 |
| Linear, Paving | Rollers | Diesel | Average | 1.00 | 8.00 | 36.0 | 0.38 |
| Linear, Paving | Pavers | Diesel | Average | 1.00 | 8.00 | 81.0 | 0.42 |
| Linear, Paving | Paving Equipment | Diesel | Average | 1.00 | 8.00 | 89.0 | 0.36 |
| Linear, Paving | Tractors/Loaders/Back hoes | Diesel | Average | 1.00 | 8.00 | 84.0 | 0.37 |
| Linear, Paving | Other Material Handling Equipment | Diesel | Average | 1.00 | 1.00 | 93.0 | 0.40 |

## 5.2.2 Mitigated

| Phase Name | Equipment Type | Fuel Type | Engine Tier | Number per Day | Hours Per Day | Horsepower | Load Factor |
|---|---|---|---|---|---|---|---|
| Linear, Grading & Excavation | Graders | Diesel | Average | 1.00 | 8.00 | 148 | 0.41 |
| Linear, Grading & Excavation | Cement and Mortar Mixers | Diesel | Average | 1.00 | 8.00 | 10.0 | 0.56 |
| Linear, Grading & Excavation | Rollers | Diesel | Average | 1.00 | 8.00 | 36.0 | 0.38 |
| Linear, Grading & Excavation | Skid Steer Loaders | Diesel | Average | 1.00 | 8.00 | 71.0 | 0.37 |
| Linear, Grading & Excavation | Dumpers/Tenders | Diesel | Average | 1.00 | 8.00 | 16.0 | 0.38 |
| Linear, Grading & Excavation | Tractors/Loaders/Back hoes | Diesel | Average | 4.00 | 8.00 | 84.0 | 0.37 |
| Linear, Drainage, Utilities, & Sub-Grade | Tractors/Loaders/Back hoes | Diesel | Average | 1.00 | 8.00 | 84.0 | 0.37 |
| Linear, Drainage, Utilities, & Sub-Grade | Sweepers/Scrubbers | Diesel | Average | 1.00 | 8.00 | 36.0 | 0.46 |
| Linear, Drainage, Utilities, & Sub-Grade | Rough Terrain Forklifts | Diesel | Average | 1.00 | 8.00 | 96.0 | 0.40 |
| Linear, Drainage, Utilities, & Sub-Grade | Plate Compactors | Diesel | Average | 1.00 | 8.00 | 8.00 | 0.43 |
| Linear, Drainage, Utilities, & Sub-Grade | Pumps | Diesel | Average | 1.00 | 8.00 | 11.0 | 0.74 |
| Linear, Drainage, Utilities, & Sub-Grade | Air Compressors | Diesel | Average | 1.00 | 8.00 | 37.0 | 0.48 |
| Linear, Drainage, Utilities, & Sub-Grade | Graders | Diesel | Average | 1.00 | 8.00 | 148 | 0.41 |
| Linear, Drainage, Utilities, & Sub-Grade | Generator Sets | Diesel | Average | 1.00 | 8.00 | 14.0 | 0.74 |
| Linear, Paving | Rollers | Diesel | Average | 1.00 | 8.00 | 36.0 | 0.38 |
| Linear, Paving | Pavers | Diesel | Average | 1.00 | 8.00 | 81.0 | 0.42 |
| Linear, Paving | Paving Equipment | Diesel | Average | 1.00 | 8.00 | 89.0 | 0.36 |
| Linear, Paving | Tractors/Loaders/Back hoes | Diesel | Average | 1.00 | 8.00 | 84.0 | 0.37 |
| Linear, Paving | Other Material Handling Equipment | Diesel | Average | 1.00 | 1.00 | 93.0 | 0.40 |

# 5.3 Construction Vehicles

## 5.3.1 Unmitigated

| Phase Name | Trip Type | One-Way Trips per Day | Miles per Trip | Vehicle Mix |
|---|---|---|---|---|
| Linear, Grading & Excavation | — | — | — | — |
| Linear, Grading & Excavation | Worker | 22.5 | 12.0 | LDA,LDT1,LDT2 |
| Linear, Grading & Excavation | Vendor | 1.00 | 7.63 | HHDT,MHDT |
| Linear, Grading & Excavation | Hauling | 0.00 | 20.0 | HHDT |
| Linear, Grading & Excavation | Onsite truck | — | — | HHDT |
| Linear, Drainage, Utilities, & Sub-Grade | — | — | — | — |
| Linear, Drainage, Utilities, & Sub-Grade | Worker | 20.0 | 12.0 | LDA,LDT1,LDT2 |
| Linear, Drainage, Utilities, & Sub-Grade | Vendor | 0.00 | 7.63 | HHDT,MHDT |
| Linear, Drainage, Utilities, & Sub-Grade | Hauling | 0.00 | 20.0 | HHDT |
| Linear, Drainage, Utilities, & Sub-Grade | Onsite truck | — | — | HHDT |
| Linear, Paving | — | — | — | — |
| Linear, Paving | Worker | 12.5 | 12.0 | LDA,LDT1,LDT2 |
| Linear, Paving | Vendor | 0.00 | 7.63 | HHDT,MHDT |
| Linear, Paving | Hauling | 0.00 | 20.0 | HHDT |
| Linear, Paving | Onsite truck | — | — | HHDT |

## 5.3.2 Mitigated

| Phase Name | Trip Type | One-Way Trips per Day | Miles per Trip | Vehicle Mix |
|---|---|---|---|---|
| Linear, Grading & Excavation | — | — | — | — |
| Linear, Grading & Excavation | Worker | 22.5 | 12.0 | LDA,LDT1,LDT2 |
| Linear, Grading & Excavation | Vendor | 1.00 | 7.63 | HHDT,MHDT |
| Linear, Grading & Excavation | Hauling | 0.00 | 20.0 | HHDT |
| Linear, Grading & Excavation | Onsite truck | — | — | HHDT |
| Linear, Drainage, Utilities, & Sub-Grade | — | — | — | — |
| Linear, Drainage, Utilities, & Sub-Grade | Worker | 20.0 | 12.0 | LDA,LDT1,LDT2 |
| Linear, Drainage, Utilities, & Sub-Grade | Vendor | 0.00 | 7.63 | HHDT,MHDT |
| Linear, Drainage, Utilities, & Sub-Grade | Hauling | 0.00 | 20.0 | HHDT |
| Linear, Drainage, Utilities, & Sub-Grade | Onsite truck | — | — | HHDT |
| Linear, Paving | — | — | — | — |
| Linear, Paving | Worker | 12.5 | 12.0 | LDA,LDT1,LDT2 |
| Linear, Paving | Vendor | 0.00 | 7.63 | HHDT,MHDT |
| Linear, Paving | Hauling | 0.00 | 20.0 | HHDT |
| Linear, Paving | Onsite truck | — | — | HHDT |

# 5.4 Vehicles

## 5.4.1 Construction Vehicle Control Strategies

Non-applicable. No control strategies activated by user.

# 5.5 Architectural Coatings

| Phase Name | Residential Interior Area Coated (sq ft) | Residential Exterior Area Coated (sq ft) | Non-Residential Interior Area Coated (sq ft) | Non-Residential Exterior Area Coated (sq ft) | Parking Area Coated (sq ft) |
|---|---|---|---|---|---|

## 5.6 Dust Mitigation

### 5.6.1 Construction Earthmoving Activities

| Phase Name | Material Imported (cy) | Material Exported (cy) | Acres Graded (acres) | Material Demolished (sq. ft.) | Acres Paved (acres) |
|---|---|---|---|---|---|
| Linear, Grading & Excavation | — | — | 2.50 | 0.00 | — |
| Linear, Drainage, Utilities, & Sub-Grade | — | — | 2.50 | 0.00 | — |

### 5.6.2 Construction Earthmoving Control Strategies

Non-applicable. No control strategies activated by user.

## 5.7 Construction Paving

| Land Use | Area Paved (acres) | % Asphalt |
|---|---|---|
| Road Widening | 2.50 | 100% |

## 5.8 Construction Electricity Consumption and Emissions Factors

kWh per Year and Emission Factor (lb/MWh)

| Year | kWh per Year | CO2 | CH4 | N2O |
|---|---|---|---|---|
| 2026 | 0.00 | 589 | 0.03 | <0.005 |

## 5.18 Vegetation

### 5.18.1 Land Use Change

#### 5.18.1.1 Unmitigated

| Vegetation Land Use Type | Vegetation Soil Type | Initial Acres | Final Acres |
|---|---|---|---|

#### 5.18.1.2 Mitigated

| Vegetation Land Use Type | Vegetation Soil Type | Initial Acres | Final Acres |
|---|---|---|---|

### 5.18.1 Biomass Cover Type

#### 5.18.1.1 Unmitigated

| Biomass Cover Type | Initial Acres | Final Acres |
|---|---|---|

#### 5.18.1.2 Mitigated

| Biomass Cover Type | Initial Acres | Final Acres |
|---|---|---|

### 5.18.2 Sequestration

#### 5.18.2.1 Unmitigated

| Tree Type | Number | Electricity Saved (kWh/year) | Natural Gas Saved (btu/year) |
|---|---|---|---|

#### 5.18.2.2 Mitigated

| Tree Type | Number | Electricity Saved (kWh/year) | Natural Gas Saved (btu/year) |
|---|---|---|---|

# 6 Climate Risk Detailed Report

## 6.1 Climate Risk Summary

Cal-Adapt midcentury 2040–2059 average projections for four hazards are reported below for your project location. These are under Representation Concentration Pathway (RCP) 8.5 which assumes GHG emissions will continue to rise strongly through 2050 and then plateau around 2100.

| Climate Hazard | Result for Project Location | Unit |
|---|---|---|
| Temperature and Extreme Heat | 9.66 | annual days of extreme heat |
| Extreme Precipitation | 2.00 | annual days with precipitation above 20 mm |
| Sea Level Rise | — | meters of inundation depth |
| Wildfire | 0.00 | annual hectares burned |

Temperature and Extreme Heat data are for grid cell in which your project are located. The projection is based on the 98th historical percentile of daily maximum/minimum temperatures from observed historical data (32 climate model ensemble from Cal-Adapt, 2040–2059 average under RCP 8.5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.
Extreme Precipitation data are for the grid cell in which your project are located. The threshold of 20 mm is equivalent to about ¾ an inch of rain, which would be light to moderate rainfall if received over a full day or heavy rain if received over a period of 2 to 4 hours. Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.
Sea Level Rise data are for the grid cell in which your project are located. The projections are from Radke et al. (2017), as reported in Cal-Adapt (Radke et al., 2017, CEC-500-2017-008), and consider inundation location and depth for the San Francisco Bay, the Sacramento-San Joaquin River Delta and California coast resulting different increments of sea level rise coupled with extreme storm events. Users may select from four scenarios to view the range in potential inundation depth for the grid cell. The four scenarios are: No rise, 0.5 meter, 1.0 meter, 1.41 meters Wildfire data are for the grid cell in which your project are located. The projections are from UC Davis, as reported in Cal-Adapt (2040–2059 average under RCP 8.5), and consider historical data of climate, vegetation, population density, and large (> 400 ha) fire history. Users may select from four model simulations to view the range in potential wildfire probabilities for the grid cell. The four simulations make different assumptions about expected rainfall and temperature are: Warmer/drier (HadGEM2-ES), Cooler/wetter (CNRM-CM5), Average conditions (CanESM2), Range of different rainfall and temperature possibilities (MIROC5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.

## 6.2 Initial Climate Risk Scores

| Climate Hazard | Exposure Score | Sensitivity Score | Adaptive Capacity Score | Vulnerability Score |
|---|---|---|---|---|
| Temperature and Extreme Heat | N/A | N/A | N/A | N/A |
| Extreme Precipitation | N/A | N/A | N/A | N/A |
| Sea Level Rise | 1 | 0 | 0 | N/A |
| Wildfire | 1 | 0 | 0 | N/A |
| Flooding | 0 | 0 | 0 | N/A |
| Drought | N/A | N/A | N/A | N/A |
| Snowpack Reduction | N/A | N/A | N/A | N/A |
| Air Quality Degradation | N/A | N/A | N/A | N/A |

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.
The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.
The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores do not include implementation of climate risk reduction measures.

## 6.3 Adjusted Climate Risk Scores

| Climate Hazard | Exposure Score | Sensitivity Score | Adaptive Capacity Score | Vulnerability Score |
|---|---|---|---|---|
| Temperature and Extreme Heat | N/A | N/A | N/A | N/A |
| Extreme Precipitation | N/A | N/A | N/A | N/A |
| Sea Level Rise | 1 | 1 | 1 | 2 |
| Wildfire | 1 | 1 | 1 | 2 |
| Flooding | 1 | 1 | 1 | 2 |
| Drought | N/A | N/A | N/A | N/A |
| Snowpack Reduction | N/A | N/A | N/A | N/A |
| Air Quality Degradation | N/A | N/A | N/A | N/A |

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.
The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.

The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores include implementation of climate risk reduction measures.

## 6.4 Climate Risk Reduction Measures

# 7 Health and Equity Details

## 7.1 CalEnviroScreen 4.0 Scores

The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.

| Indicator | Result for Project Census Tract |
|---|---|
| Exposure Indicators | — |
| AQ-Ozone | 37.6 |
| AQ-PM | 36.0 |
| AQ-DPM | 63.9 |
| Drinking Water | 31.4 |
| Lead Risk Housing | 9.48 |
| Pesticides | 2.97 |
| Toxic Releases | 10.2 |
| Traffic | 43.2 |
| Effect Indicators | — |
| CleanUp Sites | 46.1 |
| Groundwater | 14.3 |
| Haz Waste Facilities/Generators | 5.57 |
| Impaired Water Bodies | 77.3 |
| Solid Waste | 80.0 |
| Sensitive Population | — |
| Asthma | 0.56 |
| Cardio-vascular | 9.73 |
| Low Birth Weights | 14.8 |
| Socioeconomic Factor Indicators | — |
| Education | 0.00 |
| Housing | 41.4 |
| Linguistic | 0.00 |
| Poverty | 11.4 |
| Unemployment | 21.1 |

## 7.2 Healthy Places Index Scores

The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

| Indicator | Result for Project Census Tract |
|---|---|
| Economic | — |
| Above Poverty | 96.04773515 |
| Employed | 95.85525472 |
| Median HI | 88.73347876 |
| Education | — |
| Bachelor's or higher | 96.93314513 |
| High school enrollment | 100 |
| Preschool enrollment | 95.7141024 |
| Transportation | — |

| Indicator | Result for Project Census Tract |
|---|---|
| Auto Access | 52.22635699 |
| Active commuting | 45.82317464 |
| Social | — |
| 2-parent households | 91.62068523 |
| Voting | 98.6141409 |
| Neighborhood | — |
| Alcohol availability | 64.64776081 |
| Park access | 81.35506224 |
| Retail density | 61.24727319 |
| Supermarket access | 13.11433338 |
| Tree canopy | 75.70896959 |
| Housing | — |
| Homeownership | 47.09354549 |
| Housing habitability | 79.27627358 |
| Low-inc homeowner severe housing cost burden | 81.0727576 |
| Low-inc renter severe housing cost burden | 63.01809316 |
| Uncrowded housing | 96.93314513 |
| Health Outcomes | — |
| Insured adults | 47.91479533 |
| Arthritis | 0.0 |
| Asthma ER Admissions | 97.3 |
| High Blood Pressure | 0.0 |
| Cancer (excluding skin) | 0.0 |
| Asthma | 0.0 |
| Coronary Heart Disease | 0.0 |
| Chronic Obstructive Pulmonary Disease | 0.0 |
| Diagnosed Diabetes | 0.0 |
| Life Expectancy at Birth | 97.2 |
| Cognitively Disabled | 90.0 |
| Physically  Disabled | 91.7 |
| Heart Attack ER Admissions | 96.2 |
| Mental Health Not Good | 0.0 |
| Chronic Kidney Disease | 0.0 |
| Obesity | 0.0 |
| Pedestrian Injuries | 55.3 |
| Physical Health Not Good | 0.0 |
| Stroke | 0.0 |
| Health Risk Behaviors | — |
| Binge Drinking | 0.0 |
| Current Smoker | 0.0 |
| No Leisure Time for Physical Activity | 0.0 |
| Climate Change Exposures | — |
| Wildfire Risk | 18.4 |
| SLR Inundation Area | 43.4 |
| Children | 94.5 |
| Elderly | 5.9 |
| English Speaking | 90.4 |

| Indicator | Result for Project Census Tract |
|---|---|
| Foreign-born | 36.9 |
| Outdoor Workers | 34.9 |
| Climate Change Adaptive Capacity | — |
| Impervious Surface Cover | 56.3 |
| Traffic Density | 20.5 |
| Traffic Access | 23.0 |
| Other Indices | — |
| Hardship | 0.8 |
| Other Decision Support | — |
| 2016 Voting | 98.3 |

## 7.3 Overall Health & Equity Scores

| Metric | Result for Project Census Tract |
|---|---|
| CalEnviroScreen 4.0 Score for Project Location (a) | 3.00 |
| Healthy Places Index Score for Project Location (b) | 96.0 |
| Project Located in a Designated Disadvantaged Community (Senate Bill 535) | No |
| Project Located in a Low-Income Community (Assembly Bill 1550) | No |
| Project Located in a Community Air Protection Program Community (Assembly Bill 617) | No |

a: The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.
b: The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

## 7.4 Health & Equity Measures

No Health & Equity Measures selected.

## 7.5 Evaluation Scorecard

Health & Equity Evaluation Scorecard not completed.

## 7.6 Health & Equity Custom Measures

No Health & Equity Custom Measures created.

# 8 User Changes to Default Data

| Screen | Justification |
|---|---|
| Construction: Construction Phases | As per the Applicant |
| Construction: Off-Road Equipment | As per the Applicant |

# Storm Water and Sewer Infrastructure Improvement Project Detailed Report

## Table of Contents


1. Basic Project Information
   1.1. Basic Project Information
   1.2. Land Use Types
   1.3. User-Selected Emission Reduction Measures by Emissions Sector
2. Emissions Summary
   2.1. Construction Emissions Compared Against Thresholds
   2.2. Construction Emissions by Year, Unmitigated
   2.3. Construction Emissions by Year, Mitigated
3. Construction Emissions Details
   3.1. Linear, Drainage, Utilities, & Sub-Grade (2026) - Unmitigated
   3.2. Linear, Drainage, Utilities, & Sub-Grade (2026) - Mitigated
4. Operations Emissions Details
   4.10. Soil Carbon Accumulation By Vegetation Type
      4.10.1. Soil Carbon Accumulation By Vegetation Type - Unmitigated
      4.10.2. Above and Belowground Carbon Accumulation by Land Use Type - Unmitigated
      4.10.3. Avoided and Sequestered Emissions by Species - Unmitigated
      4.10.4. Soil Carbon Accumulation By Vegetation Type - Mitigated
      4.10.5. Above and Belowground Carbon Accumulation by Land Use Type - Mitigated
      4.10.6. Avoided and Sequestered Emissions by Species - Mitigated
5. Activity Data
   5.1. Construction Schedule
   5.2. Off-Road Equipment
      5.2.1. Unmitigated
      5.2.2. Mitigated
   5.3. Construction Vehicles
      5.3.1. Unmitigated
      5.3.2. Mitigated
   5.4. Vehicles
      5.4.1. Construction Vehicle Control Strategies
   5.5. Architectural Coatings
   5.6. Dust Mitigation

5.6.1. Construction Earthmoving Activities
5.6.2. Construction Earthmoving Control Strategies
5.7. Construction Paving
5.8. Construction Electricity Consumption and Emissions Factors
5.18. Vegetation
5.18.1. Land Use Change
5.18.1.1. Unmitigated
5.18.1.2. Mitigated
5.18.1. Biomass Cover Type
5.18.1.1. Unmitigated
5.18.1.2. Mitigated
5.18.2. Sequestration
5.18.2.1. Unmitigated
5.18.2.2. Mitigated
6. Climate Risk Detailed Report
6.1. Climate Risk Summary
6.2. Initial Climate Risk Scores
6.3. Adjusted Climate Risk Scores
6.4. Climate Risk Reduction Measures
7. Health and Equity Details
7.1. CalEnviroScreen 4.0 Scores
7.2. Healthy Places Index Scores
7.3. Overall Health & Equity Scores
7.4. Health & Equity Measures
7.5. Evaluation Scorecard
7.6. Health & Equity Custom Measures
8. User Changes to Default Data

# 1 Basic Project Information

## 1.1 Basic Project Information

| Data Field | Value |
|---|---|
| Project Name | Storm Water and Sewer Infrastructure Improvement Project |
| Construction Start Date | 1/1/2026 |
| Lead Agency | — |
| Land Use Scale | Project/site |
| Analysis Level for Defaults | County |
| Windspeed (m/s) | 2.60 |
| Precipitation (days) | 15.4 |
| Location | Del Mar, CA 92014, USA |
| County | San Diego |
| City | Del Mar |
| Air District | San Diego County APCD |
| Air Basin | San Diego |
| TAZ | 6382 |
| EDFZ | 12 |
| Electric Utility | San Diego Gas & Electric |
| Gas Utility | San Diego Gas & Electric |
| App Version | 2022.1.1.30 |

## 1.2 Land Use Types

| Land Use Subtype | Size | Unit | Lot Acreage | Building Area (sq ft) | Landscape Area (sq ft) | Special Landscape Area (sq ft) | Population | Description |
|---|---|---|---|---|---|---|---|---|
| Road Construction | 0.21 | Mile | 0.10 | 0.00 | — | — | — | — |

## 1.3 User-Selected Emission Reduction Measures by Emissions Sector

| Sector | # | Measure Title |
|---|---|---|
| Construction | C-10-A | Water Exposed Surfaces |
| Construction | C-10-C | Water Unpaved Construction Roads |
| Construction | C-11 | Limit Vehicle Speeds on Unpaved Roads |
| Construction | C-12 | Sweep Paved Roads |

# 2 Emissions Summary

## 2.1 Construction Emissions Compared Against Thresholds

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

| Un/Mit. | TOG | ROG | NOx | CO | SO2 | PM10E | PM10D | PM10T | PM2.5E | PM2.5D | PM2.5T | BCO2 | NBCO2 | CO2T | CH4 | N2O | R | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Unmit. | 2.20 | 1.85 | 17.8 | 19.0 | 0.04 | 0.72 | 0.25 | 0.97 | 0.66 | 0.06 | 0.72 | — | 4,353 | 4,353 | 0.18 | 0.04 | 0.03 | 4,370 |
| Mit. | 2.20 | 1.85 | 17.8 | 19.0 | 0.04 | 0.72 | 0.25 | 0.97 | 0.66 | 0.06 | 0.72 | — | 4,353 | 4,353 | 0.18 | 0.04 | 0.03 | 4,370 |
| % Reduced | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Average Daily (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Unmit. | 0.13 | 0.11 | 1.08 | 1.15 | <0.005 | 0.04 | 0.02 | 0.06 | 0.04 | <0.005 | 0.04 | — | 262 | 262 | 0.01 | <0.005 | 0.03 | 264 |
| Mit. | 0.13 | 0.11 | 1.08 | 1.15 | <0.005 | 0.04 | 0.02 | 0.06 | 0.04 | <0.005 | 0.04 | — | 262 | 262 | 0.01 | <0.005 | 0.03 | 264 |
| % Reduced | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Annual (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Unmit. | 0.02 | 0.02 | 0.20 | 0.21 | <0.005 | 0.01 | <0.005 | 0.01 | 0.01 | <0.005 | 0.01 | — | 43.5 | 43.5 | <0.005 | <0.005 | <0.005 | 43.6 |
| Mit. | 0.02 | 0.02 | 0.20 | 0.21 | <0.005 | 0.01 | <0.005 | 0.01 | 0.01 | <0.005 | 0.01 | — | 43.5 | 43.5 | <0.005 | <0.005 | <0.005 | 43.6 |
| % Reduced | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |

## 2.2 Construction Emissions by Year, Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

| Year | TOG | ROG | NOx | CO | SO2 | PM10E | PM10D | PM10T | PM2.5E | PM2.5D | PM2.5T | BCO2 | NBCO2 | CO2T | CH4 | N2O | R | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Daily - Summer (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Daily - Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| 2026 | 2.20 | 1.85 | 17.8 | 19.0 | 0.04 | 0.72 | 0.25 | 0.97 | 0.66 | 0.06 | 0.72 | — | 4,353 | 4,353 | 0.18 | 0.04 | 0.03 | 4,370 |
| Average Daily | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| 2026 | 0.13 | 0.11 | 1.08 | 1.15 | <0.005 | 0.04 | 0.02 | 0.06 | 0.04 | <0.005 | 0.04 | — | 262 | 262 | 0.01 | <0.005 | 0.03 | 264 |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| 2026 | 0.02 | 0.02 | 0.20 | 0.21 | <0.005 | 0.01 | <0.005 | 0.01 | 0.01 | <0.005 | 0.01 | — | 43.5 | 43.5 | <0.005 | <0.005 | <0.005 | 43.6 |

## 2.3 Construction Emissions by Year, Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

| Year | TOG | ROG | NOx | CO | SO2 | PM10E | PM10D | PM10T | PM2.5E | PM2.5D | PM2.5T | BCO2 | NBCO2 | CO2T | CH4 | N2O | R | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Daily - Summer (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Daily - Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| 2026 | 2.20 | 1.85 | 17.8 | 19.0 | 0.04 | 0.72 | 0.25 | 0.97 | 0.66 | 0.06 | 0.72 | — | 4,353 | 4,353 | 0.18 | 0.04 | 0.03 | 4,370 |
| Average Daily | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| 2026 | 0.13 | 0.11 | 1.08 | 1.15 | <0.005 | 0.04 | 0.02 | 0.06 | 0.04 | <0.005 | 0.04 | — | 262 | 262 | 0.01 | <0.005 | 0.03 | 264 |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| 2026 | 0.02 | 0.02 | 0.20 | 0.21 | <0.005 | 0.01 | <0.005 | 0.01 | 0.01 | <0.005 | 0.01 | — | 43.5 | 43.5 | <0.005 | <0.005 | <0.005 | 43.6 |

# 3 Construction Emissions Details

## 3.1 Linear, Drainage, Utilities, & Sub-Grade (2026) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

| Location | TOG | ROG | NOx | CO | SO2 | PM10E | PM10D | PM10T | PM2.5E | PM2.5D | PM2.5T | BCO2 | NBCO2 | CO2T | CH4 | N2O | R | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Onsite | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Daily, Summer (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Off-Road Equipment | 2.08 | 1.74 | 17.8 | 17.9 | 0.04 | 0.72 | — | 0.72 | 0.66 | — | 0.66 | — | 4,089 | 4,089 | 0.17 | 0.03 | — | 4,103 |
| Dust From Material Movement | — | — | — | — | — | — | 0.00 | 0.00 | — | 0.00 | 0.00 | — | — | — | — | — | — | — |
| Onsite truck | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Average Daily | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Off-Road Equipment | 0.13 | 0.11 | 1.07 | 1.08 | <0.005 | 0.04 | — | 0.04 | 0.04 | — | 0.04 | — | 246 | 246 | 0.01 | <0.005 | — | 247 |
| Dust From Material Movement | — | — | — | — | — | — | 0.00 | 0.00 | — | 0.00 | 0.00 | — | — | — | — | — | — | — |
| Onsite truck | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Off-Road Equipment | 0.02 | 0.02 | 0.20 | 0.20 | <0.005 | 0.01 | — | 0.01 | 0.01 | — | 0.01 | — | 40.8 | 40.8 | <0.005 | <0.005 | — | 40.9 |
| Dust From Material Movement | — | — | — | — | — | — | 0.00 | 0.00 | — | 0.00 | 0.00 | — | — | — | — | — | — | — |
| Onsite truck | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Offsite | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Daily, Summer (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Worker | 0.12 | 0.11 | 0.09 | 1.14 | 0.00 | 0.00 | 0.25 | 0.25 | 0.00 | 0.06 | 0.06 | — | 263 | 263 | 0.01 | 0.01 | 0.03 | 267 |
| Vendor | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Hauling | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Average Daily | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Worker | 0.01 | 0.01 | 0.01 | 0.07 | 0.00 | 0.00 | 0.02 | 0.02 | 0.00 | <0.005 | <0.005 | — | 16.0 | 16.0 | <0.005 | <0.005 | 0.03 | 16.3 |
| Vendor | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Hauling | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Worker | <0.005 | <0.005 | <0.005 | 0.01 | 0.00 | 0.00 | <0.005 | <0.005 | 0.00 | <0.005 | <0.005 | — | 2.65 | 2.65 | <0.005 | <0.005 | <0.005 | 2.69 |
| Vendor | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Hauling | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |

## 3.2 Linear, Drainage, Utilities, & Sub-Grade (2026) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

| Location | TOG | ROG | NOx | CO | SO2 | PM10E | PM10D | PM10T | PM2.5E | PM2.5D | PM2.5T | BCO2 | NBCO2 | CO2T | CH4 | N2O | R | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Onsite | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Daily, Summer (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Off-Road Equipment | 2.08 | 1.74 | 17.8 | 17.9 | 0.04 | 0.72 | — | 0.72 | 0.66 | — | 0.66 | — | 4,089 | 4,089 | 0.17 | 0.03 | — | 4,103 |
| Dust From Material Movement | — | — | — | — | — | — | 0.00 | 0.00 | — | 0.00 | 0.00 | — | — | — | — | — | — | — |
| Onsite truck | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Average Daily | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Off-Road Equipment | 0.13 | 0.11 | 1.07 | 1.08 | <0.005 | 0.04 | — | 0.04 | 0.04 | — | 0.04 | — | 246 | 246 | 0.01 | <0.005 | — | 247 |
| Dust From Material Movement | — | — | — | — | — | — | 0.00 | 0.00 | — | 0.00 | 0.00 | — | — | — | — | — | — | — |
| Onsite truck | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Off-Road Equipment | 0.02 | 0.02 | 0.20 | 0.20 | <0.005 | 0.01 | — | 0.01 | 0.01 | — | 0.01 | — | 40.8 | 40.8 | <0.005 | <0.005 | — | 40.9 |
| Dust From Material Movement | — | — | — | — | — | — | 0.00 | 0.00 | — | 0.00 | 0.00 | — | — | — | — | — | — | — |
| Onsite truck | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Offsite | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Daily, Summer (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Worker | 0.12 | 0.11 | 0.09 | 1.14 | 0.00 | 0.00 | 0.25 | 0.25 | 0.00 | 0.06 | 0.06 | — | 263 | 263 | 0.01 | 0.01 | 0.03 | 267 |
| Vendor | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Hauling | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Average Daily | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Worker | 0.01 | 0.01 | 0.01 | 0.07 | 0.00 | 0.00 | 0.02 | 0.02 | 0.00 | <0.005 | <0.005 | — | 16.0 | 16.0 | <0.005 | <0.005 | 0.03 | 16.3 |
| Vendor | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Hauling | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Worker | <0.005 | <0.005 | <0.005 | 0.01 | 0.00 | 0.00 | <0.005 | <0.005 | 0.00 | <0.005 | <0.005 | — | 2.65 | 2.65 | <0.005 | <0.005 | <0.005 | 2.69 |
| Vendor | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Hauling | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |

# 4 Operations Emissions Details

## 4.10 Soil Carbon Accumulation By Vegetation Type

### 4.10.1 Soil Carbon Accumulation By Vegetation Type – Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

| Vegetati on | TOG | ROG | NOx | CO | SO2 | PM10E | PM10D | PM10T | PM2.5E | PM2.5D | PM2.5T | BCO2 | NBCO2 | CO2T | CH4 | N2O | R | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Daily, Summer (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Total | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Total | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Total | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |

4.10.2 Above and Belowground Carbon Accumulation by Land Use Type – Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

| Land Use | TOG | ROG | NOx | CO | SO2 | PM10E | PM10D | PM10T | PM2.5E | PM2.5D | PM2.5T | BCO2 | NBCO2 | CO2T | CH4 | N2O | R | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Daily, Summer (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Total | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Total | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Total | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |

4.10.3 Avoided and Sequestered Emissions by Species – Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

| Species | TOG | ROG | NOx | CO | SO2 | PM10E | PM10D | PM10T | PM2.5E | PM2.5D | PM2.5T | BCO2 | NBCO2 | CO2T | CH4 | N2O | R | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Daily, Summer (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Avoided | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Subtotal | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Sequestered | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Subtotal | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Removed | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Subtotal | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Avoided | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Subtotal | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Sequestered | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Subtotal | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Removed | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Subtotal | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Avoided | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Subtotal | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Sequestered | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Subtotal | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Removed | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Subtotal | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |

4.10.4 Soil Carbon Accumulation By Vegetation Type – Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

| Vegetati on | TOG | ROG | NOx | CO | SO2 | PM10E | PM10D | PM10T | PM2.5E | PM2.5D | PM2.5T | BCO2 | NBCO2 | CO2T | CH4 | N2O | R | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Daily, Summer (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Total | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Total | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Total | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |

4.10.5 Above and Belowground Carbon Accumulation by Land Use Type – Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

| Land Use | TOG | ROG | NOx | CO | SO2 | PM10E | PM10D | PM10T | PM2.5E | PM2.5D | PM2.5T | BCO2 | NBCO2 | CO2T | CH4 | N2O | R | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Daily, Summer (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Total | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Total | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Total | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |

4.10.6 Avoided and Sequestered Emissions by Species – Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

| Species | TOG | ROG | NOx | CO | SO2 | PM10E | PM10D | PM10T | PM2.5E | PM2.5D | PM2.5T | BCO2 | NBCO2 | CO2T | CH4 | N2O | R | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Daily, Summer (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Avoided | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Subtotal | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Sequestered | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Subtotal | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Removed | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Subtotal | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Avoided | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Subtotal | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Sequestered | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Subtotal | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Removed | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Subtotal | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Avoided | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Subtotal | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Sequestered | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Subtotal | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Removed | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Subtotal | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |

# 5 Activity Data

## 5.1 Construction Schedule

| Phase Name | Phase Type | Start Date | End Date | Days Per Week | Work Days per Phase | Phase Description |
|---|---|---|---|---|---|---|
| Linear, Drainage, Utilities, & Sub-Grade | Linear, Drainage, Utilities, & Sub-Grade | 1/19/2026 | 2/17/2026 | 5.00 | 22.0 | — |

## 5.2 Off-Road Equipment

### 5.2.1 Unmitigated

| Phase Name | Equipment Type | Fuel Type | Engine Tier | Number per Day | Hours Per Day | Horsepower | Load Factor |
|---|---|---|---|---|---|---|---|
| Linear, Drainage, Utilities, & Sub-Grade | Tractors/Loaders/Back hoes | Electric | Average | 1.00 | 8.00 | 6.00 | 0.82 |
| Linear, Drainage, Utilities, & Sub-Grade | Tractors/Loaders/Back hoes | Diesel | Average | 1.00 | 8.00 | 84.0 | 0.37 |
| Linear, Drainage, Utilities, & Sub-Grade | Skid Steer Loaders | Diesel | Average | 1.00 | 8.00 | 423 | 0.48 |
| Linear, Drainage, Utilities, & Sub-Grade | Dumpers/Tenders | Diesel | Average | 1.00 | 8.00 | 16.0 | 0.38 |
| Linear, Drainage, Utilities, & Sub-Grade | Excavators | Diesel | Average | 1.00 | 8.00 | 36.0 | 0.38 |
| Linear, Drainage, Utilities, & Sub-Grade | Paving Equipment | Diesel | Average | 1.00 | 8.00 | 89.0 | 0.36 |
| Linear, Drainage, Utilities, & Sub-Grade | Sweepers/Scrubbers | Diesel | Average | 1.00 | 8.00 | 37.0 | 0.48 |
| Linear, Drainage, Utilities, & Sub-Grade | Pavers | Diesel | Average | 1.00 | 8.00 | 81.0 | 0.42 |
| Linear, Drainage, Utilities, & Sub-Grade | Rollers | Diesel | Average | 1.00 | 8.00 | 14.0 | 0.74 |
| Linear, Drainage, Utilities, & Sub-Grade | Other Material Handling Equipment | Diesel | Average | 2.00 | 8.00 | 93.0 | 0.40 |
| Linear, Drainage, Utilities, & Sub-Grade | Cement and Mortar Mixers | Diesel | Average | 1.00 | 8.00 | 10.0 | 0.56 |

### 5.2.2 Mitigated

| Phase Name | Equipment Type | Fuel Type | Engine Tier | Number per Day | Hours Per Day | Horsepower | Load Factor |
|---|---|---|---|---|---|---|---|
| Linear, Drainage, Utilities, & Sub-Grade | Tractors/Loaders/Back hoes | Electric | Average | 1.00 | 8.00 | 6.00 | 0.82 |
| Linear, Drainage, Utilities, & Sub-Grade | Tractors/Loaders/Back hoes | Diesel | Average | 1.00 | 8.00 | 84.0 | 0.37 |
| Linear, Drainage, Utilities, & Sub-Grade | Skid Steer Loaders | Diesel | Average | 1.00 | 8.00 | 423 | 0.48 |
| Linear, Drainage, Utilities, & Sub-Grade | Dumpers/Tenders | Diesel | Average | 1.00 | 8.00 | 16.0 | 0.38 |
| Linear, Drainage, Utilities, & Sub-Grade | Excavators | Diesel | Average | 1.00 | 8.00 | 36.0 | 0.38 |
| Linear, Drainage, Utilities, & Sub-Grade | Paving Equipment | Diesel | Average | 1.00 | 8.00 | 89.0 | 0.36 |
| Linear, Drainage, Utilities, & Sub-Grade | Sweepers/Scrubbers | Diesel | Average | 1.00 | 8.00 | 37.0 | 0.48 |
| Linear, Drainage, Utilities, & Sub-Grade | Pavers | Diesel | Average | 1.00 | 8.00 | 81.0 | 0.42 |
| Linear, Drainage, Utilities, & Sub-Grade | Rollers | Diesel | Average | 1.00 | 8.00 | 14.0 | 0.74 |
| Linear, Drainage, Utilities, & Sub-Grade | Other Material Handling Equipment | Diesel | Average | 2.00 | 8.00 | 93.0 | 0.40 |
| Linear, Drainage, Utilities, & Sub-Grade | Cement and Mortar Mixers | Diesel | Average | 1.00 | 8.00 | 10.0 | 0.56 |

## 5.3 Construction Vehicles

### 5.3.1 Unmitigated

| Phase Name | Trip Type | One-Way Trips per Day | Miles per Trip | Vehicle Mix |
|---|---|---|---|---|
| Linear, Drainage, Utilities, & Sub-Grade | — | — | — | — |
| Linear, Drainage, Utilities, & Sub-Grade | Worker | 30.0 | 12.0 | LDA,LDT1,LDT2 |
| Linear, Drainage, Utilities, & Sub-Grade | Vendor | 0.00 | 7.63 | HHDT,MHDT |
| Linear, Drainage, Utilities, & Sub-Grade | Hauling | 0.00 | 20.0 | HHDT |
| Linear, Drainage, Utilities, & Sub-Grade | Onsite truck | — | — | HHDT |

### 5.3.2 Mitigated

| Phase Name | Trip Type | One-Way Trips per Day | Miles per Trip | Vehicle Mix |
|---|---|---|---|---|
| Linear, Drainage, Utilities, & Sub-Grade | — | — | — | — |
| Linear, Drainage, Utilities, & Sub-Grade | Worker | 30.0 | 12.0 | LDA,LDT1,LDT2 |
| Linear, Drainage, Utilities, & Sub-Grade | Vendor | 0.00 | 7.63 | HHDT,MHDT |
| Linear, Drainage, Utilities, & Sub-Grade | Hauling | 0.00 | 20.0 | HHDT |
| Linear, Drainage, Utilities, & Sub-Grade | Onsite truck | — | — | HHDT |

# 5.4 Vehicles

## 5.4.1 Construction Vehicle Control Strategies

Non-applicable. No control strategies activated by user.

# 5.5 Architectural Coatings

| Phase Name | Residential Interior Area Coated (sq ft) | Residential Exterior Area Coated (sq ft) | Non-Residential Interior Area Coated (sq ft) | Non-Residential Exterior Area Coated (sq ft) | Parking Area Coated (sq ft) |
|---|---|---|---|---|---|

# 5.6 Dust Mitigation

## 5.6.1 Construction Earthmoving Activities

| Phase Name | Material Imported (cy) | Material Exported (cy) | Acres Graded (acres) | Material Demolished (sq. ft.) | Acres Paved (acres) |
|---|---|---|---|---|---|
| Linear, Drainage, Utilities, & Sub-Grade | — | — | 0.10 | 0.00 | — |

## 5.6.2 Construction Earthmoving Control Strategies

Non-applicable. No control strategies activated by user.

# 5.7 Construction Paving

| Land Use | Area Paved (acres) | % Asphalt |
|---|---|---|
| Road Construction | 0.10 | 100% |

# 5.8 Construction Electricity Consumption and Emissions Factors

kWh per Year and Emission Factor (lb/MWh)

| Year | kWh per Year | CO2 | CH4 | N2O |
|---|---|---|---|---|
| 2026 | 29.4 | 589 | 0.03 | <0.005 |

# 5.18 Vegetation

## 5.18.1 Land Use Change

### 5.18.1.1 Unmitigated

| Vegetation Land Use Type | Vegetation Soil Type | Initial Acres | Final Acres |
|---|---|---|---|

### 5.18.1.2 Mitigated

| Vegetation Land Use Type | Vegetation Soil Type | Initial Acres | Final Acres |
|---|---|---|---|

## 5.18.2 Biomass Cover Type

### 5.18.2.1 Unmitigated

| Biomass Cover Type | Initial Acres | Final Acres |
|---|---|---|

### 5.18.2.2 Mitigated

| Biomass Cover Type | Initial Acres | Final Acres |
|---|---|---|

## 5.18.3 Sequestration

### 5.18.3.1 Unmitigated

| Tree Type | Number | Electricity Saved (kWh/year) | Natural Gas Saved (btu/year) |
|---|---|---|---|

### 5.18.3.2 Mitigated

| Tree Type | Number | Electricity Saved (kWh/year) | Natural Gas Saved (btu/year) |
|---|---|---|---|

# 6 Climate Risk Detailed Report

## 6.1 Climate Risk Summary

Cal-Adapt midcentury 2040–2059 average projections for four hazards are reported below for your project location. These are under Representation Concentration Pathway (RCP) 8.5 which assumes GHG emissions will continue to rise strongly through 2050 and then plateau around 2100.

| Climate Hazard | Result for Project Location | Unit |
|---|---|---|
| Temperature and Extreme Heat | 9.66 | annual days of extreme heat |
| Extreme Precipitation | 2.00 | annual days with precipitation above 20 mm |
| Sea Level Rise | — | meters of inundation depth |
| Wildfire | 0.00 | annual hectares burned |

Temperature and Extreme Heat data are for grid cell in which your project are located. The projection is based on the 98th historical percentile of daily maximum/minimum temperatures from observed historical data (32 climate model ensemble from Cal-Adapt, 2040–2059 average under RCP 8.5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.

Extreme Precipitation data are for the grid cell in which your project are located. The threshold of 20 mm is equivalent to about ¾ an inch of rain, which would be light to moderate rainfall if received over a full day or heavy rain if received over a period of 2 to 4 hours. Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.

Sea Level Rise data are for the grid cell in which your project are located. The projections are from Radke et al. (2017), as reported in Cal-Adapt (Radke et al., 2017, CEC-500-2017-008), and consider inundation location and depth for the San Francisco Bay, the Sacramento-San Joaquin River Delta and California coast resulting different increments of sea level rise coupled with extreme storm events. Users may select from four scenarios to view the range in potential inundation depth for the grid cell. The four scenarios are: No rise, 0.5 meter, 1.0 meter, 1.41 meters Wildfire data are for the grid cell in which your project are located. The projections are from UC Davis, as reported in Cal-Adapt (2040–2059 average under RCP 8.5), and consider historical data of climate, vegetation, population density, and large (> 400 ha) fire history. Users may select from four model simulations to view the range in potential wildfire probabilities for the grid cell. The four simulations make different assumptions about expected rainfall and temperature are: Warmer/drier (HadGEM2-ES), Cooler/wetter (CNRM-CM5), Average conditions (CanESM2), Range of different rainfall and temperature possibilities (MIROC5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.

## 6.2 Initial Climate Risk Scores

| Climate Hazard | Exposure Score | Sensitivity Score | Adaptive Capacity Score | Vulnerability Score |
|---|---|---|---|---|
| Temperature and Extreme Heat | N/A | N/A | N/A | N/A |
| Extreme Precipitation | N/A | N/A | N/A | N/A |
| Sea Level Rise | 1 | 0 | 0 | N/A |
| Wildfire | 1 | 0 | 0 | N/A |
| Flooding | 0 | 0 | 0 | N/A |
| Drought | N/A | N/A | N/A | N/A |
| Snowpack Reduction | N/A | N/A | N/A | N/A |
| Air Quality Degradation | N/A | N/A | N/A | N/A |

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.

The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.

The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores do not include implementation of climate risk reduction measures.

## 6.3 Adjusted Climate Risk Scores

| Climate Hazard | Exposure Score | Sensitivity Score | Adaptive Capacity Score | Vulnerability Score |
|---|---|---|---|---|
| Temperature and Extreme Heat | N/A | N/A | N/A | N/A |
| Extreme Precipitation | N/A | N/A | N/A | N/A |
| Sea Level Rise | 1 | 1 | 1 | 2 |
| Wildfire | 1 | 1 | 1 | 2 |
| Flooding | 1 | 1 | 1 | 2 |
| Drought | N/A | N/A | N/A | N/A |
| Snowpack Reduction | N/A | N/A | N/A | N/A |
| Air Quality Degradation | N/A | N/A | N/A | N/A |

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.

The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.

The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores include implementation of climate risk reduction measures.

## 6.4 Climate Risk Reduction Measures

# 7 Health and Equity Details

## 7.1 CalEnviroScreen 4.0 Scores

The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.

| Indicator | Result for Project Census Tract |
|---|---|
| Exposure Indicators | — |
| AQ-Ozone | 37.6 |
| AQ-PM | 36.0 |
| AQ-DPM | 63.9 |
| Drinking Water | 31.4 |
| Lead Risk Housing | 9.48 |
| Pesticides | 2.97 |
| Toxic Releases | 10.2 |
| Traffic | 43.2 |
| Effect Indicators | — |
| CleanUp Sites | 46.1 |
| Groundwater | 14.3 |
| Haz Waste Facilities/Generators | 5.57 |
| Impaired Water Bodies | 77.3 |
| Solid Waste | 80.0 |
| Sensitive Population | — |
| Asthma | 0.56 |
| Cardio-vascular | 9.73 |
| Low Birth Weights | 14.8 |
| Socioeconomic Factor Indicators | — |
| Education | 0.00 |
| Housing | 41.4 |
| Linguistic | 0.00 |
| Poverty | 11.4 |
| Unemployment | 21.1 |

## 7.2 Healthy Places Index Scores

The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

| Indicator | Result for Project Census Tract |
|---|---|
| Economic | — |
| Above Poverty | 96.04773515 |
| Employed | 95.85525472 |
| Median HI | 88.73347876 |
| Education | — |
| Bachelor's or higher | 96.93314513 |
| High school enrollment | 100 |
| Preschool enrollment | 95.7141024 |
| Transportation | — |
| Auto Access | 52.22635699 |
| Active commuting | 45.82317464 |
| Social | — |
| 2-parent households | 91.62068523 |
| Voting | 98.6141409 |

| Indicator | Result for Project Census Tract |
|---|---|
| Neighborhood | — |
| Alcohol availability | 64.64776081 |
| Park access | 81.35506224 |
| Retail density | 61.24727319 |
| Supermarket access | 13.11433338 |
| Tree canopy | 75.70896959 |
| Housing | — |
| Homeownership | 47.09354549 |
| Housing habitability | 79.27627358 |
| Low-inc homeowner severe housing cost burden | 81.0727576 |
| Low-inc renter severe housing cost burden | 63.01809316 |
| Uncrowded housing | 96.93314513 |
| Health Outcomes | — |
| Insured adults | 47.91479533 |
| Arthritis | 0.0 |
| Asthma ER Admissions | 97.3 |
| High Blood Pressure | 0.0 |
| Cancer (excluding skin) | 0.0 |
| Asthma | 0.0 |
| Coronary Heart Disease | 0.0 |
| Chronic Obstructive Pulmonary Disease | 0.0 |
| Diagnosed Diabetes | 0.0 |
| Life Expectancy at Birth | 97.2 |
| Cognitively Disabled | 90.0 |
| Physically  Disabled | 91.7 |
| Heart Attack ER Admissions | 96.2 |
| Mental Health Not Good | 0.0 |
| Chronic Kidney Disease | 0.0 |
| Obesity | 0.0 |
| Pedestrian Injuries | 55.3 |
| Physical Health Not Good | 0.0 |
| Stroke | 0.0 |
| Health Risk Behaviors | — |
| Binge Drinking | 0.0 |
| Current Smoker | 0.0 |
| No Leisure Time for Physical Activity | 0.0 |
| Climate Change Exposures | — |
| Wildfire Risk | 18.4 |
| SLR Inundation Area | 43.4 |
| Children | 94.5 |
| Elderly | 5.9 |
| English Speaking | 90.4 |
| Foreign-born | 36.9 |
| Outdoor Workers | 34.9 |
| Climate Change Adaptive Capacity | — |
| Impervious Surface Cover | 56.3 |

| Indicator | Result for Project Census Tract |
|---|---|
| Traffic Density | 20.5 |
| Traffic Access | 23.0 |
| Other Indices | — |
| Hardship | 0.8 |
| Other Decision Support | — |
| 2016 Voting | 98.3 |

## 7.3 Overall Health & Equity Scores

| Metric | Result for Project Census Tract |
|---|---|
| CalEnviroScreen 4.0 Score for Project Location (a) | 3.00 |
| Healthy Places Index Score for Project Location (b) | 96.0 |
| Project Located in a Designated Disadvantaged Community (Senate Bill 535) | No |
| Project Located in a Low-Income Community (Assembly Bill 1550) | No |
| Project Located in a Community Air Protection Program Community (Assembly Bill 617) | No |

a: The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.
b: The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

## 7.4 Health & Equity Measures

No Health & Equity Measures selected.

## 7.5 Evaluation Scorecard

Health & Equity Evaluation Scorecard not completed.

## 7.6 Health & Equity Custom Measures

No Health & Equity Custom Measures created.

# 8 User Changes to Default Data

| Screen | Justification |
|---|---|
| Construction: Construction Phases | The project would include Storm drain and sewer pipeline installation, CIPP lining, pipe replacement, manhole construction, spot repairs. |
| Construction: Off-Road Equipment | Based on the project applicant |

# Shores Park Improvements Project Detailed Report

## Table of Contents


1. Basic Project Information
   1.1. Basic Project Information
   1.2. Land Use Types
   1.3. User-Selected Emission Reduction Measures by Emissions Sector
2. Emissions Summary
   2.1. Construction Emissions Compared Against Thresholds
   2.2. Construction Emissions by Year, Unmitigated
   2.3. Construction Emissions by Year, Mitigated
3. Construction Emissions Details
   3.1. Grading (2026) - Unmitigated
   3.2. Grading (2026) - Mitigated
   3.3. Building Construction (2026) - Unmitigated
   3.4. Building Construction (2026) - Mitigated
   3.5. Building Construction (2027) - Unmitigated
   3.6. Building Construction (2027) - Mitigated
   3.7. Paving (2027) - Unmitigated
   3.8. Paving (2027) - Mitigated
   3.9. Architectural Coating (2027) - Unmitigated
   3.10. Architectural Coating (2027) - Mitigated
4. Operations Emissions Details
   4.10. Soil Carbon Accumulation By Vegetation Type
      4.10.1. Soil Carbon Accumulation By Vegetation Type - Unmitigated
      4.10.2. Above and Belowground Carbon Accumulation by Land Use Type - Unmitigated
      4.10.3. Avoided and Sequestered Emissions by Species - Unmitigated
      4.10.4. Soil Carbon Accumulation By Vegetation Type - Mitigated
      4.10.5. Above and Belowground Carbon Accumulation by Land Use Type - Mitigated
      4.10.6. Avoided and Sequestered Emissions by Species - Mitigated
5. Activity Data
   5.1. Construction Schedule
   5.2. Off-Road Equipment
      5.2.1. Unmitigated
      5.2.2. Mitigated
   5.3. Construction Vehicles

5.3.1. Unmitigated
5.3.2. Mitigated
5.4. Vehicles
5.4.1. Construction Vehicle Control Strategies
5.5. Architectural Coatings
5.6. Dust Mitigation
5.6.1. Construction Earthmoving Activities
5.6.2. Construction Earthmoving Control Strategies
5.7. Construction Paving
5.8. Construction Electricity Consumption and Emissions Factors
5.18. Vegetation
5.18.1. Land Use Change
5.18.1.1. Unmitigated
5.18.1.2. Mitigated
5.18.1. Biomass Cover Type
5.18.1.1. Unmitigated
5.18.1.2. Mitigated
5.18.2. Sequestration
5.18.2.1. Unmitigated
5.18.2.2. Mitigated
6. Climate Risk Detailed Report
6.1. Climate Risk Summary
6.2. Initial Climate Risk Scores
6.3. Adjusted Climate Risk Scores
6.4. Climate Risk Reduction Measures
7. Health and Equity Details
7.1. CalEnviroScreen 4.0 Scores
7.2. Healthy Places Index Scores
7.3. Overall Health & Equity Scores
7.4. Health & Equity Measures
7.5. Evaluation Scorecard
7.6. Health & Equity Custom Measures
8. User Changes to Default Data

# 1 Basic Project Information

## 1.1 Basic Project Information

| Data Field | Value |
|---|---|
| Project Name | Shores Park Improvements Project |
| Construction Start Date | 1/1/2026 |
| Lead Agency | — |
| Land Use Scale | Project/site |
| Analysis Level for Defaults | County |
| Windspeed (m/s) | 2.60 |
| Precipitation (days) | 15.4 |
| Location | Del Mar, CA 92014, USA |
| County | San Diego |
| City | Del Mar |
| Air District | San Diego County APCD |
| Air Basin | San Diego |
| TAZ | 6382 |
| EDFZ | 12 |
| Electric Utility | San Diego Gas & Electric |
| Gas Utility | San Diego Gas & Electric |
| App Version | 2022.1.1.30 |

## 1.2 Land Use Types

| Land Use Subtype | Size | Unit | Lot Acreage | Building Area (sq ft) | Landscape Area (sq ft) | Special Landscape Area (sq ft) | Population | Description |
|---|---|---|---|---|---|---|---|---|
| City Park | 3.50 | Acre | 3.50 | 0.00 | 100,000 | 100,000 | — | — |
| Racquet Club | 1.20 | 1000sqft | 0.03 | 1,200 | 8,900 | — | — | — |

## 1.3 User-Selected Emission Reduction Measures by Emissions Sector

| Sector | # | Measure Title |
|---|---|---|
| Construction | C-10-A | Water Exposed Surfaces |
| Construction | C-10-C | Water Unpaved Construction Roads |
| Construction | C-11 | Limit Vehicle Speeds on Unpaved Roads |
| Construction | C-12 | Sweep Paved Roads |

# 2 Emissions Summary

## 2.1 Construction Emissions Compared Against Thresholds

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

| Un/Mit. | TOG | ROG | NOx | CO | SO2 | PM10E | PM10D | PM10T | PM2.5E | PM2.5D | PM2.5T | BCO2 | NBCO2 | CO2T | CH4 | N2O | R | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Daily, Summer (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Unmit. | 1.28 | 1.07 | 9.86 | 13.0 | 0.02 | 0.38 | 0.01 | 0.38 | 0.35 | <0.005 | 0.35 | — | 2,407 | 2,407 | 0.10 | 0.02 | 0.03 | 2,415 |
| Mit. | 1.28 | 1.07 | 9.86 | 13.0 | 0.02 | 0.38 | 0.01 | 0.38 | 0.35 | <0.005 | 0.35 | — | 2,407 | 2,407 | 0.10 | 0.02 | 0.03 | 2,415 |
| % Reduced | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Unmit. | 2.10 | 1.77 | 15.5 | 18.4 | 0.03 | 0.66 | 7.23 | 7.89 | 0.61 | 3.46 | 4.07 | — | 3,175 | 3,175 | 0.13 | 0.03 | 0.02 | 3,187 |
| Mit. | 2.10 | 1.77 | 15.5 | 18.4 | 0.03 | 0.66 | 1.99 | 2.65 | 0.61 | 0.93 | 1.54 | — | 3,175 | 3,175 | 0.13 | 0.03 | 0.02 | 3,187 |
| % Reduced | — | — | — | — | — | — | 72% | 66% | — | 73% | 62% | — | — | — | — | — | — | — |
| Average Daily (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Unmit. | 0.96 | 0.81 | 7.38 | 9.60 | 0.02 | 0.29 | 0.44 | 0.73 | 0.26 | 0.21 | 0.47 | — | 1,764 | 1,764 | 0.07 | 0.02 | 0.02 | 1,771 |
| Mit. | 0.96 | 0.81 | 7.38 | 9.60 | 0.02 | 0.29 | 0.12 | 0.41 | 0.26 | 0.06 | 0.32 | — | 1,764 | 1,764 | 0.07 | 0.02 | 0.02 | 1,771 |
| % Reduced | — | — | — | — | — | — | 72% | 43% | — | 73% | 32% | — | — | — | — | — | — | — |
| Annual (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Unmit. | 0.18 | 0.15 | 1.35 | 1.75 | <0.005 | 0.05 | 0.08 | 0.13 | 0.05 | 0.04 | 0.09 | — | 292 | 292 | 0.01 | <0.005 | <0.005 | 293 |
| Mit. | 0.18 | 0.15 | 1.35 | 1.75 | <0.005 | 0.05 | 0.02 | 0.07 | 0.05 | 0.01 | 0.06 | — | 292 | 292 | 0.01 | <0.005 | <0.005 | 293 |
| % Reduced | — | — | — | — | — | — | 72% | 43% | — | 73% | 32% | — | — | — | — | — | — | — |

## 2.2 Construction Emissions by Year, Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

| Year | TOG | ROG | NOx | CO | SO2 | PM10E | PM10D | PM10T | PM2.5E | PM2.5D | PM2.5T | BCO2 | NBCO2 | CO2T | CH4 | N2O | R | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Daily - Summer (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| 2026 | 1.28 | 1.07 | 9.86 | 13.0 | 0.02 | 0.38 | 0.01 | 0.38 | 0.35 | <0.005 | 0.35 | — | 2,407 | 2,407 | 0.10 | 0.02 | 0.03 | 2,415 |
| Daily - Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| 2026 | 2.10 | 1.77 | 15.5 | 18.4 | 0.03 | 0.66 | 7.23 | 7.89 | 0.61 | 3.46 | 4.07 | — | 3,175 | 3,175 | 0.13 | 0.03 | 0.01 | 3,187 |
| 2027 | 1.23 | 1.03 | 9.40 | 13.0 | 0.02 | 0.34 | 0.19 | 0.48 | 0.31 | 0.04 | 0.31 | — | 2,406 | 2,406 | 0.10 | 0.02 | 0.02 | 2,415 |
| Average Daily | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| 2026 | 0.96 | 0.81 | 7.38 | 9.60 | 0.02 | 0.29 | 0.44 | 0.73 | 0.26 | 0.21 | 0.47 | — | 1,764 | 1,764 | 0.07 | 0.02 | 0.02 | 1,771 |
| 2027 | 0.09 | 0.08 | 0.53 | 0.78 | <0.005 | 0.02 | 0.01 | 0.03 | 0.02 | <0.005 | 0.02 | — | 124 | 124 | 0.01 | <0.005 | 0.01 | 125 |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| 2026 | 0.18 | 0.15 | 1.35 | 1.75 | <0.005 | 0.05 | 0.08 | 0.13 | 0.05 | 0.04 | 0.09 | — | 292 | 292 | 0.01 | <0.005 | <0.005 | 293 |
| 2027 | 0.02 | 0.01 | 0.10 | 0.14 | <0.005 | <0.005 | <0.005 | 0.01 | <0.005 | <0.005 | <0.005 | — | 20.6 | 20.6 | <0.005 | <0.005 | <0.005 | 20.7 |

## 2.3 Construction Emissions by Year, Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

| Year | TOG | ROG | NOx | CO | SO2 | PM10E | PM10D | PM10T | PM2.5E | PM2.5D | PM2.5T | BCO2 | NBCO2 | CO2T | CH4 | N2O | R | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Daily - Summer (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| 2026 | 1.28 | 1.07 | 9.86 | 13.0 | 0.02 | 0.38 | 0.01 | 0.38 | 0.35 | <0.005 | 0.35 | — | 2,407 | 2,407 | 0.10 | 0.02 | 0.03 | 2,415 |
| Daily - Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| 2026 | 2.10 | 1.77 | 15.5 | 18.4 | 0.03 | 0.66 | 1.99 | 2.65 | 0.61 | 0.93 | 1.54 | — | 3,175 | 3,175 | 0.13 | 0.03 | 0.01 | 3,187 |
| 2027 | 1.23 | 1.03 | 9.40 | 13.0 | 0.02 | 0.34 | 0.19 | 0.48 | 0.31 | 0.04 | 0.31 | — | 2,406 | 2,406 | 0.10 | 0.02 | 0.02 | 2,415 |
| Average Daily | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| 2026 | 0.96 | 0.81 | 7.38 | 9.60 | 0.02 | 0.29 | 0.12 | 0.41 | 0.26 | 0.06 | 0.32 | — | 1,764 | 1,764 | 0.07 | 0.02 | 0.02 | 1,771 |
| 2027 | 0.09 | 0.08 | 0.53 | 0.78 | <0.005 | 0.02 | 0.01 | 0.03 | 0.02 | <0.005 | 0.02 | — | 124 | 124 | 0.01 | <0.005 | 0.01 | 125 |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| 2026 | 0.18 | 0.15 | 1.35 | 1.75 | <0.005 | 0.05 | 0.02 | 0.07 | 0.05 | 0.01 | 0.06 | — | 292 | 292 | 0.01 | <0.005 | <0.005 | 293 |
| 2027 | 0.02 | 0.01 | 0.10 | 0.14 | <0.005 | <0.005 | <0.005 | 0.01 | <0.005 | <0.005 | <0.005 | — | 20.6 | 20.6 | <0.005 | <0.005 | <0.005 | 20.7 |

# 3 Construction Emissions Details

## 3.1 Grading (2026) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

| Location | TOG | ROG | NOx | CO | SO2 | PM10E | PM10D | PM10T | PM2.5E | PM2.5D | PM2.5T | BCO2 | NBCO2 | CO2T | CH4 | N2O | R | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Onsite | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Daily, Summer (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Off-Road Equipment | 2.03 | 1.71 | 15.4 | 17.7 | 0.03 | 0.66 | — | 0.66 | 0.61 | — | 0.61 | — | 3,021 | 3,021 | 0.12 | 0.02 | — | 3,031 |
| Dust From Material Movement | — | — | — | — | — | — | 7.08 | 7.08 | — | 3.42 | 3.42 | — | — | — | — | — | — | — |
| Onsite truck | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Average Daily | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Off-Road Equipment | 0.12 | 0.10 | 0.93 | 1.07 | <0.005 | 0.04 | — | 0.04 | 0.04 | — | 0.04 | — | 182 | 182 | 0.01 | <0.005 | — | 183 |
| Dust From Material Movement | — | — | — | — | — | — | 0.43 | 0.43 | — | 0.21 | 0.21 | — | — | — | — | — | — | — |
| Onsite truck | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Off-Road Equipment | 0.02 | 0.02 | 0.17 | 0.19 | <0.005 | 0.01 | — | 0.01 | 0.01 | — | 0.01 | — | 30.1 | 30.1 | <0.005 | <0.005 | — | 30.2 |
| Dust From Material Movement | — | — | — | — | — | — | 0.08 | 0.08 | — | 0.04 | 0.04 | — | — | — | — | — | — | — |
| Onsite truck | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Offsite | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Daily, Summer (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Worker | 0.07 | 0.06 | 0.05 | 0.67 | 0.00 | 0.00 | 0.15 | 0.15 | 0.00 | 0.03 | 0.03 | — | 154 | 154 | 0.01 | 0.01 | 0.01 | 156 |
| Vendor | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Hauling | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Average Daily | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |

| Location | TOG | ROG | NOx | CO | SO2 | PM10E | PM10D | PM10T | PM2.5E | PM2.5D | PM2.5T | BCO2 | NBCO2 | CO2T | CH4 | N2O | R | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Worker | <0.005 | <0.005 | <0.005 | 0.04 | 0.00 | 0.00 | 0.01 | 0.01 | 0.00 | <0.005 | <0.005 | — | 9.34 | 9.34 | <0.005 | <0.005 | 0.01 | 9.48 |
| Vendor | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Hauling | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Worker | <0.005 | <0.005 | <0.005 | 0.01 | 0.00 | 0.00 | <0.005 | <0.005 | 0.00 | <0.005 | <0.005 | — | 1.55 | 1.55 | <0.005 | <0.005 | <0.005 | 1.57 |
| Vendor | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Hauling | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |

## 3.2 Grading (2026) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

| Location | TOG | ROG | NOx | CO | SO2 | PM10E | PM10D | PM10T | PM2.5E | PM2.5D | PM2.5T | BCO2 | NBCO2 | CO2T | CH4 | N2O | R | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Onsite | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Daily, Summer (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Off-Road Equipment | 2.03 | 1.71 | 15.4 | 17.7 | 0.03 | 0.66 | — | 0.66 | 0.61 | — | 0.61 | — | 3,021 | 3,021 | 0.12 | 0.02 | — | 3,031 |
| Dust From Material Movement | — | — | — | — | — | — | 1.84 | 1.84 | — | 0.89 | 0.89 | — | — | — | — | — | — | — |
| Onsite truck | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Average Daily | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Off-Road Equipment | 0.12 | 0.10 | 0.93 | 1.07 | <0.005 | 0.04 | — | 0.04 | 0.04 | — | 0.04 | — | 182 | 182 | 0.01 | <0.005 | — | 183 |
| Dust From Material Movement | — | — | — | — | — | — | 0.11 | 0.11 | — | 0.05 | 0.05 | — | — | — | — | — | — | — |
| Onsite truck | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Off-Road Equipment | 0.02 | 0.02 | 0.17 | 0.19 | <0.005 | 0.01 | — | 0.01 | 0.01 | — | 0.01 | — | 30.1 | 30.1 | <0.005 | <0.005 | — | 30.2 |
| Dust From Material Movement | — | — | — | — | — | — | 0.02 | 0.02 | — | 0.01 | 0.01 | — | — | — | — | — | — | — |
| Onsite truck | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Offsite | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Daily, Summer (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Worker | 0.07 | 0.06 | 0.05 | 0.67 | 0.00 | 0.00 | 0.15 | 0.15 | 0.00 | 0.03 | 0.03 | — | 154 | 154 | 0.01 | 0.01 | 0.01 | 156 |
| Vendor | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Hauling | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Average Daily | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Worker | <0.005 | <0.005 | <0.005 | 0.04 | 0.00 | 0.00 | 0.01 | 0.01 | 0.00 | <0.005 | <0.005 | — | 9.34 | 9.34 | <0.005 | <0.005 | 0.01 | 9.48 |
| Vendor | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Hauling | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Worker | <0.005 | <0.005 | <0.005 | 0.01 | 0.00 | 0.00 | <0.005 | <0.005 | 0.00 | <0.005 | <0.005 | — | 1.55 | 1.55 | <0.005 | <0.005 | <0.005 | 1.57 |
| Vendor | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Hauling | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |

## 3.3 Building Construction (2026) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

| Location | TOG | ROG | NOx | CO | SO2 | PM10E | PM10D | PM10T | PM2.5E | PM2.5D | PM2.5T | BCO2 | NBCO2 | CO2T | CH4 | N2O | R | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Onsite | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Daily, Summer (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Off-Road Equipment | 1.28 | 1.07 | 9.85 | 13.0 | 0.02 | 0.38 | — | 0.38 | 0.35 | — | 0.35 | — | 2,397 | 2,397 | 0.10 | 0.02 | — | 2,405 |
| Onsite truck | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Off-Roa Equipmen | 1.28t | 1.07 | 9.85 | 13.0 | 0.02 | 0.38 | — | 0.38 | 0.35 | — | 0.35 | — | 2,397 | 2,397 | 0.10 | 0.02 | — | 2,405 |
| Onsite truck | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Average Daily | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Off-Road Equipment | 0.84 | 0.70 | 6.44 | 8.48 | 0.02 | 0.25 | — | 0.25 | 0.23 | — | 0.23 | — | 1,567 | 1,567 | 0.06 | 0.01 | — | 1,572 |
| Onsite truck | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Off-Road Equipment | 0.15 | 0.13 | 1.18 | 1.55 | <0.005 | 0.05 | — | 0.05 | 0.04 | — | 0.04 | — | 259 | 259 | 0.01 | <0.005 | — | 260 |
| Onsite truck | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Offsite | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Daily, Summer (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Worker | <0.005 | <0.005 | <0.005 | 0.02 | 0.00 | 0.00 | <0.005 | <0.005 | 0.00 | <0.005 | <0.005 | — | 4.68 | 4.68 | <0.005 | <0.005 | 0.02 | 4.76 |
| Vendor | <0.005 | <0.005 | 0.01 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | — | 4.83 | 4.83 | <0.005 | <0.005 | 0.01 | 5.06 |
| Hauling | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Worker | <0.005 | <0.005 | <0.005 | 0.02 | 0.00 | 0.00 | <0.005 | <0.005 | 0.00 | <0.005 | <0.005 | — | 4.42 | 4.42 | <0.005 | <0.005 | <0.005 | 4.48 |
| Vendor | <0.005 | <0.005 | 0.01 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | — | 4.83 | 4.83 | <0.005 | <0.005 | <0.005 | 5.05 |
| Hauling | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Average Daily | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Worker | <0.005 | <0.005 | <0.005 | 0.01 | 0.00 | 0.00 | <0.005 | <0.005 | 0.00 | <0.005 | <0.005 | — | 2.92 | 2.92 | <0.005 | <0.005 | <0.005 | 2.96 |
| Vendor | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | — | 3.16 | 3.16 | <0.005 | <0.005 | <0.005 | 3.30 |
| Hauling | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Worker | <0.005 | <0.005 | <0.005 | <0.005 | 0.00 | 0.00 | <0.005 | <0.005 | 0.00 | <0.005 | <0.005 | — | 0.48 | 0.48 | <0.005 | <0.005 | <0.005 | 0.49 |
| Vendor | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | — | 0.52 | 0.52 | <0.005 | <0.005 | <0.005 | 0.55 |
| Hauling | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |

## 3.4 Building Construction (2026) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

| Location | TOG | ROG | NOx | CO | SO2 | PM10E | PM10D | PM10T | PM2.5E | PM2.5D | PM2.5T | BCO2 | NBCO2 | CO2T | CH4 | N2O | R | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Onsite | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Daily, Summer (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Off-Road Equipment | 1.28 | 1.07 | 9.85 | 13.0 | 0.02 | 0.38 | — | 0.38 | 0.35 | — | 0.35 | — | 2,397 | 2,397 | 0.10 | 0.02 | — | 2,405 |
| Onsite truck | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Off-Road Equipment | 1.28 | 1.07 | 9.85 | 13.0 | 0.02 | 0.38 | — | 0.38 | 0.35 | — | 0.35 | — | 2,397 | 2,397 | 0.10 | 0.02 | — | 2,405 |
| Onsite truck | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Average Daily | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Off-Road | 0.84 | 0.70 | 6.44 | 8.48 | 0.02 | 0.25 | — | 0.25 | 0.23 | — | 0.23 | — | 1,567 | 1,567 | 0.06 | 0.01 | — | 1,572 |
| Onsite truck | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Off-Road Equipment | 0.15 | 0.13 | 1.18 | 1.55 | <0.005 | 0.05 | — | 0.05 | 0.04 | — | 0.04 | — | 259 | 259 | 0.01 | <0.005 | — | 260 |
| Onsite truck | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Offsite | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Daily, Summer (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Worker | <0.005 | <0.005 | <0.005 | 0.02 | 0.00 | 0.00 | <0.005 | <0.005 | 0.00 | <0.005 | <0.005 | — | 4.68 | 4.68 | <0.005 | <0.005 | 0.02 | 4.76 |
| Vendor | <0.005 | <0.005 | 0.01 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | — | 4.83 | 4.83 | <0.005 | <0.005 | 0.01 | 5.06 |
| Hauling | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Worker | <0.005 | <0.005 | <0.005 | 0.02 | 0.00 | 0.00 | <0.005 | <0.005 | 0.00 | <0.005 | <0.005 | — | 4.42 | 4.42 | <0.005 | <0.005 | <0.005 | 4.48 |
| Vendor | <0.005 | <0.005 | 0.01 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | — | 4.83 | 4.83 | <0.005 | <0.005 | <0.005 | 5.05 |
| Hauling | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Average Daily | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Worker | <0.005 | <0.005 | <0.005 | 0.01 | 0.00 | 0.00 | <0.005 | <0.005 | 0.00 | <0.005 | <0.005 | — | 2.92 | 2.92 | <0.005 | <0.005 | <0.005 | 2.96 |
| Vendor | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | — | 3.16 | 3.16 | <0.005 | <0.005 | <0.005 | 3.30 |
| Hauling | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Worker | <0.005 | <0.005 | <0.005 | <0.005 | 0.00 | 0.00 | <0.005 | <0.005 | 0.00 | <0.005 | <0.005 | — | 0.48 | 0.48 | <0.005 | <0.005 | <0.005 | 0.49 |
| Vendor | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | — | 0.52 | 0.52 | <0.005 | <0.005 | <0.005 | 0.55 |
| Hauling | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |

## 3.5 Building Construction (2027) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

| Location | TOG | ROG | NOx | CO | SO2 | PM10E | PM10D | PM10T | PM2.5E | PM2.5D | PM2.5T | BCO2 | NBCO2 | CO2T | CH4 | N2O | R | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Onsite | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Daily, Summer (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Off-Road Equipment | 1.23 | 1.03 | 9.39 | 12.9 | 0.02 | 0.34 | — | 0.34 | 0.31 | — | 0.31 | — | 2,397 | 2,397 | 0.10 | 0.02 | — | 2,405 |
| Onsite truck | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Average Daily | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Off-Road Equipment | 0.02 | 0.01 | 0.13 | 0.18 | <0.005 | <0.005 | — | <0.005 | <0.005 | — | <0.005 | — | 32.8 | 32.8 | <0.005 | <0.005 | — | 32.9 |
| Onsite truck | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Off-Road Equipment | <0.005 | <0.005 | 0.02 | 0.03 | <0.005 | <0.005 | — | <0.005 | <0.005 | — | <0.005 | — | 5.44 | 5.44 | <0.005 | <0.005 | — | 5.46 |
| Onsite truck | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Offsite | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Daily, Summer (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Worker | <0.005 | <0.005 | <0.005 | 0.02 | 0.00 | 0.00 | <0.005 | <0.005 | 0.00 | <0.005 | <0.005 | — | 4.35 | 4.35 | <0.005 | <0.005 | <0.005 | 4.41 |
| Vendor | <0.005 | <0.005 | 0.01 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | — | 4.73 | 4.73 | <0.005 | <0.005 | <0.005 | 4.93 |
| Hauling | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Average Daily | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Worker | <0.005 | <0.005 | <0.005 | <0.005 | 0.00 | 0.00 | <0.005 | <0.005 | 0.00 | <0.005 | <0.005 | — | 0.06 | 0.06 | <0.005 | <0.005 | <0.005 | 0.06 |
| Vendor | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | — | 0.06 | 0.06 | <0.005 | <0.005 | <0.005 | 0.07 |
| Hauling | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Worker | <0.005 | <0.005 | <0.005 | <0.005 | 0.00 | 0.00 | <0.005 | <0.005 | 0.00 | <0.005 | <0.005 | — | 0.01 | 0.01 | <0.005 | <0.005 | <0.005 | 0.01 |
| Vendor | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | — | 0.01 | 0.01 | <0.005 | <0.005 | <0.005 | 0.01 |
| Hauling | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |

## 3.6 Building Construction (2027) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

| Location | TOG | ROG | NOx | CO | SO2 | PM10E | PM10D | PM10T | PM2.5E | PM2.5D | PM2.5T | BCO2 | NBCO2 | CO2T | CH4 | N2O | R | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Onsite | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Daily, Summer (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Off-Road Equipment | 1.23 | 1.03 | 9.39 | 12.9 | 0.02 | 0.34 | — | 0.34 | 0.31 | — | 0.31 | — | 2,397 | 2,397 | 0.10 | 0.02 | — | 2,405 |
| Onsite truck | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Average Daily | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Off-Road Equipment | 0.02 | 0.01 | 0.13 | 0.18 | <0.005 | <0.005 | — | <0.005 | <0.005 | — | <0.005 | — | 32.8 | 32.8 | <0.005 | <0.005 | — | 32.9 |
| Onsite truck | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Off-Road Equipment | <0.005 | <0.005 | 0.02 | 0.03 | <0.005 | <0.005 | — | <0.005 | <0.005 | — | <0.005 | — | 5.44 | 5.44 | <0.005 | <0.005 | — | 5.46 |
| Onsite truck | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Offsite | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Daily, Summer (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Worker | <0.005 | <0.005 | <0.005 | 0.02 | 0.00 | 0.00 | <0.005 | <0.005 | 0.00 | <0.005 | <0.005 | — | 4.35 | 4.35 | <0.005 | <0.005 | <0.005 | 4.41 |
| Vendor | <0.005 | <0.005 | 0.01 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | — | 4.73 | 4.73 | <0.005 | <0.005 | <0.005 | 4.93 |
| Hauling | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Average Daily | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Worker | <0.005 | <0.005 | <0.005 | <0.005 | 0.00 | 0.00 | <0.005 | <0.005 | 0.00 | <0.005 | <0.005 | — | 0.06 | 0.06 | <0.005 | <0.005 | <0.005 | 0.06 |
| Vendor | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | — | 0.06 | 0.06 | <0.005 | <0.005 | <0.005 | 0.07 |
| Hauling | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Worker | <0.005 | <0.005 | <0.005 | <0.005 | 0.00 | 0.00 | <0.005 | <0.005 | 0.00 | <0.005 | <0.005 | — | 0.01 | 0.01 | <0.005 | <0.005 | <0.005 | 0.01 |
| Vendor | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | <0.005 | — | 0.01 | 0.01 | <0.005 | <0.005 | <0.005 | 0.01 |
| Hauling | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |

## 3.7 Paving (2027) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

| Location | TOG | ROG | NOx | CO | SO2 | PM10E | PM10D | PM10T | PM2.5E | PM2.5D | PM2.5T | BCO2 | NBCO2 | CO2T | CH4 | N2O | R | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Onsite | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Daily, Summer (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Off-Road Equipment | 0.98 | 0.82 | 7.16 | 10.2 | 0.01 | 0.29 | — | 0.29 | 0.26 | — | 0.26 | — | 1,522 | 1,522 | 0.06 | 0.01 | — | 1,527 |
| Paving | 0.00 | 0.00 | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Onsite truck | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Average Daily | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Off-Road Equipment | 0.05 | 0.04 | 0.35 | 0.50 | <0.005 | 0.01 | — | 0.01 | 0.01 | — | 0.01 | — | 75.0 | 75.0 | <0.005 | <0.005 | — | 75.3 |
| Paving | 0.00 | 0.00 | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Onsite truck | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Off-Roa Equipment | 0.01 | 0.01 | 0.06 | 0.09 | <0.005 | <0.005 | — | <0.005 | <0.005 | — | <0.005 | — | 12.4 | 12.4 | <0.005 | <0.005 | — | 12.5 |
| Paving | 0.00 | 0.00 | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Onsite truck | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Offsite | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Daily, Summer (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Worker | 0.09 | 0.08 | 0.07 | 0.81 | 0.00 | 0.00 | 0.19 | 0.19 | 0.00 | 0.04 | 0.04 | — | 194 | 194 | 0.01 | 0.01 | 0.02 | 197 |
| Vendor | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Hauling | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Average Daily | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Worker | <0.005 | <0.005 | <0.005 | 0.04 | 0.00 | 0.00 | 0.01 | 0.01 | 0.00 | <0.005 | <0.005 | — | 9.66 | 9.66 | <0.005 | <0.005 | 0.01 | 9.80 |
| Vendor | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Hauling | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Worker | <0.005 | <0.005 | <0.005 | 0.01 | 0.00 | 0.00 | <0.005 | <0.005 | 0.00 | <0.005 | <0.005 | — | 1.60 | 1.60 | <0.005 | <0.005 | <0.005 | 1.62 |
| Vendor | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Hauling | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |

## 3.8 Paving (2027) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

| Location | TOG | ROG | NOx | CO | SO2 | PM10E | PM10D | PM10T | PM2.5E | PM2.5D | PM2.5T | BCO2 | NBCO2 | CO2T | CH4 | N2O | R | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Onsite | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Daily, Summer (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Off-Road Equipment | 0.98 | 0.82 | 7.16 | 10.2 | 0.01 | 0.29 | — | 0.29 | 0.26 | — | 0.26 | — | 1,522 | 1,522 | 0.06 | 0.01 | — | 1,527 |
| Paving | 0.00 | 0.00 | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Onsite truck | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Average Daily | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Off-Road Equipment | 0.05 | 0.04 | 0.35 | 0.50 | <0.005 | 0.01 | — | 0.01 | 0.01 | — | 0.01 | — | 75.0 | 75.0 | <0.005 | <0.005 | — | 75.3 |
| Paving | 0.00 | 0.00 | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Onsite truck | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Off-Road Equipment | 0.01 | 0.01 | 0.06 | 0.09 | <0.005 | <0.005 | — | <0.005 | <0.005 | — | <0.005 | — | 12.4 | 12.4 | <0.005 | <0.005 | — | 12.5 |
| Paving | 0.00 | 0.00 | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Onsite truck | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Offsite | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Daily, Summer (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Worker | 0.09 | 0.08 | 0.07 | 0.81 | 0.00 | 0.00 | 0.19 | 0.19 | 0.00 | 0.04 | 0.04 | — | 194 | 194 | 0.01 | 0.01 | 0.02 | 197 |
| Vendor | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Hauling | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Average Daily | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Worker | <0.005 | <0.005 | <0.005 | 0.04 | 0.00 | 0.00 | 0.01 | 0.01 | 0.00 | <0.005 | <0.005 | — | 9.66 | 9.66 | <0.005 | <0.005 | 0.01 | 9.80 |
| Vendor | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Hauling | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Worker | <0.005 | <0.005 | <0.005 | 0.01 | 0.00 | 0.00 | <0.005 | <0.005 | 0.00 | <0.005 | <0.005 | — | 1.60 | 1.60 | <0.005 | <0.005 | <0.005 | 1.62 |
| Vendor | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Hauling | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |

## 3.9 Architectural Coating (2027) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

| Location | TOG | ROG | NOx | CO | SO2 | PM10E | PM10D | PM10T | PM2.5E | PM2.5D | PM2.5T | BCO2 | NBCO2 | CO2T | CH4 | N2O | R | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Onsite | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Daily, Summer (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Off-Road Equipment | 0.14 | 0.11 | 0.83 | 1.13 | <0.005 | 0.02 | — | 0.02 | 0.02 | — | 0.02 | — | 134 | 134 | 0.01 | <0.005 | — | 134 |
| Architect ural Coating | 0.31 | 0.31 | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Onsite truck | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Average Daily | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Off-Road Equipment | 0.01 | 0.01 | 0.04 | 0.06 | <0.005 | <0.005 | — | <0.005 | <0.005 | — | <0.005 | — | 6.58 | 6.58 | <0.005 | <0.005 | — | 6.61 |
| Architect ural Coating s | 0.02 | 0.02 | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Onsite truck | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Off-Road Equipment | <0.005 | <0.005 | 0.01 | 0.01 | <0.005 | <0.005 | — | <0.005 | <0.005 | — | <0.005 | — | 1.09 | 1.09 | <0.005 | <0.005 | — | 1.09 |
| Architect ural Coating s | <0.005 | <0.005 | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Onsite truck | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Offsite | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Daily, Summer (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Worker | <0.005 | <0.005 | <0.005 | <0.005 | 0.00 | 0.00 | <0.005 | <0.005 | 0.00 | <0.005 | <0.005 | — | 0.87 | 0.87 | <0.005 | <0.005 | <0.005 | 0.88 |
| Vendor | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Hauling | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Average Daily | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Worker | <0.005 | <0.005 | <0.005 | <0.005 | 0.00 | 0.00 | <0.005 | <0.005 | 0.00 | <0.005 | <0.005 | — | 0.04 | 0.04 | <0.005 | <0.005 | <0.005 | 0.04 |
| Vendor | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Hauling | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Worker | <0.005 | <0.005 | <0.005 | <0.005 | 0.00 | 0.00 | <0.005 | <0.005 | 0.00 | <0.005 | <0.005 | — | 0.01 | 0.01 | <0.005 | <0.005 | <0.005 | 0.01 |
| Vendor | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Hauling | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |

## 3.10 Architectural Coating (2027) - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

| Location | TOG | ROG | NOx | CO | SO2 | PM10E | PM10D | PM10T | PM2.5E | PM2.5D | PM2.5T | BCO2 | NBCO2 | CO2T | CH4 | N2O | R | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Onsite | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Daily, Summer (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Off-Road Equipment | 0.14 | 0.11 | 0.83 | 1.13 | <0.005 | 0.02 | — | 0.02 | 0.02 | — | 0.02 | — | 134 | 134 | 0.01 | <0.005 | — | 134 |
| Architect ural Coating s | 0.31 | 0.31 | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Onsite truck | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Average Daily | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Off-Roa Equipment | 0.01 | 0.01 | 0.04 | 0.06 | <0.005 | <0.005 | — | <0.005 | <0.005 | — | <0.005 | — | 6.58 | 6.58 | <0.005 | <0.005 | — | 6.61 |
| Architect ural Coating s | 0.02 | 0.02 | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Onsite truck | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Off-Road Equipment | <0.005 | <0.005 | 0.01 | 0.01 | <0.005 | <0.005 | — | <0.005 | <0.005 | — | <0.005 | — | 1.09 | 1.09 | <0.005 | <0.005 | — | 1.09 |
| Architect ural Coating s | <0.005 | <0.005 | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Onsite truck | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Offsite | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Daily, Summer (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Worker | <0.005 | <0.005 | <0.005 | <0.005 | 0.00 | 0.00 | <0.005 | <0.005 | 0.00 | <0.005 | <0.005 | — | 0.87 | 0.87 | <0.005 | <0.005 | <0.005 | 0.88 |
| Vendor | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Hauling | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Average Daily | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Worker | <0.005 | <0.005 | <0.005 | <0.005 | 0.00 | 0.00 | <0.005 | <0.005 | 0.00 | <0.005 | <0.005 | — | 0.04 | 0.04 | <0.005 | <0.005 | <0.005 | 0.04 |
| Vendor | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Hauling | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Worker | <0.005 | <0.005 | <0.005 | <0.005 | 0.00 | 0.00 | <0.005 | <0.005 | 0.00 | <0.005 | <0.005 | — | 0.01 | 0.01 | <0.005 | <0.005 | <0.005 | 0.01 |
| Vendor | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Hauling | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | — | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |

# 4 Operations Emissions Details

## 4.10 Soil Carbon Accumulation By Vegetation Type

### 4.10.1 Soil Carbon Accumulation By Vegetation Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

| Vegetati on | TOG | ROG | NOx | CO | SO2 | PM10E | PM10D | PM10T | PM2.5E | PM2.5D | PM2.5T | BCO2 | NBCO2 | CO2T | CH4 | N2O | R | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Daily, Summer (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Total | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Total | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Total | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |

### 4.10.2 Above and Belowground Carbon Accumulation by Land Use Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

| Land Use | TOG | ROG | NOx | CO | SO2 | PM10E | PM10D | PM10T | PM2.5E | PM2.5D | PM2.5T | BCO2 | NBCO2 | CO2T | CH4 | N2O | R | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Daily, Summer (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Total | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Total | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Total | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |

### 4.10.3 Avoided and Sequestered Emissions by Species - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

| Species | TOG | ROG | NOx | CO | SO2 | PM10E | PM10D | PM10T | PM2.5E | PM2.5D | PM2.5T | BCO2 | NBCO2 | CO2T | CH4 | N2O | R | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Daily, Summer (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Avoided | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Subtotal | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Sequestered | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Subtotal | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Removed | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Subtotal | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Avoided | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Subtotal | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Sequestered | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Subtotal | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Removed | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Subtotal | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |

| Species | TOG | ROG | NOx | CO | SO2 | PM10E | PM10D | PM10T | PM2.5E | PM2.5D | PM2.5T | BCO2 | NBCO2 | CO2T | CH4 | N2O | R | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Avoided | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Subtotal | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Sequestered | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Subtotal | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Removed | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Subtotal | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |

### 4.10.4 Soil Carbon Accumulation By Vegetation Type - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

| Vegetati on | TOG | ROG | NOx | CO | SO2 | PM10E | PM10D | PM10T | PM2.5E | PM2.5D | PM2.5T | BCO2 | NBCO2 | CO2T | CH4 | N2O | R | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Daily, Summer (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Total | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Total | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Total | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |

### 4.10.5 Above and Belowground Carbon Accumulation by Land Use Type - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

| Land Use | TOG | ROG | NOx | CO | SO2 | PM10E | PM10D | PM10T | PM2.5E | PM2.5D | PM2.5T | BCO2 | NBCO2 | CO2T | CH4 | N2O | R | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Daily, Summer (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Total | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Total | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Total | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |

4.10.6 Avoided and Sequestered Emissions by Species - Mitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

| Species | TOG | ROG | NOx | CO | SO2 | PM10E | PM10D | PM10T | PM2.5E | PM2.5D | PM2.5T | BCO2 | NBCO2 | CO2T | CH4 | N2O | R | CO2e |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Daily, Summer (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Avoided | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Subtotal | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Sequestered | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Subtotal | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Removed | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Subtotal | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Daily, Winter (Max) | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Avoided | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Subtotal | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Sequestered | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Subtotal | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Removed | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Subtotal | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Annual | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Avoided | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Subtotal | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Sequestered | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Subtotal | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Removed | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| Subtotal | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |
| — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — | — |

# 5 Activity Data

## 5.1 Construction Schedule

| Phase Name | Phase Type | Start Date | End Date | Days Per Week | Work Days per Phase | Phase Description |
|---|---|---|---|---|---|---|
| Grading | Grading | 1/1/2026 | 1/31/2026 | 5.00 | 22.0 | — |
| Building Construction | Building Construction | 2/1/2026 | 1/7/2027 | 5.00 | 244 | — |
| Paving | Paving | 1/8/2027 | 2/2/2027 | 5.00 | 18.0 | — |
| Architectural Coating | Architectural Coating | 2/3/2027 | 2/28/2027 | 5.00 | 18.0 | — |

# 5.2 Off-Road Equipment

## 5.2.1 Unmitigated

| Phase Name | Equipment Type | Fuel Type | Engine Tier | Number per Day | Hours Per Day | Horsepower | Load Factor |
|---|---|---|---|---|---|---|---|
| Grading | Graders | Diesel | Average | 1.00 | 8.00 | 148 | 0.41 |
| Grading | Excavators | Diesel | Average | 1.00 | 8.00 | 36.0 | 0.38 |
| Grading | Tractors/Loaders/Back hoes | Diesel | Average | 3.00 | 8.00 | 84.0 | 0.37 |
| Grading | Rubber Tired Dozers | Diesel | Average | 1.00 | 8.00 | 367 | 0.40 |
| Grading | Dumpers/Tenders | Diesel | Average | 1.00 | 8.00 | 16.0 | 0.38 |
| Building Construction | Cranes | Diesel | Average | 1.00 | 7.00 | 367 | 0.29 |
| Building Construction | Forklifts | Diesel | Average | 3.00 | 8.00 | 82.0 | 0.20 |
| Building Construction | Generator Sets | Diesel | Average | 1.00 | 8.00 | 14.0 | 0.74 |
| Building Construction | Welders | Diesel | Average | 1.00 | 8.00 | 46.0 | 0.45 |
| Building Construction | Tractors/Loaders/Back hoes | Diesel | Average | 3.00 | 7.00 | 84.0 | 0.37 |
| Paving | Tractors/Loaders/Back hoes | Diesel | Average | 1.00 | 8.00 | 84.0 | 0.37 |
| Paving | Cement and Mortar Mixers | Diesel | Average | 2.00 | 6.00 | 10.0 | 0.56 |
| Paving | Pavers | Diesel | Average | 1.00 | 8.00 | 81.0 | 0.42 |
| Paving | Paving Equipment | Diesel | Average | 2.00 | 6.00 | 89.0 | 0.36 |
| Paving | Rollers | Diesel | Average | 2.00 | 6.00 | 36.0 | 0.38 |
| Paving | Sweepers/Scrubbers | Diesel | Average | 1.00 | 8.00 | 36.0 | 0.46 |
| Architectural Coating | Air Compressors | Diesel | Average | 1.00 | 6.00 | 37.0 | 0.48 |

## 5.2.2 Mitigated

| Phase Name | Equipment Type | Fuel Type | Engine Tier | Number per Day | Hours Per Day | Horsepower | Load Factor |
|---|---|---|---|---|---|---|---|
| Grading | Graders | Diesel | Average | 1.00 | 8.00 | 148 | 0.41 |
| Grading | Excavators | Diesel | Average | 1.00 | 8.00 | 36.0 | 0.38 |
| Grading | Tractors/Loaders/Back hoes | Diesel | Average | 3.00 | 8.00 | 84.0 | 0.37 |
| Grading | Rubber Tired Dozers | Diesel | Average | 1.00 | 8.00 | 367 | 0.40 |
| Grading | Dumpers/Tenders | Diesel | Average | 1.00 | 8.00 | 16.0 | 0.38 |
| Building Construction | Cranes | Diesel | Average | 1.00 | 7.00 | 367 | 0.29 |
| Building Construction | Forklifts | Diesel | Average | 3.00 | 8.00 | 82.0 | 0.20 |
| Building Construction | Generator Sets | Diesel | Average | 1.00 | 8.00 | 14.0 | 0.74 |
| Building Construction | Welders | Diesel | Average | 1.00 | 8.00 | 46.0 | 0.45 |
| Building Construction | Tractors/Loaders/Back hoes | Diesel | Average | 3.00 | 7.00 | 84.0 | 0.37 |
| Paving | Tractors/Loaders/Back hoes | Diesel | Average | 1.00 | 8.00 | 84.0 | 0.37 |
| Paving | Cement and Mortar Mixers | Diesel | Average | 2.00 | 6.00 | 10.0 | 0.56 |
| Paving | Pavers | Diesel | Average | 1.00 | 8.00 | 81.0 | 0.42 |
| Paving | Paving Equipment | Diesel | Average | 2.00 | 6.00 | 89.0 | 0.36 |
| Paving | Rollers | Diesel | Average | 2.00 | 6.00 | 36.0 | 0.38 |
| Paving | Sweepers/Scrubbers | Diesel | Average | 1.00 | 8.00 | 36.0 | 0.46 |
| Architectural Coating | Air Compressors | Diesel | Average | 1.00 | 6.00 | 37.0 | 0.48 |

# 5.3 Construction Vehicles

## 5.3.1 Unmitigated

| Phase Name | Trip Type | One-Way Trips per Day | Miles per Trip | Vehicle Mix |
|---|---|---|---|---|
| Grading | — | — | — | — |
| Grading | Worker | 17.5 | 12.0 | LDA,LDT1,LDT2 |
| Grading | Vendor | — | 7.63 | HHDT,MHDT |
| Grading | Hauling | 0.00 | 20.0 | HHDT |
| Grading | Onsite truck | — | — | HHDT |
| Building Construction | — | — | — | — |
| Building Construction | Worker | 0.50 | 12.0 | LDA,LDT1,LDT2 |
| Building Construction | Vendor | 0.20 | 7.63 | HHDT,MHDT |
| Building Construction | Hauling | 0.00 | 20.0 | HHDT |
| Building Construction | Onsite truck | — | — | HHDT |
| Paving | — | — | — | — |
| Paving | Worker | 22.5 | 12.0 | LDA,LDT1,LDT2 |
| Paving | Vendor | — | 7.63 | HHDT,MHDT |
| Paving | Hauling | 0.00 | 20.0 | HHDT |
| Paving | Onsite truck | — | — | HHDT |
| Architectural Coating | — | — | — | — |
| Architectural Coating | Worker | 0.10 | 12.0 | LDA,LDT1,LDT2 |
| Architectural Coating | Vendor | — | 7.63 | HHDT,MHDT |
| Architectural Coating | Hauling | 0.00 | 20.0 | HHDT |
| Architectural Coating | Onsite truck | — | — | HHDT |

## 5.3.2 Mitigated

| Phase Name | Trip Type | One-Way Trips per Day | Miles per Trip | Vehicle Mix |
|---|---|---|---|---|
| Grading | — | — | — | — |
| Grading | Worker | 17.5 | 12.0 | LDA,LDT1,LDT2 |
| Grading | Vendor | — | 7.63 | HHDT,MHDT |
| Grading | Hauling | 0.00 | 20.0 | HHDT |
| Grading | Onsite truck | — | — | HHDT |
| Building Construction | — | — | — | — |
| Building Construction | Worker | 0.50 | 12.0 | LDA,LDT1,LDT2 |
| Building Construction | Vendor | 0.20 | 7.63 | HHDT,MHDT |
| Building Construction | Hauling | 0.00 | 20.0 | HHDT |
| Building Construction | Onsite truck | — | — | HHDT |
| Paving | — | — | — | — |
| Paving | Worker | 22.5 | 12.0 | LDA,LDT1,LDT2 |
| Paving | Vendor | — | 7.63 | HHDT,MHDT |
| Paving | Hauling | 0.00 | 20.0 | HHDT |
| Paving | Onsite truck | — | — | HHDT |
| Architectural Coating | — | — | — | — |
| Architectural Coating | Worker | 0.10 | 12.0 | LDA,LDT1,LDT2 |
| Architectural Coating | Vendor | — | 7.63 | HHDT,MHDT |
| Architectural Coating | Hauling | 0.00 | 20.0 | HHDT |
| Architectural Coating | Onsite truck | — | — | HHDT |

## 5.4 Vehicles

### 5.4.1 Construction Vehicle Control Strategies

Non-applicable. No control strategies activated by user.

## 5.5 Architectural Coatings

| Phase Name | Residential Interior Area Coated (sq ft) | Residential Exterior Area Coated (sq ft) | Non-Residential Interior Area Coated (sq ft) | Non-Residential Exterior Area Coated (sq ft) | Parking Area Coated (sq ft) |
|---|---|---|---|---|---|
| Architectural Coating | 0.00 | 0.00 | 1,800 | 600 | — |

## 5.6 Dust Mitigation

### 5.6.1 Construction Earthmoving Activities

| Phase Name | Material Imported (cy) | Material Exported (cy) | Acres Graded (acres) | Material Demolished (sq. ft.) | Acres Paved (acres) |
|---|---|---|---|---|---|
| Grading | — | — | 22.0 | 0.00 | — |
| Paving | 0.00 | 0.00 | 0.00 | 0.00 | 1.00 |

### 5.6.2 Construction Earthmoving Control Strategies

Non-applicable. No control strategies activated by user.

## 5.7 Construction Paving

| Land Use | Area Paved (acres) | % Asphalt |
|---|---|---|
| City Park | 1.00 | 0% |
| Racquet Club | 0.00 | 0% |

## 5.8 Construction Electricity Consumption and Emissions Factors

kWh per Year and Emission Factor (lb/MWh)

| Year | kWh per Year | CO2 | CH4 | N2O |
|---|---|---|---|---|
| 2026 | 0.00 | 589 | 0.03 | <0.005 |
| 2027 | 0.00 | 589 | 0.03 | <0.005 |

## 5.18 Vegetation

### 5.18.1 Land Use Change

#### 5.18.1.1 Unmitigated

| Vegetation Land Use Type | Vegetation Soil Type | Initial Acres | Final Acres |
|---|---|---|---|

#### 5.18.1.2 Mitigated

| Vegetation Land Use Type | Vegetation Soil Type | Initial Acres | Final Acres |
|---|---|---|---|

### 5.18.2 Biomass Cover Type

#### 5.18.2.1 Unmitigated

| Biomass Cover Type | Initial Acres | Final Acres |
|---|---|---|

#### 5.18.2.2 Mitigated

| Biomass Cover Type | Initial Acres | Final Acres |
|---|---|---|

### 5.18.3 Sequestration

#### 5.18.3.1 Unmitigated

| Tree Type | Number | Electricity Saved (kWh/year) | Natural Gas Saved (btu/year) |
|---|---|---|---|

#### 5.18.3.2 Mitigated

| Tree Type | Number | Electricity Saved (kWh/year) | Natural Gas Saved (btu/year) |
|---|---|---|---|

# 6 Climate Risk Detailed Report

## 6.1 Climate Risk Summary

Cal-Adapt midcentury 2040–2059 average projections for four hazards are reported below for your project location. These are under Representation Concentration Pathway (RCP) 8.5 which assumes GHG emissions will continue to rise strongly through 2050 and then plateau around 2100.

| Climate Hazard | Result for Project Location | Unit |
|---|---|---|
| Temperature and Extreme Heat | 9.66 | annual days of extreme heat |
| Extreme Precipitation | 2.00 | annual days with precipitation above 20 mm |
| Sea Level Rise | — | meters of inundation depth |
| Wildfire | 0.00 | annual hectares burned |

Temperature and Extreme Heat data are for grid cell in which your project are located. The projection is based on the 98th historical percentile of daily maximum/minimum temperatures from observed historical data (32 climate model ensemble from Cal-Adapt, 2040–2059 average under RCP 8.5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.

Extreme Precipitation data are for the grid cell in which your project are located. The threshold of 20 mm is equivalent to about ¾ an inch of rain, which would be light to moderate rainfall if received over a full day or heavy rain if received over a period of 2 to 4 hours. Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.

Sea Level Rise data are for the grid cell in which your project are located. The projections are from Radke et al. (2017), as reported in Cal-Adapt (Radke et al., 2017, CEC-500-2017-008), and consider inundation location and depth for the San Francisco Bay, the Sacramento-San Joaquin River Delta and California coast resulting different increments of sea level rise coupled with extreme storm events. Users may select from four scenarios to view the range in potential inundation depth for the grid cell. The four scenarios are: No rise, 0.5 meter, 1.0 meter, 1.41 meters Wildfire data are for the grid cell in which your project are located. The projections are from UC Davis, as reported in Cal-Adapt (2040–2059 average under RCP 8.5), and consider historical data of climate, vegetation, population density, and large (> 400 ha) fire history. Users may select from four model simulations to view the range in potential wildfire probabilities for the grid cell. The four simulations make different assumptions about expected rainfall and temperature are: Warmer/drier (HadGEM2-ES), Cooler/wetter (CNRM-CM5), Average conditions (CanESM2), Range of different rainfall and temperature possibilities (MIROC5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.

## 6.2 Initial Climate Risk Scores

| Climate Hazard | Exposure Score | Sensitivity Score | Adaptive Capacity Score | Vulnerability Score |
|---|---|---|---|---|
| Temperature and Extreme Heat | N/A | N/A | N/A | N/A |
| Extreme Precipitation | N/A | N/A | N/A | N/A |
| Sea Level Rise | 1 | 0 | 0 | N/A |
| Wildfire | 1 | 0 | 0 | N/A |
| Flooding | 0 | 0 | 0 | N/A |
| Drought | N/A | N/A | N/A | N/A |
| Snowpack Reduction | N/A | N/A | N/A | N/A |
| Air Quality Degradation | N/A | N/A | N/A | N/A |

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.

The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.

The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores do not include implementation of climate risk reduction measures.

## 6.3 Adjusted Climate Risk Scores

| Climate Hazard | Exposure Score | Sensitivity Score | Adaptive Capacity Score | Vulnerability Score |
|---|---|---|---|---|
| Temperature and Extreme Heat | N/A | N/A | N/A | N/A |
| Extreme Precipitation | N/A | N/A | N/A | N/A |
| Sea Level Rise | 1 | 1 | 1 | 2 |
| Wildfire | 1 | 1 | 1 | 2 |
| Flooding | 1 | 1 | 1 | 2 |
| Drought | N/A | N/A | N/A | N/A |
| Snowpack Reduction | N/A | N/A | N/A | N/A |
| Air Quality Degradation | N/A | N/A | N/A | N/A |

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure. The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt. The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores include implementation of climate risk reduction measures.

## 6.4 Climate Risk Reduction Measures

# 7 Health and Equity Details

## 7.1 CalEnviroScreen 4.0 Scores

The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.

| Indicator | Result for Project Census Tract |
|---|---|
| Exposure Indicators | — |
| AQ-Ozone | 37.6 |
| AQ-PM | 36.0 |
| AQ-DPM | 63.9 |
| Drinking Water | 31.4 |
| Lead Risk Housing | 9.48 |
| Pesticides | 2.97 |
| Toxic Releases | 10.2 |
| Traffic | 43.2 |
| Effect Indicators | — |
| CleanUp Sites | 46.1 |
| Groundwater | 14.3 |
| Haz Waste Facilities/Generators | 5.57 |
| Impaired Water Bodies | 77.3 |
| Solid Waste | 80.0 |
| Sensitive Population | — |
| Asthma | 0.56 |
| Cardio-vascular | 9.73 |
| Low Birth Weights | 14.8 |
| Socioeconomic Factor Indicators | — |
| Education | 0.00 |
| Housing | 41.4 |
| Linguistic | 0.00 |
| Poverty | 11.4 |
| Unemployment | 21.1 |

## 7.2 Healthy Places Index Scores

The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

| Indicator | Result for Project Census Tract |
|---|---|
| Economic | — |
| Above Poverty | 96.04773515 |
| Employed | 95.85525472 |
| Median HI | 88.73347876 |
| Education | — |
| Bachelor's or higher | 96.93314513 |
| High school enrollment | 100 |
| Preschool enrollment | 95.7141024 |
| Transportation | — |
| Auto Access | 52.22635699 |
| Active commuting | 45.82317464 |
| Social | — |
| 2-parent households | 91.62068523 |
| Voting | 98.6141409 |
| Neighborhood | — |
| Alcohol availability | 64.64776081 |
| Park access | 81.35506224 |
| Retail density | 61.24727319 |
| Supermarket access | 13.11433338 |
| Tree canopy | 75.70896959 |
| Housing | — |
| Homeownership | 47.09354549 |
| Housing habitability | 79.27627358 |
| Low-inc homeowner severe housing cost burden | 81.0727576 |
| Low-inc renter severe housing cost burden | 63.01809316 |
| Uncrowded housing | 96.93314513 |
| Health Outcomes | — |
| Insured adults | 47.91479533 |
| Arthritis | 0.0 |
| Asthma ER Admissions | 97.3 |
| High Blood Pressure | 0.0 |
| Cancer (excluding skin) | 0.0 |
| Asthma | 0.0 |
| Coronary Heart Disease | 0.0 |
| Chronic Obstructive Pulmonary Disease | 0.0 |
| Diagnosed Diabetes | 0.0 |
| Life Expectancy at Birth | 97.2 |
| Cognitively Disabled | 90.0 |
| Physically  Disabled | 91.7 |
| Heart Attack ER Admissions | 96.2 |
| Mental Health Not Good | 0.0 |
| Chronic Kidney Disease | 0.0 |
| Obesity | 0.0 |
| Pedestrian Injuries | 55.3 |

| Indicator | Result for Project Census Tract |
|---|---|
| Physical Health Not Good | 0.0 |
| Stroke | 0.0 |
| Health Risk Behaviors | — |
| Binge Drinking | 0.0 |
| Current Smoker | 0.0 |
| No Leisure Time for Physical Activity | 0.0 |
| Climate Change Exposures | — |
| Wildfire Risk | 18.4 |
| SLR Inundation Area | 43.4 |
| Children | 94.5 |
| Elderly | 5.9 |
| English Speaking | 90.4 |
| Foreign-born | 36.9 |
| Outdoor Workers | 34.9 |
| Climate Change Adaptive Capacity | — |
| Impervious Surface Cover | 56.3 |
| Traffic Density | 20.5 |
| Traffic Access | 23.0 |
| Other Indices | — |
| Hardship | 0.8 |
| Other Decision Support | — |
| 2016 Voting | 98.3 |

## 7.3 Overall Health & Equity Scores

| Metric | Result for Project Census Tract |
|---|---|
| CalEnviroScreen 4.0 Score for Project Location (a) | 3.00 |
| Healthy Places Index Score for Project Location (b) | 96.0 |
| Project Located in a Designated Disadvantaged Community (Senate Bill 535) | No |
| Project Located in a Low-Income Community (Assembly Bill 1550) | No |
| Project Located in a Community Air Protection Program Community (Assembly Bill 617) | No |

a: The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.
b: The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

## 7.4 Health & Equity Measures

No Health & Equity Measures selected.

## 7.5 Evaluation Scorecard

Health & Equity Evaluation Scorecard not completed.

## 7.6 Health & Equity Custom Measures

No Health & Equity Custom Measures created.

# 8 User Changes to Default Data

| Screen | Justification |
|---|---|
| Land Use | Based on the project Applicant |
| Construction: Construction Phases | Based on the project Applicant |
| Construction: Off-Road Equipment | Based on the project Applicant |
| Construction: Paving | Conservatively 1 acre of the park is assumed to be paved. |

# APPENDIX E
# BIOLOGICAL RESOURCES TECHNICAL REPORT

Michael Baker
INTERNATIONAL

# Biological Resources Technical Report

# City of Del Mar Capital Improvement Program Streamlining Project

# Del Mar, California

**November 21, 2025**

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# Table of Contents


**1.0 INTRODUCTION ..... 1**
1.1 Background and Purpose ..... 1
1.2 Scope of Analysis and Methods ..... 1
**2.0 REGULATORY SETTING ..... 7**
2.1 Federal ..... 7
2.2 State ..... 9
2.3 Local ..... 12
**3.0 ENVIRONMENTAL SETTING ..... 17**
3.1 Climate ..... 17
3.2 Topography and Soils ..... 17
3.3 Watersheds and Hydrology ..... 18
3.4 Historic Disturbances ..... 19
3.5 Vegetation Communities and Land Cover Types ..... 19
**4.0 SPECIAL-STATUS BIOLOGICAL RESOURCES ..... 25**
4.1 Sensitive Natural Communities ..... 25
4.2 Special-Status Plants ..... 25
4.3 Special-Status Wildlife ..... 29
4.4 Critical Habitat ..... 32
4.5 Essential Fish Habitat ..... 32
4.6 Wetlands and Other Aquatic Resources ..... 33
4.7 Wildlife Corridors and Habitat Linkages ..... 33
**5.0 ENVIRONMENTAL PROTOCOLS AND PROTECTIONS ..... 35**
5.1 Summary of Biological Resource Protections ..... 35
5.2 Biological Resources Sensitivity Zones ..... 36
**6.0 REFERENCES ..... 40**

# List of Tables

Table 1. Summary of Municipal Code Chapters/Sections Protecting Natural Resources ..... 14
Table 2. Vegetation Communities and Land Cover Types ..... 19
Table 3. Special-Status Plants Expected to Occur within the City of Del Mar ..... 26
Table 4. Special-Status Plants with a Moderate Potential to Occur within the City of Del Mar ..... 27
Table 5. Special-Status Wildlife Expected to Occur within the City of Del Mar ..... 30
Table 6. Special-Status Wildlife with a Moderate Potential to Occur within the City of Del Mar ..... 31
Table 7. Biological Resource Protections ..... 35
Table 8. Biological Resource Evaluation Matrix ..... 39

# List of Attachments

ATTACHMENT A Figures
ATTACHMENT B Special-Status Species Potential to Occur Tables

# 1.0 INTRODUCTION

The City of Del Mar (City) is undertaking a comprehensive Programmatic Environmental Impact Report (PEIR) to evaluate the potential environmental effects associated with implementation of its Capital Improvement Program (CIP) Streamlining Project (project). The CIP encompasses a range of infrastructure and facility projects designed to maintain and enhance the City's public services, utilities, and community assets. This biological resources technical report provides an overview of the City's unique coastal setting with a focus on identifying and managing potential impacts to sensitive biological resources.

## 1.1 Background and Purpose

The City's CIP is a strategic planning and budgeting tool for addressing the City's current and future capital infrastructure and facility needs and is revised over time in noticed public meetings of the City Council in consideration of City Council goals and priorities and funding availability. The CIP outlines plans for capital projects, major maintenance, refurbishments, and substantial equipment purchases. Every year, the City undertakes multiple CIP projects involving work on City properties, within City rights-of-way, and within public easements. The project components analyzed in this report include the typical construction and operation protocols for various types of individual CIP projects. The CIP projects covered under this report have been divided into seven categories: undergrounding program, water infrastructure, wastewater infrastructure, storm water infrastructure, street improvements, facilities, and open space. Most CIP projects are located within developed or highly disturbed areas, such as public rights-of-way, and are not anticipated to occur within open space areas.

The purpose of this biological resources technical report is to support the PEIR by summarizing the existing conditions of natural resources within the City, with a focus on special-status plant and wildlife species, sensitive habitats, and locally significant biological resources. The report synthesizes existing data, literature, and the results of desktop analyses to identify biological constraints and inform the development of mitigation strategies in the PEIR. These strategies are intended to streamline future environmental review and permitting for individual CIP projects, ensuring compliance with the California Environmental Quality Act (CEQA) and other applicable regulations, while protecting the City's valuable natural resources.

## 1.2 Scope of Analysis and Methods

### 1.2.1 Project Location

Implementation of the CIP would occur within the majority of the City of Del Mar in northwestern San Diego County, California (Attachment A: Figure 1, Regional Location Map). The project site is mapped within Sections 2, 11, 13, 14, and 23, Township 14 South, Range 4 West, of the US Geological Survey (USGS) Del Mar, California, 7.5-minute topographic quadrangle map (Attachment A: Figure 2, Program Vicinity Map). The City is a coastal community situated along the Pacific Ocean, approximately 20 miles north of downtown San Diego. The project site encompasses approximately 2.2 square miles (1,408 acres) and is bordered by the cities of Solana Beach to the north and San Diego to the south and east, with the Pacific Ocean forming its western boundary (Attachment A: Figure 3, Program Location Map). The project site is characterized by a mix of developed urban land uses, including residential neighborhoods, commercial districts, public facilities, parks, and transportation corridors. Notable features within the City include the

Del Mar Fairgrounds, Powerhouse Park, Seagrove Park, and segments of the San Dieguito River and Lagoon, which provide important ecological and recreational resources.

### 1.2.2 Project Overview

The project includes a variety of public infrastructure and facility improvements planned to occur throughout the City. The following summaries describe the general activities associated with each CIP category, providing context for the types of work that may occur within the City and informing the scope of biological resources present in areas where these activities may take place.

- **Undergrounding Program.** The Undergrounding Program consists of removing unsightly utility poles and replacing overhead electricity and telecommunications lines with underground infrastructure. Typical activities include trenching, installation of utility lines and conduit, backfilling, resurfacing pavement, vegetation replacement, installation of utility structures, and removal of utility poles and equipment. Most work is conducted within public rights-of-way, with occasional access to areas containing existing vegetation.
- **Water Infrastructure.** Water infrastructure activities involve improvements, repairs, and rehabilitation of existing or future potable and recycled water pipelines, valves, pressure reducing stations, pressure relief stations, water pumping stations, water meters, backflow preventers, and fire hydrants. Work generally includes trenching, backfilling, and resurfacing activities, and mechanical or electrical upgrades, primarily within public rights-of-way. Some pipeline repairs may be completed without excavation.
- **Wastewater Infrastructure.** Wastewater projects address the maintenance and rehabilitation of gravity and force main pipelines, pump stations, manholes, and cleanouts. Activities typically include trenching, backfilling, resurfacing, and mechanical or electrical improvements, with most work occurring within existing roadways.
- **Storm Water Infrastructure.** Storm water activities include improvements, repairs, and rehabilitation of pipelines, culverts, manholes, cleanouts, inlets, outlets, catch basins, headwalls, open channels, swales, infiltration pits, and low flow diverters. Construction generally involves trenching, excavation, backfilling, and resurfacing, primarily within public rights-of-way.
- **Street Improvements.** Street projects encompass improvement, repairs, and rehabilitation of existing or future public roadways, including pavement, concrete curb and gutter, sidewalks, Americans with Disabilities Act-compliant ramps, bridges, retaining walls, and related infrastructure. Typical activities include excavation, backfill, resurfacing, and installation of irrigation and landscaping, mainly within public rights-of-way.
- **Facilities.** Facilities projects address maintenance needs for the City's public facilities, such as the Public Works facility, fire station, lifeguard towers, and other City-owned structures. Activities may include minor exterior repairs and interior improvements, installation of hardscape features, and, in some cases, reconstruction or elevation of buildings to address flood risks. Work ranges from minor repairs using hand tools to larger construction projects requiring heavy equipment.
- **Open Space.** Open space projects focus on the maintenance, improvements, and repairs of open space amenities, including City parks, trails, beach access points, lifeguard facilities, and other recreational amenities. Activities may include excavation, backfill, resurfacing, irrigation,

landscaping, and minor building repairs. Most work is conducted on City property or within public rights-of-way.

For the purposes of this report, biological resources of concern include special-status and other sensitive resources that may occur within the City of Del Mar and its vicinity. These categories encompass the biological resources that are the focus of this existing conditions report. These resources are defined as follows:

- **Sensitive Natural Communities.** Vegetation types or habitat areas recognized as rare or declining by state or federal agencies, or otherwise considered sensitive due to their ecological value, limited distribution, or vulnerability to disturbance.
- **Special-Status Plant Species.** Plant species that are listed as threatened, endangered, or rare under the federal or California Endangered Species Acts; candidates for listing; or otherwise recognized as sensitive by the California Native Plant Society (CNPS) California Rare Plant Rank (CRPR).
- **Special-Status Wildlife Species.** Wildlife species that are listed as threatened, endangered, or special concern under federal or state law; candidates for listing; or otherwise recognized as sensitive by the California Department of Fish and Wildlife (CDFW) or US Fish and Wildlife Service (USFWS).
- **Regulated Aquatic Resources.** Wetlands, streams, and other aquatic features regulated by the U.S. Army Corps of Engineers (USACE), CDFW, San Diego Regional Water Quality Control Board (RWQCB), and California Coastal Commission (CCC). These resources are subject to permitting and protection under federal Clean Water Act Sections (CWA) 404 and 401, California Fish and Game Code Section 1600 et seq., and the California Coastal Act.
- **Locally Designated Resources.** Areas designated as Environmentally Sensitive Habitat Areas (ESHAs) under the City's Local Coastal Program/Land Use Plan, as well as resources protected by local ordinances, such as overlay zones (e.g., Lagoon Overlay Zone, Bluff, Slope, and Canyon Overlay Zone) and tree protection regulations.

The following sections provide an overview of the regulatory setting and the occurrence, distribution, and ecological context of these resources within the City.

### 1.2.3 Literature and Database Review

The literature and database review served to document the natural resources known to occur or with the potential to occur within the City and regional vicinity. To establish a comprehensive baseline of biological resources, the review focused on the natural resources within the City limits but also included the surrounding region. This regional approach ensured that the analysis captured resources that may be affected by CIP activities, that could expand into the City over time, or that have suitable habitat but have not been recorded within the City limits. The review included searches of federal, state, and local databases, published scientific literature, technical reports, relevant planning documents, and geographic information system (GIS) datasets. The primary objectives of the literature review and database searches were to:

- Identify special-status plant and wildlife species, sensitive natural communities, and other regulated biological resources known to occur or with the potential to occur within the program area;

- Document the locations and habitat associations of these resources based on existing records;
- Evaluate the presence of designated critical habitat, conservation areas, wildlife corridors and linkages, and environmentally sensitive overlay zones;
- Inform the development of a program-level biological constraints map and mitigation strategy for future CIP projects.

The review included the following sources organized by natural resource category:

- **Special-status plants and wildlife:** CDFW's California Natural Diversity Database (CNDDB 2025a, 2025b, 2025c), the CNPS's Rare Plant Inventory (CNPS, n.d.), and the USFWS's Information for Planning and Consultation (IPaC) tool (USFWS, n.d.-a). Searches were conducted for the nine USGS 7.5-minute quadrangle maps centered on the program area (Encinitas, Rancho Santa Fe, Escondido, Del Mar OE W, Del Mar, Poway, La Jolla OE W, La Jolla, and La Mesa). Other relevant sources included the Crest Canyon Undergrounding District X1A Project biological resources letter report (Busby Biological Services 2024), the City of Del Mar Community Plan (2021), City of San Diego MSCP Subarea Plan (City of San Diego 1997), San Diego Geographic Information Source (SanGIS and SANDAG, n.d.), San Diego County Multiple Species Conservation Program (n.d.), San Diego Association of Governments (SANDAG) *2025 Regional Plan*, San Diego SanBIOS data and habitat models (County of San Diego 2025), Calflora (n.d.), eBird (n.d.), and iNaturalist (n.d.).
- **Vegetation communities and land cover types:** County of San Diego et al. 2021, Oberbauer et al 2008, CDFW 2025a.
- **Wildlife corridors and linkages:** CDFW Biogeographic Information System (BIOS) (CDFW 2025b), SANDAG *2025 Regional Plan* (SANDAG 2025), SanGIS data layers (SanGIS and SANDAG, n.d.), County of San Diego Multiple Species Conservation Program (County of San Diego 1998), California Wildlife Crossings Database (Wildlands Network, n.d.)
- **Watersheds and aquatic resources:** National Wetlands Inventory (USFWS, n.d.-b), US Environmental Protection Agency (USEPA) WATERS GeoViewer (USEPA, n.d.), USGS National Hydrography Dataset (USGS 2023), and National Oceanic and Atmospheric Administration (NOAA) Fisheries Essential Fish Habitat (EFH) Mapper (n.d.).

All resources consulted are included in Section 6.0, References.

### 1.2.4 Desktop Analysis

Using the results of the literature and database review, a desktop analysis was conducted to characterize existing biological resources within the City. The analysis focused on synthesizing information from a variety of federal, state, regional, and local databases, as well as published literature and technical reports, to identify the locations of special-status species, sensitive habitats, and other regulated biological resources potentially present in the program area. No field surveys or ground-truthing were performed as part of this assessment.

Spatial data layers were compiled and reviewed using GIS software to evaluate the distribution of documented occurrences of special-status plant and wildlife species, sensitive natural communities, designated critical habitat, wetlands, and conservation areas.. The desktop analysis included the following steps:

1. Compilation of spatial data: Downloading and organizing GIS layers and database records for special-status species, sensitive habitats, critical habitat, wetlands, and conservation areas within the program area and vicinity.

2. Review of mapped occurrences: Overlaying documented species and habitat locations on base maps of the City and vicinity to identify areas of biological sensitivity and potential constraints to CIP implementation.

3. Assessment of habitat suitability: Evaluating land cover, vegetation types, hydrology, and proximity to known occurrences to infer the potential for undocumented resources within the program area.

4. Identification of regulatory overlays: Mapping environmentally sensitive overlay zones, conservation easements, and other regulatory designations relevant to biological resource protection.

5. Synthesis of findings: Summarizing the distribution and types of biological resources identified through the desktop analysis to inform the development of a program-level biological constraints map and mitigation strategy.

All data sources and mapping tools used in the desktop analysis are listed in Section 6.0, References. The results of the desktop analysis are presented in the following sections, including tables and maps of documented and potential biological resources within the program area.

The potential for special-status species to occur was evaluated based on each species' known geographic distribution and elevation range; species-specific habitat requirements (e.g., vegetation communities/land covers, soils, hydrology, slope/aspect, and other requirements); life history traits (e.g., disturbance tolerance); current and historical records; and Michael Baker biologists' expertise, knowledge, and best professional judgement. The potential to occur categories used in this analysis are defined as follows:

- **Expected:** The program area is within the known geographic distribution and elevation range of the species; suitable habitat (considering vegetation, soils, and other factors) is present; and there is viable landscape connectivity to a local, known extant population(s) or sighting(s).
- **Moderate:** The program area is within the known geographic distribution and elevation range of the species; however, habitat within the program area (considering vegetation, soils, and other factors) is marginal or limited and landscape connectivity to a local, known, extant population or detection is compromised or nonexistent.
- **Not Expected:** The species is not expected to occur within the program area due to the lack of suitable habitat; the location of the program area is outside of the species' elevation range or known geographic distribution; or there is no connectivity to known, extant populations.

### 1.2.5 Biological Resources Sensitivity Analysis

A sensitivity analysis was conducted to classify areas within the City into low, medium, and high biological sensitivity based on the presence or potential occurrence of sensitive biological resources. This analysis relied exclusively on desktop data sources identified in Section 1.2.2 and did not include field verification or ground-truthing.

### Step 1: Data Compilation

Spatial datasets for special-status species, sensitive habitats, critical habitat, wetlands, wildlife corridors, and other regulated resources were compiled from federal, state, regional, and local sources (e.g., CNDDB, CNPS, USFWS IPaC, SanGIS, San Diego County Multiple Species Conservation Program [MSCP], National Wetlands Inventory, National Hydrography Dataset, EFH Mapper). These layers were organized in a GIS environment for spatial analysis.

### Step 2: Sensitivity Criteria

Sensitivity categories were assigned qualitatively based on:

- **Regulatory status**: Federal or state listing, critical habitat designation, or ESHA designation.
- **Ecological rarity and function**: Habitat types with limited distribution or high ecological value (e.g., wetlands, riparian corridors, coastal bluffs).
- **Vulnerability to disturbance**: Resources highly susceptible to CIP-related impacts such as grading, vegetation removal, or hydrologic alteration.
- **Potential for occurrence**: Based on special-status plant and animal species' habitat suitability and the program area's proximity to documented occurrences.

Certain resources were automatically classified as high sensitivity, including:

- Habitats supporting federally or state-listed species
- Wetlands and riparian areas
- ESHAs and City-designated overlays (e.g., coastal bluffs)

Other areas, such as developed parcels or urban landscapes with isolated trees that could support nesting birds, were generally classified as low sensitivity, unless additional sensitive features were present.

### Step 3: GIS Overlay Analysis

Spatial layers were overlaid to identify areas where sensitive resources occur or are likely to occur. The sensitivity map was developed as a categorical layer, assigning each area to a single sensitivity category based on the highest sensitivity resource present.

### Step 4: Sensitivity Category Definitions

- **High Sensitivity**: Areas supporting federally or state-listed plant or animal species, USFWS designated critical habitat, CDFW sensitive natural communities, wetlands, riparian zones, or City-designated sensitive overlays such as ESHAs or coastal bluffs.
- **Moderate Sensitivity**: Areas within a 100-foot buffer of High Sensitivity areas.
- **Low Sensitivity**: All other areas of the city (e.g., developed or otherwise disturbed areas) with minimal biological resource value.

### Step 5: Map Development

The resulting sensitivity map was generated in GIS and used to inform the program-level biological constraints map and mitigation strategy for future CIP projects.

# 2.0 REGULATORY SETTING

Implementation of the CIP is subject to a comprehensive framework of federal, state, and local laws and policies designed to protect natural resources and regulate development activities. This section summarizes the key regulatory requirements applicable to CIP projects within the City of Del Mar. Compliance with these regulations ensures that CIP projects are planned and implemented in a manner that avoids, minimizes, or otherwise mitigates impacts to sensitive habitats, special-status species, and other protected natural resources.

## 2.1 Federal

### 2.1.1 Endangered Species Act (16 United States Code [USC] § 1531 et seq.)

The federal Endangered Species Act (ESA) provides the legal framework for the listing and protection of species (and their habitats) identified as being endangered or threatened with extinction. Actions that jeopardize endangered or threatened species and the habitats upon which they rely are considered a "take" under the ESA. Take of a federally listed threatened or endangered species is prohibited without a special permit. The ESA allows for take of a threatened or endangered species incidental to development activities once a habitat conservation plan has been prepared to the satisfaction of the USFWS and an incidental take permit has been issued. The ESA also allows for the take of threatened or endangered species after consultation has deemed that development activities will not jeopardize the continued existence of the species. Consultation may occur through Section 7 of the ESA when a federal permit is required, such as a Clean Water Act Section 404 permit, or through Section 10 of the ESA when there is no federal nexus.

### 2.1.2 Migratory Bird Treaty Act (16 USC §§ 703-712)

The Migratory Bird Treaty Act implements international treaties between the United States and other nations devised to protect migratory birds, their parts, eggs, and nests from activities such as hunting, pursuing, capturing, killing, selling, and shipping, unless expressly authorized in the regulations or by permit. The State of California has incorporated the protection of birds, including birds of prey in California Fish and Game Code Sections 3503, 3503.5, 3513, and 3800. These laws prohibit the take, possession, or destruction of birds, their nests, and eggs, and align with federal protections for migratory birds.

### 2.1.3 Bald and Golden Eagle Protection Act (16 USC §§ 668-668(d); 50 Code of Federal Regulations [CFR] Part 22)

The Bald and Golden Eagle Protection Act, enacted in 1940 and amended several times since, aims to protect bald and golden eagles by prohibiting the taking of these birds, including their parts, nests, or eggs, without a permit issued by the Secretary of the Interior. The term "taking" encompasses actions such as pursuing, shooting, poisoning, wounding, killing, capturing, trapping, collecting, molesting, or disturbing the eagles. The act is administered by the USFWS, which issues permits for activities that might affect these protected birds.

### 2.1.4 Clean Water Act (33 USC § 1251 et seq.)

Section 401 of the federal CWA requires any applicant for a federal license or permit that is conducting any activity that may result in a discharge of a pollutant into waters of the United States to obtain a

certification that the discharge will comply with the applicable effluent limitations and water quality standards. The appropriate RWQCB regulates Section 401 requirements.

CWA Section 404 prohibits the discharge of dredged or fill material into waters of the United States without a permit from the USACE. The USACE and the USEPA administer the act. In addition to streams with a defined bed and bank, the definition of waters of the United States includes wetland areas "that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions" (33 CFR 328.3 7b). The lateral extent of non-tidal waters is determined by delineating the ordinary high-water mark (33 CFR Section 328.4[c][1]).

Substantial impacts to jurisdictional wetlands may require an individual permit. Small-scale projects may require a nationwide permit, which typically has an expedited process compared to the individual permit process. Mitigation of wetland impacts is required as a condition of the 404 permit and may include on-site preservation, restoration, and/or enhancement and/or off-site restoration or enhancement. The characteristics of restored or enhanced wetlands must be equal to or better than those of the affected wetlands to achieve no net loss of wetlands.

### 2.1.5 Fish and Wildlife Coordination Act (16 USC §§ 661-666)

The Fish and Wildlife Coordination Act, enacted in 1934, is designed to ensure that wildlife conservation is considered in water resource development projects. This act directs the USFWS to investigate and report on proposed federal actions that affect any stream or other body of water and to provide recommendations to minimize impacts on fish and wildlife resources. The Fish and Wildlife Coordination Act requires federal agencies to consult with the USFWS and NOAA Fisheries before undertaking or authorizing projects that control or modify any body of water.

### 2.1.6 Magnuson-Stevens Fishery Conservation and Management Act (16 USC § 1801 et seq.)

The Magnuson-Stevens Fishery Conservation and Management Act was passed in 1976 and governs the management of marine fisheries within U.S. federal waters up to 200 miles from shore, with a focus on preventing overfishing, rebuilding depleted stocks, and protecting fish habitat. The Sustainable Fisheries Act of 1996 established requirements related to the protection, conservation, and enhancement of EFH. The act is primarily applicable to projects that directly affect marine or estuarine environments or require federal consultation under EFH provisions.

### 2.1.7 Marine Mammal Protection Act (16 USC § 1361 et seq.)

The Marine Mammal Protection Act, enacted in 1972, is a foundational U.S. law that prohibits the "take" of marine mammals—including whales, dolphins, seals, and sea lions—in U.S. waters and by U.S. citizens on the high seas, unless specifically authorized. The act defines "take" broadly to include harassment, hunting, capturing, or killing, and it establishes a moratorium on these activities to prevent population declines and promote ecosystem health. It mandates scientific assessments of marine mammal stocks, regulates incidental bycatch in commercial fisheries, and allows for limited exemptions such as subsistence use by Alaska Natives and permitted research. The Marine Mammal Protection Act is jointly administered by NOAA Fisheries and the USFWS, with oversight from the Marine Mammal Commission, and remains a cornerstone of marine conservation policy in the United States.

### 2.1.8 Executive Order 13112 – Invasive Species

Executive Order 13112 – Invasive Species, signed on February 3, 1999, establishes federal policy for the prevention, control, and eradication of invasive species that threaten native ecosystems, agriculture, and public health. The order defines invasive species as non-native organisms whose introduction causes or is likely to cause economic or environmental harm or harm to human health. It mandates that federal agencies identify actions that may affect invasive species and implement measures to avoid or mitigate their spread. The order also created the National Invasive Species Council, tasked with coordinating interagency efforts, developing a national management plan, and promoting research, education, and international cooperation. Agencies are required to use science-based approaches and collaborate with state, tribal, and local governments to address invasive species impacts. Executive Order 13112 was later amended by Executive Order 13751 in 2016 to strengthen coordination and expand the scope of federal response.

### 2.1.9 Coastal Zone Management Act (16 USC §§ 1451–1466)

The Coastal Zone Management Act of 1972 establishes a national framework for managing and protecting U.S. coastal resources through a cooperative federal-state partnership. Administered by NOAA, the act enables states and territories to develop coastal management programs tailored to local priorities, which must be approved by the Secretary of Commerce. Once approved, these programs become eligible for federal funding and gain authority to conduct consistency reviews of federal actions affecting coastal zones. Under Section 307, federal activities, permits, and funding that may impact coastal uses or resources must be consistent with enforceable policies of the state's coastal management program. This includes offshore energy development, infrastructure projects, and environmental restoration efforts. The act also supports the National Estuarine Research Reserve System and provides technical and financial assistance to enhance coastal resilience, habitat conservation, and sustainable development.

## 2.2 State

### 2.2.1 California Environmental Quality Act (CEQA) – Public Resources Code §§ 21000–21189

CEQA requires public agencies to evaluate and disclose the potential environmental impacts of proposed projects prior to approval. For projects within the coastal zone, such as those in the City of Del Mar, CEQA review must consider sensitive biological resources including coastal habitats, special-status species, and jurisdictional wetlands, in coordination with the California Coastal Act and local coastal program policies. If significant impacts to biological resources are identified, CEQA mandates the implementation of feasible mitigation measures to avoid, minimize, or compensate for those effects. The CEQA process also promotes transparency, public participation, and interagency collaboration to ensure environmentally responsible decision-making. The City has adopted the City of Del Mar CEQA Supplemental Regulations which present the process used by the City to conduct environmental reviews (City of Del Mar 2020).

### 2.2.2 California Endangered Species Act (CESA) – Fish & Game Code §§ 2050–2116

CESA establishes a legal framework for the conservation of species at risk of extinction within California. It plays a critical role in integrating biodiversity conservation into California’s land use and infrastructure planning. Administered by the CDFW, CESA prohibits the unauthorized “take” of any species listed as

endangered, threatened, or candidates for listing, where "take" includes actions such as hunting, capturing, killing, or harming. CESA mandates the use of the best available scientific information in listing decisions and requires the California Fish and Game Commission to evaluate petitions for listing through a formal process that includes public input and peer-reviewed status reports. Once a species is listed or designated as a candidate, it receives full legal protection under the act. CESA also requires state and local agencies to consult with the CDFW during project planning to identify and mitigate potential impacts to listed species and their habitats. Unlike its federal counterpart, CESA does not include provisions for incidental take permits for listed plants, making its protections more stringent in certain contexts. For state-listed plants, CESA protections differ than those for animals. While CESA prohibits take of listed plants, enforcement is generally limited to state-owned lands or projects requiring state approval or permits. In these cases, the CDFW may require mitigation or other protective measures to avoid or minimize impacts to listed plant species to ensure compliance with CESA and the Native Plant Protection Act.

### 2.2.3 California Fish and Game Code § 1600 et seq. – Lake and Streambed Alteration Program

California Fish and Game Code Section 1602 requires any person, public utility, or state or local governmental agency to notify the CDFW prior to initiating any activity that would: (1) substantially divert or obstruct the natural flow of any river, stream, or lake; (2) substantially change or remove material from the bed, channel, or bank of any river, stream, or lake; or (3) deposit or dispose of debris, waste, or other material into any river, stream, or lake. The state definition of "lakes, rivers, and streams" includes all rivers or streams that flow at least periodically or permanently through a well-defined bed or channel with banks that support fish or other aquatic life, and watercourses with surface or subsurface flows that support or have supported riparian vegetation.

### 2.2.4 California Fish and Game Code §§ 3503, 3503.5, 3513 – Nesting Birds and Birds of Prey

California Fish and Game Code Sections 3503, 3503.5, and 3513 collectively provide legal protection for nesting birds and birds of prey in California. Section 3503 prohibits the taking, possession, or needless destruction of the nest or eggs of any bird, while Section 3503.5 specifically protects birds of prey (orders Falconiformes and Strigiformes), making it unlawful to take, possess, or destroy these species or their nests and eggs except as otherwise authorized. Section 3513 aligns with the federal Migratory Bird Treaty Act by prohibiting the take or possession of any migratory non-game bird as designated under federal law. These provisions are routinely addressed in CEQA biological assessments to ensure that project activities avoid impacts to nesting birds and comply with both state and federal wildlife protections.

### 2.2.5 California Fish and Game Code § 3511, § 4700, § 5050, § 5515 – Fully Protected Species

The Fully Protected Species provisions of the California Fish and Game Code—codified in Sections 3511 (birds), 4700 (mammals), 5050 (reptiles and amphibians), and 5515 (fish)—represent the state's most stringent wildlife protections, predating the CESA. These statutes prohibit the "take" or possession of listed species under nearly all circumstances, including for scientific, educational, or incidental purposes, unless explicitly authorized by the legislature or under narrowly defined exceptions. The CDFW administers these protections and maintains species lists that include taxa such as light-footed Ridgway's rail (*Rallus obsoletus levipes*), white-tailed kite (*Elanus leucurus*), and tidewater goby (*Eucyclogobius newberryi*).

Unlike CESA, which allows for incidental take permits of wildlife, the Fully Protected designation generally bars such allowances, although recent amendments permit limited exceptions for specific infrastructure projects (e.g., water, transportation, renewable energy) subject to public notification and CDFW approval. These provisions ensure that species deemed most vulnerable to extinction receive the highest level of legal protection in California's conservation framework.

### 2.2.6 California Native Plant Protection Act (NPPA) – Fish & Game Code §§ 1900–1913

The NPPA establishes a legal framework for the conservation of native plant species that are rare, endangered, or threatened within the state. Enacted in 1977, the NPPA mandates the CDFW to identify and list protected native plants, regulate their collection and removal, and enforce penalties for unauthorized disturbance. The NPPA applies to both public and private lands and requires landowners and developers to obtain permits before impacting listed species. It also authorizes the CDFW to enter into agreements with federal agencies, local governments, and private entities to facilitate habitat protection and restoration. The NPPA complements broader environmental statutes such as CEQA by integrating plant conservation into land use planning and project review processes.

### 2.2.7 Natural Community Conservation Planning Act (NCCPA) – Fish & Game Code §§ 2800–2835

The NCCPA provides a statutory framework for ecosystem-based conservation planning aimed at protecting biodiversity while accommodating compatible land use and development. Unlike traditional species-by-species approaches, the NCCPA promotes the preservation of entire natural communities and their ecological functions through large-scale, multi-stakeholder planning efforts. Administered by the CDFW, the NCCPA authorizes the development of natural community conservation plans (NCCPs), which identify habitat conservation strategies for multiple species, including those not yet listed as threatened or endangered. NCCPs must meet rigorous scientific and public participation standards and are subject to approval by the CDFW. Once approved, these plans offer regulatory assurances to participating landowners and agencies under CESA, streamlining permitting processes while ensuring long-term habitat protection. Notably, the City of Del Mar is within the planning area of the San Diego County MSCP; however, its Subarea Plan remains in progress and is not yet adopted, so the City is not currently covered by an approved NCCP/habitat conservation plan.

### 2.2.8 Porter-Cologne Water Quality Control Act - California Water Code Division 7, §13000 et seq.

The Porter-Cologne Water Quality Control Act defines waters of the State as any surface water or groundwater, including saline waters, within the boundaries of the state. The RWQCBs regulate discharges to all waters of the State with particular responsibility for isolated wetlands, ephemeral streams, and headwaters. These water bodies have high resource value, are vulnerable to filling, and may not be regulated under federal law. The RWQCBs implement the Water Quality Certification Program under CWA Section 401 and Porter-Cologne, requiring certification for projects needing federal permits (e.g., under CWA Section 404). Projects that do not require federal permits but may discharge to waters of the State are regulated through waste discharge requirements issued under state authority. For projects in the City of Del Mar, the San Diego RWQCB oversees compliance.

### 2.2.9 California Wetlands Policy

The California Wetlands Policy is a state-led initiative designed to protect, restore, and enhance wetland ecosystems through a coordinated regulatory and planning framework. Anchored by Porter-Cologne, the policy is implemented primarily by the State Water Resources Control Board and RWQCBs, with support from agencies such as the CDFW and CCC. In response to evolving federal standards—particularly reductions in Clean Water Act protections—the state adopted Resolution No. 2008-0026, initiating the development of a comprehensive Wetland and Riparian Area Protection Policy. This policy establishes standardized definitions, delineation procedures, and permitting requirements for dredge-and-fill activities affecting wetlands. It also integrates monitoring, restoration, and mitigation strategies to ensure no net loss of wetland acreage or function. The policy is further supported by the California Wetland Program Plan, which outlines strategic goals for interagency coordination, public engagement, and adaptive management to safeguard the ecological integrity of California's wetland resources.

### 2.2.10 California Coastal Act – Public Resources Code §§ 30000–30900

The City of Del Mar is entirely within the California Coastal Zone, as defined by the California Coastal Act of 1976 (Public Resources Code Division 20). Within the coastal zone, the CCC has regulatory authority over land use and environmental protection, including oversight of sensitive biological resources such as wetlands and ESHAs.

Under Coastal Act Section 30121, wetlands are defined as lands "which may be covered periodically or permanently with shallow water," and include saltwater marshes, freshwater marshes, brackish marshes (open or closed), swamps, mudflats, and fens. Importantly, the CCC's definition—further clarified in California Code of Regulations Title 14, Section 13577(b)—does not require the presence of hydrophytic vegetation or hydric soils to establish wetland jurisdiction. Wetlands may be regulated even if vegetation is absent or soils are poorly developed due to fluctuating water levels or salinity.

ESHAs are defined in Coastal Act Section 30107.5 as areas "in which plant or animal life or their habitats are either rare or especially valuable because of their special nature or role in an ecosystem and which could be easily disturbed or degraded by human activities and developments." The CCC protects ESHAs through policies that restrict development within and adjacent to these areas, requiring buffers and limiting land uses to those that are resource-dependent, as outlined in Section 30240 of the Coastal Act.

In the City, this regulatory framework is particularly relevant to areas such as the San Dieguito Lagoon, coastal bluffs, beach habitats, and certain vegetation communities that may contain wetlands or ESHAs. Any proposed development or capital improvement project within these areas must comply with CCC permitting requirements and demonstrate avoidance, minimization, or mitigation of impacts to biological resources.

## 2.3 Local

### 2.3.1 City of Del Mar Community Plan (General Plan)

The City's Community Plan, which serves as its General Plan, is the guiding framework for land use, development, and resource conservation (City of Del Mar 2021). It reflects the community's long-term vision to maintain a small-town coastal character while balancing environmental stewardship, economic vitality, and social equity. The plan is comprehensive and includes elements addressing land use, circulation, housing, recreation, and environmental management. It emphasizes sustainable growth,

protection of scenic and ecological resources, and compatibility between development and the City's unique coastal setting. The plan aligns with the California Coastal Act and incorporates policies to manage pressures from housing demand, commercial development, and infrastructure needs while safeguarding sensitive habitats and open space areas. Specifically, the goals and policies applicable to the project include the protection of designated open space areas, San Dieguito Lagoon and Floodway, and bluffs, slopes, and canyons.

### Designated Open Space Areas

The Community Plan identifies beaches, parks, scenic trails, and bluff preserves as Designated Open Space Areas intended for permanent protection. In the Environmental Management chapter, Goal 1 emphasizes maintaining these areas for public use and ecological integrity. Objective E calls for the protection of designated open space areas as a means to avoid habitat fragmentation and preserve native vegetation communities. These provisions ensure that open space functions as a buffer for sensitive species and as a corridor for wildlife movement. Specific areas identified in the plan include Camino del Mar, Del Mar Bluff Preserve, Seagrove Park, and Scenic Loop Trail.

### San Dieguito Lagoon and Floodway

The San Dieguito Lagoon is a regionally significant wetland complex supporting diverse biological communities. In the Environmental Management chapter, Objective I calls for the protection and enhancement of lagoon habitats, while Policies I-1 through I-17 requires maintaining natural hydrology and preventing encroachment into floodways. Development proposals must demonstrate consistency with the City's Local Coastal Program (LCP) and sediment management strategies to avoid adverse impacts on tidal wetlands and riparian zones. These policies align with state and federal mandates for wetland conservation and provide a framework for mitigating potential impacts from infrastructure projects.

### Bluffs, Slopes, and Canyons

The Community Plan recognizes the ecological and scenic value of bluffs, steep slopes, and canyon areas. In the Environmental Management chapter, Objective H seeks to minimize erosion and habitat loss in these sensitive landforms. Policy H-11 restricts grading and vegetation removal on slopes exceeding 25 percent, and Objective M requires stabilization measures that use native plantings rather than hardscape solutions. These policies are intended to reduce sedimentation into coastal waters and maintain habitat for species adapted to bluff and canyon environments. Compliance with these standards is essential for projects involving slope modification or drainage improvements.

Specific areas called out in the plan include beaches and coast, south end canyons, Crest Canyon, and bluffs and slopes along the north and northeast edges of the Del Mar Hills.

## 2.3.2 City of Del Mar Local Coastal Program

The City's LCP is a certified land use planning framework that governs development and resource protection within the City's coastal zone. The LCP was developed in accordance with the California Coastal Act, which mandates that local governments prepare LCPs to implement Coastal Act policies at the local level. The City's LCP consists of two main components: 1) a Land Use Plan, which outlines goals and policies for land use, environmental protection, and public access; and 2) an Implementation Plan, which includes zoning ordinances, maps, and other regulatory tools to carry out the Land Use Plan.

Originally certified in the 1990s, the LCP has undergone several amendments to address evolving coastal hazards, most notably sea level rise, bluff erosion, and storm surge. In October 2018, the City adopted a

comprehensive Sea-Level Rise Local Coastal Program Amendment, developed through extensive public engagement and technical analysis. This amendment includes a Coastal Hazards Vulnerability Assessment, Adaptation Plan, and updated policies to guide future development and infrastructure resilience. The City opted for a non-retreat strategy, emphasizing protective measures such as sand replenishment, floodplain overlays, and bluff stabilization, rather than managed retreat. The LCP also integrates goals from the San Dieguito Lagoon Enhancement Program and the Del Mar Community Plan to ensure ecological preservation and recreational access. While the CCC has reviewed the City's amendments, tensions have emerged over local control versus state mandates, particularly regarding long-term adaptation strategies. Overall, the City's LCP reflects a proactive, science-based approach to coastal management tailored to the City's unique geographic and socioeconomic context.

LCP implementation is carried out through a series of ordinances originally certified by the CCC in 2001 (City of Del Mar 2001), specifically in Del Mar Municipal Code (DMMC) Title 30.

### 2.3.3 City of Del Mar Municipal Code

The DMMC establishes a comprehensive regulatory framework to protect biological resources, floodways, parklands, and natural open space areas within the City (City of Del Mar 2024). The following chapters/sections are particularly relevant for ensuring compliance with CEQA and for guiding CIP project implementation:

- Chapter 8.12 – San Dieguito Lagoon and River
- Chapter 23.50 – Trees
- Chapter 30.29 – Floodway Zone
- Chapter 30.30 – Public Parkland Zone
- Chapter 30.52 – Bluff, Slope, and Canyon Overlay Zone
- Chapter 30.53 – Lagoon Overlay Zone
- Chapter 30.60 – Open Space Overlay Zone
- Section 30.92.040 – Protection of Environmentally Sensitive Habitat Areas

Table 1 summarizes the natural resource protections for these chapters.

**TABLE 1. SUMMARY OF MUNICIPAL CODE CHAPTERS/SECTIONS PROTECTING NATURAL RESOURCES**

| Chapter/Section | Summary |
|---|---|
| 8.12 – San Dieguito Lagoon and River | This chapter safeguards the biodiversity and ecological integrity of the San Dieguito Lagoon and River. It mandates the conservation of aquatic and upland ecosystems, supports habitat restoration, and promotes educational and recreational opportunities while protecting native wildlife and marine populations. |
| 23.50 – Trees | This chapter establishes regulations for the protection, management, and removal of trees within the City, emphasizing the preservation of the urban forest and native tree species. The ordinance identifies "protected trees" as Torrey pine (*Pinus torreyana*); Monterey cypress (*Cupressus macrocarpa*); any tree located within the Central Commercial (CC) Zone, Open Space (OS) Overlay Zone, public rights-of-way, or City-owned property, provided it meets size criteria (single trunk equal to or less than 20 inches circumference or multi-trunk equal to or less than 30 inches, measured 2 feet above ground); and any tree planted as mitigation for prior |

**TABLE 1, CONTINUED**

| Chapter/Section | Summary |
|---|---|
| | removals. Removal or significant alteration of a protected tree requires a Tree Removal Permit, typically supported by an assessment from a Certified Arborist, unless the tree qualifies for specific exemptions. The ordinance reflects the City's commitment to ecological integrity, scenic character, and public safety through responsible tree stewardship protection, management, and regulated removal of significant tree species. |
| 30.29 – Floodway Zone | This zone preserves areas subject to floodwaters, reduces reliance on engineered flood control, and protects public health, safety, and property. It restricts development within designated floodways, including portions of the San Dieguito Lagoon, to maintain natural hydrology and minimize flood risk. |
| 30.30 – Public Parkland Zone | This zone designates publicly owned lands for use as parks or open space preserves, such as Crest Canyon Open Space. It ensures these areas are maintained for public recreation and ecological value, limiting incompatible development. |
| 30.52 – Bluff, Slope, and Canyon Overlay Zone | This overlay zone regulates development on bluffs, steep slopes, and canyon areas to prevent erosion, sedimentation, and habitat loss. It requires that projects incorporate measures to stabilize slopes using native vegetation and avoid adverse impacts to downstream resources. |
| 30.53 – Lagoon Overlay Zone | This overlay zone provides additional protections for the biological resources of the San Dieguito Lagoon, including both wetland and sensitive upland habitats. It restricts activities that could degrade these resources and requires compliance with best management practices for habitat preservation. |
| 30.60 – Open Space Overlay Zone | This overlay zone ensures the long-term preservation of open space areas, scenic vistas, and unique natural features, including the San Dieguito Lagoon, Crest Canyon Open Space, and adjacent bluffs and slopes. It limits development to uses compatible with open space conservation and ecological protection. |
| 30.92.040 – Protection of Environmentally Sensitive Habitat Areas | This zone ensures long-term protection and integrity through siting requirements, buffers, and legal protection mechanisms. |

All CIP projects within areas protected by the DMMC must be designed and implemented in accordance with the protections and permitted uses specified in the applicable sections of the DMMC. Adherence to these local regulations is essential for CEQA compliance and for the effective protection of Del Mar's sensitive biological resources.

### 2.3.4 San Diego County Multiple Species Conservation Program

The MSCP is a comprehensive, long-term habitat conservation plan that addresses the needs of multiple species by identifying key areas for preservation as open space to link core biological areas into a regional wildlife preserve (County of San Diego 1998). The MSCP was approved in August 1998 and provides coverage for 85 species over a 900-square-mile area in southwestern San Diego County.

The MSCP is one of several large multiple jurisdictional habitat planning efforts in San Diego County, each of which constitutes a subregional plan under the NCCPA of 1991. The MSCP includes 10 incorporated cities, as well as unincorporated portions of southwestern San Diego County, that will implement their respective portions of the MSCP through citywide "subarea" plans, which describe the specific implementing mechanisms that each city will institute for the MSCP.

The City of Del Mar is a signatory to the MSCP indicating its intent to participate, and its draft Subarea Plan is currently being prepared, but it has not yet been approved or adopted as of the date of this report. Consequently, the City does not currently have the authority to issue incidental take permits or implement the streamlined permitting and mitigation provisions available to jurisdictions with approved Subarea Plans. Projects within the City, including CIP projects, must therefore comply with state and federal environmental regulations on a project-specific basis, including conducting biological surveys, assessing potential impacts to sensitive species, and coordinating with resource agencies as needed.

Until the City adopts its Subarea Plan, all biological resource evaluations must be conducted in accordance with CEQA, CESA, and ESA requirements, with appropriate consultation with the CDFW and the USFWS where applicable. Additionally, the City has committed to implementing the draft measures which are referenced in this report for project planning considerations and demonstration of voluntary consistency.

# 3.0 ENVIRONMENTAL SETTING

The City of Del Mar is defined by its marine-influenced climate and diverse coastal landscape, which includes beaches, coastal bluffs, and lagoon ecosystems. While the City is largely developed, the Del Mar Fairgrounds occupy approximately 20 percent of its northern area, north of the San Dieguito Lagoon. Remaining developed areas consist primarily of residential and commercial uses. Open space is limited but ecologically significant, including the San Dieguito Lagoon—a regionally important estuarine habitat supporting a variety of plant and animal species—coastal bluffs along the western shoreline, and patches of coastal sage scrub and chaparral along the central-eastern boundary. These open space areas contribute meaningfully to the City's biological diversity and natural resource value.

## 3.1 Climate

The City experiences a Mediterranean climate with warm summers that average high temperatures of around 75 degrees Fahrenheit and very little rain. Winters are wet and mild with temperatures rarely dropping below 50 degrees Fahrenheit. Most rainfall occurs between November and March with little to no rainfall during the summer months. As a coastal city, Del Mar benefits from the moderating influence of the Pacific Ocean, which helps maintain stable year-round temperatures, keeping extreme temperatures rare.

## 3.2 Topography and Soils

The City features a coastal topography with rolling hills, bluffs, and low-lying beach areas. Its soils are primarily sandy and loamy, shaped by marine and alluvial processes. Elevation ranges from sea level to approximately 360 feet. The coastal zone ranges in elevation from sea level to approximately 20 feet. The marine terraces and coastal bluffs range from 20 to 100 feet above sea level and feature steep, eroding bluffs that rise sharply from the beach. The geology is composed of sedimentary layers (Torrey Sandstone and Del Mar Formation), prone to erosion and landslides. The inland rolling hills range from approximately 100 to 360 feet above sea level. The San Dieguito Lagoon and River Valley area of the city range from 5 to 15 feet above sea level rise and are characterized by wetlands, estuarine habitat, and floodplains.

There are 15 soil types present throughout the City (NRCS 2025) (Attachment A: Figure 4, USDA Soils). Predominant soils that each contribute over 10 percent of the City's soil composition include made land (19.7 percent), which is soil that has been significantly altered by human activity; marina loamy coarse sand, 2 to 9 percent slopes (18.3 percent), which is a somewhat excessively drained soil on gentle slopes with a loamy coarse sand texture; marina loamy coarse sand, 9 to 30 percent slopes (14.5 percent), which is also somewhat excessively drained soil; Tujunga sand, 0 to 5 percent slopes (12.3 percent), well-drained soil formed in sandy alluvium; and Loamy alluvial land-Huerhuero complex, 9 to 50 percent slopes, severely eroded (11.9 percent), which has a high susceptibility to erosion.

All other soil types include tidal flats (6.7 percent), terrace escarpments (6.1 percent), lagoon water (4.1 percent), Carlsbad-Urban land complex, 2 to 9 percent slopes (2.1 percent), coastal beaches (1.8 percent), Corralitos loamy sand, 9 to 15 percent slopes, (1.2 percent), Corralitos loamy sand, 5 to 9 percent slopes (1.0 percent), Carlsbad gravelly loamy sand 5 to 9 percent slopes (0.1 percent), Huerhuero loam, 2 to 9 percent slopes (<0.1 percent), and Huerhuero-Urban land complex, 2 to 9 percent slopes (0.2 percent).

# 3.3 Watersheds and Hydrology

The City is primarily influenced by the San Dieguito River Watershed and the Los Peñasquitos Watershed, with hydrology shaped by coastal drainage patterns, seasonal rainfall, and imported water sources. The San Dieguito River Watershed, which flows through the northern portion of the City and terminates in the Pacific Ocean, is about 345 square miles, starting at its headwaters in the Cuyamaca Mountains. Pollutants of concern for the San Dieguito River Watershed include bacteria and nutrients with likely pollutant sources from garbage, litter and debris, animal and yard waste, home and garden care activities, and landscaping. The Los Peñasquitos Watershed is about 94 square miles, begins in the mountains east of Poway, drains into the Pacific Ocean in the southernmost portion of the City, and stretches south to Mission Bay in the City of San Diego. Pollutants of concern for the Los Peñasquitos Watershed include bacteria and sediment with likely pollutant sources similar to that of the San Dieguito River Watershed.

## 3.3.1 Surface Water

Surface water features of the City include the San Dieguito Lagoon, San Dieguito River tributary, and the Los Peñasquitos Lagoon. The San Dieguito Lagoon, which is a brackish estuary that receives freshwater from the river and tidal exchange from the ocean, traverses the northern portion of the City and flows west into the Pacific Ocean. Pollutant stressors for the San Dieguito Lagoon include indicator bacteria, dissolved oxygen, phosphorus, turbidity, eutrophic conditions, sedimentation/siltation, and toxicity. The San Dieguito River tributary runs from the parent water body, San Dieguito River, and travels north adjacent to the San Diego Northern Railway, then east into the Del Mar Fairgrounds, according to the San Diego RWQCB Basin Plan. The San Dieguito River tributary often faces stressors such as runoff. The Los Peñasquitos Lagoon, a coastal wetland and estuary, is located directly south of the City's boundary and faces pollutant stressors, including excessive sedimentation, toxicity, year-round accelerated freshwater flows, storm water runoff, and trash and debris.

The City's receiving waters primarily include the Pacific Ocean and the San Dieguito Lagoon, which serve as the final discharge points for surface runoff and storm water conveyed through the City's drainage infrastructure. Urban runoff, originating from residential, commercial, and transportation corridors, is directed through a network of storm drains and culverts that ultimately discharge into these sensitive aquatic environments. The San Dieguito Lagoon plays a critical role in filtering pollutants and supporting biodiversity before water flows into the ocean. These receiving waters are subject to regulatory oversight under the San Diego RWQCB Basin Plan and the National Pollutant Discharge Elimination System, which establish water quality objectives and monitoring requirements to protect beneficial uses such as recreation, wildlife habitat, and marine ecosystems. Effective storm water management and low-impact development practices are essential to minimizing pollutant loads and preserving the ecological integrity of Del Mar's receiving waters.

## 3.3.2 Groundwater

Groundwater is not a major water source for the City. The groundwater in Del Mar comes from the San Elijo Valley Groundwater Basin, a small alluvial basin that follows the course of the Escondido Creek and discharges into the San Elijo Lagoon.

## 3.4 Historic Disturbances

The City has experienced historical environmental disturbances such as bluff and beach erosion. Its coastal bluffs are geologically composed of weakly cemented sandstone and siltstone, making them highly susceptible to coastal erosion, surficial failures, and deep-seated landslides. Over the past several decades, erosion has intensified due to rising sea levels, increased storm activity**,** and urban runoff, leading to significant bluff retreat. One of the most impacted areas is the Los Angeles-San Diego-San Luis Obispo (LOSSAN) Rail Corridor, which runs along the edge of the bluffs. Between 2019 and 2024, this corridor experienced at least 12 shutdowns due to bluff failures, with three extended closures occurring in 2023 and 2024 alone.

The City has also experienced historic flooding events due to its proximity to the Pacific Ocean and the San Dieguito River. One of the most impactful incidents occurred in 1980, when the San Dieguito River overflowed, inundating low-lying areas and causing substantial damage to infrastructure and property. Another major event in 1983 saw additional flooding and coastal erosion, prompting the City to reassess its flood resilience and join the Federal Emergency Management Agency's (FEMA) National Flood Insurance Program. This enabled access to disaster relief and pre-disaster mitigation funding. The City has since implemented a "Floodplain Overlay Zone" to regulate development in areas designated as Special Flood Hazard Areas. More recently, winter storms in January 2023 caused minor flooding when large swells breached sand berms along the shoreline, leading to temporary closures of beach access points and localized inundation along Ocean Front Alley. These recurring events underscore Del Mar's vulnerability to both fluvial and coastal flooding, driving ongoing adaptation efforts such as sea level rise planning and updated FEMA flood mapping.

## 3.5 Vegetation Communities and Land Cover Types

Vegetation communities and land cover types mapped within the City are listed, with total acreage and percentage of the City's jurisdiction, in Table 2. This list of communities was obtained from the SANGIS database online and is based on Oberbauer et al. (2008). The list is provided in numerical order by macrogroup code, then further broken down numerically by class. General descriptions of these communities follow Table 2 and are taken directly from Oberbauer et al. (2008). A map of vegetation communities and land cover types is included in Attachment A: Figure 5, Vegetation Communities and Land Cover Types.

**TABLE 2. VEGETATION COMMUNITIES AND LAND COVER TYPES**

| Macrogroup | Class | Acres | % of City |
|---|---|---|---|
| 10000 Disturbed or Developed Habitat | 11000 Non-Native Vegetation | 4.1 | 0.36 |
| 10000 Disturbed or Developed Habitat | 11300 Disturbed Habitat | 22.91 | 2.00 |
| 10000 Disturbed or Developed Habitat | 12000 Urban/Developed | 886.47 | 77.50 |
| *10000 Disturbed or Developed Habitat* | *Subtotal* | *913.48* | *79.86* |
| 20000 Dune Community | 21230 Southern Foredunes | 0.33 | 0.03 |
| *20000 Dune Community* | *Subtotal* | *0.33* | *0.03* |
| 30000 Scrub and Chaparral | 31200 Southern Coastal Bluff Scrub | 1.26 | 0.11 |
| 30000 Scrub and Chaparral | 32400 Maritime Succulent Scrub | 6.18 | 0.54 |

**TABLE 2, CONTINUED**

| Macrogroup | Class | Acres | % of City |
|---|---|---|---|
| 30000 Scrub and Chaparral | 32500 Diegan Coastal Sage Scrub | 10.15 | 0.89 |
| 30000 Scrub and Chaparral | 32510 Diegan Coastal Sage Scrub: Coastal form | 0.57 | 0.05 |
| *30000 Scrub and Chaparral* | *Subtotal* | *18.16* | *1.59* |
| 37000 Chaparral | 37120 Southern Mixed Chaparral | 23.96 | 2.09 |
| 37000 Chaparral | 37C30 Southern Maritime Chaparral | 5.33 | 0.47 |
| *37000 Chaparral* | *Subtotal* | *29.29* | *2.56* |
| 40000 Grasslands, Vernal Pools, Meadows, and Other Herb Communities | 42200 Non-Native Grassland | 4.5 | 0.39 |
| *40000 Grasslands, Vernal Pools, Meadows, and Other Herb Communities* | *Subtotal* | *4.5* | *0.39* |
| 50000 Bog and Marsh | 52120 Southern Coastal Salt Marsh | 41.62 | 3.64 |
| 50000 Bog and Marsh | 52410 Coastal and Valley Freshwater Marsh | 1.07 | 0.09 |
| *50000 Bog and Marsh* | *Subtotal* | *42.69* | *3.73* |
| 60000 Riparian and Bottomland Habitat | 61320 Southern Arroyo Willow Riparian Forest | 0.16 | 0.01 |
| 60000 Riparian and Bottomland Habitat | 63000 Riparian Scrubs | 0.57 | 0.05 |
| 60000 Riparian and Bottomland Habitat | 63320 Southern Willow Scrub | 0.18 | 0.02 |
| *60000 Riparian and Bottomland Habitat* | *Subtotal* | *0.91* | *0.08* |
| 64000 Unvegetated Habitat | 64000 Unvegetated Habitat | 13.2 | 1.15 |
| 64000 Unvegetated Habitat | 64100 Open Water | 37.92 | 3.32 |
| 64000 Unvegetated Habitat | 64112 Intertidal | 4.09 | 0.36 |
| 64000 Unvegetated Habitat | 64130 Estuarine | 6.49 | 0.57 |
| 64000 Unvegetated Habitat | 64140 Freshwater | 0.37 | 0.03 |
| 64000 Unvegetated Habitat | 64300 Saltpan/Mudflats | 1.29 | 0.11 |
| 64000 Unvegetated Habitat | 64400 Beach | 59.09 | 5.17 |
| *64000 Unvegetated Habitat* | *Subtotal* | *122.45* | *10.71* |
| 80000 Forest | 83140 Torrey Pine Forest | 12.05 | 1.05 |
| *80000 Forest* | *Subtotal* | *12.05* | *1.05* |
| **All Macrogroups** | **Total** | **1,143.86** | **100%** |

### 3.5.1 Non-Native Vegetation (11000)

These areas are characterized by predominantly non-native species introduced and established through human action. These areas are not typically artificially irrigated but receive water from precipitation or runoff.

### 3.5.2 Disturbed Habitat (11300)

These areas have been physically disturbed (by previous legal human activity) and are no longer recognizable as a native or naturalized vegetation association but continue to retain a soil substrate. Typically, vegetation, if present, is nearly exclusively composed of non-native plant species such as ornamentals or ruderal exotic species that take advantage of disturbance or show signs of past or present animal usage that removes any capability of providing viable natural habitat for uses other than dispersal. Examples of disturbed land include areas that have been graded, repeatedly cleared for fuel management purposes and/or experienced repeated use that prevents natural revegetation (i.e., dirt parking lots, trails that have been present for several decades), recently graded firebreaks, graded construction pads, construction staging areas, off-road vehicle trails, and old homesites.

### 3.5.3 Urban/Developed (12000)

These areas have been constructed upon or otherwise physically altered to an extent that native vegetation is no longer supported. Developed land is characterized by permanent or semi-permanent structures, pavement or hardscape, and landscaped areas that often require irrigation. Areas where no natural land is evident due to a large amount of debris or other materials being placed upon it may also be considered Urban/Developed (e.g., car recycling plant, quarry).

### 3.5.4 Southern Foredunes (21230)

This community is dominated by succulent, perennial herbs and subshrubs and lacks perennial grasses, but has a higher proportion of suffrutescent plants (to 30 centimeters tall). Vegetative coverage varies from nearly complete to scattered. Typical species include red sand verbena (*Abronia maritima*), ragweed (*Ambrosia* spp.), and searocket (*Cakile* spp.) usually occurring in the exposed sites and beach sand verbena (*Abronia umbellata*), morning glory (*Calystegia* spp.), and suncups (*Camissonia* spp.) in less exposed sites. Growth and flowering occur during early to mid-spring.

### 3.5.5 Southern Coastal Bluff Scrub (31200)

This community is characterized as a low scrub up to 2 meters tall, forming continuous mats or more scattered. Dwarf shrubs, herbaceous perennials, and annuals are represented with varying degrees of succulence. Most plants in this community are woody and/or succulent. Characteristic species include saltbush (*Atriplex* spp.), bush sunflower (*Encelia californica*), cliff aster (*Malacothrix saxatilis*), and lemonadeberry (*Rhus integrifolia*). Most growth and flowering occur from late winter through spring.

### 3.5.6 Maritime Succulent Scrub (32400)

This is a low (knee to waist high), open (25%-75% cover) scrub dominated by drought deciduous, subligneous, malacophyllous shrubs with a rich admixture of stem and leaf succulents. The proportion of cacti is highest toward the south or in some inland areas. The ground is more or less bare between the shrubs. Characteristic species include California acalypha (*Acalypha californica*), California sagebrush (*Artemisia californica*), prickly pear (*Opuntia littoralis*), and lemonadeberry. Growth and flowering are concentrated in the spring.

### 3.5.7 Diegan Coastal Sage Scrub (32500)

This vegetation community is characterized as low, soft-woody subshrubs (to about 1 meter high) that are most active in winter and early spring. Many taxa are facultatively drought-deciduous. It is dominated by California sagebrush and California buckwheat (*Eriogonum fasciculatum*) together with laurel sumac (*Malosma laurina*), white sage (*Salvia apiana*), and black sage (*Salvia mellifera*). Stem- and leaf-succulents, while present, are not nearly as conspicuous as in Maritime Succulent Scrub (32400).

### 3.5.8 Diegan Coastal Sage Scrub: Coastal Form (32510)

This community is similar to Diegan Coastal Sage Scrub (32500) but occurs at lower elevations (typically below 1,000 feet).

### 3.5.9 Southern Mixed Chaparral (37120)

This vegetation community contains broad-leaved sclerophyll shrubs, typically between 1.5 and 3 meters tall. It occasionally has patches of bare soil or forms a mosaic with Venturan Coastal Sage Scrub (32300) or Riversidean Sage Scrub (32700). It is divisible into Granitic (37121) and Mafic (37122) subtypes based on substrate, but floristic distinctions between these two subtypes remain unknown. In San Diego County, this community is dominated by blue-colored lilacs, especially Ramona lilac (*Ceanothus tomentosus* var. *olivaceus*) as well as chaparral whitethorn (*C. leucodermis*), and hairy ceanothus (*C. oliganthus*); other *Ceanothus* spp. generally indicate other chaparral types.

### 3.5.10 Southern Maritime Chaparral (37C30)

This is a low, fairly open chaparral dominated by wart-stemmed ceanothus (*Ceanothus verrucosus*) and Del Mar manzanita (*Arctostaphylos glandulosa* ssp. *crassifolia*). It occurs in weathered sands within the coastal fog belt. Fire appears necessary for continued reproduction of many characteristic species.

### 3.5.11 Non-Native Grassland (42200)

This vegetation community contains a dense to sparse cover of annual grasses with flowering culms (i.e., stems) that are 0.2–0.5 (occasionally up to 1.0) meter high. It is often associated with numerous species of showy-flowered, native annual forbs ("wildflowers"), especially in years of favorable rainfall. In San Diego County, the presence of oats (*Avena* spp.), bromes (*Bromus* spp.), filaree (*Erodium* spp.), and mustards (*Brassica* spp.) are common indicators. In some areas, depending on past disturbance and annual rainfall, annual forbs may be the dominant species; however, it is presumed that grasses will soon dominate. Germination occurs with the onset of the late fall rains; growth, flowering, and seed-set occur from winter through spring. With a few exceptions, the plants are dead through the summer-fall dry season, persisting as seeds. Remnant native species are variable. This can include grazed and even dry-farmed (i.e., disked) areas where irrigation is not present.

### 3.5.12 Southern Coastal Salt Marsh (52120)

These are highly productive, herbaceous and suffrutescent, salt-tolerant hydrophytes forming moderate to dense cover and up to 1 meter tall. Most species are active in summer, and dormant in winter. They are usually segregated horizontally with cordgrass (*Spartina* spp.) nearer the open water; Bigelow's pickleweed (*Salicornia bigelovii*), Virginia glasswort (*Salicornia depressa*), and saltwort (*Batis maritima*) at mid-littoral elevations; and a richer mixture closer to high ground such as Frankenia (*Frankenia* spp.), seablite (*Suaeda* spp.), and/or Parish's glasswort (*Arthrocnemum subterminale*), with a higher abundance of suffrutescent species at higher, drier sites.

### 3.5.13 Coastal and Valley Freshwater Marsh (52410)

This community is dominated by perennial, emergent monocots up to 4 to 5 meters tall. It often forms completely closed canopies and typically consists of quiet sites (lacking significant water current) that are permanently flooded by freshwater (rather than brackish, alkaline, or variable water). Prolonged saturation permits accumulation of deep, peaty soils. Characteristic plant species include species of bulrush (*Schoenoplectus* spp.) and cattails (*Typha* spp.)

### 3.5.14 Southern Arroyo Willow Riparian Forest (61320)

These are winter-deciduous riparian forests dominated by moderately tall broad-leafed trees, particularly by arroyo willow (*Salix lasiolepis*), and having closed or nearly closed canopies. Understories usually are shrubby willows. Other species that may occur include mugwort (*Artemisia douglasiana*), mulefat (*Baccharis salicifolia*), western sycamore (*Platanus racemosa*), and cottonwood (*Populus fremontii*). It typically occurs along perennially wet stream reaches.

### 3.5.15 Riparian Scrubs (63000)

This community consists of riparian zones dominated by small trees or shrubs, lacking taller riparian trees. It may encroach into some coastal saltmarsh habitats. This community occurs mostly in major river systems where flood scour occurs, and its distribution has expanded as a result of increased urban and agricultural runoff. Characteristic species include arroyo willow and other willows (*Salix* spp.).

### 3.5.16 Southern Willow Scrub (63320)

This vegetation community is characterized by dense, broad-leafed, winter-deciduous riparian thickets dominated by several *Salix* species including black willow (*S. gooddingii*), arroyo willow, red willow (*S. laevigata*) and others, with scattered emergent cottonwood and western sycamore. Most stands are too dense to allow much understory development.

### 3.5.17 Unvegetated Habitat (64000)

Submerged aquatic communities or terrestrial wetlands with minimal vegetative cover (less than 2 percent cover of herbaceous species and less than 10 percent cover by tree or shrub species). The structure and composition of the substrate (e.g., stream channel, marine versus freshwater) is largely determined by the surrounding environment. It is usually composed of rocky outcroppings, sandy beaches, or mudflats.

### 3.5.18 Open Water (64100)

These areas typically consist of perennial water bodies or areas along the coast that are subject to sandbar presence but are otherwise flowing when sandbars are open. In the City of Del Mar, this includes the San Dieguito River and San Dieguito Lagoon.

### 3.5.19 Intertidal (64112)

The intertidal zone includes the area exposed by low tide up to and including the spray zone. Although often unvegetated, characteristic species may include algae and Scouler's surfgrass (*Phyllospadix scouleri*). These areas are periodically submerged by water, depending on the tides.

### 3.5.20 Estuarine (64130)

Estuarine habitats occur on periodically and permanently flooded substrates and open water portions of semi-enclosed coastal waters where tidal seawater is diluted by flowing fresh water. Salinity and depth

vary dramatically in estuarine habitats, resulting in high species richness but low diversity of phyla. Species composition is generally composed of phytoplankton.

### 3.5.21 Freshwater (64140)

This is composed of year-round bodies of fresh water (extremely low salinity) in the form of lakes, streams, ponds, or rivers. This includes those portions of water bodies that are usually covered by water and contain less than 10 percent vegetative cover.

### 3.5.22 Saltpan/Mudflats (64300)

Mudflats are coastal wetlands that form when mud is deposited by the tides or rivers. They are commonly found in sheltered areas such as bays and estuaries. For a majority of the time, saltpans are expanses of ground covered in salt or other minerals formed from evaporated water. Saltpans generally pool water when it rains, forming mudflats.

### 3.5.23 Beach (64400)

Beaches are sandy and/or cobbly habitat on coastal strands, lagoons, or lakes. Ocean beaches are a shoreline feature of deposited sand formed by waves and tides off the coast. Beaches on lakes may be a result of waves, disturbance, or geological formations. These are mainly unvegetated areas; however, upper portions may be thinly populated with herbaceous species.

### 3.5.24 Torrey Pine Forest (83140)

This is an open to moderately dense forest up to 20 meters tall in sheltered localities, becoming much shorter and wind-pruned in exposed situations; it is dominated by Torrey pine (*Pinus torreyana*). The understory varies from almost nothing on the driest, rockiest sites to fairly dense chaparral on generally rocky soil to an open mixture of grasses and shrubs on better-developed soils. With a dense tree canopy, needles accumulate on the ground, and again, few understory plants occur. Some of the understory plants that do make up this community when present include chamise (*Adenostoma fasciculatum*), California sagebrush, toyon (*Heteromeles arbutifolia*), lemonadeberry, and laurel sumac. Most growth and flowering occur in late winter and spring, with some activity in other months, at least in mesic sites. There are only two naturally occurring stands in San Diego County, the larger of which is in the vicinity of Del Mar and the Torrey Pines State Reserve. This particular stand intergrades with Southern Coastal Bluff Scrub (31200) and Southern Mixed Chaparral (37120).

# 4.0 SPECIAL-STATUS BIOLOGICAL RESOURCES

The special-status plant and wildlife species evaluated in this report inform the PEIR. Final determinations regarding species presence for individual CIP projects will be made through project-specific biological resources technical reports prepared pursuant to the PEIR and applicable regulatory requirements.

The City is characterized by a unique assemblage of vegetation communities and land cover types, plants, wildlife, aquatic resources, and other unique features.

## 4.1 Sensitive Natural Communities

Records of the following sensitive natural communities are reported to occur within the region.

- Maritime Succulent Scrub
- San Diego Mesa Hardpan Vernal Pool
- Southern Coast Live Oak Riparian Forest
- Southern Coastal Salt Marsh
- Southern Cottonwood Willow Riparian Forest
- Southern Maritime Chaparral
- Southern Riparian Forest
- Southern Riparian Scrub
- Southern Sycamore Alder Riparian Woodland
- Southern Willow Scrub
- Torrey Pine Forest
- Valley Needlegrass Grassland

Sensitive natural communities within the boundaries of the City include Southern Coastal Salt Marsh, Southern Maritime Chaparral, Southern Willow Scrub, and Torrey Pine Forest (Attachment A, Figure 5). Southern Coastal Salt Marsh (41.62 acres) is primarily associated with the San Dieguito Lagoon; Southern Maritime Chaparral (5.33 acres) is associated with the Torrey Pines State Natural Reserve Extension and Crest Canyon Open Space Park; Southern Willow Scrub (0.18 acres) is mapped along a tributary to the San Dieguito River; and Torrey Pine Forest (12.05 acres) is mapped in patches on the hillside south of San Dieguito Drive. The remaining sensitive natural communities listed above do not occur within City limits.

## 4.2 Special-Status Plants

Based on the results of the literature review and records search, a total of 107 special-status plant species were evaluated for their potential to occur within the City (Attachment B). Of these, 15 special-status plants are expected to occur due to the presence of known locations within the City. Table 3 lists these species alphabetically by scientific name, along with the habitat type(s) or general location of where they have been documented within the City limits.

**TABLE 3. SPECIAL-STATUS PLANTS EXPECTED TO OCCUR WITHIN THE CITY OF DEL MAR**

| Scientific Name | Common Name | Habitat Type or Location |
|---|---|---|
| *Abronia maritima* | red sand-verbena | San Dieguito Lagoon<br>Coastal Bluffs |
| *Adolphia californica* | California adolphia | San Dieguito Lagoon<br>Coastal Scrub |
| *Arctostaphylos glandulosa* ssp. *crassifolia* | Del Mar manzanita | Torrey Pines State Natural Reserve Extension<br>Crest Canyon Open Space Park<br>Chapparal |
| *Bahiopsis laciniata* | San Diego County viguiera | San Dieguito Lagoon Ecological Reserve |
| *Ceanothus verrucosus* | wart-stemmed ceanothus | Torrey Pines State Natural Reserve Extension<br>Crest Canyon Open Space Park |
| *Centromadia parryi* ssp. *australis* | southern tarplant | San Dieguito Lagoon Ecological Reserve |
| *Chaenactis glabriuscula* var. *orcuttiana* | Orcutt's pincushion | Del Mar Canyon Preserve<br>Torrey Pine State Natural Reserve |
| *Chorizanthe orcuttiana* | Orcutt's spineflower | Crest Canyon Open Space Park<br>Torrey Pines State Natural Reserve Extension |
| *Corethrogyne filaginifolia* var. *linifolia* | Del Mar Mesa sand aster | Crest Canyon Open Space Park<br>Del Mar Canyon Preserve<br>Torrey Pines State Natural Reserve Extension |
| *Leptosyne maritima* | sea dahlia | Coastal Bluffs<br>Crest Canyon Open Space Park<br>Torrey Pines State Natural Reserve Extension |
| *Lycium californicum* | California box-thorn | Coastal Bluffs |
| *Phacelia ramosissima* var. *austrolitoralis* | south coast branching phacelia | Crest Canyon Open Space Park<br>San Dieguito Lagoon<br>Torrey Pines State Natural Reserve Extension |
| *Pinus torreyana* ssp. *torreyana* | Torrey pine | Crest Canyon Open Space Park<br>Del Mar Canyon Preserve<br>Torrey Pines State Natural Reserve Extension |
| *Suaeda esteroa* | estuary seablite | San Dieguito Lagoon |
| *Suaeda taxifolia* | woolly seablite | San Dieguito Lagoon |

Of the 107 special-status plant species assessed, 46 have a moderate potential to occur due to the presence of nearby known locations and potentially suitable habitat within the City. There are no known records of these species within the City. Table 4 lists these species alphabetically by scientific name, along with the habitat type(s) or general location of where potentially suitable habitat occurs.

**TABLE 4. SPECIAL-STATUS PLANTS WITH A MODERATE POTENTIAL TO OCCUR WITHIN THE CITY OF DEL MAR**

| Scientific Name | Common Name | Habitat Type or Location |
|---|---|---|
| *Acmispon prostratus* | Nuttall's acmispon | Coastal Bluffs<br>Coastal Scrub |
| *Agave shawii* var. *shawii* | Shaw's agave | Coastal Bluffs<br>Coastal Scrub |
| *Ambrosia monogyra* | singlewhorl burrobrush | Chaparral |
| *Ambrosia pumila* | San Diego ambrosia | Chaparral<br>Coastal Scrub |
| *Aphanisma blitoides* | aphanisma | Coastal Bluffs<br>Coastal Scrub |
| *Aphyllon parishii* ssp. *brachylobum* | short-lobed broomrape | Coastal Bluffs<br>Coastal Scrub |
| *Artemisia palmeri* | San Diego sagewort | Chaparral<br>Coastal Scrub |
| *Atriplex coulteri* | Coulter's saltbush | Coastal Bluffs<br>Coastal Scrub |
| *Atriplex pacifica* | south coast saltscale | Coastal Bluffs<br>Coastal Scrub |
| *Baccharis vanessae* | Encinitas baccharis | Chaparral<br>Crest Canyon Open Space Park |
| *Berberis nevinii* | Nevin's barberry | Chaparral<br>Coastal Scrub |
| *Bergerocactus emoryi* | golden-spined cereus | Chaparral<br>Coastal Scrub |
| *Calandrinia breweri* | Brewer's calandrinia | Chaparral<br>Coastal Scrub |
| *Camissoniopsis lewisii* | Lewis' evening-primrose | Coastal Bluffs<br>Coastal Scrub<br>San Dieguito Lagoon<br>Torrey Pines State Natural Reserve Extension |
| *Chloropyron maritimum* ssp. *maritimum* | salt marsh bird's-beak | Coastal Bluffs<br>San Dieguito Lagoon |
| *Cistanthe maritima* | seaside cistanthe | Coastal Bluffs<br>Coastal Scrub |
| *Comarostaphylis diversifolia* ssp. *Diversifolia* | summer holly | Chaparral<br>Crest Canyon Open Space Park |
| *Corethrogyne filaginifolia* var. *incana* | San Diego sand aster | Chaparral<br>Coastal Bluffs<br>Coastal Scrub<br>Crest Canyon Open Space Park |

**TABLE 4, CONTINUED**

| Scientific Name | Common Name | Habitat Type or Location |
|---|---|---|
| *Cylindropuntia californica* var. *californica* | snake cholla | Chaparral<br>Coastal Scrub |
| *Dichondra occidentalis* | western dichondra | Chaparral<br>Coastal Scrub |
| *Dudleya brevifolia* | short-leaved dudleya | Chaparral<br>Coastal Scrub<br>Crest Canyon Open Space Park<br>Torrey Pines State Natural Reserve Extension |
| *Ericameria palmeri* var. *palmeri* | Palmer's goldenbush | Chaparral<br>Coastal Scrub<br>Crest Canyon Open Space Park<br>Torrey Pines State Natural Reserve Extension |
| *Erysimum ammophilum* | sand-loving wallflower | Chaparral<br>Coastal Scrub<br>Crest Canyon Open Space Park<br>Torrey Pines State Natural Reserve Extension |
| *Euphorbia misera* | cliff spurge | Coastal Bluffs<br>Coastal Scrub |
| *Ferocactus viridescens* | San Diego barrel cactus | Chaparral<br>Coastal Scrub<br>Crest Canyon Open Space Park<br>Torrey Pines State Natural Reserve Extension |
| *Geothallus tuberosus* | Campbell's liverwort | Coastal Scrub<br>Crest Canyon Open Space Park |
| *Heterotheca sessiliflora* ssp. *sessiliflora* | beach goldenaster | Chaparral<br>Coastal Scrub<br>Crest Canyon Open Space Park<br>Torrey Pines State Natural Reserve Extension |
| *Holocarpha virgata* ssp. *elongata* | graceful tarplant | Chaparral<br>Coastal Scrub |
| *Isocoma menziesii* var. *decumbens* | decumbent goldenbush | Chaparral<br>Coastal Scrub |
| *Iva hayesiana* | San Diego marsh-elder | San Dieguito River and Lagoon |
| *Juglans californica* | Southern California black walnut | Chaparral<br>Coastal Scrub |
| *Juncus acutus* ssp. *leopoldii* | southwestern spiny rush | Coastal Scrub |
| *Lasthenia glabrata* ssp. *coulteri* | Coulter's goldfields | San Dieguito Lagoon |
| *Lepidium virginicum* var. *robinsonii* | Robinson's pepper-grass | Chaparral<br>Coastal Scrub |

**TABLE 4, CONTINUED**

| Scientific Name | Common Name | Habitat Type or Location |
|---|---|---|
| *Microseris douglasii* ssp. *platycarpha* | small-flowered microseris | Coastal Scrub |
| *Monardella viminea* | willowy monardella | Chaparral<br>Coastal Scrub |
| *Nemacaulis denudata* var. *denudata* | coast woolly-heads | San Dieguito Lagoon |
| *Pentachaeta aurea* ssp. *aurea* | golden-rayed pentachaeta | Chaparral<br>Coastal Scrub |
| *Phacelia stellaris* | Brand's star phacelia | Coastal Scrub |
| *Piperia cooperi* | chaparral rein orchid | Chaparral |
| *Quercus dumosa* | Nuttall's scrub oak | Chaparral<br>Coastal Scrub |
| *Quercus engelmannii* | Engelmann oak | Chaparral |
| *Selaginella cinerascens* | ashy spike-moss | Chaparral<br>Coastal Scrub |
| *Senecio aphanactis* | chaparral ragwort | Chaparral<br>Coastal Scrub |
| *Sphaerocarpos drewiae* | bottle liverwort | Chaparral<br>Coastal Scrub<br>Crest Canyon Open Space Park |
| *Stipa diegoensis* | San Diego County needle grass | Chaparral<br>Coastal Scrub |

The remaining 46 species are not expected to occur due to the lack of suitable habitat, the City's location outside of the species' known range, and/or the historical rank of known records in the region.

No USFWS designated critical habitat for any listed plant species is mapped within the City.

## 4.3 Special-Status Wildlife

Based on the results of the literature review and records search, a total of 52 special-status wildlife species were evaluated for their potential to occur within the City (Attachment B). Of these, 15 species are expected to occur due to the presence of suitable habitat or documented locations within the City. Table 5 lists these species alphabetically by scientific name within their taxonomic groups, along with the habitat type(s) or general location of where they have been documented within the City limits.

**TABLE 5. SPECIAL-STATUS WILDLIFE EXPECTED TO OCCUR WITHIN THE CITY OF DEL MAR**

| Class | Scientific Name | Common Name | Habitat Type or Location |
|---|---|---|---|
| Invertebrate | *Danaus plexippus plexippus* | monarch - California overwintering population | Migrating individuals throughout developed and undeveloped portions of the City where there are floral resources<br>Overwintering-tree groves along eastern City boundary |
| Amphibian | *Spea hammondii* | western spadefoot | Coastal Scrub |
| Reptile | *Aspidoscelis hyperythra* | orange-throated whiptail | Chapparal<br>Coastal Scrub |
| Reptile | *Aspidoscelis tigris stejnegeri* | coastal whiptail | Chapparal |
| Bird | *Charadrius alexandrinus nivosus* | western snowy plover | San Dieguito Lagoon |
| Bird | *Elanus leucurus* | white-tailed kite | San Dieguito Lagoon |
| Bird | *Icteria virens* | yellow-breasted chat | San Dieguito Lagoon |
| Bird | *Passerculus sandwichensis beldingi* | Belding's savannah sparrow | San Dieguito Lagoon |
| Bird | *Polioptila californica californica* | coastal California gnatcatcher | Coastal Bluffs<br>Coastal Scrub |
| Bird | *Rallus obsoletus levipes* | light-footed Ridgway's rail | San Dieguito Lagoon |
| Bird | *Setophaga petechia* | yellow warbler | San Dieguito Lagoon |
| Bird | *Sternula antillarum browni* | California least tern | San Dieguito Lagoon |
| Mammal | *Chaetodipus fallax fallax* | northwestern San Diego pocket mouse | Chaparral<br>Coastal Scrub |
| Mammal | *Neotoma lepida intermedia* | San Diego desert woodrat | Coastal Scrub |
| Mammal | *Nyctinomops femorosaccus* | pocketed free-tailed bat | Bridge |

Of the 52 special-status wildlife species assessed, 14 have a moderate potential to occur due to the presence of nearby known locations and potentially suitable habitat within the City. There are no known records of these species within the City. Table 6 lists these species alphabetically by scientific name within their taxonomic group, along with the habitat type(s) or general location of where potentially suitable habitat occurs.

**TABLE 6. SPECIAL-STATUS WILDLIFE WITH A MODERATE POTENTIAL TO OCCUR WITHIN THE CITY OF DEL MAR**

| Class | Scientific Name | Common Name | Habitat Type or Location |
|---|---|---|---|
| Invertebrate | *Bombus crotchii* | Crotch's bumble bee | Throughout developed and undeveloped portions of the City where floral resources occur |
| Reptile | *Anniella stebbinsi* | southern California legless lizard | Chaparral<br>Coastal Scrub<br>Crest Canyon Open Space Park<br>Torrey Pines State Natural Reserve Extension |
| Reptile | *Crotalus ruber* | red-diamond rattlesnake | Chaparral |
| Reptile | *Diadophis punctatus similis* | San Diego ringneck snake | Chaparral<br>Torrey Pines State Natural Reserve Extension |
| Reptile | *Phrynosoma blainvillii* | coast horned lizard | Chaparral<br>Coastal Bluffs<br>Coastal Scrub<br>Torrey Pines State Natural Reserve Extension |
| Reptile | *Plestiodon skiltonianus interparietalis* | Coronado skink | Chaparral<br>Torrey Pines State Natural Reserve Extension |
| Bird | *Agelaius tricolor* | tricolored blackbird | San Dieguito River and Lagoon |
| Mammal | *Antrozous pallidus* | pallid bat | San Dieguito Lagoon |
| Mammal | *Chaetodipus californicus femoralis* | Dulzura pocket mouse | Chaparral<br>Coastal Scrub |
| Mammal | *Corynorhinus townsendii* | Townsend's big-eared bat | Chaparral |
| Mammal | *Euderma maculatum* | spotted bat | San Dieguito Lagoon |
| Mammal | *Eumops perotis californicus* | western mastiff bat | Chaparral<br>Coastal scrub |
| Mammal | *Myotis yumanensis* | Yuma myotis | San Dieguito Lagoon |
| Mammal | *Nyctinomops macrotis* | big free-tailed bat | San Dieguito Lagoon |

The remaining 23 species are not expected to occur due to the lack of suitable habitat or the City's location outside of the species known range.

Critical habitat for western snowy plover occurs in the northern portion of the City of Del Mar within the San Dieguito Lagoon, as described in more detail in the following section.

## 4.4 Critical Habitat

Under the ESA, Critical Habitat may be established for species listed as threatened or endangered. Critical Habitat refers to specific areas within the geographical range of a species that were occupied at the time it was listed that contain the physical or biological features that are essential to the survival and eventual recovery of that species and that may require special management considerations or protection, regardless of whether the species is still extant in the area. Areas that were not known to be occupied at the time a species was listed can also be designated Critical Habitat if they contain one or more of the physical or biological features that are essential to that species' conservation and if the other areas that are occupied are inadequate to ensure the species' recovery.

In the event that a project may result in take or adverse modification to a listed species' designated Critical Habitat, a project proponent may be required to engage in suitable mitigation. However, consultation for impacts to Critical Habitat is only required when a project has a federal nexus. This may include projects that occur on federal lands, require federal permits (e.g., CWA Section 404 permit), or receive any federal oversight or funding. If there is a federal nexus, then the federal agency that is responsible for providing funds or permits would be required to consult with the USFWS under the ESA.

Critical habitat for western snowy plover (*Charadrius nivosus nivosus*; WSP) Subunit CA 52A is located at the west end of San Dieguito River Park in the City of Del Mar (USFWS 2012; Attachment A: Figure 6, Critical Habitat and Essential Fish Habitat). This 4-acre subunit is currently occupied and is on private property. This subunit is a nest site that was created for nesting seabirds and shorebirds including WSP and California least tern (*Sternula antillarum browni*). The Recovery Plan for the Pacific Coast WSP recognizes the San Dieguito Lagoon as an important coastal wetland that provides valuable nesting, wintering, and foraging habitat, contributing to the species' overall recovery by enhancing habitat connectivity and seasonal resource availability. The recovery plan emphasizes the need for ongoing habitat protection, restoration, and monitoring at sites like the San Dieguito Lagoon to mitigate urban pressures and maintain ecological functions critical to plover conservation (USFWS 2007). This subunit also facilitates interchange between wintering locations. This subunit contains the physical or biological features essential to the conservation of the species, including wide sandy beaches and tidally influenced estuarine mud flats with tide-cast organic debris supporting small invertebrates. It should be noted that two other subunits (CA 52B and CA 52C) were ultimately excluded from the final critical habitat designation because they are located on non-federal lands that receive coverage from the City of San Diego Subarea Plan under the MSCP, whereas Subunit CA 52A is not located within the boundaries of this subarea plan and thus does not receive MSCP coverage.

## 4.5 Essential Fish Habitat

The coastal waters offshore of the City are designated as EFH under the Magnuson-Stevens Fishery Conservation and Management Act for several federally managed fisheries, including coastal pelagic species, finfish, groundfish, and krill. EFH in this region encompasses nearshore marine habitats, the mouth of the San Dieguito Lagoon, and adjacent estuarine habitats (Attachment A: Figure 6). These areas provide the waters and substrate necessary for fish spawning, breeding, feeding, and growth to maturity, supporting species such as rockfish, cabezon, California sheephead, ocean whitefish, and greenlings, as well as anchovy, sardine, mackerel, and various migratory sharks and tunas.

Within the Del Mar area, Habitat Areas of Particular Concern are recognized for their high ecological value. These include offshore areas that are especially important for juvenile and adult life stages of groundfish and other marine species. The interface between the San Dieguito Lagoon and the Pacific Ocean is particularly notable, functioning as a nursery and foraging area for estuarine-dependent fish and invertebrates, and contributing to the productivity of nearshore fisheries.

## 4.6 Wetlands and Other Aquatic Resources

A variety of aquatic resource types occur within the City. The most prominent of these is the Pacific Ocean along the western boundary and the San Dieguito Lagoon and Floodplain system in the northern portion of the City (Attachment A: Figure 7, Aquatic Resources). The San Dieguito Lagoon contains diverse wetland types including tidal salt marshes, distinguished by salt-tolerant vegetation, that undergo tidal changes and are home to various fish, invertebrate, and bird species. Brackish marshes and mudflats create transitional zones between saltwater and freshwater, supporting unique plant communities and offering foraging habitat for shorebirds. Freshwater marshes and seeps occur in low-lying regions and riparian corridors, with emergent vegetation that provides shelter for amphibians. Riparian woodland and scrub line streams and rivers, giving cover, nesting sites, and food resources to wildlife while contributing to water filtration and stabilization of riverbanks. Open water features, such as lagoon channels, river mouths, ponds, and the nearshore ocean environment, foster aquatic life and serve as stopover points for migratory birds. Altogether, these wetlands make up an ecological system that sustains a rich variety of plant and animal life, enables wildlife movement, and promotes water quality, flood management, and scenic value.

## 4.7 Wildlife Corridors and Habitat Linkages

The concept of wildlife corridors and habitat linkages addresses the connection between large blocks of habitat that allow the safe movement of mammals and other wildlife species between habitat areas. The definition of a corridor varies; however, corridors may include areas such as greenbelts, refuge systems, underpasses, and biogeographic land bridges. In general, a corridor is described as a linear habitat, embedded in a dissimilar matrix, which connects two or more large blocks of habitat. Wildlife movement corridors are critical for the survivorship of ecological systems for several reasons. Corridors can connect water, food, and cover sources, spatially linking these three resources with wildlife in different areas. In addition, wildlife movement between habitat areas provides for the potential of genetic exchange between wildlife species populations, thereby maintaining genetic variability and adaptability to maximize the success of wildlife responses to changing environmental conditions. This is especially critical for small populations subject to loss of variability from genetic drift and effects of inbreeding. The nature of corridor use and wildlife movement patterns varies greatly among species.

Wildlife movement and habitat connectivity are critical for maintaining viable populations of native species, allowing for gene flow, dispersal, foraging, and adaptation to environmental changes. The City is situated within the highly urbanized coastal corridor of northwestern San Diego County, an area recognized as a biodiversity hotspot with a variety of habitat types, including coastal bluffs, wetlands, riparian corridors, and upland scrub. Despite its small size and largely built-out character, the City is surrounded by natural landforms and resources, including the Pacific Ocean to the west, the San Dieguito Lagoon and Crest Canyon to the north and east, and the Los Peñasquitos Lagoon to the south. These features, along with the City's steep slopes and canyons, provide wildlife movement opportunities for a variety of species (Attachment A: Figure 8, Wildlife Corridors).

The San Dieguito Lagoon and River Valley provide an east-west wildlife corridor in the northern portion of the City, connecting inland habitats to the coast. This corridor supports a diversity of aquatic and terrestrial species, including migratory birds, amphibians, reptiles, and mammals. The lagoon's wetlands and adjacent uplands are recognized as important habitat for both resident and migratory wildlife. Los Peñasquitos Lagoon and its uplands also provide an east-west movement corridor connecting inland habitats to the coast just south of the City. Crest Canyon serves as a north-south linkage, providing a natural drainage feature and travel route for terrestrial wildlife between the lagoon and upland habitats. Lastly, coastal bluffs and beaches within the City, while steep and fragmented by development and infrastructure (notably the railroad corridor), provide movement opportunities for species endemic to these habitat types and also serve as stopover points for migratory birds. A review of the California Wildlife Crossing Database does not show any wildlife crossings within the City. The nearest mapped crossings are approximately 6.5 miles east under State Route 56 and 8.6 miles east under Interstate 15 (Wildlands Network, n.d.).

# 5.0 ENVIRONMENTAL PROTOCOLS AND PROTECTIONS

This section describes the environmental protocols and protections for biological resources that must be considered to ensure that all CIP projects are evaluated for potential impacts to biological resources, consistent with CEQA, the City's LCP, and municipal ordinances.

This information is intended to be used within the PEIR impact analyses and future project-specific evaluations. The protocols described below are a framework for avoidance, minimization, monitoring, and mitigation of biological resource impacts and guide project-specific environmental review conducted pursuant to the PEIR.

## 5.1 Summary of Biological Resource Protections

Table 7 summarizes key environmental protections for biological resources that primarily align with the significance thresholds for biological resources provided in the CEQA Guidelines Appendix G environmental checklist. The table also includes specific overlays, ordinances, and review protocols relevant to project compliance and environmental review within the City. The specific overlay zones that incorporate biological resource protections are illustrated in Attachment A, Figure 9, Local Coastal Program/Land Use Plan/Overlay Zones.

**TABLE 7. BIOLOGICAL RESOURCE PROTECTIONS**

| Resource | Summary | Source |
|---|---|---|
| Special-Status Species | Any plant or wildlife 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 US Fish and Wildlife Service. | CEQA Guidelines Appendix G, Section IV(a) |
| Riparian and Sensitive Natural Communities | 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. Also includes Environmentally Sensitive Habitat Areas. | CEQA Guidelines Appendix G, Section IV(b); LCP, Policy VI-1 through VI-5 |
| State and Federal Wetlands | Any state or federally protected wetlands (including marsh, vernal pool, coastal, etc.). | CEQA Guidelines Appendix G, Section IV(c) |
| Wildlife Movement/Corridors | Any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or native wildlife nursery sites. | CEQA Guidelines Appendix G, Section IV(d) |
| Local Policies/Ordinances | Any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance, such as the below: | CEQA Guidelines Appendix G, Section IV(e) |
| Local Policies/Ordinances | Open Space Overlay Zone: Designated areas with sensitive biological resources. Trees and vegetation in this zone are subject to stricter protections. Development proposals must demonstrate avoidance or mitigation of impacts. | DMMC §23.50 |
| Local Policies/Ordinances | Bluff, Slope, and Canyon Overlay Zone: Restricts development in areas with steep slopes, bluffs, and canyons to protect sensitive | Del Mar SB 9 Ordinance Report |

**TABLE 7, CONTINUED**

| Resource | Summary | Source |
|---|---|---|
| | habitats and prevent erosion. Projects require additional environmental review and may be excluded from SB 9 eligibility. | |
| Local Policies/Ordinances | Lagoon Overlay Zone: Designated areas with sensitive wetland and adjacent upland habitat to the Los Peñasquitos Lagoon and San Dieguito Lagoon. Requires all development activities conform to the wetland preservation regulations of the Land Use Plan. | DMMC §30.53 |
| Local Policies/Ordinances | Coastal Zone (LCP Jurisdiction): State-defined area along California's coastline that includes both land and water, extending inland generally 1,000 yards from the mean high tide line. | LCP |
| Local Policies/Ordinances | Tree Protection Ordinance (DMMC §23.50): Protects specific tree species including Torrey pine and Monterey cypress, as well as trees in the Open Space (OS) Overlay Zone, Central Commercial (CC) Zone, and public rights-of-way. Removal requires a Tree Removal Permit and Certified Arborist Report. | Del Mar Tree Ordinance Guide |
| Habitat Conservation Plan Area | Adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan. | CEQA Guidelines Appendix G, Section IV(f) |

# 5.2 Biological Resources Sensitivity Zones

A biological resources sensitivity zone map (Attachment A: Figure 10, Biological Resources Sensitivity Zones) was developed as an effective tool for identifying areas that have potential resources that require protection. In general, sensitivity maps have the following broad characteristics:

- They are used to identify ecological communities sensitive to a specific influence or activity.
- They inform strategic planning decisions during the initial site selection phase of the development process at a landscape scale.
- They use GIS to collate, analyze, and display spatial and geographic data.
- They employ spatial biodiversity data relating to species and/or sites to display overlapping resources.

The biological resources sensitivity zone map is intended to guide the initial screening of CIP projects for potential biological resource concerns, and is based on regulatory status, ecological rarity, and potential for sensitive resources. While the map provides a landscape-scale overview, it does not replace the need for site-specific biological assessments, which may be required for individual projects depending on their location and scope.

## 5.2.1 High Sensitivity Zone

These areas contain the highest concentration of sensitive biological resources, such as wetlands, riparian habitats, rare vegetation communities, designated ESHAs, and known occurrences of special-status species. High Sensitivity Zones often overlap with regulatory overlays (e.g., Lagoon Overlay Zone,

Bluff/Slope/Canyon Overlay Zone) and may include critical habitat, wildlife corridors, or protected tree species.

- **Project Review**: Projects within High Sensitivity Zones require the most rigorous biological review, which could include detailed site-specific surveys, early coordination with regulatory agencies, and robust avoidance and mitigation measures.
- **Standard Measures**: Enhanced protocols for habitat protection, species surveys, and mitigation are typically required.

### 5.2.2 Moderate Sensitivity Zone

The Moderate Sensitivity Zone is mapped as a 100-foot buffer surrounding the High Sensitivity Zone. Its primary purpose is to provide an added layer of protection for the most sensitive biological resources by minimizing indirect impacts from adjacent development or activities. This buffer helps to maintain ecological integrity, reduce edge effects, and support habitat connectivity adjacent to high-value areas.

- **Project Review**: Projects within the Moderate Sensitivity Zone require focused biological review to ensure that activities do not adversely affect the adjacent High Sensitivity Zone.
- **Standard Measures**: Construction best management practices (BMPs), seasonal restrictions, and targeted surveys for species that may utilize buffer areas. Avoidance and minimization measures are prioritized, and mitigation requirements may be tailored to address potential indirect impacts to the High Sensitivity Zone.

### 5.2.3 Low Sensitivity Zone

The Low Sensitivity Zone is generally characterized by developed or disturbed areas with limited biological resource value, such as urbanized parcels, maintained landscapes, or areas lacking native vegetation. Due to the presence of the Moderate Sensitivity Zone buffer, these areas are not expected to overlap with High Sensitivity Zones. While these areas generally have limited habitat value, they may still contain biological resources that could support nesting birds and listed species that may occur in developed areas (e.g., monarch or Crotch's bumble bee).

- **Project Review**: Projects in Low Sensitivity Zones require basic biological screening to confirm the absence of sensitive resources and to identify any features (e.g., trees, landscaping) that may provide habitat for protected species.
- **Standard Measures**: Standard BMPs and compliance with municipal ordinances (e.g., tree protection, nesting bird surveys) are typically sufficient, but additional measures may be required if protected resources are identified during project-specific review.

The Biological Resources Sensitivity Zones map is intended to serve as an early planning tool for CIP projects, helping to identify areas where biological resources may require special consideration. While the map provides valuable guidance for initial project siting and review, it does not replace the need for site-specific biological assessments, which remain essential for confirming the presence and extent (or absence) of sensitive resources. The level of biological review, avoidance, and mitigation measures required for a given project will be determined by the sensitivity zone in which it is located, with the most stringent requirements applied to projects in High Sensitivity Zones and progressively less intensive measures in Moderate and Low Sensitivity Zones.

To further support the application of the Biological Resources Sensitivity Zones map, Table 8 provides a summary of key requirements, survey needs, and avoidance/minimization or mitigation actions associated with common project locations and resource triggers within the City of Del Mar. This matrix outlines how overlay zones, ordinances, and local policies interact with the sensitivity zones to determine the level of biological review and regulatory compliance required for CIP projects. For example, projects located within High Sensitivity Zones or designated overlay areas—such as the Open Space, Lagoon, or Bluff/Slope/Canyon Overlay Zones—will likely be subject to more rigorous assessment and mitigation requirements, including field surveys, avoidance measures, and possibly agency consultation. In contrast, projects in Moderate or Low Sensitivity Zones may require less intensive review, focusing on desktop assessments and standard BMPs. The evaluation matrix is intended to guide the City in identifying the appropriate protocols and protections for each CIP project, ensuring that biological resources are adequately considered throughout the planning and environmental review process. As impacts and mitigation are addressed programmatically in the PEIR, this technical report and accompanying matrix provide the foundational background for future project-specific evaluations and compliance with applicable environmental regulations.

**TABLE 8. BIOLOGICAL RESOURCE EVALUATION MATRIX**

| Project Location/ Resource Trigger | Overlay Zone or Ordinance | Key Requirements/Actions | Survey/Assessment Required? | Mitigation/Permit Needed? |
|---|---|---|---|---|
| All projects (citywide) | CEQA, Screening Process | Initial desktop review; biological Resources Sensitivity Zone check; overlay zone check; determine need for field surveys and technical review | Desktop assessment; field survey if indicated | Yes, if significant impacts identified |
| Within High or Moderate Sensitivity Zone | Community Plan, LCP | Avoid/minimize impacts; consult with resource agencies; implement mitigation as needed | Biological resources technical report; focused survey or preconstruction survey if special-status species likely | Yes, if impacts cannot be avoided; agency consultation |
| Within Open Space | Open Space Overlay Zone (DMMC §30.60) | Demonstrate avoidance and minimization of impacts; limit uses to those compatible with conservation | Biological resource desktop assessment; field survey if special-status species likely | Yes, if impacts cannot be avoided; mitigation plan required |
| Within/adjacent to San Dieguito Lagoon | Lagoon Overlay Zone (DMMC §30.53), Floodway Zone (DMMC §30.29) | Avoid impacts to wetlands, riparian, and sensitive upland habitats; comply with BMPs; maintain natural hydrology | Wetland delineation; special-status species survey | Yes; may require mitigation and/or Coastal Development Permit |
| On or near bluffs, steep slopes, or canyons | Bluff, Slope, and Canyon Overlay Zone (DMMC §30.52) | Restrict grading/vegetation removal; require slope stabilization with native plants; avoid erosion | Slope stability assessment; vegetation survey | Yes, if disturbance exceeds thresholds; mitigation plan required |
| Removal or alteration of significant trees | Tree Protection Ordinance (DMMC §23.50) | Arborist report required; permit for removal of Torrey pine, Monterey cypress, or trees in protected zones | Tree impact assessment by Certified Arborist | Yes, permit required; replacement planting/mitigation |
| Within ESHA | Local Coastal Program (LCP) | Demonstrate consistency with LCP policies; may require Coastal Development Permit | Biological resource assessment; consistency analysis | Yes, if impacts cannot be avoided; mitigation plan required |

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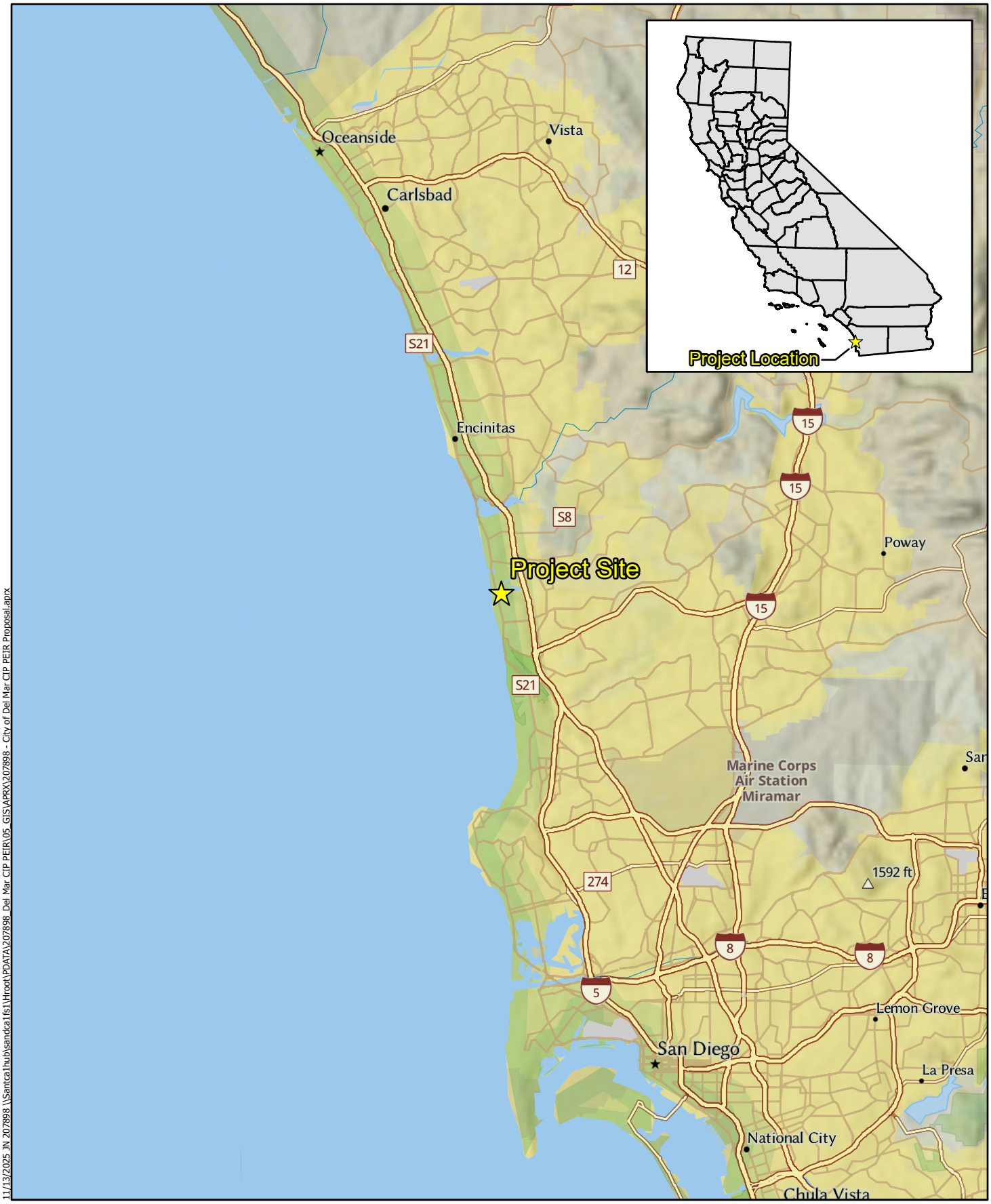
# ATTACHMENT A
# FIGURES

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CITY OF DEL MAR CIP STREAMLINING PROJECT
BIOLOGICAL RESOURCES TECHNICAL REPORT

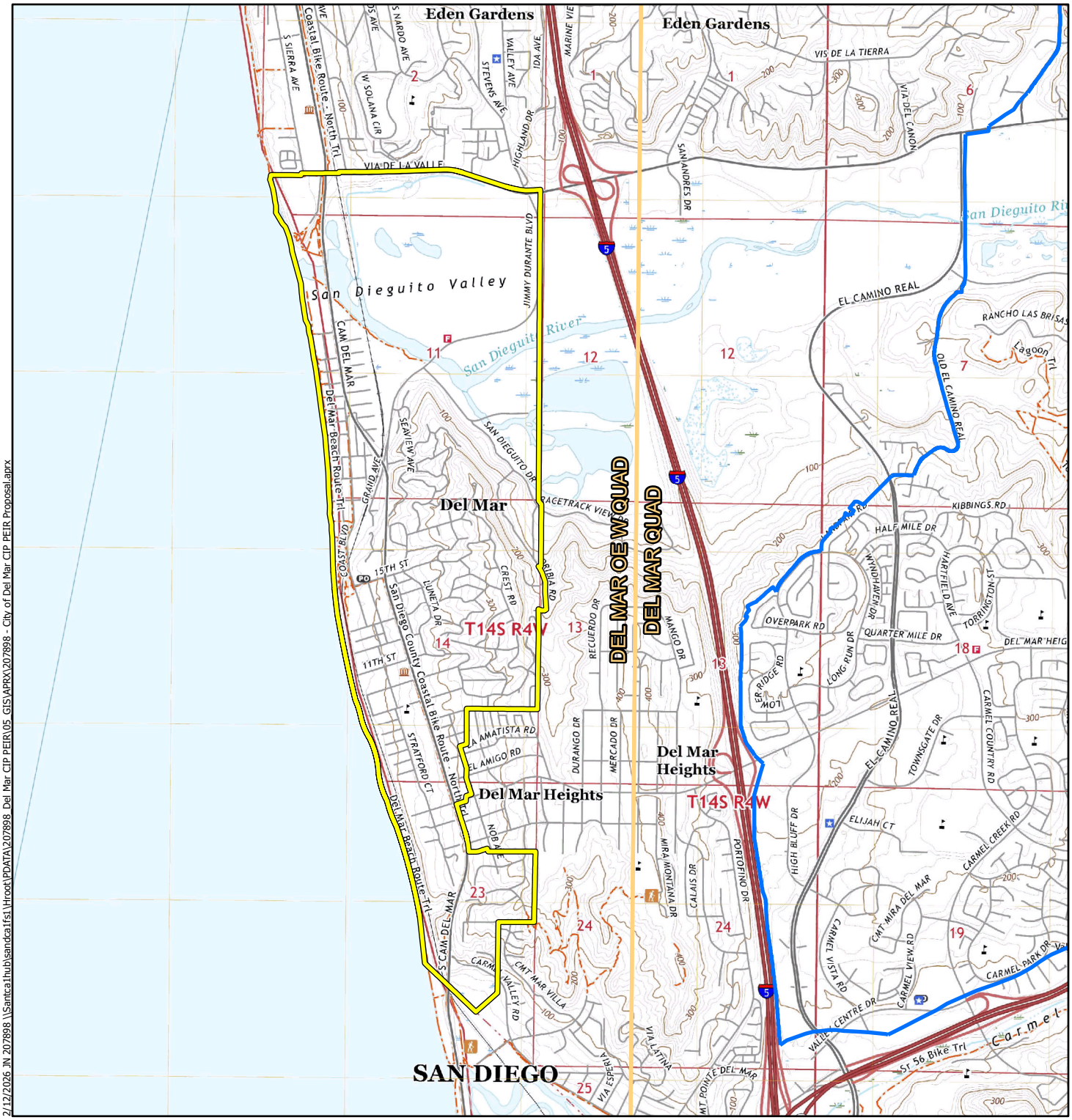
# Regional Location Map

Michael Baker INTERNATIONAL

0 2.5 5 Miles

Source: Esri, ArcGIS Online, USGS, San Diego County

Figure 1

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**Legend**

- Coastal Zone Boundary
- Project Site

Michael Baker INTERNATIONAL

0 0.25 0.5 Miles

Source: California Coastal Commission, USGS 7.5-Minute topographic quadrangle maps: *Del Mar OE W and Del Mar, California (2021)*

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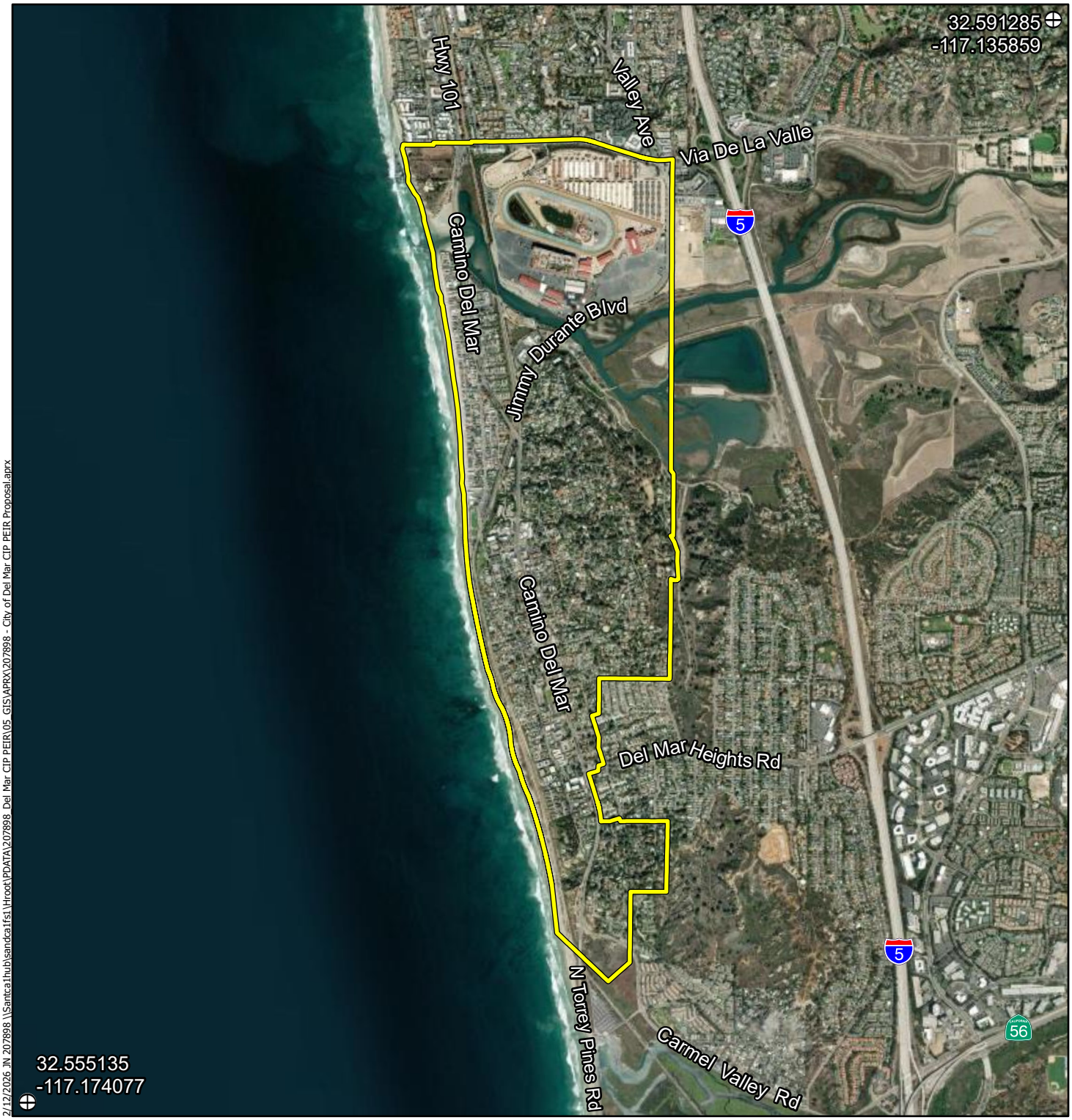
# Project Vicinity Map

Figure 2

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**Legend**

- Reference Point
- Project Site

Michael Baker INTERNATIONAL

0 0.25 0.5 Miles

Source: Esri, ArcGIS Online, City of Del Mar, San Diego County

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# Project Location Map

Figure 3




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## Legend

- Reference Point
- Project Site

**USDA Soils**

- CbC — Carlsbad gravelly loamy sand, 5 to 9 percent slopes
- CcC — Carlsbad-Urban land complex, 2 to 9 percent slopes
- Cr — Coastal beaches
- CsC — Corralitos loamy sand, 5 to 9 percent slopes
- CsD — Corralitos loamy sand, 9 to 15 percent slopes
- HrC — Huerhuero loam, 2 to 9 percent slopes
- HuC — Huerhuero-Urban land complex, 2 to 9 percent slopes
- LG-W — Lagoon water
- LvF3 — Loamy alluvial land-Huerhuero complex, 9 to 50 percent slopes, severely eroded
- Md — Made land
- MIC — Marina loamy coarse sand, 2 to 9 percent slopes
- MIE — Marina loamy coarse sand, 9 to 30 percent slopes
- TeF — Terrace escarpments
- Tf — Tidal flats
- TuB — Tujunga sand, 0 to 5 percent slopes

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BIOLOGICAL RESOURCES TECHNICAL REPORT

# USDA Soils

Michael Baker INTERNATIONAL

0 0.25 0.5 Miles

Source: Esri, ArcGIS Online, USDA, City of Del Mar, San Diego County

Figure 4




## Legend

Project Site

**Vegetation Communities and Land Cover Types**

- 11000 Non-Native Vegetation
- 11300 Disturbed Habitat
- 12000 Urban/Developed
- 21230 Southern Foredunes
- 31200 Southern Coastal Bluff Scrub
- 32500 Diegan Coastal Sage Scrub
- 32510 Diegan Coastal Sage Scrub: Coastal form
- 37120 Southern Mixed Chaparral
- 42200 Non-Native Grassland
- 52120 Southern Coastal Salt Marsh
- 52410 Coastal and Valley Freshwater Marsh
- 63320 Southern Willow Scrub
- 64000 Unvegetated Habitat
- 64100 Open Water
- 64112 Intertidal
- 64130 Estuarine
- 64140 Freshwater
- 64300 Saltpan/Mudflats
- 64400 Beach
- 83140 Torrey Pine Forest

Michael Baker INTERNATIONAL

0 300 600 US Feet

Source: Esri, ArcGIS Online, City of Del Mar, San Diego County

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BIOLOGICAL RESOURCES TECHNICAL REPORT

# Vegetation Communities and Land Cover Types

Figure 5a

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## Legend

Project Site

**Vegetation Communities and Land Cover Types**

- 11300 Disturbed Habitat
- 12000 Urban/Developed
- 32400 Maritime Succulent Scrub
- 32500 Diegan Coastal Sage Scrub
- 37120 Southern Mixed Chaparral
- 37C30 Southern Maritime Chaparral
- 42200 Non-Native Grassland
- 52120 Southern Coastal Salt Marsh
- 61320 Southern Arroyo Willow Riparian Forest
- 63000 Riparian Scrubs
- 64000 Unvegetated Habitat
- 64400 Beach
- 83140 Torrey Pine Forest

Michael Baker INTERNATIONAL

0 300 600 US Feet

Source: Esri, ArcGIS Online, City of Del Mar, San Diego County

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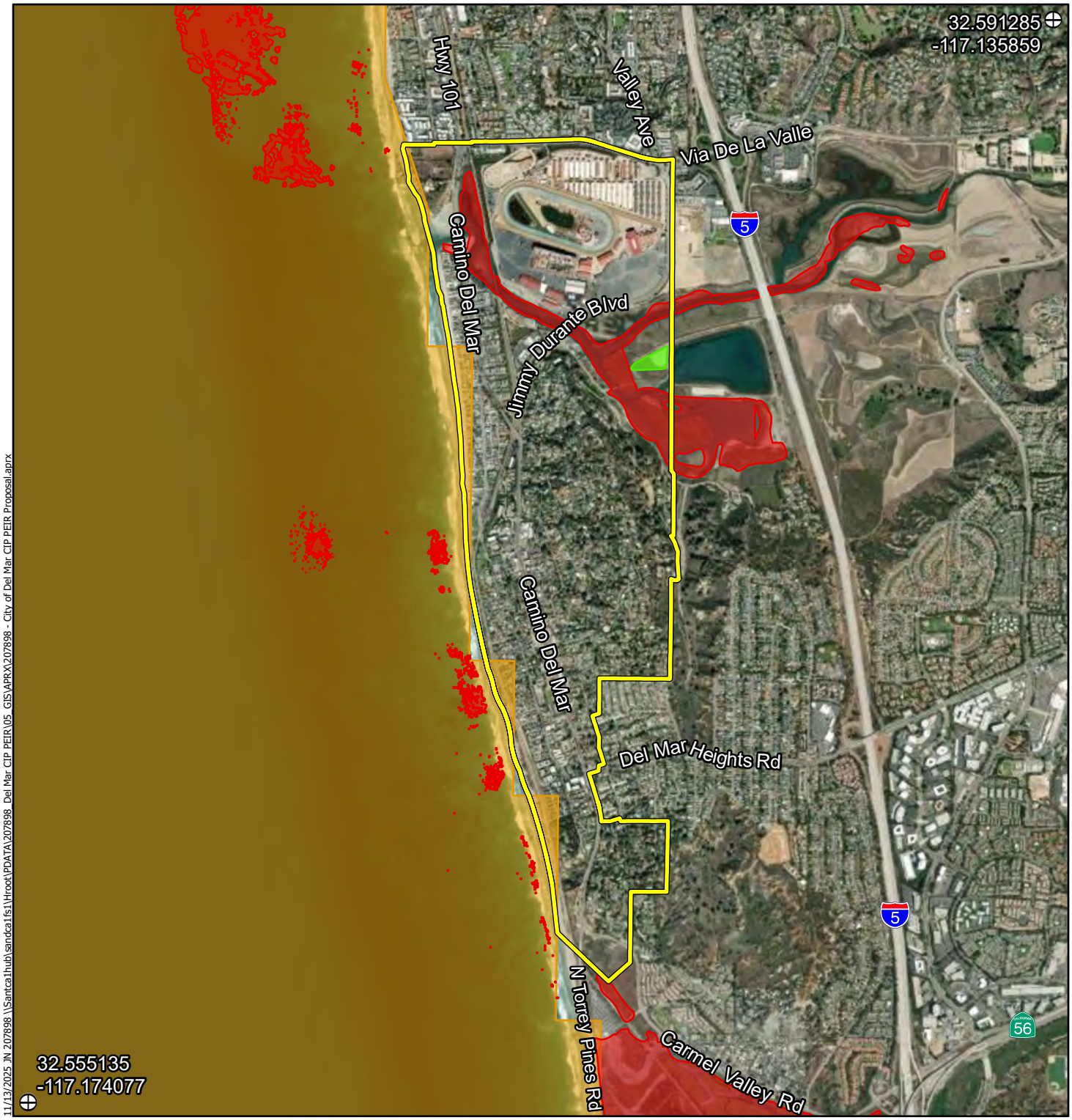
BIOLOGICAL RESOURCES TECHNICAL REPORT

# Vegetation Communities and Land Cover Types

Figure 5b

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**Legend**

- Reference Point
- Project Site
- Critical Habitat: Western Snowy Plover (*Charadrius nivosus nivosus*)
- Essential Fish Habitat (EFH)
- EFH Habitat Areas of Particular Concern (HAPC)

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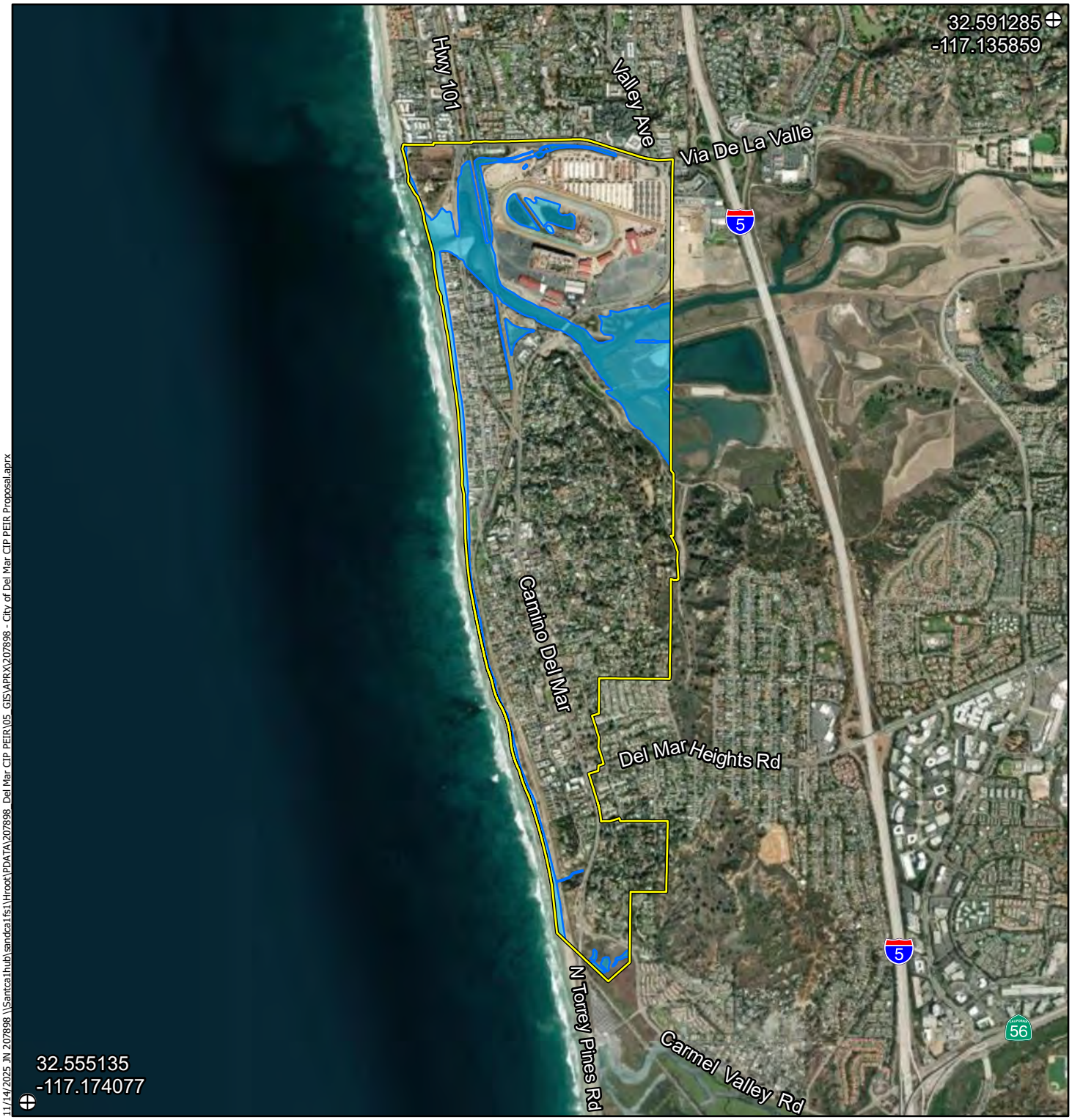
Michael Baker INTERNATIONAL

0 0.25 0.5 Miles

Source: Esri, ArcGIS Online, USFWS, NOAA, City of Del Mar, San Diego County

# Critical Habitat and Essential Fish Habitat

Figure 6

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**Legend**

- Reference Point
- Aquatic Resources
- Project Site

Michael Baker INTERNATIONAL

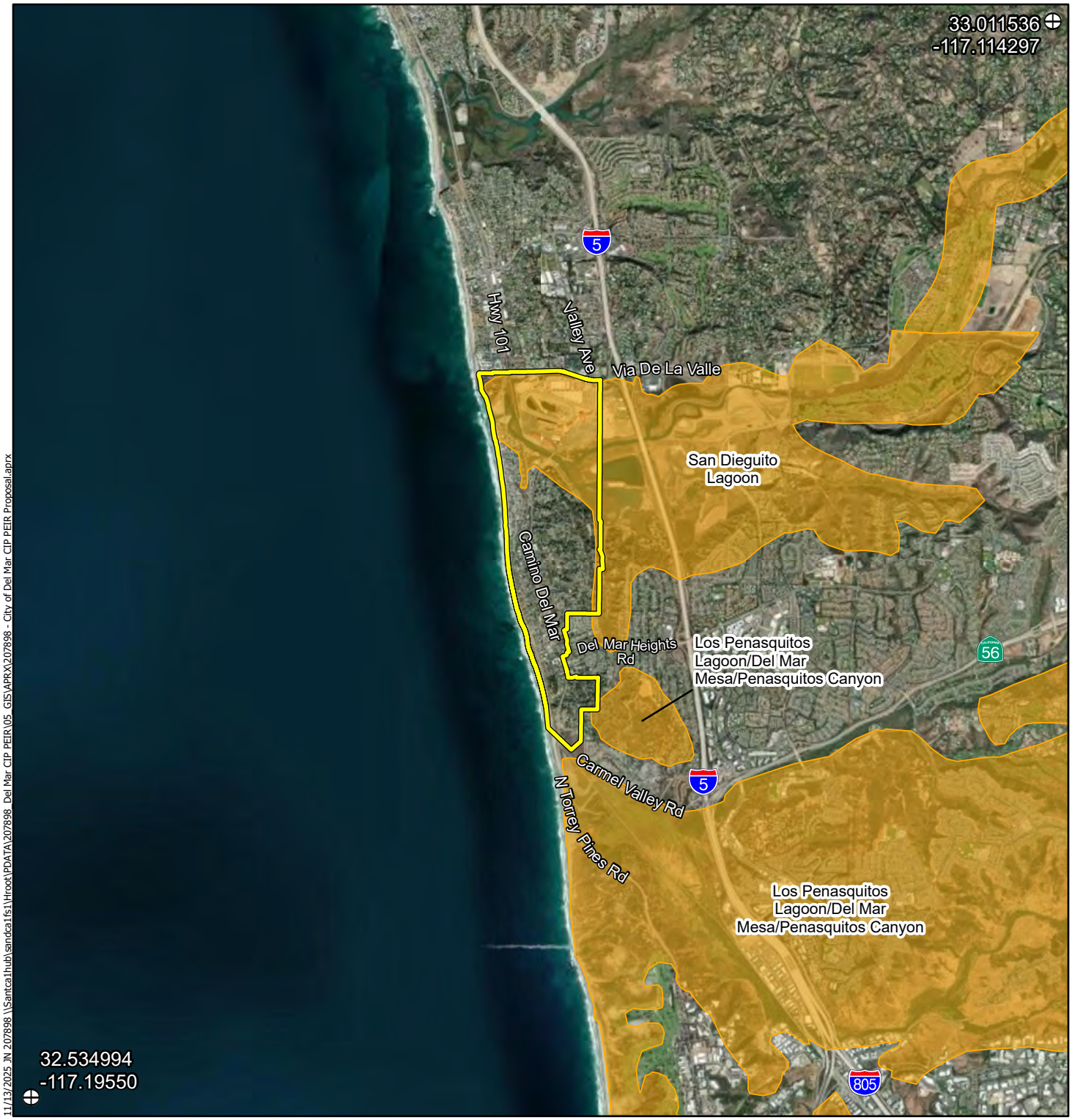
0 0.25 0.5 Miles

Source: Esri, ArcGIS Online, USFWS, USGS, City of Del Mar, San Diego County

CITY OF DEL MAR CIP STREAMLINING PROJECT
BIOLOGICAL RESOURCES TECHNICAL REPORT

# Aquatic Resources

Figure 7

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**Legend**

- Reference Point
- Project Site
- Wildlife Corridors/Linkages

Michael Baker INTERNATIONAL

0 0.5 1 Miles

Source: Esri, ArcGIS Online, SANDAG, City of Del Mar, San Diego County

CITY OF DEL MAR CIP STREAMLINING PROJECT
BIOLOGICAL RESOURCES TECHNICAL REPORT

# Wildlife Corridors

Figure 8




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**Legend**

- Project Site
- Beach Overlay Zone
- Floodplain Overlay Zone
- Lagoon Overlay Zone
- Bluff, Slope, and Canyon Overlay Zone
- Coastal Bluffs

CITY OF DEL MAR CIP STREAMLINING PROJECT
BIOLOGICAL RESOURCES TECHNICAL REPORT

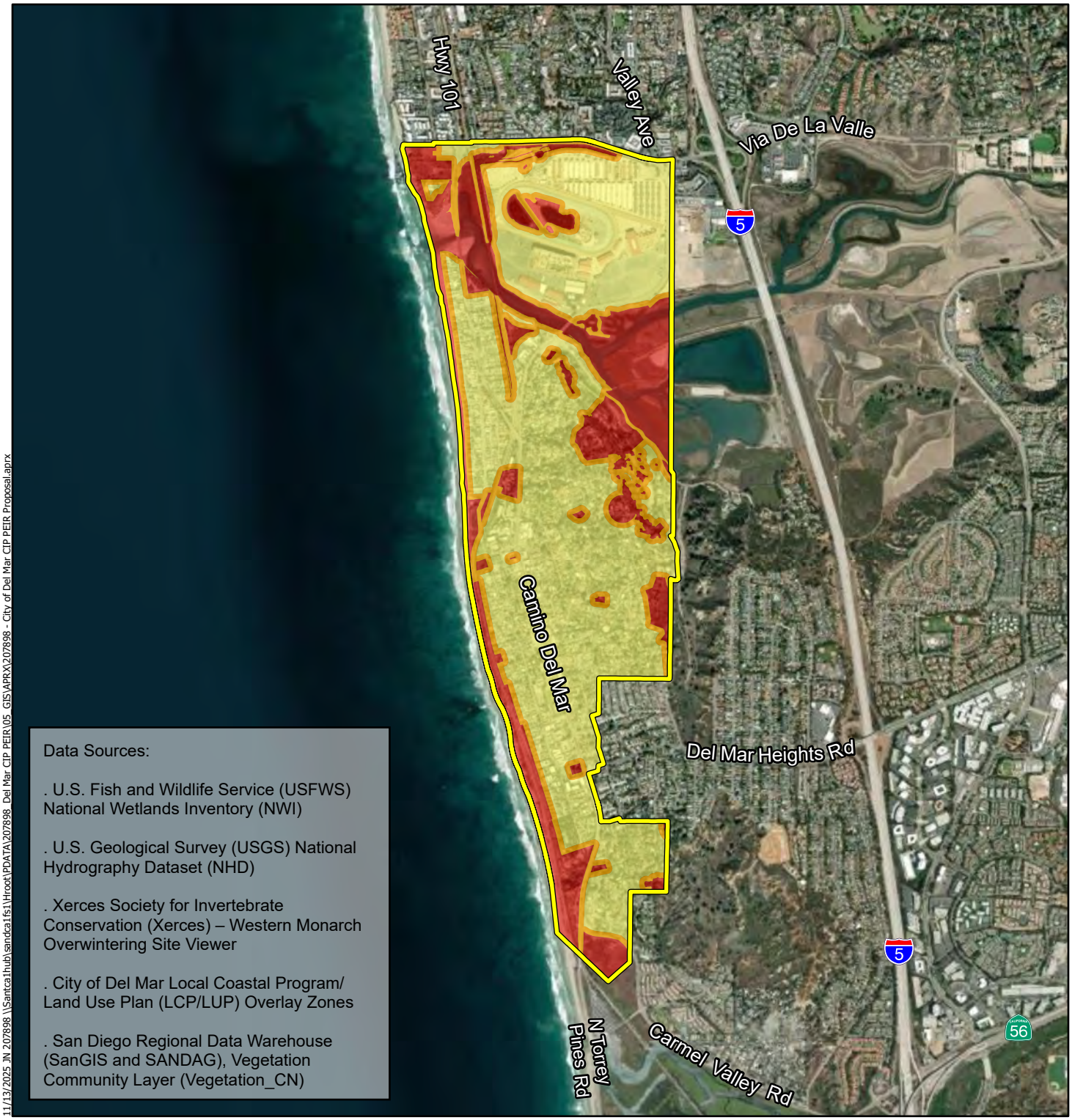
Michael Baker INTERNATIONAL

0 0.25 0.5 Miles

Source: Esri, ArcGIS Online, City of Del Mar, San Diego County

# City of Del Mar
# Local Coastal Program/Land Use Plan/Overlay Zones

Figure 9




11/13/2025 JN 207898 \\Santca1hub\sandca1fs1\Hroot\PDATA\207898 Del Mar CIP PEIR\05 GIS\APRX\207898 - City of Del Mar CIP PEIR Proposal.aprx

## Legend

Project Site

**Biological Resources Sensitivity Zones**

- High Sensitivity Zone
- Moderate Sensitivity Zone
- Low Sensitivity Zone

CITY OF DEL MAR CIP STREAMLINING PROJECT
BIOLOGICAL RESOURCES TECHNICAL REPORT

Michael Baker INTERNATIONAL

0 0.25 0.5 Miles

# Biological Resources Sensitivity Zones

Source: Esri, ArcGIS Online, USFWS, USGS, City of Del Mar, San Diego County, Xerces Society Western Monarch Count. 2025. Western Monarch Count Data, 1997-2025

Figure 10

# ATTACHMENT B

# SPECIAL-STATUS SPECIES POTENTIAL TO OCCUR TABLES

### SPECIAL-STATUS PLANT SPECIES WITH POTENTIAL TO OCCUR IN PROGRAM AREA

| Scientific Name | Common Name | Status (Federal/State/CRPR/Other) | Primary Habitat Associations/ Life Form/Blooming Period/ Elevation Range (feet) | Potential to Occur |
|---|---|---|---|---|
| *Abronia maritima* | red sand-verbena | None/None/4.2/None | Coastal dunes/perennial herb/Feb–Nov/0–330 | Expected to occur. There is a 2024 CNDDB record in the San Dieguito Lagoon west of the race track, a 2013 Calflora record on a coastal bluff within the City, and a number of historical records within the areas of the San Dieguito Lagoon, Sea Grove Park, and Torrey Pines State Natural Reserve. |
| *Acanthomintha ilicifolia* | San Diego thorn-mint | FT/SE/1B.1/None | Chaparral, Coastal scrub, Valley and foothill grassland, Vernal pools; Clay, Openings/annual herb/Apr–June/35–3150 | Not expected to occur. This species is primarily associated with vernal pools and clay soils, which are not known to occur within the City. The nearest known record occurs south of the City limits within the Torrey Pines State Natural Reserve. |
| *Acmispon prostratus* | Nuttall's acmispon | None/None/1B.1/None | Coastal dunes, Coastal scrub (sandy)/annual herb/Mar–June(July)/0–35 | Moderate potential to occur. There is one historical location of this species within the City. Additionally, there are CNDDB and Calflora records outside of the City, the closest of which is approximately 0.2 miles south of the City limits in the Torrey Pines State Natural Reserve. |
| *Adolphia californica* | California adolphia | None/None/2B.1/None | Chaparral, Coastal scrub, Valley and foothill grassland; Clay/perennial deciduous shrub/Dec–May/35–2430 | Expected to occur. There is a 2018 Calflora record of this species within the northern portion of the City southeast of the intersection of Camino Del Mar and Via De La Valle. |
| *Agave shawii var. shawii* | Shaw's agave | None/None/2B.1/None | Coastal bluff scrub, Coastal scrub/perennial leaf/Sep–May/10–395 | Moderate potential to occur. There are no known locations of this species within the City. However, there are CNDDB and Calflora records outside of the City, the closest of which are approximately 1 mile south of the City limits in the Torrey Pines State Natural Reserve. |
| *Ambrosia monogyra* | singlewhorl burrobrush | None/None/2B.2/None | Chaparral, Sonoran desert scrub; Sandy/perennial shrub/Aug–Nov/35–1640 | Moderate potential to occur. There are no known locations of this species within the City; however, potentially suitable habitat is present. |

| Scientific Name | Common Name | Status (Federal/State/CRPR/Other) | Primary Habitat Associations/ Life Form/Blooming Period/ Elevation Range (feet) | Potential to Occur |
|---|---|---|---|---|
| *Ambrosia pumila* | San Diego ambrosia | FE/None/1B.1/None | Chaparral, Coastal scrub, Valley and foothill grassland, Vernal pools; Alkaline (sometimes), Clay (sometimes), Disturbed areas (often), Loam (sometimes), Sandy (sometimes)/perennial rhizomatous herb/Apr–Oct/65–1360 | Moderate potential to occur. There are no known locations of this species within the City; however, potentially suitable habitat is present. |
| *Aphanisma blitoides* | aphanisma | None/None/1B.2/None | Coastal bluff scrub, Coastal dunes, Coastal scrub; Gravelly (sometimes), Sandy (sometimes)/annual herb/Feb–June/5–1000 | Moderate potential to occur. There are two historical locations of this species within the City. Additionally, there are recent CNDDB and Calflora records outside of the City, the closest of which is approximately 1.6 miles south of the City limits in the Torrey Pines State Natural Reserve. |
| *Aphyllon parishii ssp. brachylobum* | short-lobed broomrape | None/None/4.2/None | Coastal bluff scrub, Coastal dunes, Coastal scrub; Sandy/annual/perennial herb (parasitic)/Apr–Oct/10–1000 | Moderate potential to occur. There are no known locations of this species within the City; however, potentially suitable habitat is present, and there is one historical location south of the City in the Torrey Pines State Natural Reserve. |
| *Arctostaphylos glandulosa ssp. crassifolia* | Del Mar manzanita | FE/None/1B.1/None | Chaparral (maritime, sandy)/perennial evergreen shrub/June–Apr/0–1200 | Expected to occur. There are records of this species from 2020 east of Camino Del Mar within the Torrey Pines State Natural Reserve Extension, Crest Canyon Open Space Park, and within residential areas north of the terminus of Crest Road. |
| *Artemisia palmeri* | San Diego sagewort | None/None/4.2/None | Chaparral, Coastal scrub, Riparian forest, Riparian scrub, Riparian woodland; Mesic, Sandy/perennial deciduous shrub/(Feb)May–Sep/15–3000 | Moderate potential to occur. There are no known locations of this species within the City; however, potentially suitable habitat is present, and there are historical locations both north and south of the City. |
| *Asplenium vespertinum* | western spleenwort | None/None/4.2/None | Chaparral, Cismontane woodland, Coastal scrub; Rocky/perennial rhizomatous herb/Feb–June/590–3280 | Not expected to occur. The study area is outside of the species' known elevation range. |

| Scientific Name | Common Name | Status (Federal/State/CRPR/Other) | Primary Habitat Associations/ Life Form/Blooming Period/ Elevation Range (feet) | Potential to Occur |
|---|---|---|---|---|
| *Astragalus tener var. titi* | coastal dunes milk-vetch | FE/SE/1B.1/None | Coastal bluff scrub (sandy), Coastal dunes, Coastal prairie (mesic); Mesic (often), Vernally Mesic (often)/annual herb/Mar–May/5–165 | Not expected to occur. Known historically from two locations in San Diego County and is presumed extirpated due to heavy urbanization (USFWS 1998). |
| *Atriplex coulteri* | Coulter's saltbush | None/None/1B.2/None | Coastal bluff scrub, Coastal dunes, Coastal scrub, Valley and foothill grassland; Alkaline (sometimes), Clay (sometimes)/perennial herb/Mar–Oct/10–1510 | Moderate potential to occur. There are no known locations of this species within the City; however, potentially suitable habitat is present. The closest known location is approximately 2.5 miles north within the San Elijo Lagoon and Ecological Reserve. |
| *Atriplex pacifica* | south coast saltscale | None/None/1B.2/None | Coastal bluff scrub, Coastal dunes, Coastal scrub, Playas/annual herb/Mar–Oct/0–460 | Moderate potential to occur. There are no known locations of this species within the City. However, there are CNDDB and Calflora records outside of the City, the closest of which are 1 mile northeast north of Via del la Valle and 1.5 miles south in the Torrey Pines State Natural Reserve. |
| *Baccharis vanessae* | Encinitas baccharis | FT/SE/1B.1/None | Chaparral (maritime), Cismontane woodland; Sandstone/perennial deciduous shrub/Aug–Nov/195–2360 | Moderate potential to occur. There are no known locations of this species within the City; however, potentially suitable habitat is present. There is one historical location east of the City limits within the southern portion of Crest Canyon Open Space Park and one 2019 location approximately 1.4 miles southeast labeled "Sorrento Hills." |
| *Bahiopsis laciniata* | San Diego County viguiera | None/None/4.3/None | Chaparral, Coastal scrub/perennial shrub/Feb–June(Aug)/195–2460 | Expected to occur. There is one 2005 location of this species within the San Dieguito Lagoon Ecological Reserve portion of the City. The closest known location outside of the City is from 2018 approximately 0.2 miles south within the Torrey Pines State Natural Reserve. |

| Scientific Name | Common Name | Status (Federal/State/CRPR/Other) | Primary Habitat Associations/ Life Form/Blooming Period/ Elevation Range (feet) | Potential to Occur |
|---|---|---|---|---|
| *Berberis nevinii* | Nevin's barberry | FE/SE/1B.1/None | Chaparral, Cismontane woodland, Coastal scrub, Riparian scrub; Gravelly (sometimes), Sandy (sometimes)/perennial evergreen shrub/(Feb)Mar–June/230–2705 | Moderate potential to occur. There are no known locations of this species within the City; however, potentially suitable habitat is present. The nearest known locations occur approximately 1.2 miles south of the City limits in the Torrey Pines Natural Reserve. |
| *Bergerocactus emoryi* | golden-spined cereus | None/None/2B.2/None | Chaparral, Closed-cone coniferous forest, Coastal scrub; Sandy/perennial stem/May–June/10–1295 | Moderate potential to occur. There are no known locations of this species within the City; however, potentially suitable habitat is present. Historical locations occur approximately 1 mile south of the City limits within the Torrey Pines Natural Reserve. |
| *Bloomeria clevelandii* | San Diego goldenstar | None/None/1B.1/BLM-S | Chaparral, Coastal scrub, Valley and foothill grassland, Vernal pools; Clay/perennial bulbiferous herb/Apr–May/165–1525 | Not expected to occur. This species is primarily associated with vernal pools and clay soils which are not known to occur within the City. The nearest known locations occur southeast of the City on Del Mar Mesa. There is also one historical location (1998) from Torrey Pines State Natural Reserve south of the City. |
| *Brodiaea filifolia* | thread-leaved brodiaea | FT/SE/1B.1/None | Chaparral (openings), Cismontane woodland, Coastal scrub, Playas, Valley and foothill grassland, Vernal pools; Clay (often)/perennial bulbiferous herb/Mar–June/80–3675 | Not expected to occur. This species is primarily associated with vernal pools and clay soils which are not known to occur within the City. The nearest known locations occur more than 8 miles east on Black Mountain. |
| *Brodiaea orcuttii* | Orcutt's brodiaea | None/None/1B.1/BLM-S, USFS-S | Chaparral, Cismontane woodland, Closed-cone coniferous forest, Meadows and seeps, Valley and foothill grassland, Vernal pools; Clay, Mesic/perennial bulbiferous herb/May–July/100–5550 | Not expected to occur. This species is primarily associated with vernal pools and clay soils which are not known to occur within the City. The nearest known location occurs approximately 2.4 miles southeast in the Carmel Mountain Reserve. |

| Scientific Name | Common Name | Status (Federal/State/CRPR/Other) | Primary Habitat Associations/ Life Form/Blooming Period/ Elevation Range (feet) | Potential to Occur |
|---|---|---|---|---|
| *Calandrinia breweri* | Brewer's calandrinia | None/None/4.2/None | Chaparral, Coastal scrub; Burned areas, Disturbed areas, Loam (sometimes), Sandy (sometimes)/annual herb/(Jan)Mar–June/35–4005 | Moderate potential to occur. There are no known locations of this species within the City; however, potentially suitable habitat is present. The nearest known location occurs approximately 5 miles southeast of the City limits in the Los Peñasquitos Canyon Preserve. |
| *Calochortus plummerae* | Plummer's mariposa-lily | None/None/4.2/None | Chaparral, Cismontane woodland, Coastal scrub, Lower montane coniferous forest, Valley and foothill grassland; Granitic, Rocky/perennial bulbiferous herb/May–July/330–5580 | Not expected to occur. This species is only known historically from one record in the Rancho Santa Fe USGS topographic quadrangle. |
| *Camissoniopsis lewisii* | Lewis' evening-primrose | None/None/3/None | Cismontane woodland, Coastal bluff scrub, Coastal dunes, Coastal scrub, Valley and foothill grassland; Clay (sometimes), Sandy (sometimes)/annual herb/Mar–May(June)/0–985 | Moderate potential to occur. There are no known locations of this species within the City; however, potentially suitable habitat is present. The nearest known locations occur approximately 0.1 miles east of the City limits within San Dieguito Lagoon and 0.2 miles southeast in Torrey Pines State Natural Reserve Extension. |
| *Ceanothus cyaneus* | Lakeside ceanothus | None/None/1B.2/BLM-S, USFS-S | Chaparral, Closed-cone coniferous forest/perennial evergreen shrub/Apr–June/770–2475 | Not expected to occur. The City is outside of the known elevation range of this species. |
| *Ceanothus otayensis* | Otay Mountain ceanothus | None/None/1B.2/BLM-S | Chaparral (gabbroic, metavolcanic)/perennial evergreen shrub/Jan–Apr/1970–3610 | Not expected to occur. The City is outside of the known elevation range of this species. |
| *Ceanothus verrucosus* | wart-stemmed ceanothus | None/None/2B.2/None | Chaparral, Coastal scrub/perennial evergreen shrub/Dec–May/5–1245 | Expected to occur. There are known locations of this species within the City, primarily within Crest Canyon Open Space Park and Torrey Pines State Natural Reserve Extension. |

| Scientific Name | Common Name | Status (Federal/State/CRPR/Other) | Primary Habitat Associations/ Life Form/Blooming Period/ Elevation Range (feet) | Potential to Occur |
|---|---|---|---|---|
| *Centromadia parryi ssp. australis* | southern tarplant | None/None/1B.1/None | Marshes and swamps (margins), Valley and foothill grassland (vernally mesic), Vernal pools/annual herb/May–Nov/0–1575 | Expected to occur. There are known locations of this species within San Dieguito Lagoon Ecological Reserve in the northern portion of the City. |
| *Centromadia pungens ssp. laevis* | smooth tarplant | None/None/1B.1/None | Chenopod scrub, Meadows and seeps, Playas, Riparian woodland, Valley and foothill grassland; Alkaline/annual herb/Apr–Sep/0–2100 | Not expected to occur due to the absence of suitable habitat within the City. |
| *Chaenactis glabriuscula var. orcuttiana* | Orcutt's pincushion | None/None/1B.1/None | Coastal bluff scrub (sandy), Coastal dunes/annual herb/Jan–Aug/0–330 | Expected to occur. There are known locations of this species in open space areas in the southern portion of the City from Del Mar Canyon Preserve (Sunset Seat) to the southern City boundary and within Torrey Pines State Natural Reserve Extension. |
| *Chamaebatia australis* | southern mountain misery | None/None/4.2/None | Chaparral (gabbroic, metavolcanic)/perennial evergreen shrub/Nov–May/985–3345 | Not expected to occur. The City is outside of the known elevation range of this species. |
| *Chloropyron maritimum ssp. maritimum* | salt marsh bird's-beak | FE/SE/1B.2/BLM-S | Coastal dunes, Marshes and swamps (coastal salt)/annual herb (hemiparasitic)/May–Oct(Nov)/0–100 | Moderate potential to occur. There are no known locations of this species within the City. However, there is one Calflora record outside of the City within Torrey Pines State Natural Reserve. |
| *Chorizanthe orcuttiana* | Orcutt's spineflower | FE/SE/1B.1/None | Chaparral (maritime), Closed-cone coniferous forest, Coastal scrub; Openings, Sandy/annual herb/Mar–May/10–410 | Expected to occur. There are known locations of this species just east of the City boundary within Crest Canyon Open Space Park and Torrey Pines State Natural Reserve Extension. |
| *Chorizanthe polygonoides var. longispina* | long-spined spineflower | None/None/1B.2/BLM-S | Chaparral, Coastal scrub, Meadows and seeps, Valley and foothill grassland, Vernal pools; Clay (often)/annual herb/Apr–July/100–5020 | Not expected to occur. This species is primarily associated with meadows and vernal pools with clay soils which are not known to occur within the City. The nearest known locations occur approximately 1.5 miles south in the Torrey Pines State Natural Reserve. |

| Scientific Name | Common Name | Status (Federal/State/CRPR/Other) | Primary Habitat Associations/ Life Form/Blooming Period/ Elevation Range (feet) | Potential to Occur |
|---|---|---|---|---|
| *Cistanthe maritima* | seaside cistanthe | None/None/4.2/None | Coastal bluff scrub, Coastal scrub, Valley and foothill grassland; Sandy/annual herb/(Feb)Mar–June(Aug)/15–985 | Moderate potential to occur. There are no known locations of this species within the City; however, potentially suitable habitat is present. The nearest known locations occur approximately 1 mile south of the City limits in the Torrey Pines State Natural Reserve. |
| *Clarkia delicata* | delicate clarkia | None/None/1B.2/BLM-S | Chaparral, Cismontane woodland; Gabbroic (often)/annual herb/Apr–June/770–3280 | Not expected to occur. The City is outside of the known elevation range of this species. |
| *Comarostaphylis diversifolia ssp. diversifolia* | summer holly | None/None/1B.2/BLM-S | Chaparral, Cismontane woodland/perennial evergreen shrub/Apr–June/100–2590 | Moderate potential to occur. There are no known locations of this species within the City; however, potentially suitable habitat is present. The nearest known locations occur just east of the City boundary within Crest Canyon Open Space Park. |
| *Convolvulus simulans* | small-flowered morning-glory | None/None/4.2/None | Chaparral (openings), Coastal scrub, Valley and foothill grassland; Clay, Seeps, Serpentine/annual herb/Mar–July/100–2430 | Not expected to occur. This species is primarily associated with seeps and clay or serpentine soils which are not known to occur within the City. The nearest known locations occur more than 5 miles northeast in Lusardi Creek and southeast in Los Peñasquitos Creek watershed. |
| *Corethrogyne filaginifolia var. incana* | San Diego sand aster | None/None/1B.1/None | Chaparral, Coastal bluff scrub, Coastal scrub/perennial herb/June–Sep/10–375 | Moderate potential to occur. There is one historical location of this species at the southern fringe of San Dieguito Lagoon just east of the City boundary within Crest Canyon Open Space Park. |
| *Corethrogyne filaginifolia var. linifolia* | Del Mar Mesa sand aster | None/None/1B.1/None | Chaparral (maritime, openings), Coastal bluff scrub, Coastal scrub; Sandy/perennial herb/May–Sep/15–490 | Expected to occur. There are known locations of this species within Crest Canyon Open Space Park, Del Mar Canyon Preserve (Sunset Seat), and Torrey Pines State Natural Reserve Extension within the City limits. |

| Scientific Name | Common Name | Status (Federal/State/CRPR/Other) | Primary Habitat Associations/ Life Form/Blooming Period/ Elevation Range (feet) | Potential to Occur |
|---|---|---|---|---|
| *Cryptantha wigginsii* | Wiggins' cryptantha | None/None/1B.2/None | Coastal scrub; Clay (often)/annual herb/Feb–June/65–900 | Not expected to occur. This species is primarily associated with clay soils which are not known to occur within the City. The nearest known location occurs approximately 3.5 miles northeast in the City of Encinitas. |
| *Cylindropuntia californica var. californica* | snake cholla | None/None/1B.1/BLM-S | Chaparral, Coastal scrub/perennial stem/Apr–May/100–490 | Moderate potential to occur. There are no known locations of this species within the City; however, potentially suitable habitat is present. The nearest known location occurs approximately 6.5 miles northeast in Lusardi Creek. |
| *Dichondra occidentalis* | western dichondra | None/None/4.2/None | Chaparral, Cismontane woodland, Coastal scrub, Valley and foothill grassland/perennial rhizomatous herb/(Jan)Mar–July/165–1640 | Moderate potential to occur. There are no known locations of this species within the City; however, potentially suitable habitat is present. The nearest known location occurs approximately 0.3 miles east in Torrey Pines State Natural Reserve Extension. |
| *Diplacus aridus* | low bush monkeyflower | None/None/4.3/None | Chaparral (rocky), Sonoran desert scrub/perennial evergreen shrub/Apr–July/2460–3935 | Not expected to occur. The City is outside of the known elevation range of this species. |
| *Dudleya blochmaniae ssp. blochmaniae* | Blochman's dudleya | None/None/1B.1/None | Chaparral, Coastal bluff scrub, Coastal scrub, Valley and foothill grassland; Clay (often), Rocky, Serpentine/perennial herb/Apr–June/15–1475 | Not expected to occur. This species is primarily associated with clay soils which are not known to occur within the City. The nearest known location occurs more than 15 miles north in the City of Oceanside. |
| *Dudleya brevifolia* | short-leaved dudleya | None/SE/1B.1/None | Chaparral (maritime, openings), Coastal scrub; Sandstone/perennial herb/Apr–May/100–820 | Moderate potential to occur. There are no known locations of this species within the City; however, potentially suitable habitat is present. The nearest known locations are within Crest Canyon Open Space Park, Torrey Pines State Natural Reserve Extension, and Torrey Pines State Natural Reserve. |

| Scientific Name | Common Name | Status (Federal/State/CRPR/Other) | Primary Habitat Associations/ Life Form/Blooming Period/ Elevation Range (feet) | Potential to Occur |
|---|---|---|---|---|
| *Dudleya variegata* | variegated dudleya | None/None/1B.2/BLM-S | Chaparral, Cismontane woodland, Coastal scrub, Valley and foothill grassland, Vernal pools; Clay/perennial herb/Apr–June/10–1905 | Not expected to occur. This species is primarily associated with vernal pools and clay soils which are not known to occur within the City. The nearest known locations occur more than 6 miles east on Black Mountain and in Los Peñasquitos Canyon. |
| *Dudleya viscida* | sticky dudleya | None/None/1B.2/BLM-S, USFS-S | Chaparral, Cismontane woodland, Coastal bluff scrub, Coastal scrub; Rocky/perennial herb/May–June/35–1805 | Not expected to occur. Historically occurred in southern San Diego County; however, currently only known from north county near Oceanside and Camp Pendleton. |
| *Ericameria palmeri var. palmeri* | Palmer's goldenbush | None/None/1B.1/None | Chaparral, Coastal scrub; Mesic/perennial evergreen shrub/(July)Sep–Nov/100–1970 | Moderate potential to occur. There are no known locations of this species within the City; however, potentially suitable habitat is present. The nearest known location is a historical record (1990) from Carmel Valley approximately 2 miles southeast of the City. |
| *Eriodictyon sessilifolium* | sessile-leaved yerba santa | None/None/2B.1/None | Coastal scrub; Volcanic/perennial shrub/July/560–560 | Not expected to occur. This species is only known from one location in the County in the Mira Mesa area. |
| *Eryngium aristulatum var. parishii* | San Diego button-celery | FE/SE/1B.1/None | Coastal scrub, Valley and foothill grassland, Vernal pools; Mesic/annual/perennial herb/Apr–June/65–2035 | Not expected to occur. This species is primarily associated with vernal pools which are not known to occur within the City. The nearest known locations occur southeast in Los Peñasquitos Canyon. |
| *Erysimum ammophilum* | sand-loving wallflower | None/None/1B.2/None | Chaparral (maritime), Coastal dunes, Coastal scrub; Openings, Sandy/perennial herb/Feb–June(July–Aug)/0–195 | Moderate potential to occur. There are no known locations of this species within the City; however, potentially suitable habitat is present. The nearest known locations are within San Dieguito Lagoon, Crest Canyon Open Space Park, Torrey Pines State Natural Reserve Extension, and Torrey Pines State Natural Reserve. |

| Scientific Name | Common Name | Status (Federal/State/CRPR/Other) | Primary Habitat Associations/ Life Form/Blooming Period/ Elevation Range (feet) | Potential to Occur |
|---|---|---|---|---|
| *Erythranthe diffusa* | Palomar monkeyflower | None/None/4.3/None | Chaparral, Lower montane coniferous forest; Gravelly (sometimes), Sandy (sometimes)/annual herb/Apr–June/4005–6005 | Not expected to occur. The City is outside of the known elevation range of this species. |
| *Euphorbia misera* | cliff spurge | None/None/2B.2/None | Coastal bluff scrub, Coastal scrub, Mojavean desert scrub; Rocky/perennial shrub/(Oct)Dec–Aug/35–1640 | Moderate potential to occur. There are no known locations of this species within the City; however, potentially suitable habitat is present. The nearest known locations are in the Torrey Pines State Natural Reserve south of the City. |
| *Ferocactus viridescens* | San Diego barrel cactus | None/None/2B.1/None | Chaparral, Coastal scrub, Valley and foothill grassland, Vernal pools/perennial stem/May–June/10–1475 | Moderate potential to occur. There is one historical record within the City and recent records within Crest Canyon Open Space Park, Torrey Pines State Natural Reserve Extension, and Torrey Pines State Natural Reserve. |
| *Geothallus tuberosus* | Campbell's liverwort | None/None/1B.1/None | Coastal scrub (mesic), Vernal pools/ephemeral liverwort/35–1970 | Moderate potential to occur. There is a 2017 CNDDB record at the southern end of Crest Canyon Open Space Park east of the City. |
| *Githopsis diffusa ssp. filicaulis* | Mission Canyon bluecup | None/None/3.1/USFS-S | Chaparral (disturbed areas, mesic)/annual herb/Apr–June/1475–2295 | Not expected to occur. The City is outside of the known elevation range of this species. |
| *Grindelia hallii* | San Diego gumplant | None/None/1B.2/BLM-S | Chaparral, Lower montane coniferous forest, Meadows and seeps, Valley and foothill grassland/perennial herb/May–Oct/605–5725 | Not expected to occur. The City is outside of the known elevation range of this species. |
| *Harpagonella palmeri* | Palmer's grapplinghook | None/None/4.2/None | Chaparral, Coastal scrub, Valley and foothill grassland; Clay, Openings/annual herb/Mar–May/65–3135 | Not expected to occur. This species is primarily associated with clay soils which are not present within the City. The nearest known location occurs within Torrey Pines State Natural Reserve south of the City. |

| Scientific Name | Common Name | Status (Federal/State/CRPR/Other) | Primary Habitat Associations/ Life Form/Blooming Period/ Elevation Range (feet) | Potential to Occur |
|---|---|---|---|---|
| *Hazardia orcuttii* | Orcutt's hazardia | None/ST/1B.1/None | Chaparral (maritime), Coastal scrub; Clay (often)/perennial evergreen shrub/Aug–Oct/260–280 | Not expected to occur. This species is primarily associated with clay soils which are not present within the City. The nearest known location occurs to the north within San Elijo Lagoon and Ecological Reserve. |
| *Heterotheca sessiliflora ssp. sessiliflora* | beach goldenaster | None/None/1B.1/None | Chaparral (coastal), Coastal dunes, Coastal scrub/perennial herb/Mar–Dec/0–4020 | Moderate potential to occur. There are no records documented within the City; however, there are records within Crest Canyon Open Space Park and Torrey Pines State Natural Reserve Extension just east of the City boundary. |
| *Holocarpha virgata ssp. elongata* | graceful tarplant | None/None/4.2/None | Chaparral, Cismontane woodland, Coastal scrub, Valley and foothill grassland/annual herb/May–Nov/195–3610 | Moderate potential to occur. There are no known locations of this species within the City; however, potentially suitable habitat is present. The nearest known locations occur southeast of the City limits within Los Peñasquitos Canyon. |
| *Hordeum intercedens* | vernal barley | None/None/3.2/None | Coastal dunes, Coastal scrub, Valley and foothill grassland (depressions, saline flats), Vernal pools/annual herb/Mar–June/15–3280 | Not expected to occur. This species is primarily associated with vernal pools which are not present within the City. |
| *Horkelia truncata* | Ramona horkelia | None/None/1B.3/BLM-S, USFS-S | Chaparral, Cismontane woodland; Clay, Gabbroic/perennial herb/May–June/1310–4265 | Not expected to occur. The City is outside of the known elevation range of this species. |
| *Isocoma menziesii var. decumbens* | decumbent goldenbush | None/None/1B.2/BLM-S | Chaparral, Coastal scrub (often disturbed areas, sandy)/perennial shrub/Apr–Nov/35–820 | Moderate potential to occur. There are no known locations of this species within the City; however, potentially suitable habitat is present. The nearest known location occurs south of the City limits within Torrey Pines State Natural Reserve. |

| Scientific Name | Common Name | Status (Federal/State/CRPR/Other) | Primary Habitat Associations/ Life Form/Blooming Period/ Elevation Range (feet) | Potential to Occur |
|---|---|---|---|---|
| *Iva hayesiana* | San Diego marsh-elder | None/None/2B.2/None | Marshes and swamps, Playas/perennial herb/Apr–Oct/0–1640 | Moderate potential to occur. There are no known locations of this species within the City; however, potentially suitable habitat is present. The nearest known historical (1994) location occurs within the San Dieguito River east of the City and current records occur in Los Peñasquitos Canyon. |
| *Juglans californica* | Southern California black walnut | None/None/4.2/None | Chaparral, Cismontane woodland, Coastal scrub, Riparian woodland/perennial deciduous tree/Mar–Aug/165–2955 | Moderate potential to occur. There are no known locations of this species within the City; however, potentially suitable habitat is present. |
| *Juncus acutus ssp. leopoldii* | southwestern spiny rush | None/None/4.2/None | Coastal dunes (mesic), Coastal scrub, Marshes and swamps (coastal salt), Meadows and seeps (alkaline seeps)/perennial rhizomatous herb/(Mar)May–June/10–2955 | Moderate potential to occur. There is a 2009 CNDDB record within open space just south of the City's southern boundary. |
| *Lasthenia glabrata ssp. coulteri* | Coulter's goldfields | None/None/1B.1/BLM-S | Marshes and swamps (coastal salt), Playas, Vernal pools/annual herb/Feb–June/5–4005 | Moderate potential to occur. There are no known locations of this species within the City; however, potentially suitable habitat is present. Historical records occur within San Dieguito Lagoon and Peñasquitos Lagoon. |
| *Lathyrus splendens* | pride-of-California | None/None/4.3/None | Chaparral/perennial herb/Mar–June/655–5005 | Not expected to occur. The City is outside of the known elevation range of this species. |
| *Lepechinia cardiophylla* | heart-leaved pitcher sage | None/None/1B.2/USFS-S | Chaparral, Cismontane woodland, Closed-cone coniferous forest/perennial shrub/Apr–July/1705–4495 | Not expected to occur. The City is outside of the known elevation range of this species. |

| Scientific Name | Common Name | Status (Federal/State/CRPR/Other) | Primary Habitat Associations/ Life Form/Blooming Period/ Elevation Range (feet) | Potential to Occur |
|---|---|---|---|---|
| *Lepidium virginicum var. robinsonii* | Robinson's pepper-grass | None/None/4.3/None | Chaparral, Coastal scrub/annual herb/Jan–July/5–2905 | Moderate potential to occur. There are no known locations of this species within the City; however, potentially suitable habitat is present. The nearest known records occur north in San Elijo Lagoon, east in Gonzales Canyon Open Space Preserve, and south in Torrey Pines State Natural Reserve. |
| *Leptosyne maritima* | sea dahlia | None/None/2B.2/None | Coastal bluff scrub, Coastal scrub/perennial herb/Mar–May/15–490 | Expected to occur. There are records of this species along the City's coastal bluffs and within Crest Canyon Open Space Park and Torrey Pines State Natural Reserve Extension. |
| *Lycium californicum* | California box-thorn | None/None/4.2/None | Coastal bluff scrub, Coastal scrub/perennial shrub/Mar–Aug(Dec)/15–490 | Expected to occur. There are records of this species within the City's coastal bluffs (Calflora n.d., iNaturalist n.d.). |
| *Microseris douglasii ssp. platycarpha* | small-flowered microseris | None/None/4.2/None | Cismontane woodland, Coastal scrub, Valley and foothill grassland, Occurs usually in non-wetlands/annual herb/Mar–May/50–3510 | Moderate potential to occur. There are no known locations of this species within the City; however, potentially suitable habitat is present. The nearest known records occur to the south in Torrey Pines State Natural Reserve. |
| *Mobergia calculiformis* | light gray lichen | None/None/3/None | Coastal scrub (?)/crustose lichen (saxicolous)/35–35 | Not expected to occur. Although potentially suitable habitat is present, this species is ranked possibly extirpated from California. |
| *Monardella hypoleuca ssp. lanata* | felt-leaved monardella | None/None/1B.2/BLM-S, USFS-S | Chaparral, Cismontane woodland/perennial rhizomatous herb/June–Aug/985–5170 | Not expected to occur. The City is outside of the known elevation range of this species. |
| *Monardella viminea* | willowy monardella | FE/SE/1B.1/None | Chaparral, Coastal scrub, Riparian forest, Riparian scrub, Riparian woodland; Alluvial Terraces, Washes/perennial herb/June–Aug/165–740 | Moderate potential to occur. There are no known locations of this species within the City; however, potentially suitable habitat is present. The nearest known records occur approximately 5 miles southeast in Lopez Canyon. |
| *Myosurus minimus ssp. apus* | little mousetail | None/None/3.1/None | Valley and foothill grassland, Vernal pools (alkaline)/annual herb/Mar–June/65–2100 | Not expected to occur. This species is primarily associated with vernal pools which are not present within the City. |

| Scientific Name | Common Name | Status (Federal/State/CRPR/Other) | Primary Habitat Associations/ Life Form/Blooming Period/ Elevation Range (feet) | Potential to Occur |
|---|---|---|---|---|
| *Navarretia fossalis* | spreading navarretia | FT/None/1B.1/None | Chenopod scrub, Marshes and swamps (shallow freshwater), Playas, Vernal pools/annual herb/Apr–June/100–2150 | Not expected to occur. This species is primarily associated with vernal pools which are not present within the City. |
| *Navarretia prostrata* | prostrate vernal pool navarretia | None/None/1B.2/None | Coastal scrub, Meadows and seeps, Valley and foothill grassland (alkaline), Vernal pools; Mesic/annual herb/Apr–July/10–3970 | Not expected to occur. This species is primarily associated with vernal pools which are not present within the City. |
| *Nemacaulis denudata var. denudata* | coast woolly-heads | None/None/1B.2/None | Coastal dunes/annual herb/Apr–Sep/0–330 | Moderate potential to occur. There are records of this species in San Dieguito Lagoon east of the City boundary and Peñasquitos Lagoon south of the City boundary. |
| *Ophioglossum californicum* | California adder's-tongue | None/None/4.2/None | Chaparral, Valley and foothill grassland, Vernal pools (margins); Mesic/perennial rhizomatous herb/Jan–June(Dec)/195–1725 | Not expected to occur. This species is primarily associated with vernal pools which are not present within the City. |
| *Orcuttia californica* | California Orcutt grass | FE/SE/1B.1/None | Vernal pools/annual herb/Apr–Aug/50–2165 | Not expected to occur. This species is primarily associated with vernal pools which are not present within the City. |
| *Pentachaeta aurea ssp. aurea* | golden-rayed pentachaeta | None/None/4.2/None | Chaparral, Cismontane woodland, Coastal scrub, Lower montane coniferous forest, Riparian woodland, Valley and foothill grassland/annual herb/Mar–July/260–6070 | Moderate potential to occur. There are no known locations of this species within the City; however, potentially suitable habitat is present. The nearest known records occur approximately 6 miles east in Del Mar Mesa Preserve and southeast in Los Peñasquitos Canyon. |
| *Phacelia ramosissima var. austrolitoralis* | south coast branching phacelia | None/None/3.2/None | Chaparral, Coastal dunes, Coastal scrub, Marshes and swamps (coastal salt); Rocky (sometimes), Sandy/perennial herb/Mar–Aug/15–985 | Expected to occur. There is at least one record documented within open space in the southern portion of the City. Additional records occur within San Dieguito Lagoon, Crest Canyon Open Space Park, and Torrey Pines State Natural Reserve. |

| Scientific Name | Common Name | Status (Federal/State/CRPR/Other) | Primary Habitat Associations/ Life Form/Blooming Period/ Elevation Range (feet) | Potential to Occur |
|---|---|---|---|---|
| *Phacelia stellaris* | Brand's star phacelia | None/None/1B.1/None | Coastal dunes, Coastal scrub/annual herb/Mar–June/5–1310 | Moderate potential to occur. There is a 1998 record of this species occurring in the Torrey Pines State Natural Reserve approximately 1.5 miles to the south. |
| *Pinus torreyana ssp. torreyana* | Torrey pine | None/None/1B.2/None | Chaparral, Closed-cone coniferous forest; Sandstone/perennial evergreen tree/100–525 | Expected to occur. There are recent records of this species in Crest Canyon Open Space Park, Torrey Pines State Natural Reserve Extension, and Del Mar Canyon Preserve (Sunset Seat). |
| *Piperia cooperi* | chaparral rein orchid | None/None/4.2/None | Chaparral, Cismontane woodland, Valley and foothill grassland/perennial herb/Mar–June/50–5200 | Moderate potential to occur. There are recent records of this species in the areas surrounding the City boundary, and one historic (1894) record within the City. |
| *Pogogyne abramsii* | San Diego mesa mint | FE/SE/1B.1/None | Vernal pools/annual herb/Mar–July/295–655 | Not expected to occur. This species is primarily associated with vernal pools which are not present within the City. |
| *Pogogyne nudiuscula* | Otay Mesa mint | FE/SE/1B.1/None | Vernal pools/annual herb/May–July/295–820 | Not expected to occur. This species is primarily associated with vernal pools which are not present within the City. |
| *Quercus dumosa* | Nuttall's scrub oak | None/None/1B.1/BLM-S, USFS-S | Chaparral, Closed-cone coniferous forest, Coastal scrub; Clay, Loam, Sandy/perennial evergreen shrub/Feb–Apr(May–Aug)/50–1310 | Moderate potential to occur. There are several records of this species occurring in areas just outside the City boundary, including one area that may overlap with open space in the City. Feasible for acorns to be carried into the City boundary if not already present. |
| *Quercus engelmannii* | Engelmann oak | None/None/4.2/None | Chaparral, Cismontane woodland, Riparian woodland, Valley and foothill grassland/perennial deciduous tree/Mar–June/165–4265 | Moderate potential to occur. There are several recent records of this species to the south in the Los Peñasquitos Canyon area. |

| Scientific Name | Common Name | Status (Federal/State/CRPR/Other) | Primary Habitat Associations/ Life Form/Blooming Period/ Elevation Range (feet) | Potential to Occur |
|---|---|---|---|---|
| *Rupertia rigida* | Parish's rupertia | None/None/4.3/None | Chaparral, Cismontane woodland, Lower montane coniferous forest, Meadows and seeps, Pebble (Pavement) plain, Valley and foothill grassland/perennial herb/June–Aug/2295–8205 | Not expected to occur. The City is outside of the known elevation range of this species. |
| *Salvia munzii* | Munz's sage | None/None/2B.2/None | Chaparral, Coastal scrub/perennial evergreen shrub/Feb–Apr/375–3495 | Not expected to occur. Perhaps because of its elevation range, nearly all known records of this species in the area are well inland away from the City boundary. |
| *Selaginella cinerascens* | ashy spike-moss | None/None/4.1/None | Chaparral, Coastal scrub/perennial rhizomatous herb/65–2100 | Moderate potential to occur. There are numerous recent records just outside the City boundary within the Crest Canyon Open Space and Torrey Pines State Natural Reserve Extension. |
| *Senecio aphanactis* | chaparral ragwort | None/None/2B.2/None | Chaparral, Cismontane woodland, Coastal scrub; Alkaline (sometimes)/annual herb/Jan–Apr(May)/50–2625 | Moderate potential to occur. There is a historical (19th century) record within the City boundaries but also a 2025 record approximately 2.25 miles southeast of the City in the open space outside Torrey View Estates. |
| *Sidalcea neomexicana* | salt spring checkerbloom | None/None/2B.2/USFS-S | Chaparral, Coastal scrub, Lower montane coniferous forest, Mojavean desert scrub, Playas; Alkaline, Mesic/perennial herb/Mar–June/50–5020 | Not expected to occur. The only known occurrence in the vicinity is approximately 5 miles away from over 60 years ago. |
| *Sphaerocarpos drewiae* | bottle liverwort | None/None/1B.1/None | Chaparral, Coastal scrub; Openings/ephemeral liverwort/295–1970 | Moderate potential to occur. There is a recent occurrence within the Crest Canyon Open Space just outside the City boundary. |
| *Stemodia durantifolia* | purple stemodia | None/None/2B.1/None | Sonoran desert scrub (often mesic, sandy)/perennial herb/(Jan)Apr–Dec/590–985 | Not expected to occur. The city is outside of the known elevation range of this species and there is no suitable habitat. |

| Scientific Name | Common Name | Status (Federal/State/CRPR/Other) | Primary Habitat Associations/ Life Form/Blooming Period/ Elevation Range (feet) | Potential to Occur |
|---|---|---|---|---|
| *Stipa diegoensis* | San Diego County needle grass | None/None/4.2/None | Chaparral, Coastal scrub; Mesic (often), Rocky/perennial herb/Feb–June/35–2625 | Moderate potential to occur. There are no known locations of this species within the City; however, potentially suitable habitat is present. The nearest locations are outside of the City in the Arroyo Sorrento Open Space and Carmel Valley Open Space. |
| *Stylocline citroleum* | oil neststraw | None/None/1B.1/BLM-S | Chenopod scrub, Coastal scrub, Valley and foothill grassland; Clay/annual herb/Mar–Apr/165–1310 | Not expected to occur. The only occurrence in the general vicinity is from the 1800s. |
| *Suaeda esteroa* | estuary seablite | None/None/1B.2/None | Marshes and swamps (coastal salt)/perennial herb/(Jan–May)July–Oct/0–15 | Expected to occur. There is a recent record of approximately 1000 individuals of this species within the San Dieguito Lagoon. |
| *Suaeda taxifolia* | woolly seablite | None/None/4.2/None | Coastal bluff scrub, Coastal dunes, Marshes and swamps (coastal margins)/perennial evergreen shrub/Jan–Dec/0–165 | Expected to occur. There is a recent record of this species within the San Dieguito Lagoon. |
| *Texosporium sancti-jacobi* | woven-spored lichen | None/None/3/None | Chaparral (openings)/crustose lichen (terricolous)/195–2165 | Not expected to occur due to the absence of suitable habitat within the City. |
| *Xanthisma junceum* | rush-like bristleweed | None/None/4.3/None | Chaparral, Coastal scrub/perennial herb/Jan–Oct/785–3280 | Not expected to occur. The City is outside of the known elevation range of this species. |

**Status Legend:**

**Federal**

FE: Federally listed as endangered
FT: Federally listed as threatened
FPE: Federally proposed for listing as endangered
FPT: Federally proposed for listing as threatened
FC: Federal candidate species (former Category 1 candidates)
None: No federal listing
FDL: Delisted

**State**

SE: State listed as endangered
ST: State listed as threatened
SR: State rare
SCE: State candidate for listing as endangered
SCT: State candidate for listing as threatened
None: No state listing
SDL: State delisting

**Other**

CBR: Considered but rejected
CRPR 1A: Plants presumed extirpated in California and either rare or extinct elsewhere
CRPR 1B: Plants rare, threatened, or endangered in California and elsewhere
CRPR 2A: Plants presumed extirpated in California but common elsewhere
CRPR 2B: Plants rare, threatened, or endangered in California but more common elsewhere
CRPR 3: Review List: Plants about which more information is needed
CRPR 4: Watch List: Plants of limited distribution
.1 Seriously threatened in California (over 80% of occurrences threatened / high degree and immediacy of threat)
.2 Moderately threatened in California (20–80% occurrences threatened / moderate degree and immediacy of threat)
.3 Not very threatened in California (<20% of occurrences threatened / low degree and immediacy of threat or no current threats known)

**SPECIAL-STATUS ANIMAL SPECIES WITH POTENTIAL TO OCCUR IN PROGRAM AREA**

| Scientific Name | Common Name | Status Federal/State/Other | Habitats | Potential to Occur |
|---|---|---|---|---|
| **Amphibians** | | | | |
| *Spea hammondii* | western spadefoot | FPT / None / BLM-S, CDFW-SSC | Cismontane woodland \| Coastal scrub \| Valley & foothill grassland \| Vernal pool \| Wetland; Occurs primarily in grassland habitats, but can be found in valley-foothill hardwood woodlands. | Expected. An adult was observed in 2016 on the edge of City boundaries and there is a small ephemeral pond within 100 feet of the sighting. |
| **Birds** | | | | |
| *Agelaius tricolor* | tricolored blackbird | None / ST / BLM-S, CDFW-SSC | Freshwater marsh \| Marsh & swamp \| Swamp \| Wetland; Highly colonial species, most numerous in Central Valley and vicinity. Largely endemic to California. | Moderate. This species is known to occur along the San Dieguito River upstream of the City boundaries where in-stream riparian habitat and/or upland agricultural habitat is present. |
| *Athene cunicularia* | burrowing owl | None / SCE / BLM-S, CDFW-SSC | Coastal prairie \| Coastal scrub \| Great Basin grassland \| Great Basin scrub \| Mojavean desert scrub \| Sonoran desert scrub \| Valley & foothill grassland; Open, dry annual or perennial grasslands, deserts, and scrublands characterized by low-growing vegetation. | Not expected to occur. Suitable habitat is generally not present within the City boundaries but birds may occasionally occur during winter in open space areas like San Dieguito Lagoon. |
| *Buteo swainsoni* | Swainson's hawk | None / ST / BLM-S | Great Basin grassland \| Riparian forest \| Riparian woodland \| Valley & foothill grassland; Breeds in grasslands with scattered trees, juniper-sage flats, riparian areas, savannahs, and agricultural or ranch lands with groves or lines of trees. | Not expected to occur. May occasionally fly over the City during migration but not expected to nest. |
| *Campylorhynchus brunneicapillus sandiegensis* | coastal cactus wren | None / None / CDFW-SSC, USFS-S | Coastal scrub; Southern California coastal sage scrub. | Not expected to occur. There is no suitable habitat. |

| Scientific Name | Common Name | Status Federal/State/Other | Habitats | Potential to Occur |
|---|---|---|---|---|
| *Charadrius alexandrinus nivosus* | western snowy plover | FT / None / CDFW-SSC | Great Basin standing waters \| Sand shore \| Wetland; Sandy beaches, salt pond levees and shores of large alkali lakes. | Expected. This species is expected to occur in small numbers within San Dieguito Lagoon. |
| *Coccyzus americanus occidentalis* | western yellow-billed cuckoo | FT / SE / BLM-S, USFS-S | Riparian forest; Riparian forest nester, along the broad, lower flood-bottoms of larger river systems. | Not expected to occur. There is no suitable habitat. |
| *Elanus leucurus* | white-tailed kite | None / None / BLM-S, CDFW-FP | Cismontane woodland \| Marsh & swamp \| Riparian woodland \| Valley & foothill grassland \| Wetland; Rolling foothills and valley margins with scattered oaks and river bottomlands or marshes next to deciduous woodland. | Expected. This species is regularly reported in the San Dieguito Lagoon. |
| *Empidonax traillii extimus* | southwestern willow flycatcher | FE / SE / None | Riparian woodland; Riparian woodlands in Southern California. | Not expected to occur. There is no suitable habitat. |
| *Icteria virens* | yellow-breasted chat | None / None / CDFW-SSC | Riparian forest \| Riparian scrub \| Riparian woodland; Summer resident; inhabits riparian thickets of willow and other brushy tangles near watercourses. | Expected. This species is regularly reported in San Dieguito Lagoon. |
| *Ixobrychus exilis* | least bittern | None / None / CDFW-SSC | Marsh & swamp \| Wetland; Colonial nester in marshlands and borders of ponds and reservoirs which provide ample cover. | Not expected to occur. There is no suitable habitat. |
| *Laterallus jamaicensis coturniculus* | California black rail | None / ST / BLM-S, CDFW-FP | Brackish marsh \| Freshwater marsh \| Marsh & swamp \| Salt marsh \| Wetland; Inhabits freshwater marshes, wet meadows and shallow margins of saltwater marshes bordering larger bays. | Not expected to occur. The City is well outside of this species' range. |
| *Passerculus sandwichensis beldingi* | Belding's savannah sparrow | None / SE / None | Marsh & swamp \| Wetland; Inhabits coastal salt marshes, from Santa Barbara south through San Diego County. | Expected. This species is well known to occur in San Dieguito Lagoon. |

| Scientific Name | Common Name | Status Federal/State/Other | Habitats | Potential to Occur |
|---|---|---|---|---|
| *Phoebastria albatrus* | short-tailed albatross | FE / None / CDFW-SSC | Nests on isolated, windswept islands of the western Pacific; extremely rare in migration offshore along the California coast | Not expected to occur. The City is well outside of this species' range. |
| *Polioptila californica californica* | coastal California gnatcatcher | FT / None / CDFW-SSC | Coastal bluff scrub \| Coastal scrub; Obligate, permanent resident of coastal sage scrub below 2500 ft in Southern California. | Expected. This species is widespread within suitable habitat in the City. |
| *Rallus obsoletus levipes* | light-footed Ridgway's rail | FE / SE / CDFW-FP | Marsh & swamp \| Salt marsh \| Wetland; Found in salt marshes traversed by tidal sloughs, where cordgrass and pickleweed are the dominant vegetation. | Expected. The San Dieguito River Valley in general supports a large population of this species. |
| *Setophaga petechia* | yellow warbler | None / None / CDFW-SSC | Riparian forest \| Riparian scrub \| Riparian woodland; Riparian plant associations in close proximity to water. Also nests in montane shrubbery in open conifer forests in Cascades and Sierra Nevada. | Expected. This species is expected to occur during migration and during the summer in suitable habitat. |
| *Sternula antillarum browni* | California least tern | FE / SE / CDFW-FP | Alkali playa \| Wetland; Nests along the coast from San Francisco Bay south to northern Baja California. | Expected. This species is regularly reported in San Dieguito Lagoon. |
| *Vireo bellii pusillus* | least Bell's vireo | FE / SE / None | Riparian forest \| Riparian scrub \| Riparian woodland; Summer resident of Southern California in low riparian in vicinity of water or in dry river bottoms; below 2000 ft. | Not expected to occur except during migration or accidentally. There is no suitable habitat. |
| **Invertebrates** | | | | |
| *Bombus crotchii* | Crotch's bumble bee | None / SCE / None | Open grassland, scrub communities, or developed areas supporting suitable floral resources. Coastal California east to the Sierra-Cascade crest and south into Mexico. | Moderate. There is limited undisturbed habitat within the City. However, there are records of this species throughout San Diego County (Bumble Bee Watch n.d.), some of which are within developed areas. There is one 2024 record approximately two miles east of the city boundary within the Gonzales Canyon Open Space Park (iNaturalist n.d.). |

| Scientific Name | Common Name | Status Federal/State/Other | Habitats | Potential to Occur |
|---|---|---|---|---|
| *Branchinecta sandiegonensis* | San Diego fairy shrimp | FE / None / None | Chaparral \| Coastal scrub \| Vernal pool \| Wetland; Endemic to San Diego and Orange County mesas. | Not expected to occur. There is no suitable habitat. |
| *Danaus plexippus plexippus* | monarch - California overwintering population | FPT / None / USFS-S | Closed-cone coniferous forest; Winter roost sites extend along the coast from northern Mendocino to Baja California, Mexico. | Expected. Migrating individuals are expected to occur throughout the City. However, there is moderate potential for overwintering. There are three known roosts within the City's boundaries, one of which has been inactive since 1997. The other two are still active in the 2020s, albeit with low numbers (Xerces 2025). |
| *Euphydryas editha quino* | quino checkerspot butterfly | FE / SCE / None | Chaparral \| Coastal scrub; Sunny openings within chaparral and coastal sage shrublands in parts of Riverside and San Diego counties. | Not expected to occur. The City is outside the species' current known range and lacks suitable habitat conditions (open scrub/grassland structure). Urbanization and coastal development have eliminated historical habitat in this area. |
| *Lycaena hermes* | Hermes copper butterfly | FT / None / USFS-S | Chaparral \| Coastal scrub; Found in southern mixed chaparral and coastal sage scrub at western edge of Laguna Mountains. | Not expected to occur. The City is well outside of this species' range. |
| *Streptocephalus woottoni* | Riverside fairy shrimp | FE / None / None | Coastal scrub \| Valley & foothill grassland \| Vernal pool \| Wetland; Endemic to Western Riverside, Orange, and San Diego counties in areas of tectonic swales/earth slump basins in grassland and coastal sage scrub. | Not expected to occur. There is no suitable habitat. |

| Scientific Name | Common Name | Status Federal/State/Other | Habitats | Potential to Occur |
|---|---|---|---|---|
| **Mammals** | | | | |
| *Antrozous pallidus* | pallid bat | None / None / BLM-S, CDFW-SSC, USFS-S | Chaparral \| Coastal scrub \| Desert wash \| Great Basin grassland \| Great Basin scrub \| Mojavean desert scrub \| Riparian woodland \| Sonoran desert scrub \| Upper montane coniferous forest \| Valley & foothill grassland; Deserts, grasslands, shrublands, woodlands and forests. Most common in open, dry habitats with rocky areas for roosting. | Moderate. There is no suitable roosting habitat. May forage over the San Dieguito Lagoon. |
| *Chaetodipus californicus femoralis* | Dulzura pocket mouse | None / None / CDFW-SSC | Chaparral \| Coastal scrub \| Valley & foothill grassland; Variety of habitats including coastal scrub, chaparral, and grassland primarily in San Diego County. | Moderate. The City is within the species' range and there is suitable habitat present, but there are no known records in the immediate vicinity. |
| *Chaetodipus fallax fallax* | northwestern San Diego pocket mouse | None / None / CDFW-SSC | Coastal scrub, chaparral, grasslands, sagebrush, etc. in western San Diego, Riverside, San Bernardino, and Los Angeles Counties, inclusive of Orange County. | Expected. The City is within the species' range and there is suitable habitat present, as well as a known population immediately outside the City boundaries in the San Dieguito Valley. |
| *Choeronycteris mexicana* | Mexican long-tongued bat | None / None / CDFW-SSC | Pinon & juniper woodlands \| Riparian scrub \| Sonoran thorn woodland; Occasionally found in San Diego County, which is on the periphery of their range. | Not expected to occur. There is no suitable habitat. |

| Scientific Name | Common Name | Status Federal/State/Other | Habitats | Potential to Occur |
|---|---|---|---|---|
| *Corynorhinus townsendii* | Townsend's big-eared bat | None / None / BLM-S, CDFW-SSC, USFS-S | Broadleaved upland forest \| Chaparral \| Chenopod scrub \| Great Basin grassland \| Great Basin scrub \| Joshua tree woodland \| Lower montane coniferous forest \| Meadow & seep \| Mojavean desert scrub \| Riparian forest \| Riparian woodland \| Sonoran desert scrub; Throughout California in a wide variety of habitats. Most common in mesic sites. | Moderate. The City is within the species' range and there is suitable habitat present, but there are no known records in the immediate vicinity. |
| *Euderma maculatum* | spotted bat | None / None / BLM-S, CDFW-SSC | Foothills, mountains, desert regions of southern California, including arid deserts, grasslands, and mixed-conifer forests; roosts in rock crevices and cliffs; feeds over water and along washes; Occupies a wide variety of habitats from arid deserts and grasslands through mixed conifer forests. | Moderate. There is no suitable roosting habitat. May forage over the San Dieguito Lagoon. |
| *Eumops perotis californicus* | western mastiff bat | None / None / BLM-S, CDFW-SSC | Chaparral \| Cismontane woodland \| Coastal scrub \| Valley & foothill grassland; Many open, semi-arid to arid habitats, including conifer and deciduous woodlands, coastal scrub, grasslands, chaparral, etc. | Moderate. The City is within the species' range and there is suitable habitat present, but there are no known records in the immediate vicinity. |
| *Lasiurus frantzii* | western red bat | None / None / CDFW-SSC | Cismontane woodland \| Lower montane coniferous forest \| Riparian forest \| Riparian woodland; Roosts primarily in trees, 2-40 ft above ground, from sea level up through mixed conifer forests. | Not expected to occur. There is no suitable habitat. |
| *Lasiurus xanthinus* | western yellow bat | None / None / CDFW-SSC | Desert wash; Found in valley foothill riparian, desert riparian, desert wash, and palm oasis habitats. | Not expected to occur. There is no suitable habitat. |

| Scientific Name | Common Name | Status Federal/State/Other | Habitats | Potential to Occur |
|---|---|---|---|---|
| *Myotis yumanensis* | Yuma myotis | None / None / BLM-S | Lower montane coniferous forest \| Riparian forest \| Riparian woodland \| Upper montane coniferous forest; Optimal habitats are open forests and woodlands with sources of water over which to feed. | Moderate. There is no suitable roosting habitat. May forage over the San Dieguito Lagoon. |
| *Neotoma lepida intermedia* | San Diego desert woodrat | None / None / CDFW-SSC | Coastal scrub of Southern California from San Diego County to San Luis Obispo County. | Expected. This species has been historically present in the San Dieguito River Valley and there are numerous other records in the general vicinity of the City. |
| *Nyctinomops femorosaccus* | pocketed free-tailed bat | None / None / CDFW-SSC | Joshua tree woodland \| Pinon & juniper woodlands \| Riparian scrub \| Sonoran desert scrub; Variety of arid areas in Southern California; pine-juniper woodlands, desert scrub, palm oasis, desert wash, desert riparian, etc. | Expected. A historical known day roost is present in Del Mar. It is unknown if this roost is still active. |
| *Nyctinomops macrotis* | big free-tailed bat | None / None / CDFW-SSC | Rocky areas; roosts in caves, holes in trees, buildings, and crevices on cliffs and rocky outcrops; forages over water ; Low-lying arid areas in Southern California. | Moderate. There is no suitable roosting habitat. May forage over the San Dieguito Lagoon. |
| *Perognathus longimembris pacificus* | Pacific pocket mouse | FE / None / CDFW-SSC | Coastal scrub; Inhabits the narrow coastal plains from the Mexican border north to El Segundo, Los Angeles County. | Not expected to occur. This species is only known from three distinct populations, none of which are near the City of Del Mar. |

| Scientific Name | Common Name | Status Federal/State/Other | Habitats | Potential to Occur |
|---|---|---|---|---|
| *Taxidea taxus* | American badger | None / None / CDFW-SSC | Alkali marsh \| Alkali playa \| Alpine \| Alpine dwarf scrub \| Bog & fen \| Brackish marsh \| Broadleaved upland forest \| Chaparral \| Chenopod scrub \| Cismontane woodland \| Closed-cone coniferous forest \| Coastal bluff scrub \| Coastal dunes \| Coastal prairie; most abundant in drier open stages of most shrub, forest, and herbaceous habitats, with friable soils. | Not expected to occur. There is no suitable habitat. |
| **Reptiles** | | | | |
| *Actinemys pallida* | southwestern pond turtle | FPT / None / BLM-S, CDFW-SSC, USFS-S | Freshwater environments such as ponds, lakes, reservoirs, and slow-moving streams with abundant aquatic vegetation, typically in low to mid-elevation areas. | Not expected to occur. There is no suitable freshwater habitat for this species. |
| *Anniella stebbinsi* | Southern California legless lizard | None / None / CDFW-SSC, USFS-S | Broadleaved upland forest \| Chaparral \| Coastal dunes \| Coastal scrub; Generally south of the Transverse Range, extending to northwestern Baja California. Occurs in sandy or loose loamy soils under sparse vegetation. Disjunct populations in the Tehachapi and Piute Mountains in Kern County. | Moderate. There are historical records within the City (now developed) and many records in the region. This species may occur in scrubby areas surrounding the San Dieguito Lagoon, in Crest Canyon Open Space Park, or in Torrey Pines State Natural Reserve Extension. There is a 2021 photorecord of a specimen in the Crest Canyon Open Space Park on iNaturalist. |
| *Arizona elegans occidentalis* | California glossy snake | None / None / CDFW-SSC | Arid scrub, rocky washes, grasslands, chaparral, open areas with loose soil; Patchily distributed from the eastern portion of San Francisco Bay, southern San Joaquin Valley, and the Coast, Transverse, and Peninsular ranges, south to Baja California. | Not expected to occur. There is limited suitable habitat for this species, and nearly all records within the surrounding area are older than 60 years. |

| Scientific Name | Common Name | Status Federal/State/Other | Habitats | Potential to Occur |
|---|---|---|---|---|
| *Aspidoscelis hyperythra* | orange-throated whiptail | None / None / USFS-S | Chaparral \| Cismontane woodland \| Coastal scrub; Inhabits low-elevation coastal scrub, chaparral, and valley-foothill hardwood habitats. | Expected. There is suitable habitat for this species in open space areas and abundant records in and around Del Mar. |
| *Aspidoscelis tigris stejnegeri* | coastal whiptail | None / None / CDFW-SSC | Hot and dry areas with sparse foliage, including chaparral, woodland, and riparian areas.; Found in deserts and semi-arid areas with sparse vegetation and open areas. Also found in woodland and riparian areas. | Expected. There is suitable habitat for this species in open space areas and abundant records in and around Del Mar. |
| *Crotalus ruber* | red-diamond rattlesnake | None / None / CDFW-SSC, USFS-S | Chaparral \| Mojavean desert scrub \| Sonoran desert scrub; Chaparral, woodland, grassland, and desert areas from coastal San Diego County to the eastern slopes of the mountains. | Moderate. There is limited suitable habitat for this species within the City boundaries, but many known records more inland, including in the San Dieguito River Valley. |
| *Diadophis punctatus similis* | San Diego ringneck snake | None / None / USFS-S | Moist habitats including wet meadows, rocky hillsides, gardens, farmland grassland, chaparral, mixed-conifer forest, and woodland habitats; Open, fairly rocky areas. Use boards, flat rocks, woodpiles, stable talus, rotting logs and small ground holes for cover. | Moderate. There is limited suitable habitat for this species within the City boundaries. There is a 1998 record within the Torrey Pines State Natural Reserve Extension. |
| *Phrynosoma blainvillii* | coast horned lizard | None / None / BLM-S, CDFW-SSC | Chaparral \| Cismontane woodland \| Coastal bluff scrub \| Coastal scrub \| Desert wash \| Pinon & juniper woodlands \| Riparian scrub \| Riparian woodland \| Valley & foothill grassland; Frequents a wide variety of habitats, most common in lowlands along sandy washes with scattered low bushes. | Moderate. There is limited suitable habitat for this species within the City boundaries. There is a 1998 record within the Torrey Pines State Natural Reserve Extension. |

| Scientific Name | Common Name | Status Federal/State/Other | Habitats | Potential to Occur |
|---|---|---|---|---|
| *Plestiodon skiltonianus interparietalis* | Coronado skink | None / None / BLM-S | Chaparral \| Cismontane woodland \| Pinon & juniper woodlands; Grassland, chaparral, pinon-juniper and juniper sage woodland, pine-oak and pine forests in Coast Ranges of Southern California. | Moderate. There is limited suitable habitat for this species within the City boundaries. There is a 1998 record within the Torrey Pines State Natural Reserve Extension. |
| *Salvadora hexalepis virgultea* | coast patch-nosed snake | None / None / CDFW-SSC | Coastal scrub; Brushy or shrubby vegetation in coastal Southern California. | Not expected to occur. Although there is suitable habitat within the City, all known records in this area are farther into the interior away from the immediate coast. |
| *Thamnophis hammondii* | two-striped gartersnake | None / None / BLM-S, CDFW-SSC, USFS-S | Marsh & swamp \| Riparian scrub \| Riparian woodland \| Wetland; Coastal California from vicinity of Salinas to northwest Baja California. From sea to about 7,000 ft elevation. | Not expected to occur. There is no suitable freshwater habitat for this species. |
| *Thamnophis sirtalis pop. 1* | south coast gartersnake | None / None / CDFW-SSC | Artificial standing waters \| Marsh & swamp \| Riparian scrub \| Riparian woodland \| South coast flowing waters \| South coast standing waters \| Wetland; Southern California coastal plain from Ventura County to San Diego County, and from sea level to about 850 m. | Not expected to occur. There is no suitable freshwater habitat for this species. |

**Status Legend:**

**Federal**
FE: Federally listed as endangered
FT: Federally listed as threatened
FPE: Federally proposed for listing as endangered
FPT: Federally proposed for listing as threatened
FC: Federal candidate species (former Category 1 candidates)
None: No federal listing
FDL: Delisted

**State**
SE: State listed as endangered
ST: State listed as threatened
SR: State rare
SCE: State candidate for listing as endangered
SCT: State candidate for listing as threatened
None: No state listing
SDL: State delisting

**Other**
BCC: U.S. Fish and Wildlife Service Bird of Conservation Concern
BLM-S: Bureau of Land Management Sensitive Species
CDFW-FP: California Fully Protected Species
CDFW-SSC: California Species of Special Concern
USFS-S: U.S. Forest Service Sensitive Species

# APPENDIX F
# PROGRAMMATIC CULTURAL AND PALEONTOLOGICAL RESOURCES ASSESSMENT

Michael Baker
INTERNATIONAL

# Programmatic Cultural and Paleontological Resources Assessment

# City of Del Mar Capital Improvement Program Streamlining Project

# Del Mar, California

**December 2025**

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# MANAGEMENT SUMMARY

This technical report presents the results of a program-level assessment of archaeological, tribal cultural, historical architectural (built environment), and paleontological resources for the proposed City of Del Mar (City) Capital Improvement Program (CIP) Streamlining Project (project). The study was conducted to support compliance with the California Environmental Quality Act (CEQA), the City's CEQA Supplemental Regulations, and where applicable federal and state historic preservation laws. The assessment is programmatic in nature, providing a framework for evaluating and mitigating potential impacts to cultural and paleontological resources across a 10-year planning horizon for a diverse suite of infrastructure projects. The study included comprehensive literature and records searches, GIS-based sensitivity modeling, and regulatory review. No new field survey was conducted.

The report was prepared between May and October 2025. Key data collection activities included a South Coastal Information Center (SCIC) records search, a Sacred Lands File search by the Native American Heritage Commission, and a paleontological records search by the San Diego Natural History Museum.

The City's CIP encompasses approximately 2.2 square miles (1,408 acres) in San Diego County, including urbanized corridors, coastal bluffs, lagoon margins, and open space. Most CIP projects are located within the previously disturbed public rights-of-way, but some may extend into areas of moderate to high archaeological and paleontological sensitivity, especially near the San Dieguito River, lagoon, and coastal bluffs.

The SCIC records search identified 67 previous cultural resource studies and 37 recorded cultural resources within the project area, including prehistoric archaeological sites, historic-period archaeological sites, and built environment resources. Several resources are considered significant at the local or state level, while many have been evaluated as not eligible for the National Register of Historic Places or California Register of Historical Resources. The Sacred Lands File search was negative, but the City has initiated Assembly Bill (AB) 52 and Senate Bill (SB) 18 consultation with local tribes. No tribal cultural resources have been formally identified to date, but the area is recognized as sensitive by Kumeyaay tribal representatives. The paleontological records search documented two fossil localities within the City and over 600 additional localities within 5 miles, primarily from the Eocene Delmar Formation, Torrey Sandstone, and Pleistocene Bay Point and Lindavista Formations. These units are considered to have high paleontological sensitivity.

GIS-based models identified high archaeological sensitivity along the San Dieguito River and Lagoon margins, coastal bluffs, and undeveloped open space, and high paleontological sensitivity in areas underlain by fossil-bearing geologic units. Most urbanized areas have low sensitivity due to prior disturbance.

Most CIP projects are located in previously disturbed areas, limiting the potential for impacts to intact resources. However, projects near the lagoon, river, or coastal bluffs, or in open space may encounter significant archaeological or paleontological resources. Direct impacts could include ground disturbance, destruction, or alteration of sites or fossils. Indirect impacts may include increased erosion or exposure of sensitive areas.

This programmatic assessment did not include new field surveys due to the broad scope and early planning stage of the CIP. The analysis relied on existing records, GIS modeling, and prior studies. Site-specific investigations will be required for individual projects in sensitive areas.

This report recommends a tiered mitigation strategy that aligns with CEQA requirements and established best practices. The preferred approach is to avoid and preserve known significant resources in place whenever possible. In areas identified as having moderate to high archaeological or paleontological sensitivity, monitoring should be conducted during any ground-disturbing activities. If avoidance is not feasible and resources are discovered, data recovery excavations should be implemented. The strategy also calls for ongoing tribal consultation and monitoring in culturally sensitive locations. For areas assessed as having low sensitivity, standard discovery protocols are considered sufficient. Additionally, worker training and public education initiatives are suggested, as appropriate, to support resource protection efforts.

This report and supporting documentation will be filed with the City, the SCIC, and other relevant agencies. Confidential site location information will be restricted in accordance with state and federal law.

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INTERNATIONAL

# Table of Contents


**Management Summary** ..... **a**

**1.0 Introduction** ..... **1**

1.1 Background and Purpose ..... 1
1.2 Scope of Analysis and Methods ..... 1
1.3 Purpose and Need for Study ..... 9
1.4 Lead Agency and Regulatory Context ..... 9
1.5 Personnel and Qualifications ..... 10
1.6 Report Organization ..... 10

**2.0 Regulatory Framework** ..... **11**

2.1 Federal Regulations ..... 11
2.2 State of California Regulations ..... 14
2.3 Local Regulations ..... 17

**3.0 Environmental Setting** ..... **19**

3.1 Natural Environment ..... 19
3.2 Paleontological Setting ..... 20
3.3 Precontact and Archaeological Context ..... 24
3.4 Historic Period Context (1769–Present) ..... 32

**4.0 Resource Identification Methods and Results** ..... **39**

4.1 Cultural Resources ..... 39
4.2 Paleontological Resources ..... 60

**5.0 Resource Sensitivity Modeling** ..... **65**

5.1 Utility for CEQA Impact Analysis and Mitigation ..... 65
5.2 Archaeological Resources ..... 65
5.3 Built Environment ..... 72
5.4 Paleontological Resources ..... 75

**6.0 Summary of Potential Effects and Recommended Protection Measures** ..... **77**

**7.0 References Cited** ..... **79**

# List of Tables

Table 1: Soils within the City of Del Mar ..... 23
Table 2: Previous Studies within the Project Site ..... 39
Table 3: Previously Recorded Resources within the Project Site ..... 43
Table 4: NAHC Contact List for Del Mar CIP PEIR Project ..... 58
Table 5: SDNHM Records Search Paleontological Localities Within 5 Miles of the City ..... 61
Table 6: SDNHM Records Search Additional Listed Relevant Localities Within 5 Miles of the City ..... 62
Table 7: Paleobiology Database Localities Within 5 Miles of the City ..... 64
Table 8: Variables in Del Mar Archaeological Sensitivity Model – Weights and Scoring ..... 68
Table 9: City of Del Mar Historic Preservation Landmarks ..... 72
Table 10: Summary of Potential Effects and Protections ..... 77

# List of Figures

Figure 1. Project Vicinity Map ..... 3
Figure 2. Vicinity Map ..... 4
Figure 3. Project Area Map ..... 5
Figure 4. Archaeological Sensitivity Modeling Results ..... 71
Figure 5. Built Environment Resources from the SCIC ..... 73
Figure 6. Del Mar Historic preservation Landmarks ..... 74
Figure 7. Paleontological Sensitivity Model Analysis. ..... 76

# List of Appendices

Appendix A CHRIS/Information Center Records Search Results
Appendix B NAHC Correspondence and Tribal Contact List
Appendix C Resumes of Principal Investigators and Authors
Appendix D Confidential Site Maps (Separate, restricted access)

# 1.0 INTRODUCTION

The City of Del Mar (City) is undertaking a comprehensive Programmatic Environmental Impact Report (PEIR) to evaluate the potential environmental effects associated with implementation of its Capital Improvement Program (CIP) Streamlining Project (project). The CIP encompasses a range of infrastructure and facility projects designed to maintain and enhance the City's public services, utilities, and community assets. The purpose of this technical report is to provide a program-level overview of archaeological, tribal cultural, historical architecture, and paleontological resources that could be affected by implementation of the proposed project. This technical report also identifies steps to avoid, minimize, and reduce potential impacts to sensitive resources.

## 1.1 Background and Purpose

The City's CIP is a strategic planning and budgeting tool for addressing the City's current and future capital infrastructure and facility needs and is revised over time in noticed public meetings of the City Council in consideration of City Council goals and priorities and funding availability. The CIP outlines plans for capital projects, major maintenance, refurbishments, and substantial equipment purchases. Every year, the City undertakes multiple CIP projects involving work on City properties, within City rights-of-way, and within public easements. The project components analyzed in this report include the typical construction and operation protocols for various types of individual CIP projects. The CIP projects covered under this report have been divided into seven categories: undergrounding program, water infrastructure, wastewater infrastructure, storm water infrastructure, street improvements, facilities, and open space. Most CIP projects are located within developed or highly disturbed areas, such as public rights-of-way, and are not anticipated to occur within previously undeveloped open space areas.

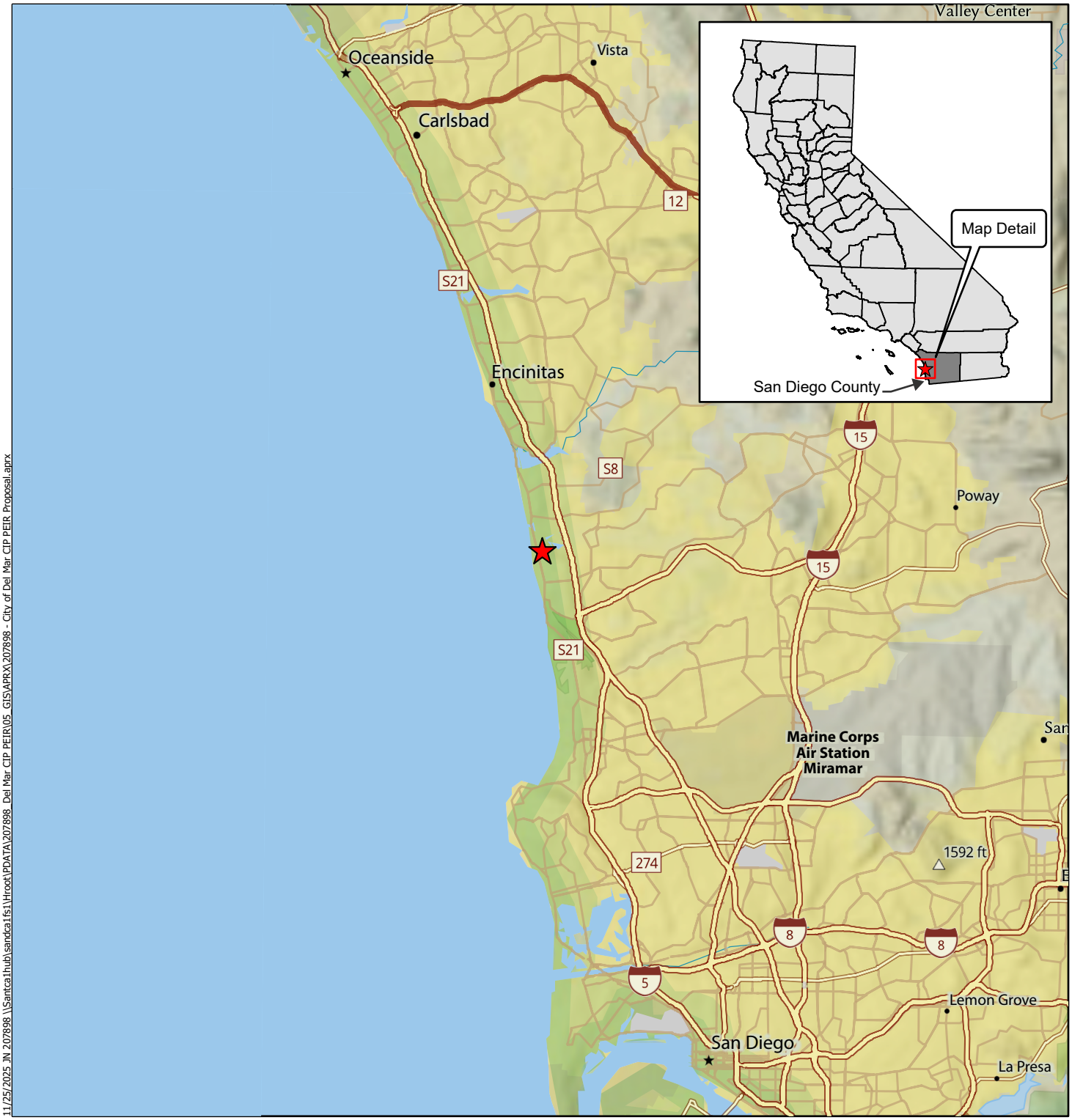
The purpose of this programmatic cultural and paleontological resources assessment is to support the PEIR by summarizing the existing conditions of archaeological, tribal cultural, historical architecture, and paleontological resources within the City, with a focus on significant resources, as defined by California Environmental Quality Act (CEQA). The report synthesizes existing data, literature, and the results of desktop analyses to identify cultural and paleontological constraints and inform the development of mitigation strategies in the PEIR. These strategies are intended to streamline future environmental review and permitting for individual CIP projects, ensuring compliance with the California Environmental Quality Act (CEQA) and other applicable regulations, while protecting the City's significant cultural and paleontological resources.

## 1.2 Scope of Analysis and Methods

### 1.2.1 Project Location

Implementation of the CIP would occur within the majority of the City of Del Mar in northwestern San Diego County, California (**Figure 1**). The project site is mapped within Sections 2, 11, 13, 14, and 23, Township 14 South, Range 4 West, of the US Geological Survey (USGS) Del Mar, California, 7.5-minute topographic quadrangle map (**Figure 2**). The City is a coastal community situated along the Pacific Ocean, approximately 20 miles north of downtown San Diego. The project site encompasses approximately 2.2 square miles (1,408 acres) and is bordered by the cities of Solana Beach to the north and San Diego to the south and east, with the Pacific Ocean forming its western boundary (**Figure 3**). The project site is

characterized by a mix of developed urban land uses, including residential neighborhoods, commercial districts, public facilities, parks, and transportation corridors. Notable features within the City include the Del Mar Fairgrounds, Powerhouse Park, Seagrove Park, and segments of the San Dieguito River and Lagoon, which provide important ecological and recreational resources.

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**Legend**

★ Project Location

CITY OF DEL MAR CIP STREAMLINING PROJECT
PROGRAMMATIC CULTURAL & PALEONTOLOGICAL RESOURCES ASSESSMENT

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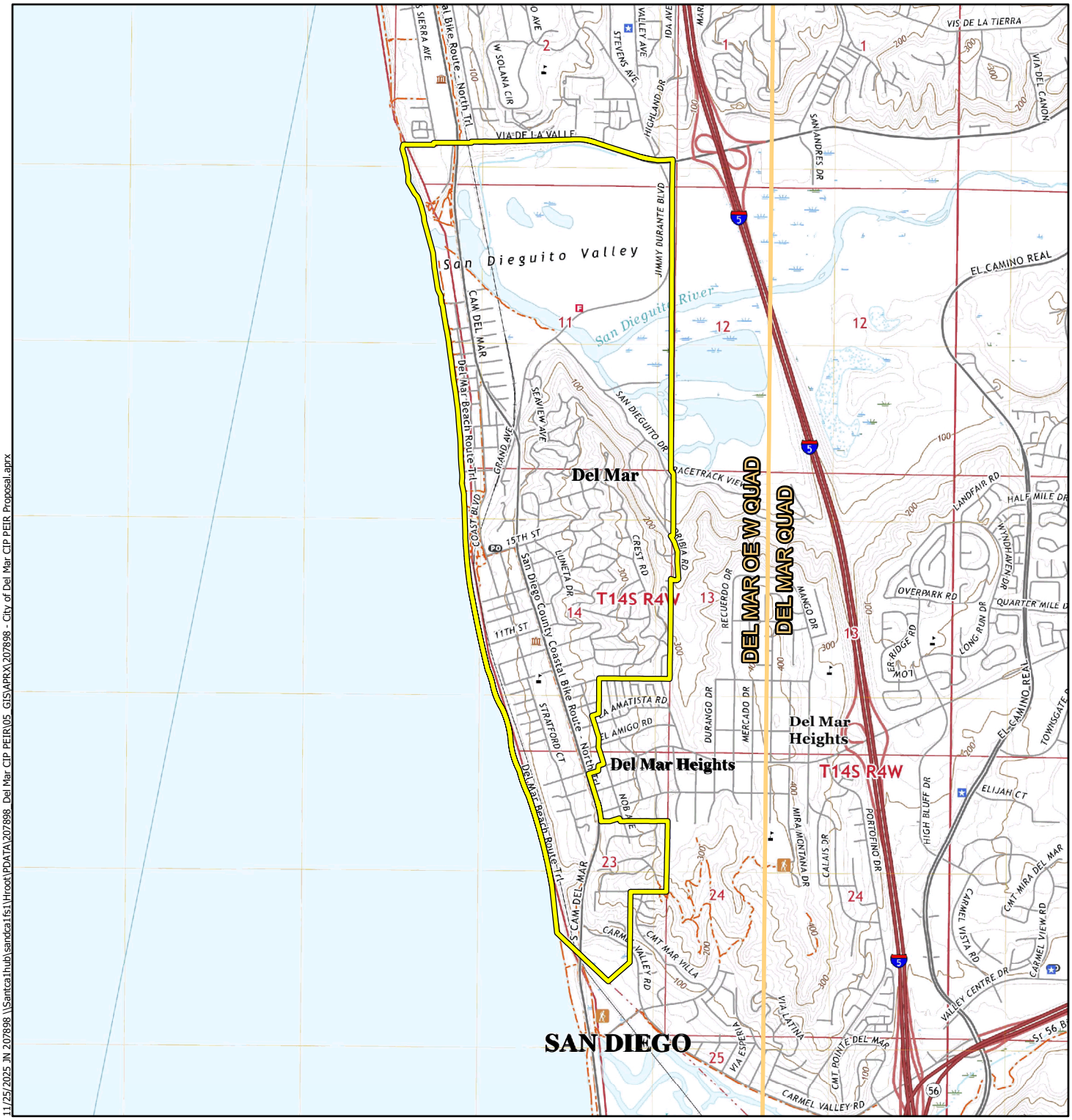
0 2.5 5 Miles

Source: Esri, ArcGIS Online, USGS, San Diego County

# Regional Vicinity

Figure 1

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**Legend**

Project Site

CITY OF DEL MAR CIP STREAMLINING PROJECT
PROGRAMMATIC CULTURAL & PALEONTOLOGICAL RESOURCES ASSESSMENT

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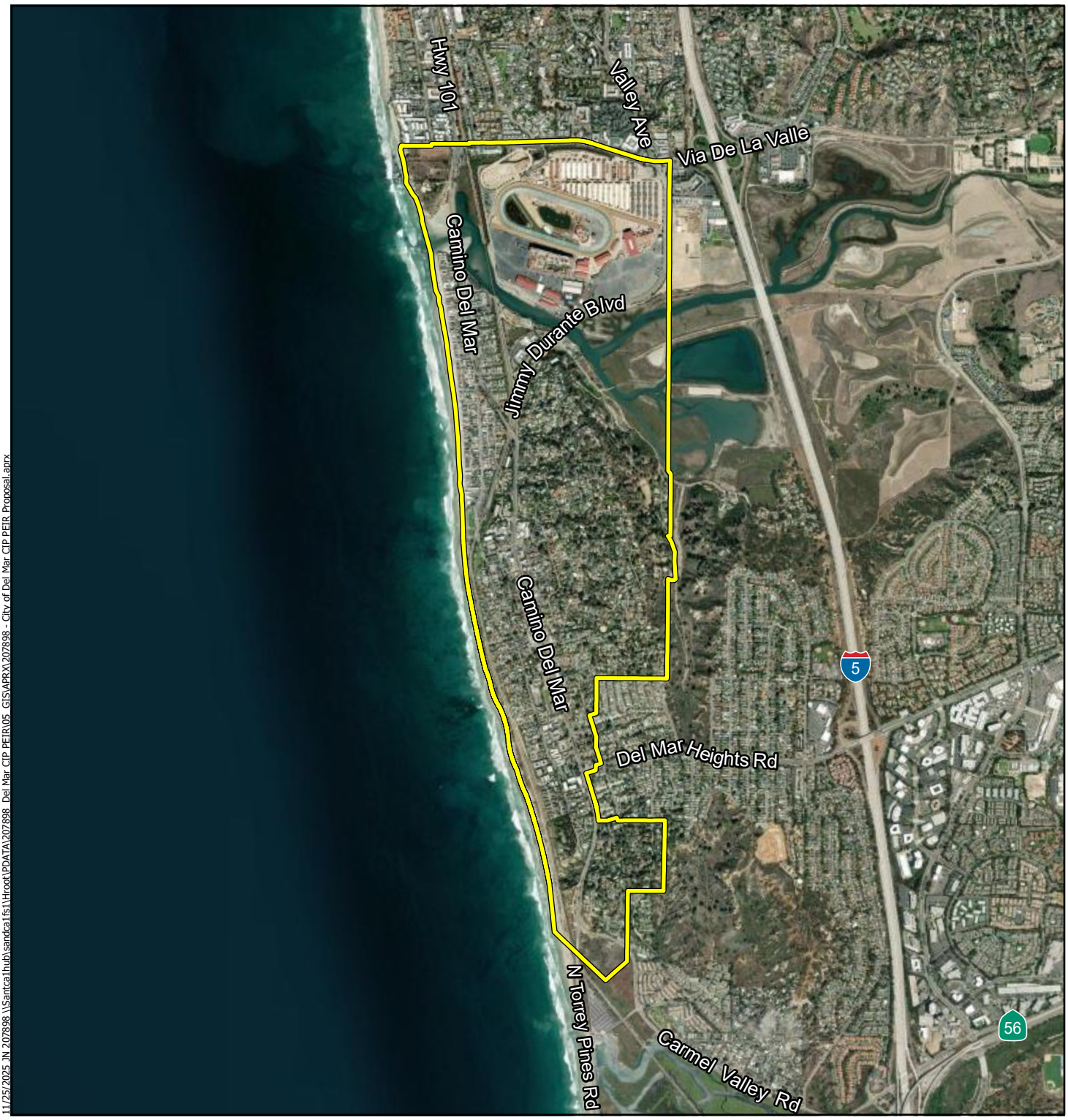
0 0.25 0.5 Miles

# Project Location

Source: California Coastal Commission, USGS 7.5-Minute topographic quadrangle maps: *Del Mar OE W and Del Mar, California (2021)*

Figure 2

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**Legend**

Project Site

CITY OF DEL MAR CIP STREAMLINING PROJECT
PROGRAMMATIC CULTURAL & PALEONTOLOGICAL RESOURCES ASSESSMENT

Michael Baker INTERNATIONAL

0 0.25 0.5 Miles

Source: Esri, ArcGIS Online, City of Del Mar, San Diego County

# Project Study Area

Figure 3

### 1.2.2 Project Description

The project includes a variety of public infrastructure and facility improvements planned to occur throughout the City. The following summaries describe the general activities associated with each CIP category.

#### *Undergrounding Program*

Typical undergrounding projects involve the removal of unsightly existing utility poles and overhead cable lines for electricity and telecommunications, replacing them with underground lines. Construction generally would include trenching, installation of utility lines and conduit in trenches, backfilling trenches, resurfacing pavement, replacement of vegetation that is disturbed during construction, installation of utility structures, and the removal of utility poles and associated equipment. Other construction activities may include retaining walls to support the installation of aboveground utility structures. The majority of construction activities would occur within public rights-of-way or along existing roadways. Installation of underground utility lines would also occur outside public rights-of-way at locations where overhead services currently exist in order to maintain service connections to existing residences and businesses. Similarly, most utility poles are located in or immediately adjacent to public rights-of-way. However, in certain instances, poles may be located outside public rights-of-way, for which work crews would need to traverse existing vegetation to access and remove poles.

Typical construction equipment for utility undergrounding would include backhoes, skid steer loaders, and dump trucks for excavation activities; milling machines, sweepers, asphalt pavers, roller compactors, and dump trucks for asphalt resurfacing; and concrete mixer trucks, dump trucks, and hand tools for concrete resurfacing. Hand digging with an arborist on standby is planned for trenching within 20 feet of protected tree species where work near the tree is unavoidable.

Construction activities associated with utility undergrounding would occur at an average rate of approximately 100 linear feet (LF) per day, with a maximum rate per day of 400 LF. The maximum length of individual CIP utility undergrounding projects would be up to 32,000 linear feet (LF), but would be an average length of approximately 15,000 LF. Average trench widths for these projects would be approximately 2 feet, with a maximum trench width of approximately 3 feet. Average trench depth would be approximately 3 feet, and maximum trench depth would be no greater than 10 feet.

Pole removals are typically performed using a digger derrick truck or bucket truck when accessible from the street. Pole removals in sensitive areas are to be completed via hand; crews would walk in to hand-cut the pole at ground level, fell the pole, cut to manageable pieces, and haul out with a small rubber-tired tractor-trailer or wheelbarrow or use a “boom truck” when close enough to the City right-of-way. Alternately, in rare cases, the utility company may choose to hand-cut the pole at ground level and helicopter the pole out of hard-to-access areas.

After construction, ongoing activities would include regular inspection and, as necessary, maintenance activities, similar to existing underground utility lines maintained by the utility agencies.

#### *Water*

Water infrastructure CIP projects include improvements, repairs, and rehabilitation of existing and future potable and recycled water pipelines, valves, pressure reducing stations, pressure relief stations, water

pumping stations, water meters, backflow preventers, and fire hydrants. Construction activities generally involve trenching, backfilling, and resurfacing within public rights-of-way or along existing roadways. In situ pipeline repairs and interior lining may be performed without excavation. Water reservoir improvements would generally involve mechanical and electrical improvements. Typical construction equipment would include backhoes, skid steer loaders, small excavators, dump trucks, paving machines, and hand tools. Construction activities associated with water pipelines would occur at an average rate of approximately 200 LF per day, with a maximum rate per day of 400 LF. The maximum length of individual CIP water infrastructure projects would be up to 5,000 LF, but would be an average length of approximately 1,000 LF. Average trench widths for these projects would be approximately 2.5 feet, with a maximum trench width of approximately 4.5 feet. Average trench depth would be approximately 4 feet, and maximum trench depth would be no greater than 10 feet.

After construction, ongoing activities would include regular inspection and, as necessary, maintenance activities, similar to existing water infrastructure maintained by the City.

## *Wastewater*

Wastewater CIP projects include improvements, repairs, and rehabilitation of existing or future sewer gravity and force main pipelines, pump stations, manholes, and cleanouts. Construction activities would include trenching, backfilling, and resurfacing primarily within public rights-of-way or along existing roadways. Sewer pump station improvements and rehabilitation would generally include mechanical and electrical improvements. Typical construction equipment for wastewater infrastructure would be the same as the typical CIP water infrastructure construction equipment. Construction activities associated with sewer pipelines would occur at an average rate of approximately 200 LF per day, with a maximum rate per day of 400 LF, similar to water pipelines. The maximum length of individual CIP wastewater infrastructure projects would be up to 6,000 LF, but would be an average length of approximately 1,250 LF. Average trench widths for these projects would be approximately 2.5 feet, with a maximum trench width of approximately 3.5 feet. Average trench depth would be approximately 8 feet, and maximum trench depth would be no greater than 15 feet.

After construction, ongoing activities would include regular inspection and, as necessary, maintenance activities, similar to existing wastewater infrastructure maintained by the City.

## *Storm Water*

Storm water CIP projects address both short-term and long-term infrastructure needs, including emergency repairs and improvements to storm drains and compliance with water quality permits. Projects likely would include improvements, repairs, and rehabilitation of existing or future storm water pipelines, culverts, manholes, cleanouts, inlets, outlets, catch basins, headwalls, open channels, cobble/hardscape open swales, infiltration pits, and low-flow diverters. Construction activities generally would involve trenching, excavation, backfilling, and resurfacing, mostly within public rights-of-way or along existing roadways. Typical construction equipment for storm water infrastructure would be the same as the typical water and wastewater infrastructure construction equipment. Construction activities associated with storm water pipelines and culverts would occur at an average rate of approximately 50 LF per day, with a maximum rate per day of 100 LF. The maximum length of individual CIP storm water infrastructure projects would be up to 1,000 LF, but would be an average length of approximately 200 LF. Average trench widths for these projects would be approximately 3 feet, with a maximum trench width of approximately 4 feet.

Average trench depth would be approximately 3 feet, and maximum trench depth would be no greater than 10 feet.

After construction, ongoing activities would include regular inspection and, as necessary, maintenance activities, similar to existing storm water infrastructure maintained by the City.

### *Streets*

Streets CIP projects would generally include annual pavement rehabilitation and Americans with Disabilities Act (ADA) upgrades. Construction activities would generally include excavation, backfill, pavement resurfacing, and repair/placement of curb and gutter, sidewalks, ADA-compliant ramps, and retaining walls. Bridge work would likely involve structural or surface maintenance; bridge replacement would require excavation and installation of new structures. Construction equipment would typically include backhoes, skid steer loaders, dump trucks, asphalt pavers, roller compactors, concrete mixer trucks, and hand tools. Construction activities associated with roadway construction/improvements would occur at an average rate of approximately 500 LF per day, with a maximum rate per day of 2,000 LF. The maximum length of individual CIP roadway projects would be up to 7,500 LF, but would be an average length of approximately 2,500 LF. Additionally, activities associated with curb and gutter construction/improvements would occur at an average rate of approximately 250 LF per day, with a maximum rate per day of 500 LF. The maximum length of individual CIP curb and gutter projects would be up to 3,000 LF, but would be an average length of approximately 500 LF.

After construction, ongoing activities would include regular inspection and, as necessary, maintenance activities, similar to existing roadway infrastructure maintained by the City.

### *Facilities*

Facilities CIP projects relate to various short-term and long-term facility needs related to public safety operations. Improvements and repairs of existing public facilities would generally include minor exterior façade repairs and minor interior improvements, such as painting; new carpeting; replacement of/repairs to plumbing, electrical, and heating, ventilation, and air conditioning (HVAC) units; security/fire system repairs; and roof repairs. Additionally, CIP facilities projects would include the installation of hardscape features (e.g., benches, drinking fountains, streetlights, traffic lights) on City property and public rights-of-way. Construction equipment for these types of CIP facilities projects would generally be limited to hand tools. Small generators and compressors may also be used.

Construction activities associated with the possible future relocation of the fire station and the Public Works building from the floodway may include reconstruction of the buildings to minimize potential impacts associated with flooding. This would be accomplished by either: (1) reconstruction at the existing location through recontouring of the project site or by other means to elevate the new building foundations above the flood elevation; and/or (2) reconstruction at a new location outside the flood zone. Typical construction equipment for these CIP facilities projects would likely include bulldozers, excavators, backhoes, skid steer loaders, concrete mixer trucks, asphalt pavers, roller compactors, sweepers, and dump trucks.

Maintenance of bridges primarily includes concrete repairs to spalling in pier walls, columns, side rails, and sidewalks. Standard maintenance activities associated with bridges would be in compliance with

typical best management practices (BMPs) to ensure no inadvertent direct or indirect impacts to jurisdictional waters or other environmentally sensitive areas.

After construction of the CIP facilities projects, ongoing maintenance activities similar to existing conditions would continue.

### *Open Space*

Open space CIP projects address maintenance needs for the City's existing and future open space amenities, including City parks, trail connections, the beach, and lifeguard facilities. Construction related to improvements and repairs of existing and future public open space facilities would generally include excavation, backfill, and resurfacing activities and the installation of irrigation and landscaping for outdoor improvements. Minor exterior façade repairs associated with lifeguard building improvements would generally include exterior painting, security/fire system repairs, roof repairs, and minor interior improvements such as painting, new carpeting, and replacement of/repairs to plumbing, electrical, and HVAC units. The majority of such construction activities would occur on City property or within public rights-of-way or along existing roadways. Typical construction equipment for CIP open space projects would likely include hand tools for minor improvements, and backhoes, skid steer loaders, concrete mixer trucks, asphalt pavers, roller compactors, sweepers, and dump trucks for major improvements.

After construction of the CIP open space projects, ongoing maintenance activities similar to existing conditions would continue.

## 1.3 Purpose and Need for Study

The purpose of this study is to evaluate the potential for the City's CIP to impact cultural and paleontological resources within the City limits. As required under CEQA, public agencies must identify and mitigate significant environmental impacts associated with discretionary projects, including those affecting historical, archaeological, tribal cultural, and paleontological resources.

This technical report supports the PEIR by providing a program-level assessment of resource sensitivity across the seven CIP project categories. It identifies areas where ground-disturbing activities may intersect with known or potential cultural and paleontological resources and outlines mitigation strategies to ensure compliance with CEQA Guidelines Section 15064.5 and Section 15126.4(b), Public Resources Code (PRC) Section 21083.2 and Section 21084.2, and AB 52 tribal consultation requirements.

The need for this study arises from the City's responsibility to protect significant cultural heritage and scientific resources while implementing infrastructure improvements. By proactively identifying sensitive areas and establishing a tiered mitigation framework, the City can ensure that CIP projects proceed in a manner that respects and preserves Del Mar's unique cultural and paleontological legacy.

## 1.4 Lead Agency and Regulatory Context

The City is the lead agency for environmental review under CEQA for its CIP. This Phase I cultural and paleontological resources assessment has been prepared to identify potential historical, archaeological, tribal cultural, and paleontological resources within the project area and to evaluate potential impacts in accordance with CEQA Guidelines Section 15064.5 and Section 15126.4(b). The report is intended to support the PEIR and ensure compliance with applicable state regulations. If any CIP projects receive

federal funding or require federal permits, additional review under the National Environmental Policy Act (NEPA) and Section 106 of the National Historic Preservation Act (NHPA) may be required. See Chapter 2, Regulatory Framework, for further detail.

## 1.5 Personnel and Qualifications

This report was prepared by a qualified team of cultural and paleontological resource professionals who meet the Secretary of the Interior's Professional Qualification Standards for archaeology and history, and the Society of Vertebrate Paleontology (SVP) standards for paleontology.

James T. Daniels, PhD, RPA, served as the Principal Archaeological Investigator and lead author for the report. Susan Wood, PhD, served as the Senior Architectural Historian, providing oversight for the historic context and built environment impacts assessment and mitigation recommendations. Peter Kloess, PhD, served as the Senior Paleontological Investigator, meeting SVP qualifications for professional paleontological work and overseeing paleontological sensitivity analysis and mitigation recommendations.

Additional support was provided by Rachel Garcia, MA, Associate Archaeologist, Molly Soffietti, MA, Architectural Historian, and Tara Kloess, Associate Paleontologist, who contributed to background research, technical review, and report development.

No field survey was conducted for this programmatic assessment. The report was prepared between May and October 2025 to support the PEIR for the City's CIP.

## 1.6 Report Organization

This report provides a structured outline for the Program-Level Cultural Resources Technical Report. Chapter 2 provides the cultural and paleontological regulatory framework. Chapter 3 discusses the environmental and cultural setting (including paleontological, archaeological, tribal cultural and historic context). Chapter 4 provides the methods and results of cultural and paleontological resource identification. Chapter 5 analyzes the potential impacts to archaeological, paleontological, and built environment resources. Chapter 6 includes recommended mitigation measures for CIP projects. Chapter 7 presents examples of how to apply the impact assessment strategies and how to select the best mitigation strategy for archaeological, paleontological, and built environment resources for four representative projects. Chapter 8 provides a summary and conclusion for the report. Example language and tables are included to illustrate how to incorporate project-specific information (such as the representative projects) and mitigation strategies. The goal is to ensure clarity, consistency with CEQA and City requirements, and to serve as a template for future use.

# 2.0 REGULATORY FRAMEWORK

## 2.1 Federal Regulations

### 2.1.1 National Historic Preservation Act (NHPA, 1966)

The NHPA (Public Law 89-665; 54 United States Code [U.S.C.] 300101 et seq.) is the cornerstone of federal historic preservation law. Section 106 of the NHPA requires federal agencies to consider the effects of any federal undertaking on "historic properties," which are cultural resources listed in or eligible for the National Register of Historic Places (NRHP). The agency must consult with the State Historic Preservation Officer (SHPO) and other stakeholders, including Native American tribes, following procedures in 36 Code of Federal Regulations Part 800 (Advisory Council on Historic Preservation [ACHP] 2004). In practice, if any Del Mar CIP projects receive federal funding, federal permits, or other federal approvals (a "federal nexus"), the Section 106 review process must be completed. This involves inventory and evaluation of cultural resources within the project's Area of Potential Effects, assessment of project effects on any NRHP-eligible properties, and development of measures to avoid, minimize, or mitigate adverse effects (ACHP 2004). Federal undertakings that adversely affect historic properties cannot proceed until Section 106 consultation is resolved, typically via a Memorandum of Agreement outlining mitigation commitments.

### 2.1.2 National Environmental Policy Act (NEPA, 1969)

NEPA [42 U.S.C. 4321–4347] requires federal agencies to assess environmental impacts of federal actions, which include impacts on cultural and historic resources, as part of an Environmental Assessment (EA) or Environmental Impact Statement (EIS). Under NEPA, cultural resources are considered in the "affected environment," and any significant impacts to historic properties (usually those protected by the NHPA) must be disclosed and mitigated if possible. NEPA's process dovetails with the NHPA—compliance with Section 106 is typically integrated into NEPA documents (CEQ and ACHP 2013). For the Del Mar CIP, NEPA would apply only if a project is a federal action (for example, if an infrastructure project triggers a federal permit, uses federal funds, or is on federal land). In such cases, the City (or the relevant federal agency) would prepare the appropriate NEPA documentation analyzing cultural resource impacts, in addition to conducting Section 106 review.

In addition, NEPA directs federal agencies to use all practicable means to "preserve important historic, cultural, and natural aspects of our national heritage" (Section 101[b][4]). Consideration of paleontological resources may be required under NEPA when a project is proposed for development on federal land, or land under federal jurisdiction.

### 2.1.3 Archaeological Resources Protection Act (ARPA, 1979)

ARPA [16 U.S.C. 470aa–470mm] protects archaeological sites and artifacts on federal lands and Indian lands. It requires permits for any excavation or removal of archaeological resources on those lands and imposes penalties for unauthorized artifact removal or site damage. ARPA would be applicable if any CIP project occurs on federally owned land (unlikely within Del Mar City limits) or affects an archaeological site of Native American significance on tribal lands. While most Del Mar projects are on City or private property, ARPA is noted here for completeness in case of any federal land involvement.

### 2.1.4 Native American Graves Protection and Repatriation Act (NAGPRA, 1990)

NAGPRA [25 U.S.C. 3001 et seq.] provides a process for museums or federal agencies to return Native American human remains and cultural items to descendant communities, and it protects such remains and items discovered on federal or tribal land. If a Del Mar project on federal land were to inadvertently discover Native American human remains or funerary objects, NAGPRA would mandate notification of tribes and repatriation of remains. While Del Mar's CIP projects are not on federal or tribal land, NAGPRA's provisions reflect the sensitivity and legal protection accorded to Native American burials at the federal level. (Separate state laws outlined below protect human remains on non-federal lands.)

### 2.1.5 Secretary of the Interior's Standards

The Secretary of the Interior (SOI) is responsible for establishing standards for advising federal agencies on the preservation of historic properties that are eligible for or listed in the NRHP. These standards consist of four general types of treatments: preservation, rehabilitation, restoration, and reconstruction. Of the four, the Standards for Rehabilitation (36 Code of Federal Regulations 68.3[b]) is the most likely appropriate treatment for the projects in the PEIR. Rehabilitation is defined as "the act or process of making possible a compatible use for a property through repair, alterations, and additions while preserving those portions or features which convey its historical cultural, or architectural values" (Grimmer 2017: 2). The Standards for Rehabilitation thus acknowledge that a building may retain its historic character even with alterations. Under CEQA Guidelines Section 15064.5(b)(3), "[g]enerally, a project that follows the Secretary of the Interior's Standards for the Treatment of Historic Properties with Guidelines for Preserving, Rehabilitating, Restoring, and Reconstructing Historic Buildings or the Secretary of the Interior's Standards for Rehabilitation and Guidelines for Rehabilitating Historic Buildings, shall be considered as mitigated to a less than a significant impact on the historical resource."

Below are the ten Standards for Rehabilitation:

1. A property will be used as it was historically or be given a new use that requires minimal change to its distinctive materials, features, spaces, and spatial relationships.

2. The historic character of a property will be retained and preserved. The removal of distinctive materials or alteration of features, spaces, and spatial relationships that characterize a property will be avoided.

3. Each property will be recognized as a physical record of its time, place, and use. Changes that create a false sense of historical development, such as adding conjectural features or elements from other historic properties, will not be undertaken.

4. Changes to a property that have acquired historic significance in their own right will be retained and preserved.

5. Distinctive materials, features, finishes, and construction techniques or examples of craftsmanship that characterize a property will be preserved.

6. Deteriorated historic features will be repaired rather than replaced. Where the severity of deterioration requires replacement of a distinctive feature, the new feature will match the old in design, color, texture, and, where possible, materials. Replacement of missing features will be substantiated by documentary and physical evidence.

7. Chemical or physical treatments, if appropriate, will be undertaken using the gentlest means possible. Treatments that cause damage to historic materials will not be used.

8. Archaeological resources will be protected and preserved in place. If such resources must be disturbed, mitigation measures will be undertaken.

9. New additions, exterior alterations, or related new construction will not destroy historic materials, features, and spatial relationships that characterize the property. The new work will be differentiated from the old and will be compatible with the historic materials, features, size, scale and proportion, and massing to protect the integrity of the property and its environment.

10. New additions and adjacent or related new construction will be undertaken in such a manner that, if removed in the future, the essential form and integrity of the historic property and its environment would be unimpaired.

### 2.1.6 Paleontological Resources Preservation Act (PRPA, 2009)

The Paleontological Resources Preservation, Omnibus Public Lands Act (Public Law 111-011, Title VI, Subtitle D) of 2009 (PRPA) directs the Secretaries of the US Department of the Interior and US Department of Agriculture (USDA) to manage and protect paleontological resources on federal land controlled or administered by these departments using "scientific principles and expertise." The PRPA codifies existing policies of the Bureau of Land Management, National Park Service, US Forest Service, Bureau of Reclamation, and US Fish and Wildlife Service, and provides the following:

- definitions of "paleontological resources" and "casual collecting";
- criteria for the issuance of resource-use permits; and
- requirements for the collection of paleontological resources and their curation in approved repositories; and penalties (criminal and civil) for the illegal removal, sale, purchase, transport, theft and/or vandalism of fossils from federal lands.

### 2.1.7 Antiquities Act (1906)

The Antiquities Act of 1906 (16 US Code 431-433) states, in part:

> *That any person who shall appropriate, excavate, injure or destroy any historic or prehistoric ruin or monument, or any object of antiquity, situated on lands owned or controlled by the Government of the United States, without the permission of the Secretary of the Department of the Government having jurisdiction over the lands on which said antiquities are situated, shall upon conviction, be fined in a sum of not more than five hundred dollars or be imprisoned for a period of not more than ninety days, or shall suffer both fine and imprisonment, in the discretion of the court.*

The Antiquities Act was enacted to help protect any historic or prehistoric ruin or monument, or any "object of antiquity" situated on lands owned or controlled by the government of the United States. According to the Antiquities Act, fossil resources are considered to be objects of antiquity. The Antiquities Act has been used to designate national monuments based on the presence of fossil resources at those sites, like those at the Grand Staircase-Escalante National Monument, the Petrified Forest National Park, and others.

# 2.2 State of California Regulations

## 2.2.1 California Environmental Quality Act (CEQA, 1970)

CEQA (PRC §21000 et seq.) is California's principal environmental law, requiring state and local agencies to identify and mitigate significant environmental impacts of their actions. In Del Mar, the City is the CEQA lead agency for its CIP projects. Under CEQA, historic and archaeological resources are considered "environmental resources" that require analysis. CEQA defines a "historical resource" broadly to include: (1) resources listed in or determined eligible for the California Register of Historical Resources (CRHR); (2) resources listed in a local register or deemed significant in a historical survey; and (3) any resource that a lead agency finds significant, based on substantial evidence, against CRHR criteria (14 California Code of Regulations [CCR] §15064.5[a]). A project that causes a "substantial adverse change" in the significance of a historical resource—essentially demolition, destruction, relocation, or alteration that impairs the resource's significance—is considered to have a significant impact under CEQA (PRC §21084.1; CEQA Guidelines §15064.5[b]). CEQA requires that significant impacts to historical resources be avoided or mitigated to the extent feasible. Archaeological sites can be treated as historical resources if they are CRHR-eligible. If an archaeological site is not eligible for the CRHR (i.e., not a historical resource), it may still be a "unique archaeological resource" under CEQA (PRC §21083.2). CEQA provides separate mitigation provisions for unique archaeological resources, which generally require reasonable efforts to preserve them in place or, if avoidance is infeasible, data recovery excavations (PRC §21083.2).

In addition, paleontological resources are afforded protection pursuant to CEQA requirements. Appendix G, Part V of the CEQA Guidelines explains significant impacts on paleontological resources. It details that a project would result in a significant impact if it disturbs or destroys unique paleontological resources or a unique geologic feature. Additionally, PRC Section 5097.5 specifies that any unauthorized removal of paleontological remains is a misdemeanor. Penalties for this removal or damage of paleontological resources are set forth in California Penal Code Section 622.5.

## 2.2.2 California Register of Historical Resources (CRHR)

The CRHR is a statewide program (established by PRC §5024.1 in 1992) that lists resources significant at the local, state, or national level. CRHR eligibility criteria are modeled on the NRHP criteria for significance, encompassing resources associated with important historical events or persons, embodying distinctive characteristics or artistic values, or yielding important scientific information (California Office of Historic Preservation 1995). Under CEQA, any resource that is listed in or eligible for listing in the CRHR is automatically considered a "historical resource" (PRC §21084.1). Thus, evaluation of Del Mar-area properties or sites against CRHR criteria is a key step in determining whether they are protected under CEQA. In practice, a cultural resources technical study for a Del Mar project will include significance evaluations for any identified cultural materials (buildings, structures, districts, archaeological sites, or objects) to determine if they meet CRHR criteria. If they do, CEQA requires impacts on those resources to be analyzed and mitigated. California Historical Landmarks and points of historical interest (designations for very high significance resources) are also treated as historical resources under CEQA. The CRHR provides a baseline for identifying what cultural resources are significant in the project's context.

### *Age Threshold for Historical Resources*

There is no prescribed age limit for listing in the CRHR, although CRHR guidelines state that "sufficient time must have passed to obtain a scholarly perspective on the events or individuals associated with the resource" (California Office of Historic Preservation 2001:3). While the NRHP and CRHR generally apply a 50-year threshold to allow for scholarly evaluation of significance, CEQA practitioners often use 45 years as a screening guideline. This proactive approach accounts for project timelines, ensuring resources that may reach 50 years during development are considered early. The 45-year threshold is a best practice—not a statutory requirement—and reflects CEQA's flexibility to evaluate any resource with potential historical significance based on substantial evidence, regardless of age.

## 2.2.3 California Public Resources Code §5097 and Health & Safety Codes §§7050.5, 7051, and 7054 (Protection of Human Remains)

California law establishes strict requirements for the protection of human remains discovered during ground-disturbing activities, including CIP projects. If human remains are encountered during any CIP excavation, Health and Safety Code Section 7050.5 requires that work stop immediately in the vicinity of the find and that the County coroner be notified. If the coroner determines the remains are Native American, the coroner must notify the Native American Heritage Commission (NAHC) within 24 hours, which then designates a Most Likely Descendant (MLD) tribe (California Health & Safety Code §7050.5; California PRC §5097.98). The lead agency and project proponent must consult with the MLD regarding treatment of the remains, which typically involves leaving remains in place or reburial in a manner consistent with Native American customs. Removal or scientific study is avoided unless expressly approved by the MLD (California PRC §5097.98).

Additional protections under Health and Safety Codes Sections 7051 and 7054 prohibit unlawful removal, mutilation, or disturbance of human remains without lawful authority and impose criminal penalties for violations. These requirements apply to all projects in Del Mar, on both public and private lands, and supersede any other construction priorities upon discovery. The City's standard contractual procedures will reflect these laws by including a "halt work" condition and immediate consultation protocols with the County coroner, NAHC, and designated MLD (California Health & Safety Code §§7050.5, 7051, 7054; California PRC §5097.98).

California PRC Section 5097.5 defines and details the unauthorized disturbance or removal of archaeological, paleontological, or historical resources located on public lands, which is considered a misdemeanor violation:

> *A person shall not knowingly and willfully excavate upon, or remove, destroy, injure, or deface, any historic or prehistoric ruins, burial grounds, archaeological or vertebrate paleontological site, including fossilized footprints, inscriptions made by human agency, rock art, or any other archaeological, paleontological or historical feature, situated on public lands, except with the express permission of the public agency having jurisdiction over the lands.*

### 2.2.4 California Coastal Act (1976) and Local Coastal Program

All of Del Mar lies within California's Coastal Zone, meaning that the California Coastal Act and the City's certified Local Coastal Program (LCP) apply to development projects. The Coastal Act includes a specific policy for cultural resources: Section 30244, which states that "where development would adversely impact archaeological or paleontological resources as identified by the State Historic Preservation Officer, reasonable mitigation measures shall be required." This policy is mirrored in the City's LCP Land Use Plan, which has been certified by the California Coastal Commission. The LCP requires that any project within the Coastal Zone (which includes essentially the entire City) assess potential impacts to archaeological resources and implement mitigation if impacts are expected. In practice, compliance with CEQA (described above) usually ensures compliance with Coastal Act Section 30244, since CEQA already mandates studies and mitigation for archaeological sites. However, as a condition of Coastal Development Permit approval, the City may impose additional measures specifically to protect cultural resources consistent with the LCP. For example, Del Mar may require on-site archaeological monitoring during grading in areas of high sensitivity (as identified in the City's records or prior studies) as a Coastal Permit condition. Projects in certain overlay zones near the San Dieguito River or coastline might also have LCP policies requiring cultural resource surveys before development. Thus, all CIP projects that need Coastal Development Permits must be reviewed for consistency with these cultural resource protections in the LCP. Notably, the Coastal Act policy covers paleontological resources as well, so fossil-bearing geologic formations disturbed by projects would also require mitigation (addressed further under Paleontological regulations in a separate section if needed).

### 2.2.5 Assembly Bill 52 (2014)

AB 52 amended CEQA to create a new category of environmental resource ("tribal cultural resources") and to require consultation with California Native American tribes during CEQA review. Tribal cultural resources are defined in PRC Section 21074 as sites, features, places, cultural landscapes, or objects with cultural value to a California Native American tribe, that are either: (1) listed or determined eligible for the CRHR (or a local historic register); or (2) a resource that the lead agency, at a tribe's request, chooses to treat as significant (§21074[a]).

In practice, AB 52 elevates the consideration of Native American resources by ensuring tribes can have input on what resources are significant, beyond just formally recognized historic sites (Government Code §65352.4). Under AB 52, Del Mar (as lead agency) must notify tribes that have requested notice of projects at the start of CEQA environmental review (within 14 days of determining that a CEQA document is required). If a tribe requests consultation within 30 days, the City must consult in good faith with that tribe (PRC §21080.3.1).

Consultation covers potential project impacts to tribal cultural resources, and if impacts are identified, the parties discuss feasible mitigation measures, project alternatives, or modifications that would avoid or lessen impacts (PRC §21080.3.2). The consultation ends when both parties agree on mitigation or if either party, after reasonable effort, concludes that agreement cannot be reached. Any mitigation measures resulting from consultation must be recommended for inclusion in the CEQA document (PRC §21082.3).

For Del Mar's CIP PEIR, AB 52 consultation is a crucial step. The City contacted local tribes (typically Kumeyaay/Diegueño and Luiseño groups with ancestral ties to the area) early in the EIR process. Common outcomes of AB 52 consultation for infrastructure projects include: monitoring agreements (having Native

American monitors on-site during grading in sensitive areas), avoidance of certain areas, redesign of project elements to protect resources, or cultural sensitivity training for construction crews.

AB 52 makes clear that significant impacts to tribal cultural resources should be treated as significant environmental impacts under CEQA, requiring mitigation similar to other cultural resources. Notably, AB 52 does not replace the process for inadvertent discovery of human remains (which involves the NAHC and MLDs, as described above), but it adds a proactive, early consultation to address tribal concerns.

The City will document its AB 52 compliance in the PEIR's consultation section, including any written correspondence with tribes and agreed-upon mitigation.

### 2.2.6 Other State Laws and Codes

Additional California laws provide context and procedures for cultural resources, though they may be indirectly relevant to Del Mar's CIP. The Native American Historic Resource Protection Act (PRC §§5097.9–5097.991) prohibits public agencies from causing damage to Native American sanctified cemeteries, places of worship, or sacred shrines on public property, except upon a clear public interest showing. This underscores that the City, as a public agency, must avoid harming any known Native American sacred sites on City-owned lands. The NAHC maintains a Sacred Lands File of such sites; a Sacred Lands File search is typically conducted early in project planning.

The California Native American Graves Protection and Repatriation Act (Cal NAGPRA, Health & Safety Code §8010 et seq.) largely mirrors the federal NAGPRA for remains and artifacts under control of state agencies or museums. While not likely triggered by CIP projects, it reflects California's commitment to returning ancestral remains to tribes.

In summary, at the state level, CEQA remains the primary driver for cultural resource protection in Del Mar's projects, supported by the CRHR criteria for significance. CEQA's recent amendments also integrate tribal cultural resources into this framework. The Coastal Act's mandate for mitigating archaeological impacts adds an additional layer for projects in the Coastal Zone, which includes virtually all CIP work in Del Mar. Together, state law and local policy set forth clear processes for consultation and mitigation whenever historical, archaeological, or tribal cultural resources could be affected (City of Del Mar Community Plan; PRC §§5097.9–5097.991; Health & Safety Code §8010 et seq.).

## 2.3 Local Regulations

### 2.3.1 City of Del Mark Historic Preservation Overlay Zone

The City established the Historic Preservation Overlay Zone (HP-OZ) (City of Del Mar Municipal Code Chapter 30.58) to safeguard the architectural and historic integrity of properties deemed historically significant within the City limits (City of Del Mar, n.d.-a). Its objectives are twofold:

- To ensure the long-term preservation of designated historic landmark properties for current and future generations.
- To provide architectural control and allow for flexible permitted uses that support the economic viability of historic structures, beyond what is allowed in the underlying zoning provisions.

**Boundaries:** Properties included in the Historic Preservation Overlay Zone are designated by ordinance and depicted on the official City zoning map. Boundary modifications are subject to City ordinance.

**Allowable Uses:** Uses permitted within the Historic Preservation Overlay Zone generally align with those allowed by the underlying zone, subject to its regulations. However, the City Council may, after a public hearing, authorize alternative uses for designated historic landmark properties, imposing conditions and restrictions as deemed appropriate. If no specific alternative use or conditions are designated, the underlying zone's criteria apply.

**Design Review:** Any construction, demolition, relocation, conversion, alteration, or enlargement of buildings or lots within the Historic Preservation Overlay Zone requires approval from the Design Review Board. Key requirements include the following:

- All changes to designated historic landmarks must respect the architectural style, scale, landscaping, and features that led to their historic designation.
- Restoration should use forms, materials, textures, colors, and landscaping typical of the landmark's historical period. Where necessary, alternative building regulations from the California Historical Building Code may be applied.
- Demolition or significant reduction of historic landmarks is only permitted if no viable alternatives exist, and such alternatives must be fully addressed in an EIR under CEQA.

**Special Regulations:** The City Council, following Planning Commission review and public hearings, may designate any property within City limits as a historic landmark if it contains artifacts of archaeological or paleontological importance or structures of historic significance. Historic significance is defined as:

- Unique architectural style representing a period of California or Del Mar history
- Listing on state or federal registers of historic places
- Association with specific historic events
- Representation of the historic character of a City area

# 3.0 ENVIRONMENTAL SETTING

This section establishes the context of the project area, including geological setting, paleontological context, natural setting, and cultural context. It provides background information that helps predict and interpret the presence or absence of cultural and paleontological resources.

## 3.1 Natural Environment

The City is situated on the Southern California coast at the mouth of the San Dieguito River in San Diego County. The Del Mar coastal plain experiences a Mediterranean, semiarid steppe climate with most precipitation occurring in winter (December–April). Annual rainfall generally ranges from approximately 8 to 16 inches (Bowman 1973; Hines 1991:4). This coastal bluff and lagoon environment has been a magnet for human occupation for thousands of years, offering rich marine, estuarine, and terrestrial resources (fish, shellfish, game, freshwater, and diverse plant foods). Before significant changes occurred, the Del Mar area was likely home to six native plant communities: coastal sage scrub, riparian woodland, oak woodland, native grassland, freshwater marsh, and salt marsh. Coastal sage scrub covered many hillsides, ridges, and canyon slopes, with native grasslands like *Stipa*, *Elymus*, *Poa*, and *Muhlenbergia* interspersed throughout. The coastal bluffs were likely composed of a mixture of scrub and grassland species (Beauchamp 1986; Munz 1974).

During the past two centuries, patterns of development and land use have significantly transformed these ecological communities. Currently, many regions are dominated by non-native annual grasses and forbs—such as *Bromus* spp., *Avena* spp., foxtail barley (*Hordeum murinum*), and mustards (*Brassica* spp.)—while developed areas are often landscaped with lawns, non-native tree species, and ornamental plants (Beauchamp 1986; Munz 1974).

Historically, the region supported a diverse assemblage of fauna, including grizzly bear (*Ursus horribilis*), black bear (*Ursus americanus*), mountain lion (*Felis concolor*), bobcat (*Lynx rufus*), mule deer (*Odocoileus hemionus*), coyote (*Canis latrans*), gray fox (*Urocyon cinereoargenteus*), badger (*Taxidea taxus*), ringtail (*Bassariscus astutus*), raccoon (*Procyon lotor*), and striped skunk (*Mephitis mephitis*) (Burt and Grossenheider 1976). Small mammal populations were commonly composed of black-tailed jackrabbit (*Lepus californicus*), brush rabbit (*Sylvilagus bachmani*), desert cottontail (*Sylvilagus audubonii*), California ground squirrel (*Spermophilus beecheyi*), and Botta's pocket gopher (*Thomomys bottae*), as well as various species of mice and rats (Burt and Grossenheider 1976). Raptors such as the red-tailed hawk (*Buteo jamaicensis*) and golden eagle (*Aquila chrysaetos*) were also documented in the area (Peterson 1961). The herpetofaunal community included numerous lizard and snake species, in addition to the western pond turtle (*Clemmys marmorata*) (Stebbins 1966).

As post-glacial sea levels rose, the shoreline progressively shifted landward, resulting in the inundation of valley floors and, in certain cases, the formation of narrow, steep-walled bays (Inman 1983; Orme 1993; Masters 1994; Kern 1995; Waters 1996a, 1996b). The rapid sea level rise observed during the late Pleistocene and early Holocene further displaced the shoreline eastward and flooded valleys, thereby creating pronounced and confined bay structures (Inman 1983). With the deceleration of marine transgression between approximately 6,000 and 3,000 years ago, complex, low-energy coastal environments began to emerge within these submerged stream valleys. This developmental sequence facilitated the transformation of bays into estuaries and lagoons, exemplified by formations such as Los

Peñasquitos Lagoon and San Dieguito Lagoon, which evolved into highly productive estuaries that supported ongoing or recurrent human activity from the early Holocene onward. Concurrently, rocky shorelines diminished while sandy beaches became increasingly prevalent (Perillo 1995). Over the past 3,000 years, the sea level rose an additional 3 to 6 feet (1 to 2 meters), contributing to continued estuarine aggradation; some systems eventually filled with sediment and transitioned into freshwater alluvial environments. During this period, extensive sandy beaches developed, initially in the northern region near Dana Point, subsequently extending southward toward La Jolla, and ultimately giving rise to the expansive Oceanside littoral cell (Inman 1983).

The abundance of resources in this area led to the development of a dense archaeological record. Even where no surface traces remain (due to urban development or natural erosion), buried cultural deposits can exist. To understand the archaeological resources in Del Mar, it is important to review the region's prehistoric cultural chronology and the evidence of past peoples' activities in this locale.

# 3.2 Paleontological Setting

## 3.2.1 Geology

California is divided into 11 geomorphic provinces, each defined by unique geologic and geomorphic characteristics. The City is located within the Peninsular Ranges geomorphic province, distinguished by northwest-trending mountain ranges and valleys following the branching San Andreas fault. This geomorphic province also includes physiographic features such as the Los Angeles Basin, the southern members of the Channel Islands, and the continental shelf (California Geological Survey 2002). The Peninsular Ranges province crosses several counties, as well as Baja California. The Pacific Ocean borders it to the west, the Transverse Ranges geomorphic province to the north, and the Colorado Desert geomorphic province to the east. The City sits along the western edge of the Peninsular Ranges Geomorphic province, where crystalline basement rocks of the Jurassic- to Cretaceous-age Santiago Peak Volcanics and the Cretaceous-age Peninsular Ranges Batholith are nonconformably overlain by a "layer cake" sequence of sedimentary strata of late Cretaceous, Eocene, Oligocene, Miocene, Pliocene, and/or Pleistocene age including the local La Jolla Group (Kennedy and Peterson 1975; Kennedy and Moore 1971). Kennedy and Moore (1971) divided the Eocene portion of this sequence into the early middle Eocene-age La Jolla Group and the late middle Eocene-age Poway Group, which together include nine geologic units or formations. The overlying sedimentary strata are representative of a series of intertonguing marine and terrestrial geologic units that accumulated over a period of approximately 10 million years (50 to 40 million years ago) (Howell and Link 1979). A large river system occupied the eastern portion of the San Diego embayment, and, to the west, these alluvial and fluvial paleoenvironments mixed with nearshore marine paleoenvironments in a river-dominated, braid delta. Farther west are paralic, continental shelf, slope, and submarine canyon paleoenvironments. The City sits along the northern edge of this Eocene depositional basin and is directly underlain by strata from the La Jolla Group. Where the San Dieguito River and its tributary meet the ocean, it cuts through younger quaternary alluvium present along the shoreline and exposes several of the middle Eocene-age La Jolla Group members within the north and central parts of the City. The State of California Department of Water Resources (1967) estimated that the sediment thickness of the floodplain varies from 100 to 150 feet.

The project is depicted on the Kennedy and Tan (2008) geologic map of the San Diego 30' x 60' quadrangle, California, California Geological Survey Regional Geologic Map at a scale of 1:100,000. According to this

geologic map, the City is underlain by eight sedimentary geologic units ranging in age from the middle Eocene to Holocene; these are described further below, starting with the youngest.

**Artificial fill** (af) (late Holocene). This unit consists of modern trash, sediment, and rock that have been displaced and deposited by humans to the given area. These sediments are Late Holocene in age and lack natural deposition. This unit is assigned no paleontological sensitivity unless the underlying native sediments below the fill layer are reached.

**Marine beach deposits** (Qmb) (late Holocene). This unit consists of unconsolidated beach deposits composed of fine- and medium-grained sand. Because of their young geologic age, these deposits are unlikely to be old enough to produce fossilized material (less than 4,200 years old). Such deposits are typically assigned a low paleontological potential based on their relatively young geologic age and lack of recorded fossil collection localities; however, these deposits may be underlain in the subsurface by a unit assigned a high paleontological potential (e.g., the Delmar Formation or Torrey Sandstone; see below). This unit has been assigned a low paleontological sensitivity at the surface and high paleontological sensitivity at depth.

**Paralic estuarine deposits** (Qpe) (late Holocene). This unit consists of unconsolidated estuarine deposits, and is composed mostly of fine-grained sand and clay. Similar to the marine beach deposits, such deposits are typically assigned a low paleontological potential based on their relatively young geologic age and lack of recorded fossil collection localities; however, these deposits may be underlain in the subsurface by a unit assigned a high paleontological potential. This unit has been assigned a low paleontological sensitivity at the surface and high paleontological sensitivity at depth.

**Young alluvial flood-plain deposits** (Qya) (Holocene and late Pleistocene). This unit consists of poorly consolidated, poorly sorted, permeable floodplain deposits of sandy, silty, or clay-bearing alluvium. Young alluvial deposits occur along the floors of modern drainages and underlie much of the northern portion of the project area. The upper portion of these deposits dates to less than 11,700 years old. Deposits from the middle to early Holocene (older than about 5,000 radiocarbon years) are considered scientifically important or significant (Society of Vertebrate Paleontology 2010). Holocene-age deposits may overlie older alluvium of Pleistocene age at unknown but potentially shallow depths. Evidence of scientifically significant fossils are known from the older, late Pleistocene (11,700–126,000 years ago) sediments within this geologic unit elsewhere throughout Southern California (Miller 1971; Reynolds and Reynolds 1991; Bell et al. 2004; Springer et al. 2009) though few localities have been recovered from these alluvial deposits near the City. This unit has been assigned a moderate paleontological sensitivity at all depths due to the few previously recorded fossil localities near the City.

**Old paralic deposits, Units 2–4 and 6 (Bay Point Formation)** (Qop) (late to middle Pleistocene). This unit consists of poorly sorted, moderately permeable, reddish-brown, interfingered strandline, beach, estuarine, and colluvial deposits composed of siltstone, sandstone, and conglomerate. Unit 6 has been dated to the late Pleistocene (approximately 120,000 years old), while deposits from Units 2–4 date to the middle Pleistocene (approximately 413,000 to 220,000 years old). These deposits rest on the now emergent wave-cut abrasion platforms preserved by regional uplift. Old paralic deposits, Units 2–4 and 6 underlie most of the western and southern portions of the project APE at the surface, as mapped by Kennedy and Tan (2008). More specifically, deposits from Unit 6 rest on the Nestor terrace of Kern and Rockwell (1992), These deposits are broadly equivalent to the nearshore marine and nonmarine deposits of the Bay Point Formation of Kennedy and Peterson (1975).

Old paralic deposits are paleontologically productive and have produced a vast assemblage of diverse vertebrate, invertebrate, and plant fossils including trace fossils, flowering plants, foraminifera, marine invertebrates (e.g., corals, polychaete worms, bryozoans, clams, mussels, scallops, oysters, pen shells, jingle shells, chitons, tusk shells, snails, bubble snails, sea urchins, heart urchins, sand dollars, crabs, ghost shrimp, mantis shrimp, barnacles, and ostracods), marine vertebrates (e.g., rays and bony fish), and terrestrial vertebrates (e.g., amphibians, lizards, birds, rodents, rabbits, giant ground sloth, horse, camel, and bison). Sediments from this unit are assigned a high paleontological sensitivity at all depths due to their age and abundant marine invertebrate, marine vertebrate, plant, and terrestrial vertebrate fossil specimens.

**Very old paralic deposits (Lindavista Formation)** (Qvop) (middle to early Pleistocene). The very old paralic deposits consist of poorly sorted, moderately permeable, reddish-brown, interfingered marine and/or non-marine strandline, beach, estuarine and colluvial deposits composed of siltstone, sandstone, and conglomerate sediments (Kennedy and Peterson 1975). The deposits rest directly on an elevated marine abrasion platform (sea floor) that was eroded directly into older Eocene-age geologic units. More specifically, these deposits rest on the Tierra Santa Terrace platform (approximately 930,000 years old) and the Linda Vista Terrace platform (approximately 855,000 years old) of Kern and Rockwell (1992), and are broadly equivalent to Quaternary very old paralic deposits, Units 8 and 9, respectively, of Kennedy and Tan (2008).

Very old paralic deposits have produced trace fossils in the form of borings and burrows, as well as internal molds of clams. Outside the City in San Diego County, in the neighborhoods of Tierrasanta and Mira Mesa, this unit has produced remains of nearshore marine invertebrates (e.g., clams, scallops, snails, barnacles, and sand dollars), as well as sparse remains of marine vertebrates (e.g., sharks and baleen whales). This unit has been assigned a moderate paleontological sensitivity at all depths due to the paucity of previously recovered, scientifically important invertebrate or vertebrate fossil specimens near the City.

**Torrey Sandstone** (Tt) (middle Eocene). This unit consists of white to light-brown, medium- to coarse-grained, moderately well-indurated, massive and broadly cross-bedded, arkosic sandstone deposited in a nearshore marine environment. The middle Eocene-age (approximately 49 to 48 million years old) Torrey Sandstone underlies much of the central and southeastern portion of the City and likely underlies the Bay Point Formation and Lindavista Formation in the subsurface within the City. This unit is known as the Torrey Sand Member of Hanna (1926) and was named for exposures at Torrey Pines State Park. It is now considered a formation of the La Jolla Group (Kennedy and Moore 1971). In some places this unit is indistinguishable from the Friars Formation (Tf), which is described as nonmarine and lagoonal sandstone and claystone (Kennedy and Moore 1971).

The Torrey Sandstone is rich in vertebrate fossils, including terrestrial mammals and marine invertebrates. Known localities have produced trace fossil burrows, as well as fossil impressions and remains of a diverse flora of vascular plants, marine invertebrates (e.g., corals, polychaete worms, brachiopod, clams, oysters, tusk shells, snails, sea urchins, an insect, barnacles, crabs, and shrimp), marine vertebrates (e.g., sharks and bony fishes), and terrestrial vertebrates (e.g., lizard, bird, and rodents). This unit has been assigned a high paleontological sensitivity at all depth on the basis of the numerous previously collected vertebrate, invertebrate, and plant fossil specimens (SVP 2010).

**Delmar Formation** (Td) (middle Eocene) – The Delmar Formation is a dusky-yellowish-green, sandy, claystone interbedded with medium gray, coarse-grained sandstone. This unit is the Delmar Sand Member

of Hanna (1926) and was named for exposures in the sea cliffs at Del Mar. It is now considered a formation of the La Jolla Group (Kennedy and Moore 1971). The middle Eocene-age (approximately 50 to 49 million years old) lagoonal and estuarine deposits of the Delmar Formation are exposed at the surface along the western edge and part of the central portion of the City and underlies the Torrey Sandstone elsewhere within the project area.

The Delmar Formation has produced fossil specimens including trace fossils (e.g., borings and burrows) and fossil remains of plants, marine invertebrates (e.g., bryozoans, snails, clams, mussels, oysters, crabs, barnacles, ostracods, and sea urchins), marine vertebrates (e.g., sharks, rays, and bony fishes), and terrestrial vertebrates (e.g., lizard, turtle, crocodile, rodent, stem perissodactyl, and tillodont).This unit has been assigned a high paleontological sensitivity at all depths due to its age (middle Eocene) and known fossil specimens.

### 3.2.2 Soils

Soils across the City vary depending on elevation and distance from the shoreline and rivers. In the northern half of the City, much of the soils are dominated by silty and sandy loams, such as the Corralitos Series and Huerhuero Series (NRCS n.d.), from the deposition of sediments along the San Dieguito River. In the southern and eastern portions of the City, covering approximately 30 percent of the entire study area, Marina series soils depict a higher gradient and more seasonal runoff-dependent depositional environment further away from fluvial channeling. Along the western margin of the City, Coastal Beaches, Tidal Flats, and Terrace Escarpments can be found associated with the intermixing of the ocean with runoff and fluvial channels. Throughout the City, much of the land has already been developed, and so pockets of Made Land make up almost 20 percent of the whole area. These and several other minor soil types are described below (**Table 1**).

**TABLE 1: SOILS WITHIN THE CITY OF DEL MAR**

| Soil Name | Soil Description | Percent of City |
|---|---|---|
| Carlsbad Urban Land Complex (USDA 2009a) | This series consists of brown, pale brown, and very pale brown slightly acid gravelly loamy sand A horizons, pale brown and light brown, slightly and strongly acid heavy loamy sand C horizons underlain by weakly cemented duripans at a depth of 38 inches. | 2.9% |
| Coastal Beaches (NRCS, n.d.) | Coastal beaches comprise the land directly exposed to wave action along a shoreline and contain loose, granular, coarse-textured sedimentary soil composed mostly of mineral particles (commonly quartz) and shell fragments. Other components include silt and clay in protected bays or dune bases and may be rich in carbonate from shell, coral and other organic sources. Heavy minerals such as ilmenite, magnetite, and garnet are often present in trace amounts based on the source rock for the mineral component. | 3.7% |
| Corralitos loamy sand (USDA 1993) | This series consists of deep, somewhat excessively drained soils that formed in recent sandy alluvium derived from acid sandstone and related rocks. Corralitos soils are on alluvial fans and in small valleys and have slopes of 0 to 15 percent. The mean annual precipitation is about 20 inches and mean annual air temperature is about 14.5 degrees Celsius. | 3.7% |
| Huerhuero Complex (USDA 2020) | The Huerhuero series consists of very deep, moderately well drained soils that formed in alluvium derived from material weathering from sandstone and other sedimentary rocks. Huerhuero soils are on old alluvial fans and marine terraces and have slopes of 0 to 30 percent. The mean annual precipitation is about 305 millimeters and the mean annual air temperature is about 17 degrees Celsius. | 12.2% |

**TABLE 1, CONTINUED**

| Soil Name | Soil Description | Percent of City |
|---|---|---|
| Made Land (NRCS, n.d.) | Sediment and other materials brought to its current location by human activity such as construction. Generally called artificial fill, it has a highly variable thickness, geological makeup depending on the original source. | 19.5% |
| Marina Series loamy and coarse sand (USDA 2024) | The Marina series consists of very deep, somewhat excessively drained soils formed in old eolian deposits. Marina soils are on fluviomarine terraces, marine terraces, and coastal plains and have slopes of 0 to 30 percent. The mean annual precipitation is about 400 mm and the mean annual air temperature is about 17 degrees Celsius. | 30.1% |
| Terrace Escarpments (NRCS, n.d.) | Terrace escarpments are the remnants of alluvial plains or escarpments which have highly variable profiles, are generally xerorthenic, and have very high runoff erosion and low drainage. | 7.5% |
| Tidal Flats (Britannica n.d.) | These deposits are made of moderately saline sediments at or near sea level that are commonly flooded by tidal action. Sediment types generally consist of mud and silt accumulated during tidal flooding periods that are rich in dissolved nutrients, plankton and organic debris. The varying influence of fresh and saline water also causes high variability in temperature, salinity, and acidity of sediments. | 8.0% |
| Tujunga Sand (USDA 2017) | The Tujunga series consists of very deep, somewhat excessively drained soils that formed in alluvium from granitic sources. Tujunga soil is on alluvial fans and floodplains, including urban areas. Slopes range from 0 to 12 percent. The mean annual precipitation is about 450 mm and the mean annual temperature is about 18 degrees Celsius. | 12.4% |

### 3.2.3 Hydrology and Topography

The City is situated partially on an inland coastal terrace and partially on a delta bordered by a low-lying beach to the north. It is adjacent to the floodplain of the San Dieguito River. The coastal terrace has a seaward margin with vertical to near-vertical cliffs, and along its central and southern shoreline, beaches are generally eroding at a rate faster than new sediment can refill from river flooding, which has led to several large-scale erosion control projects across Del Mar over the last half a century (Kuhn and Shepard 1984). The City has an average elevation of 110 feet.

The San Dieguito River, which runs through the City, is one of the largest rivers in San Diego County. Major floods have occurred historically, the most recent in March 1938. At present, two water-storage dams, Lake Hodges and Lake Sutherland, are located on the river. Little usable beach sand or other sedimentary material reaches the coast today; instead, it is deposited behind the dams (Kuhn and Shepard 1984).

## 3.3 Precontact and Archaeological Context

Over the past century, archaeologists have refined several chronological frameworks to interpret the cultural history of coastal San Diego and, by extension, Del Mar. Early models, such as those by Malcolm Rogers, introduced a sequence of material cultures—San Dieguito (Paleoindian), La Jolla (Archaic), and Yuman (Late Prehistoric)—distinguished by their artifact assemblages and subsistence strategies (Rogers 1945). Later, Wallace expanded these ideas into broader regional horizons, emphasizing developments such as seed grinding and shellfish collecting during the Archaic period, and the appearance of new technologies and traits in the Late Prehistoric era (Wallace 1955). Subsequent scholars contributed further refinements, debating whether changes in the archaeological record represented population replacement or cultural continuity. The current consensus synthesizes these perspectives, recognizing three main

periods—Paleoindian, Archaic, and Late Prehistoric—while incorporating older terminology for specific site types and local traditions (Moratto 1984; Sutton and Gardner 2010; Warren 1968; Bull 1987).

This developed framework allows for nuanced interpretation of Del Mar's archaeological record and supports an understanding of how local adaptations and outside influences shaped the region's precontact history. The following section applies this chronological structure to examine the earliest human occupation in Del Mar, beginning with the Paleoindian period and tracing cultural developments through subsequent eras.

### 3.3.1 Paleoindian Period (ca. 12,000–8,500 years BP)

The antiquity of human occupation in the New World has been the subject of considerable interest and debate for more than a century. At present, the most widely accepted model is that humans first entered portions of the western hemisphere lying to the south of Alaska between about 13,000 and 12,000 BC, either along the Pacific coastline or through an ice-free corridor between the retreating Cordilleran and Laurentide segments of the continental glacier in Canada, or along both routes. While there is no generally accepted evidence of human occupation in coastal southern California prior to about 11,000 BC, ages estimated at 48,000 years and even earlier sometimes have been reported (e.g., Bada et al. 1974; Carter 1980). However, intensive interest and a long history of research into the early occupation of North America has begun to reveal sites with widely accepted evidence dating prior to 13,000 BC, such as Cooper's Ferry, ID (Davis et al. 2019) and White Sands, NM (Bustos et al. 2018).

Paleocoastal occupation in the Del Mar area dates to the terminal Pleistocene and early Holocene (circa 12,000–8500 years BP or 10,050–6,550 BC). During this period, sea levels were lower and the coastline in Del Mar would have been several kilometers farther west than today, meaning some early coastal sites may now lie submerged offshore (Erlandson et al. 2007). The first inhabitants likely arrived in Southern California by the late Pleistocene, potentially via a Pacific coast migration route known as the "kelp highway" (Erlandson et al. 2007). However, direct evidence of humans before circa 10,000 BP in the San Diego coastal zone is sparse and often controversial.

Regional claims regarding Early Man discoveries often reference the crude nature of lithic assemblages or their Pleistocene geological contexts (Carter 1957, 1980; Minshall 1976, 1989; Reeves et al. 1986). In the 1970s and early 1980s, the amino acid racemization technique was used to estimate Pleistocene ages for certain coastal southern California sites (Bada et al. 1974), but later accelerator mass spectrometry (AMS) radiocarbon dating did not support these findings (Taylor et al. 1985). One notable case is the discovery in 1929 of a human skeleton from a sea cliff north of Del Mar, known as "Del Mar Man." Initial estimates using amino acid racemization suggested an age of about 48,000 years, much older than other recognized New World remains, though these results were controversial. Subsequent analyses with improved methods indicate a mid-Holocene age (Stafford and Tyson 1989), leading most researchers to assign the remains to the early Holocene, approximately 9,000 years BP. The individual was buried in a flexed position, a practice seen in later prehistoric burials, which may point to cultural continuity (Rogers 1974; Stafford and Tyson 1989).

The currently accepted chronology places initial occupation of coastal San Diego by at least 10,000–9,500 BP, after the Ice Age glacial retreat (Moratto 1984; Warren et al. 2008). By this time, small bands of hunter-gatherers were present around Del Mar and the San Dieguito River valley. Environmental reconstructions suggest a cooler, wetter climate than today, with productive wetlands (ancestral lagoons) at places like the

San Dieguito and Peñasquitos estuaries attracting game and providing plant foods. These first inhabitants were highly mobile and exploited a range of resources, but their archaeological signature is dominated by flaked stone tool assemblages rather than shellfish or seed-processing remains. This pattern corresponds to what Malcolm J. Rogers defined as the San Dieguito Complex, San Diego's Paleoindian cultural pattern (Rogers 1945).

San Dieguito sites typically lack the shell middens and milling stones that appear in later periods; instead, they contain an abundance of large stone scrapers, heavy choppers, bifacial knives, and lanceolate or stemmed projectile points, with a near-absence of bone or shell refuse. Rogers and later Warren (1967) interpreted this toolkit as evidence of a hunting-oriented economy focused on now-extinct Pleistocene megafauna or other game. Indeed, Paleoindian groups in the Del Mar region probably hunted deer, pronghorn, and small game in the uplands and river valleys, supplemented by gathering wild plants; their camps were likely short-term encampments that left few organic remains (Warren 1967; Byrd and Reddy 2002). Notably, early sites in the area yield almost no fishing gear or shell, implying limited use of marine foods during this initial period, in contrast to the intensive shellfish collecting that developed later (Byrd 1998).

Despite the emphasis on hunting tools, there is no clear evidence that Del Mar's Paleoindian inhabitants were strictly big-game specialists. Recent analyses suggest their subsistence was generalized, and the absence of milling tools in Paleoindian assemblages could be a functional difference rather than indicating a wholly separate culture. In other words, so-called "San Dieguito" sites may represent activity-specific loci (e.g., quarry sites or seasonal hunting camps) of the same people who also used coastal resources at base camps that have since eroded or been obscured (Bull 1987; Gallegos 1987). This hypothesis has been a matter of debate: Rogers and others saw San Dieguito as an entirely distinct cultural tradition preceding the Archaic La Jolla Complex, whereas researchers like Bull and Gallegos argue the distinction might be one of site function and taphonomy, not different populations. For example, heavy scrapers and large blades could have been used for processing plant bulbs or agave in inland areas, tasks that leave little midden evidence, while the same group's coastal shellfish-gathering camps (with abundant shell and milling stones) might appear in the archaeological record as "La Jolla" sites a bit later (Hale 2001; Kaldenberg 1982). Nonetheless, by around 9000 BP, a recognizable shift occurs in the archaeological record of coastal San Diego County. Sites begin to include shell midden debris and milling implements, marking the onset of the Archaic (Encinitas tradition) in this region.

The Paleoindian San Dieguito pattern thus represents the tail end of the Pleistocene adaptation—small bands ranging over large territories, camping on terraces and hills above water sources, and practicing a broad-spectrum foraging economy with an emphasis on terrestrial game. Archaeologically, this period is evidenced by a few find spots and site components in the Del Mar vicinity. These include the CW Harris Site (CA-SDI-149), which is located inland along the San Dieguito River valley and is the type-site for the San Dieguito Complex. The site contains stratified deposits dating to approximately 10,000–8,500 BP. Its assemblage of large bifaces, scrapers, and gravers, with minimal shell or milling tools, suggests a hunting-oriented economy (Rogers 1966; Warren 1967).The "Del Mar Man" skeleton, discovered in 1929 eroding from a sea cliff north of Del Mar, was initially misdated to 48,000 BP but later corrected to around 9,000 BP using modern radiocarbon methods (Stafford and Tyson 1989; Bada 1985). This burial, in a flexed position, aligns with later mortuary traditions and supports cultural continuity from the Paleoindian into the Archaic period. Additional isolated Paleoindian artifacts—such as fluted points and crescentic bifaces—found in lagoon and terrace settings further affirm the presence of early foragers in the region (Erlandson et al. 2007; Moss and Erlandson 2013; Beck and Jones 2010). These finds, though not from

intact sites, serve as horizon markers and suggest that Paleoindian groups exploited a range of habitats, including marshes and uplands.

Each illustrates a different facet of the Paleoindian presence: stone tool technology and subsistence activities on one hand, and mortuary practice and physical anthropology on the other. Together, they confirm that people were present in the Del Mar area by approximately 10,000 years ago, living in an environment of marshes, grassy plains, and oak woodlands that existed where suburban tracts and lagoons are found today. Importantly, the Paleoindian period here shows both continuity and change—cultural continuity in the sense that some early tool types (large bifaces, crescents, etc.) persist into the early Archaic, and change in the eventual addition of new tools and subsistence focus that define the Archaic La Jolla pattern. Modern archaeologists generally view the Del Mar area's prehistory as a continuous sequence beginning with these terminal Pleistocene foragers, who gradually transitioned (by circa 7500–6000 BP) into more sedentary coastal peoples without any wholesale population replacement (Scheib et al. 2018; Warren et al. 2008). In summary, the Paleoindian (San Dieguito) period in Coastal San Diego—as exemplified around Del Mar—is characterized by a low-density, highly mobile occupation focused on hunting and general foraging, leaving behind a material record of flaked-stone tools but few permanent sites. Our understanding of this phase comes from a handful of key sites and finds, which are outlined below.

### 3.3.2 Archaic Period (Millingstone/La Jolla Complex, circa 8,500–1,300 BP)

The Archaic in coastal San Diego (ca. 7500–1300 BP) was a long-lived era of broad-spectrum foraging marked by shellfish gathering, seed processing, and relatively stable cultural continuity. Archaeologists often label this Archaic pattern the Encinitas Tradition (after Warren 1968), corresponding in this region to the La Jolla Complex along the coast and the coeval Pauma Complex inland. During this period, people exploited rich coastal lagoons and estuaries—leaving extensive shell middens of marine mollusks (especially clams, mussels, oyster, Donax)—and also made heavy use of land plants and small game, as evidenced by abundant stone grinding tools (manos and basin metates for seeds) and hunting implements in their sites (Wallace 1955; Gallegos 1992). Flexed inhumation burials in shell middens are another hallmark of the Encinitas/La Jolla pattern (Moriarty 1966). Artifact assemblages show a reliance on cobble stone tools (choppers, scrapers), large projectile points, and few if any pottery or small arrow points, consistent with a pre-bow and arrow technology (Moratto 1984; Rogers 1945). These traits define a long span of cultural adaptation once termed the "Milling Stone Horizon," emphasizing seed-grinding tools (Wallace 1955) and now often called the Encinitas Tradition in this region (Warren 1968). Importantly, this Archaic pattern is seen by most modern researchers as an in situ development from earlier Paleoindian times, rather than a wholly new population (Warren et al. 2008).

As mentioned previously, early archaeologists devised various chronological schemes that have since converged. Malcolm Rogers originally defined the La Jolla Archaic period to date to circa 7500–3000/1300 BP (Rogers 1945). Later, William Wallace's (1955) Southern California sequence relabeled the Archaic as part of a widespread "Milling Stone Horizon" (6000–3000 BC) characterized by seed-grinding and coastal gathering. In San Diego, James Moriarty subdivided the Archaic (La Jolla Complex) into Phases I, II, III based on artifact changes and burial practices (Moriarty 1966). Phase I (circa 7500–5000 BP) saw the first intensive shell midden sites with mostly undifferentiated toolkits and exclusively flexed burials; Phase II (5000–3000 BP) showed larger, more complex sites, possible cemetery areas with more consistent northward burial orientation and inclusion of milling equipment in graves, and continued absence of the bow/arrow; and Phase III (3000–1300 BP) exhibited some influence from outside (e.g., possible adoption

of mortar and pestle for acorns, slight changes in artifact styles) and may represent a transitional Late Archaic prior to the introduction of bow and pottery (Moriarty 1966; Byrd 1998). In the inland areas, Delbert True identified the contemporary Pauma Complex to describe Archaic-period sites without shell near the interior valleys (True 1970). Pauma sites closely resembled coastal La Jolla assemblages (dominated by manos, metates, and cobble tools), but lacked fish and shellfish remains due to their location. True initially hypothesized minor distinctions (e.g., more leaf-shaped bifaces and occasional "Porter" projectile points inland), and suggested Pauma might reflect an inland adaptation or perhaps an influx of people from the desert around mid-Holocene times (True 1966; True 1970). Warren (1968) later subsumed both La Jolla and Pauma under the broad Encinitas Tradition, arguing they were local environmental variants of one long span of cultural continuity rather than separate cultural units—an interpretation now widely accepted.

In the 1960s, Claude Warren's research was pivotal in reframing the Archaic as a time of cultural stability and in-place development. He noted that the Southern California Archaic showed many consistent traits (e.g., shell middens, milling tools, flexed burials) across millennia and across coastal/inland locales, which he termed the Encinitas Tradition (Warren 1968). This contrasted with Rogers's earlier view of population replacement. Warren (1968) proposed that the same basic population had persisted since early Holocene times, adapting locally to environmental shifts. For example, as San Diego's marshes silted up around 5000–3000 BP, sites suggest some subsistence shifts (a decline in shellfish reliance at certain lagoons) but no evidence of a new culture arriving (Gallegos 1987; Masters and Gallegos 1997). Continuity is also seen in lithic technology: heavy use of locally available quartzite and metavolcanic cobbles continued throughout the Archaic, with no sudden changes in tool types until the bow and arrow appears (ca. 1300–800 BP) (Warren et al. 1998). Researchers Bull and Gallegos further argued that even the supposed earlier "San Dieguito" toolkit (big scrapers, large points, etc.) might actually represent a specialized activity facies of the same Encinitas/La Jolla peoples; in their view, sites without shell and grinding tools—once thought to be a separate San Dieguito culture—could have been special-use procurement camps of Archaic people, not evidence of a different population (Bull 1987; Gallegos 1987). While not all scholars fully accept that extreme unity (Warren 1987), the consensus today strongly favors in situ cultural development for the Archaic of the Coastal San Diego and Del Mar region, with any changes largely due to evolving local practices or limited diffusion of new ideas rather than wholesale population replacement (Warren et al. 2008, 344; Sutton and Gardner 2010).

The Archaic period in the South Coastal San Diego area was remarkably long, and archaeologists have noted gradual shifts in settlement and subsistence within it. Early in the Archaic (e.g., La Jolla Phase I), as sea level rise stabilized, groups established semi-sedentary villages near productive estuaries such as San Elijo and Batiquitos Lagoons. These early Archaic camps feature abundant shellfish remains and fishing gear, indicating a heavy maritime focus augmented by plant gathering and hunting of small game (Byrd 1998; Noah 1998). For instance, large deposits of Donax clam, scallop, and mussel shell are found in early Archaic middens at San Elijo and adjacent coastal sites, along with bone fishhooks, shell gorges, and projectile points for spearing fish and game (Byrd 2018; Moriarty 1966). Terrestrial resources were also important; stone tools for processing yucca, agave, and seeds are ubiquitous, and skeletal remains show wear patterns consistent with a mixed maritime-terrestrial diet (Sutton and Gardner 2010).

Mid-Holocene climate and environmental changes between roughly 5000–3000 BP led to some adaptive adjustments. Several coastal lagoons (e.g., Los Peñasquitos Lagoon, Batiquitos Lagoon) became more marshy or even closed, reducing shellfish productivity (Gallegos 1987; Masters and Gallegos 1997). In response, Archaic groups appear to have intensified use of upland resources as evidenced by increased

frequencies of mortars and pestles in the later Archaic, suggesting greater reliance on hard seeds or acorns by around 4000–3000 BP (True 1970; Glassow 1996). Sites of this age in inland north San Diego County (Pauma complex sites) show abundant bedrock milling features for acorn processing, likely corresponding to the establishment of oak woodland resource use as a significant subsistence element (True 1970; Christenson 1990). Nevertheless, coastal foraging did not disappear: at San Diego Bay and the San Dieguito River mouth, for example, shell midden sites continued to be occupied right through the Late Holocene, indicating that where estuaries remained open (as San Diego Bay did), Archaic people kept a marine-focused economy well into the Late Period (Gallegos and Kyle 1988; Byrd 1998). In essence, Archaic people became more diversified over time—initially clustering at lagoons and bay shores, then gradually broadening their settlement to include river valley villages and seasonal inland camps when conditions required, all while maintaining core cultural traditions.

During the Archaic period in the Del Mar coastal region, ancestral Kumeyaay (Encinitas tradition) communities thrived for millennia by exploiting coastal lagoons, bays, and inland foothills in a flexible seasonal round. They left dense shell middens at places like Los Peñasquitos and San Elijo Lagoons representing large base camps of a maritime/terrestrial mixed economy (Byrd 1998). Despite some shifts—e.g., adjusting to lagoon silting by focusing more on plant foods—these groups show strong cultural continuity. The names given by archaeologists have varied ("La Jolla," "Encinitas," "Millingstone"), but all denote this long, relatively unbroken tradition of shellfish collecting, seed grinding, and flexed-burial ceremonialism. There is little evidence for abrupt population replacements in the Archaic archaeological record of this area (Warren 1968; Bull 1987). Instead, the archaeological record demonstrates gradual changes consistent with innovation and outside influence grafted onto a persistent local tradition. By the end of the Archaic (circa AD 500–800), the people of coastal San Diego had adopted important new subsistence tools (the bow and pottery) and possibly absorbed new ethnic groups, yet their fundamental way of life—a diversified foraging strategy in coastal-inland ecotones—remained basically intact (Gallegos 1992: 33; Sutton and Gardner 2010).

In summary, the Archaic Encinitas tradition of the Del Mar area represents a remarkably long-lived cultural adaptation with continuity in technology, settlement, and subsistence, onto which the traits of the Late Prehistoric were later superimposed rather than wholesale replaced (Warren 1968; Warren et al. 2008). This perspective harmonizes earlier models: Rogers's San Dieguito–La Jolla sequence is now seen as an early and late facet of one continuum, and Wallace's broad "Milling Stone" horizon is validated by the enduring nature of the Archaic lifeway, even as refinements (True's Pauma inland complex, Moriarty's phases) add detail about internal developments. The result is a synthesized chronology in which "La Jolla/Encinitas" (Archaic) is understood as a prolonged period of cultural stability and gradual change, bridging the Paleoindian past and Late Prehistoric future in the Del Mar region (Moratto 1984; Sutton and Gardner 2010).

### 3.3.3 Late Prehistoric Period (ca. 1300 BP–AD 1769)

The Late Prehistoric period in coastal San Diego corresponds to the emergence of the Cuyamaca Complex or Yuman tradition, associated with ancestral Kumeyaay (Diegueño) peoples (True 1970: 15-17; Rogers 1945: 180). Several major innovations mark this period in the Del Mar region. Pottery appears consisting of brown, lightly fired ceramic ware used for cooking and storage alongside continued stone vessel use. Projectile points become predominantly small "Desert Side-notched" and triangular Cottonwood types, signifying full adoption of the bow and arrow in place of the atlatl (spear-thrower) (Yohe 1992: 158; Warren et al. 2008: 85). Notably, cremation of the dead replaces inhumation; human remains were commonly

burned and buried as ash and bone fragments, often with funerary offerings, a sharp break from earlier interment practices (True 1970: 32; Warren 1964: 17). Archaeologists interpret these changes as evidence of incoming Yuman-speaking populations from the lower Colorado River region who blended with or displaced earlier groups (Meighan 1954). By the Late Prehistoric, settlements became somewhat more permanent and shifted slightly inland—for example, coastal villages relocated to reliable freshwater sources and acorn-yielding oak groves just a few miles from the shore (McDonald and Eighmey 2008: 117-118). Archaeologically, Late Prehistoric sites around Del Mar (e.g., villages near today's San Dieguito and Peñasquitos Lagoons) show evidence of acorn processing (bedrock mortars and abundant pestles), increased hunting of deer and rabbits, more trade goods (e.g., obsidian arrowheads from distant regions), and shell bead production. By the time of European contact (AD 1769), the Del Mar area was part of the territory of the Kumeyaay people, who had established semi-sedentary village sites along the San Dieguito River and Lagoon—the culmination of the cultural developments traced above.

Late Prehistoric material culture in the Del Mar region reveals both continuity from the Archaic and the infusion of new technologies. Manos and metates continued in use for pulverizing foods like acorns, but were now joined by mortars and pestles (stone bowl mortars and cylindrical pestles) as acorn flour became a dietary staple after AD 800 (True 1970: 43; Glassow 1996: 25). The appearance of these deep grinding tools marks a significant innovation in food processing, as acorns require pounding, leaching, and cooking to make them edible. Pottery technology, entirely absent in earlier periods, was adopted around the same time. Kumeyaay potters made simple brownware coil-built ollas and cooking jars—the region's first durable ceramic containers (Griset 1996: 85-86). Shards of this pottery are found at Late Prehistoric sites along the San Dieguito and San Diego Rivers, often soot-blackened from use in hearths (Griset 1996: 71).

Another key change was in the weaponry: archery equipment replaced the atlatl. Small, finely flaked arrow points (typically Desert Side-notched and Cottonwood Triangular types) occur in large numbers in Late Prehistoric sites (Yohe 1992: 67; Warren et al. 2008: 85). These diminutive points, often made of obsidian or local volcanic rock, are the tips of arrows propelled by bows, an advantage in hunting accuracy and lethality that likely contributed to increased efficiency in taking game. The presence of obsidian arrow points at Del Mar sites also reflects long-distance exchange, as obsidian was procured from eastern California or Arizona and traded into coastal San Diego (Carrico 1997; Warren et al. 2008). Shell and bone working expanded in this period. Kumeyaay craftworkers manufactured Olivella shell beads in large quantities for ornament and exchange. Late Prehistoric coastal sites often contain debris from shell bead production, such as roughouts and marine shell detritus (McDonald and Eighmey 2008). They also carved bone tools like awls (for basketry and leatherworking) and lateral fishhooks from shell or bone that improved fishing capabilities (Rogers 1945; Moriarty 1968). Artifacts of ritual significance in the Late Prehistoric include zoomorphic carvings and pictographs or painted rock art that suggests the development of a richer symbolic material culture by the protohistoric period (Hedges 1975). In sum, Late Prehistoric material culture shows an accumulation of new tool types geared towards an increasingly sedentary, resource-intensifying way of life—the culmination of a long cultural evolution in the region.

Subsistence in the Late Prehistoric times saw the introduction of new cultigens and practices. The Kumeyaay ancestors of this period maintained the rich coastal-inland seasonal round but with greater emphasis on acorn harvesting and small game hunting. Acorns from coast live oak and other oaks became a calorie staple after about AD 800, once pottery and granular milling tools made intensive processing feasible (Glassow 1996; True 1970: 41). Each fall, extended family groups would collect acorns in quantity, transport them to base camps, and then process them by shelling, pounding, water-leaching (to remove tannins), and cooking the acorn meal into a mush or bread (Luomala 1978). This labor- and technology-

intensive use of acorns—"one of the hallmarks of the Late Prehistoric period"—provided a reliable, storable food source that could sustain larger populations through droughts (Christenson 1990: 73).

Alongside acorn exploitation, Late Prehistoric Kumeyaay subsistence continued to incorporate coastal resources. Shellfish gathering and fishing remained important in coastal villages (though some lagoon shellfish beds had declined by then due to siltation). Indeed, Spanish observers in 1769 noted native people near Del Mar "living on fish and mollusks collected from the shore" (Fages 1937: 33). However, compared to earlier periods, many Late Prehistoric villages were situated slightly inland, which correlates with faunal data showing increased take of terrestrial game. Artifacts and animal bones indicate that deer hunting took on greater significance, facilitated by the bow and arrow, which allowed stealthier and more effective kills of larger game (Koerper et al. 2002; Laylander 2011). Rabbit drives and the use of snares or nets to capture jackrabbits and cottontails also intensified, providing both meat and pelts (Christenson 1990). The presence of more obsidian points and other exotics in this period implies participation in inter-village trade networks, which likely buffered food shortages by moving surpluses of fish, shellfish, or acorns between coastal and inland groups (Carrico 1997).

Ethnohistoric accounts confirm that Late Prehistoric Kumeyaay near the San Dieguito River practiced a transhumant pattern, moving seasonally: spending winters near the coast for marine foraging and moving inland to higher elevations in autumn for acorn harvest (Luomala 1978). By maximizing diverse ecological zones, they enjoyed a balanced diet—acorn mush and seed gruels for carbohydrates, fish, shellfish, and game for protein, and fruits and greens (Hedges 1986; Shipek 1991). In summary, the Late Prehistoric subsistence strategy in the Del Mar area was one of intensification and diversification. Kumeyaay foragers became master resource managers, exploiting nearly every edible resource available—from shoals of migratory fish and acres of estuarine shellfish, to vast caches of acorns in mountain oak groves—thereby ensuring food security in the face of environmental uncertainties (Bean and Shipek 1978). This resilient economic base impressed the first Europeans with its efficiency and abundance, and it sustained the native populace up to the historic disruption of Spanish colonization.

### 3.3.4 Ethnohistoric Period (Spanish Contact era, 1769–ca. 1850)

European contact in the Del Mar area began in 1769 with the Portolá expedition—the first Spanish land expedition through San Diego County. Although Portolá's journal does not mention a camp at Del Mar, the route likely crossed the San Dieguito River inland of the lagoon. That same year, Mission San Diego de Alcalá was founded, followed by Mission San Luis Rey in 1798. These missions initiated profound changes as Kumeyaay communities were drawn into mission life; some individuals who frequented Del Mar were likely baptized and relocated to Mission San Diego in the late 1700s, while others resisted or fled to remote areas.

By the mission period (1770s–1830s), traditional Kumeyaay lifeways in coastal zones were severely disrupted. By about 1820, few—if any—native families remained permanently at places like San Dieguito Lagoon, as missionization and introduced diseases caused dramatic population declines (Shipek 1982). Nevertheless, cultural practices did not vanish overnight; some Kumeyaay continued clandestine use of ancestral lands or maintained seasonal camps beyond Spanish oversight. Resistance was significant, exemplified by the 1775 pan-Kumeyaay rebellion that destroyed Mission San Diego (Shipek 1991). During this era, Del Mar's coastal lands likely saw only transient use by displaced Kumeyaay or mission neophytes tending livestock. Archaeologically, the period is sometimes indicated by glass trade beads, metal tools, or European ceramics in otherwise native contexts. To date, no site in Del Mar has been conclusively

identified as an ethnohistoric ranchería, consistent with historical accounts of indigenous displacement and integration into ranch labor by the 1830s.

Ethnographic records and oral traditions provide insight into Kumeyaay lifeways before and during early historic times. The Kumeyaay (Tipai-Ipai or Diegueño) are Yuman-speaking people whose territory includes present-day San Diego and western Baja California (Luomala 1978; Shipek 1982). Social organization centered on autonomous bands or clans, each with a hereditary leader (kwaaypaay) and ceremonial specialists (kuseyaay). Villages typically consisted of seasonal or semi-permanent clusters of willow-framed thatched huts (e'waa).

In coastal and lowland areas, Kumeyaay followed a seasonal round strategy. During cooler months, many groups moved toward the coast and river valleys, exploiting resources such as shellfish, fish, waterfowl, and plant greens. In summer and early fall, they traveled inland to harvest acorns—a staple requiring labor-intensive processing—and gathered pinyon nuts, agave, yucca, chia seeds, and berries, and hunted game (Hoffman 1986; Luomala 1978). While some coastal villages may have been occupied year-round, Del Mar was likely used seasonally by bands whose main villages were inland along the San Dieguito River or higher ground to the east.

Kumeyaay spiritual life was deeply tied to the landscape. Oral traditions recount the creation of specific landforms, and rituals often centered on natural features. Places in Del Mar—such as distinctive rock formations, the lagoon, or coastal sage scrub habitats—may have held cultural significance. Plants like white sage and jimsonweed were used ceremonially, and locations where these grew well might have been revisited for ritual harvesting. Songs and stories in Kumeyaay oral literature map onto real geography; one legend speaks of a giant who lived on the coast and threw rocks into the sea, forming offshore islands. Although no specific Kumeyaay lore about Del Mar is recorded, modern tribal representatives emphasize that the entire coastal area is part of their heritage landscape.

Today, Kumeyaay descendants belong to several federally recognized tribes in San Diego County, including San Pasqual, Jamul, Sycuan, Barona, Viejas, and Campo. Although Del Mar lies outside reservation boundaries, it remains within ancestral lands considered culturally important. Cultural resource management in Del Mar often involves collaboration with Kumeyaay monitors to protect inadvertent discoveries. City policies (CEQA Supplemental Regulations; City of Del Mar 2020) and state law (PRC §5097.98) ensure tribal input in the treatment of cultural materials. While no specific sacred site in Del Mar is documented in the NAHC Sacred Lands File, the area is treated as culturally sensitive out of respect for tribal perspectives. The Kumeyaay legacy in Del Mar is not confined to archaeology—it is a living heritage that underscores the need for careful planning and mitigation to avoid impacts to sites or resources integral to that heritage.

## 3.4 Historic Period Context (1769–Present)

The post-contact historical development of Del Mar, California, reflects a layered and dynamic transformation of the coastal landscape from Indigenous stewardship to Spanish colonial frontier, Mexican ranching territory, and ultimately American resort and residential enclave. This synthesis traces the evolution of Del Mar through distinct historical phases—Spanish Colonial (1769–1821), Mexican Rancho (1821–1848), Early American Settlement (1849–1910), Early Twentieth Century Development (1910–1945), Post World War II Development (1946–1980), and Contemporary Del Mar (1981–2025). Drawing

on both primary and secondary archival sources, this context emphasizes the cultural, political, and economic forces that shaped Del Mar's identity and built environment.

### 3.4.1 Spanish Colonial Period (1769–1821)

The Spanish occupied the area now known as San Diego County between 1769 and 1820 (RECON Environmental, Inc. 2020:7). In 1769, Father Junipero Serra established the first California mission, Mission San Diego de Alcalá, and Governor Don Gaspar de Portolá proclaimed California part of New Spain. This was the founding of Presidio San Diego, the first permanent European settlement on the Pacific Coast. Presidio San Diego was the operations center for expeditions into California to establish missions and presidios for the Spanish crown (Landmark Review Project 1978). Missions served as population centers and early towns in colonial California. Cattle freely roamed and grazed impacting traditional Native American subsistence agriculture (RECON Environmental, Inc. 2020:7). By 1819, 90 soldiers were stationed at the Presidio of San Diego where 450 Spanish and 5,200 Native Americans resided (Landmark Review Project 1978).

### 3.4.2 Mexican Rancho Period (1821–1848)

Mexico gained independence from Spain in 1821 and took control of California. Missions remained in operation under Mexican rule (AECOM 2017:17). By 1830, 120 soldiers were stationed at the Presidio of San Diego protecting 520 Mexican citizens and 5,200 "Christian Indians"; the force declined to 27 soldiers in 1835 (Landmark Review Project 1978).

From 1834 to 1936, the missions in California were secularized. Previous religious land holdings were made available to private citizens for purchase. This change in land rights spurred the creation of the Rancho Era (AECOM 2017:17-18). Ranchos often were gifted to retired soldiers and as political favors (Christenson and Sweet 2008:85).

Del Mar was part of Rancho San Dieguito, an 8,824.71-acre parcel that was granted to Don Juan Maria Osuna circa 1840 by Governor Juan Alvarado (Del Mar Union School District, n.d.-a; Christenson and Sweet 2008:85; Del Castillo 2007:33). Osuna's father, Juan Ismerio Osuna, had been part of the 1769 expedition that founded Presidio San Diego and Mission San Diego de Alcalá. Juan Maria Osuna served as the first mayor of San Diego when the development reached pueblo status in 1835 (Christenson and Sweet 2008:85). Provisional ownership of Rancho San Dieguito included Juan Maria Canedo in 1828 and the Silvas family in 1831 (Christenson and Sweet 2008:85). Osuna was settled in the area in 1928. Native American mission neophytes complained that Osuna had seized all of the best land in the area by 1839 (Christenson and Sweet 2008:85). During this period, Native Americans who had worked for the mission worked for ranchos (AECOM 2017:17). The predominant industry in the area was cattle ranching. Transportation routes were developed to aid in the trade of hides and tallow (AECOM 2017:19).

### 3.4.3 Early American Settlement (1849–1910)

The Treaty of Guadalupe Hidalgo was signed in 1848 ceding 55 percent of Mexico's territory to the United States at the conclusion of the Mexican American War, including California (RECON Environmental, Inc. 2020:7; National Archives, n.d.-a). Mexican land rights on what was now American soil were called into question. Many rancho owners were unable to substantiate their land claims to the State Lands Commission. This resulted in the seizing of ranchos that were then made available for American settlement (AECOM 2017:19).

The period of the sale of rancho land coincided with three major events: the 1848 California Gold Rush, the conclusion of the Civil War in 1865, and the passage of the 1862 Homestead Act. Gold was discovered in California in 1948 on the South Fork of the American River. Between 1849 and 1954, an estimated 140,000 emigrants came to California in search of gold (National Park Service, n.d.). The Civil War sparked a period of mass migration within and to the United States (Library of Congress, n.d.). The Homestead Act of 1862 allowed Americans to claim 160 acres of surveyed public land for a nominal fee in return for living on and improving their plot (National Archives, n.d.-b). The Homestead Act was a legislative expression of Manifest Destiny, the concept that Americans were preordained to expand westward and occupy land (Office of the Historian, n.d.). The occurrence of these three events facilitated the development of California by Americans.

The population of San Diego was 500 in 1850 and 731 by 1860. The population underwent a 214 percent increase between 1860 and 1870, growing to 2,300 (Moffatt 1996:54). San Diego was a rural community between 1870 and 1930. Residents constructed scattered farmsteads and shared a school, church, post office, and general store (RECON Environmental, Inc. 2020:7). Typical agriculture included orchards, dairies, ranching, and dry farming—farming without external irrigation (AECOM 2017:19; Oregon State University 2014).

The California Southern/Southern Pacific Railroad began operating in 1882, passing through present-day Del Mar (ASM Affiliates, Inc. 2002:6). William S. Weed ran a ranch that housed the community post office until 1884 (City of Del Mar 1976). The area was known as “Weed” in his honor until 1885 (Del Mar Union School District n.d.-a).

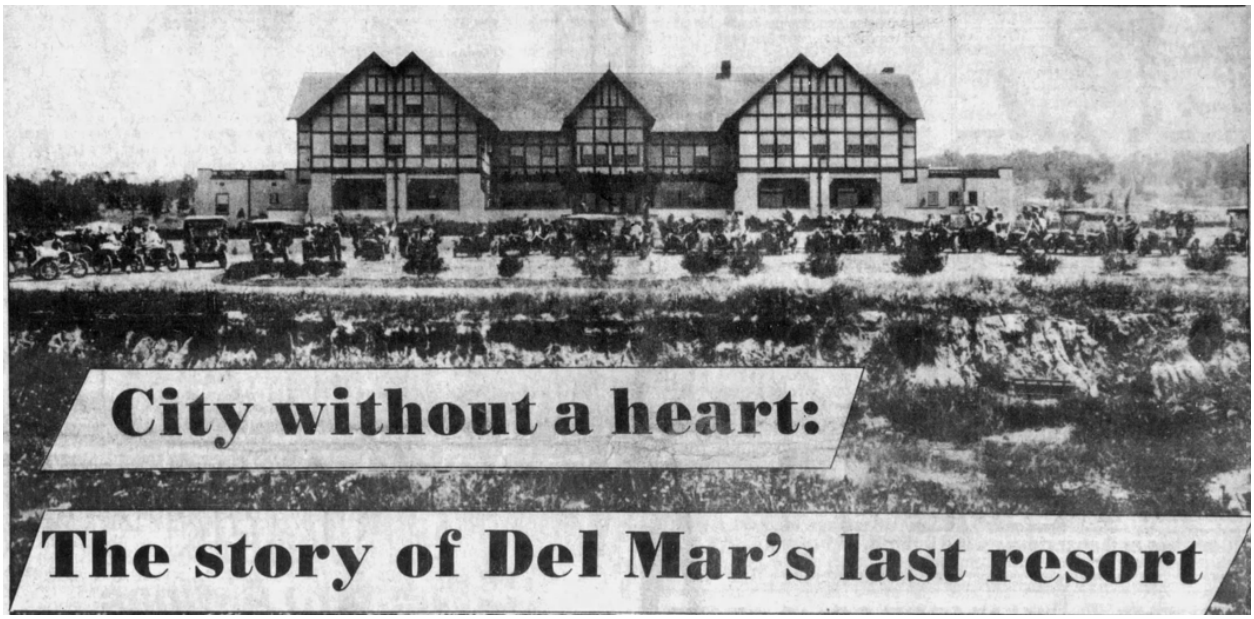
European settlement in Del Mar started in 1882 by Theodore M. Loop, an engineer and contractor on the Southern Pacific Railroad. Loop purchased land on the north side of Los Peñasquitos Lagoon and constructed a residence. He described the area as “the most attractive place on the entire coast” (AECOM 2017:20). Loop also constructed a tent city on the nearby beach. The name Del Mar comes from the poem “The Fight on Paseo Del Mar.” Loop and “Colonel” Jacob Taylor purchased 338.11 acres in present-day Del Mar from Enoch Talbert later that year for $1,000, predicting the potential for a seaside resort (AECOM 2017:20). Taylor had purchased Los Peñasquitos Ranch sight unseen in 1882 and immediately began acquiring land in the Del Mar area (Crawford 2004:4). Taylor and his brother platted Del Mar on either side of the existing California Southern Railroad line (ASM Affiliates, Inc. 2002:7). The duo hoped to attract the wealthy to the area and constructed Casa del Mar, a hotel. Attractions at the hotel included a dance pavilion, bathing pool extending to the ocean, a 110-step flight of stairs down to the beach, and a train station (City of Del Mar 1976; AECOM 2017:20). A general store was opened in Del Mar by Henry John and Mary Gottesburen in 1884 on 9$^{th}$ Street (Del Mar Historical Society, n.d.). Casa Del Mar burned down in 1889. Attempts to reconstruct the facility failed after the construction of a 4-foot concrete foundation (City of Del Mar 1976).

### 3.4.4 Early Twentieth Century Development (1910–1945)

Following the loss of Casa Del Mar in 1889, major development in the area ceased until the twentieth century. The South Coast Land Company was formed in 1905 to develop San Diego County (AECOM 2017:20; Crawford 2004:4). The group was composed of Los Angeles millionaires Wiliam G. Kerckhoff, Henry W. Keller, Henry E. Huntington, Charles A. Canfield, and Ed Fletcher. Fletcher later developed the water system in San Diego County (ASM Affiliates, Inc. 2002:7). Their plans included damming the San Luis Rey and San Dieguito Rivers to create hydroelectric power and provide water to coastal San Diego, to foster

agricultural and residential development, and to build an electric railway between Santa Ana and San Diego, an approximately 90-mile distance, as part of the Southern Pacific Railway System (ASM Affiliates, Inc. 2002:8). To institute these plans, an electric railroad line was planned and designed between Del Mar and San Diego; however, the plans were abandoned when the Southern Pacific Railway was purchased by Pacific Electric in 1909 (ASM Affiliates, Inc. 2002:8). By 1907, the group had acquired "all of Del Mar, South Oceanside, a portion of Oceanside located on the coast, all of Carlsbad, on the water front [sic], and Leucadia" (*Weekly Times-Advocate* 1907). The 1904 *Southern California Sheet No. 2, CA* map depicts Del Mar, labeled as Delmar, with few roads. The majority of development is located directly east of the shore with a small rectilinear grid present (US Geological Survey 1904).

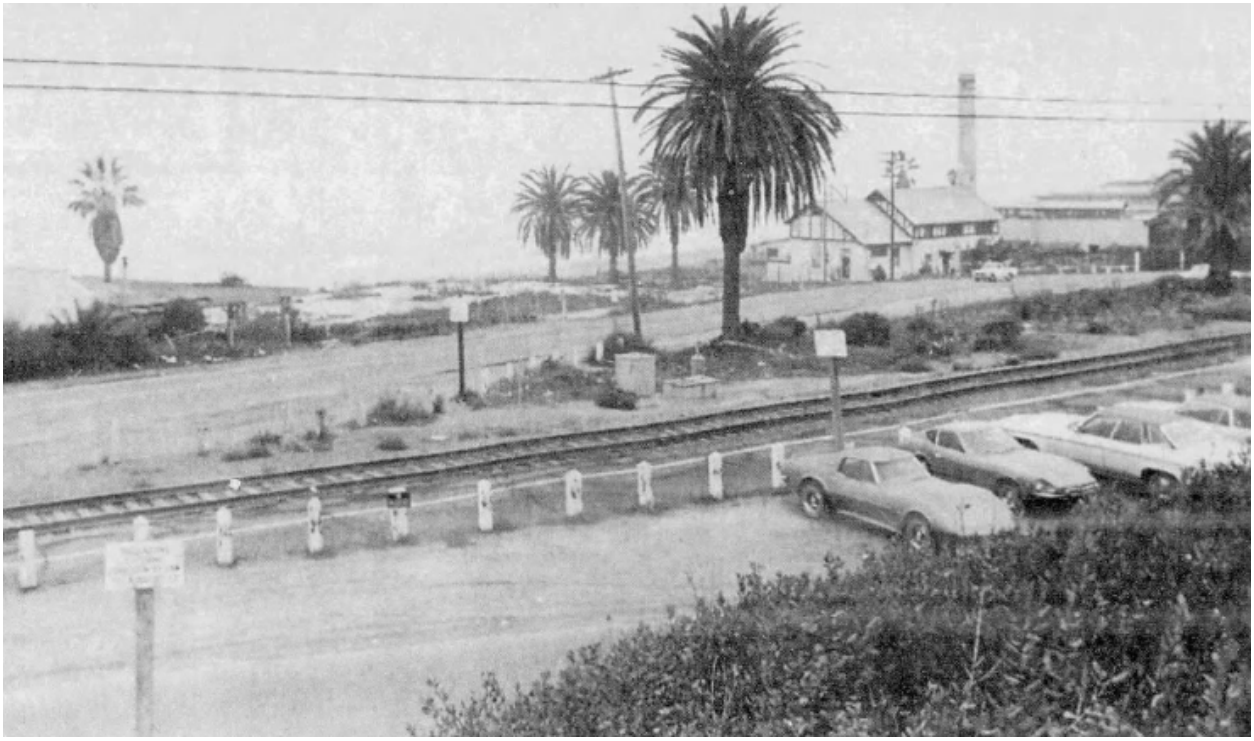
The Stratford Inn opened in 1909 and was constructed by the South Coast Land Company (see Photograph 1) (AECOM 2017:20). The hotel was designed by Los Angeles architect John C. Austin and was located at the corner of 15th Street and Grand Avenue (Del Mar Historical Society, n.d.). Austin was notable for his work on the Shrine Auditorium, Griffith Park Planetarium, and Los Angeles City Hall. The hotel attracted wealthy and famous individuals and included amenities such as a golf course, a plunge (a saltwater bath house), a pier, and a powerhouse (City of Del Mar 1976). The estimated cost of construction was $75,000 (*Citizen* 1988). Upon opening, rooms with a bathroom cost $4 per night; rooms without a bathroom cost $1 per night (*North County Blade-Citizen* 1989). The *San Diego Sun* described the inn as "more than a hotel; it's an institution" and having an "Elizabethan type of architecture" (*The San Diego Sun* 1922). In 1925, it was reported that William Randolph Hearst and an accompanying party of 14 stayed at the inn, and an addition to double guest capacity was announced (*Coast Dispatch* 1925). Two guest houses to accommodate overflow guests were planned in 1926 (*Coast Dispatch* 1926). The name of the hotel was changed to Hotel Del Mar in the same year (*Daily Times-Advocate* 1926).




**PHOTOGRAPH 1: THE STRATFORD INN PICTURED ON ITS OPENING DAY IN 1909 AS FEATURED IN A 1983 ARTICLE (CITIZEN 1983)**

The original powerhouse for the hotel was constructed by Del Mar Light, Water and Power, a subsidiary of Kerckhoff Company, which was owned by William G. Kerckhoff around the time of the opening of the Stratford Inn (*North County Blade-Citizen* 1992). A new powerhouse for the hotel was constructed in 1928

and is now known as the Powerhouse Community Center. The powerhouse provided hot water for the hotel, hotel pool, and laundry facilities. The system utilized a "state-of-the-art low-pressure steam-generating boiler system" with a 60-foot smokestack measuring 7 feet in diameter at its base with 2-foot-thick walls (*North County Blade-Citizen* 1992). The powerhouse was converted into a nightclub called "Roaring '20s" in 1958, which closed in 1962 (*North County Blade-Citizen* 1992; City of Del Mar, n.d.-b). The building was converted into a desalination plant by the Universal Water Corporation in 1965. The property and surrounding area were purchased by the City in 1983 to expand Seagrove Park (see Photograph 3) (*North County Blade-Citizen* 1992; City of Del Mar, n.d.-b). A community center opened in the powerplant in 2000 (City of Del Mar, n.d.-b).



**PHOTOGRAPH 2: THE STRATFORD INN POWERHOUSE IN 1992 (NORTH COUNTY BLADE-CITIZEN 1992)**

Charles A. Canfield, an oil magnate and founding member of the South Coast Land Company, constructed the Canfield-Wright House in Del Mar in 1910. The architect of the Canfield-Wright House, John C. Austin, utilized the Mission Revival style. Canfield was the first to drill an oil well in Los Angeles and Mexico. Canfield and his partner, Edward L. Doheny, paved the streets of Mexico City with asphalt, a biproduct of the oil production. Canfield and Henry E. Huntington were significantly involved in the development of Beverly Hills and the Beverly Hills Hotel.

Construction of the hotel set off a land boom in Del Mar (City of Del Mar 1976). Large residences were constructed following its inception (AECOM 2017:20; Del Mar Historical Society, n.d.). Property sales of over $500,000 were recorded within a few months of the completion of the Stratford Inn (City of Del Mar 1976). The South Coast Land Company oversaw the development of Del Mar. At this time, the Del Mar sewer system was created, the San Dieguito slough was filled in to create Coast Boulevard, and a golf course was developed (City of Del Mar 1976). The South Coast Land Company created roads that were meant to wind and meander. Lots were subdivided into irregular parcels to maintain individuality and emphasize views of natural scenery. Architects were encouraged to design residences in compatibility with

the style of the Stratford Inn: English Cottage and Shingled Bungalow (City of Del Mar 1976). According to the South Coast Land Company, the development was "of distinctive class … free from the noise, confusion and ugly cheap details of the average beach resort … Building restrictions will be enforced and everything will be done to make Del Mar what nature designed it to be, the most beautiful and pleasing place on the Pacific" (City of Del Mar 1976). The company created design guidelines for its development that included bans on construction other than single-family residences, bans on non-white residents, 25-foot setbacks, and limits on outbuildings. These restrictions were terminated in 1935 (City of Del Mar 1976).

The South Coast Land Company and E. W. Scripps developed a road from Del Mar to La Jolla. The road was the only path for cars between Del Mar and San Diego until the construction of Highway 101 in 1931 (City of Del Mar 1976).

Development slowed during the Great Depression until later in the 1930s. The Del Mar Civic Association was founded in 1931 (Del Mar Historical Society, n.d.). The San Dieguito Valley was considered and selected as the site of the San Diego County Fair in the early 1930s. The site of the fair was 184 acres, favored for accessibility. The project was funded by a grant from the Works Progress Administration to the 22nd Agricultural District Association, which purchased the land with a $25,000 grant from the State Department of Fairs and Expositions (City of Del Mar 1976; Del Mar Union School District, n.d.-a). The first San Diego County Fair opened in 1936, and an estimated 50,000 people attended (AECOM 2017:20). Attendance grew to 610,000 individuals in 1974 (City of Del Mar 1976).

The Del Mar Turf Club, a horse racing track, opened next to the fairgrounds in 1937. Founded by Bing Crosby, the racetrack was a popular haunt for celebrities including Lucy and Desi Arnaz, Burt Bacharach, and Pat O'Brien (AECOM 2017:20). Bing Crosby recorded the song *Where the Turf Meets the Surf* to be played at the beginning and conclusion of each day in 1938 (AECOM 2017:20). In 1937, the annual race schedule totaled 43 days with 630,000 attendees (City of Del Mar 1976). A 1938 advertisement for the track dubbed Del Mar "The Vacation Spot of the Nation" (*The San Diego Sun* 1938). It was reported that the Del Mar Turf Club added $475,000 to the San Diego County economy in 1940 (*Coast Dispatch* 1940).

The club and fairgrounds were closed during World War II, and the area was utilized for U.S. military efforts. Marines and paratroopers built living quarters on the site. A Navy air facility and landing field were built at the San Dieguito Lagoon. Between 1943 and 1944, the area was utilized for the manufacturing of B-17 "Flying Fortress" bomber parts (AECOM 2017:22). The Del Mar Turf Club Aviation Plant employed 300 workers and was the only horse track utilized as part of wartime manufacturing (*Daily Times-Advocate* 1944). Following the conclusion of the war, the use of the county fairgrounds and racetrack returned to their original purposes (AECOM 2017:22).

### 3.4.5 Post-World War II Development (1946–1980)

Post-World War II development of Del Mar and surrounding beach communities increased to accommodate commuters to San Diego. Between 1938 and 1958, the population of Del Mar increased from 430 to 2,800 (City of Del Mar 1976). Del Mar was incorporated as a city in 1959 following a discussion of annexation to San Diego to protect the City's autonomy (*Coast Dispatch* 1958; AECOM 2017:22). Aerial photographs depict an increase in development, particularly along Camino del Mar between 1953 and 1964 (NETR 2025: 1953, 1964). The University of California, San Diego opened in nearby La Jolla in the 1960s (AECOM 2017:22). The City of San Diego again considered the annexation of Del Mar in 1962 to bring additional water to San Diego; however, the plan failed (*Coast Dispatch* 1962).

Interstate 5 opened inland, bypassing Del Mar in 1966, following protests of a proposed route along the ocean bluffs in the City (City of Del Mar 1976). Construction of the roadway alleviated traffic along Camino del Mar, which initially negatively affected the business district, but the district stabilized in the 1970s (City of Del Mar 1976). The Stratford Inn closed in 1963 and was demolished in 1969. The Inn at Del Mar was constructed on the site (*Citizen* 1989). Seagrove Park opened in the 1980s (Del Mar Historical Society, n.d.). The population of Del Mar reached its zenith in 1980 at 5,017 residents (United States Census Bureau 1982).

### 3.4.6 Contemporary Del Mar (1981–2025)

The population of Del Mar was 3,954 as of 2020 with a population density of 2,302.9 individuals per square mile. The population included 1,932 households with an average household size of 2.05. The median income was $192,845 with 2.5 percent of the population living below the poverty line (United States Census Bureau, n.d.). Del Mar's Civic Center was dedicated in 2018 and designed by Miller Hull (Miller Hull, n.d.). The curvilinear, meandering streets established by the South Coast Land Company are still present east of Camino del Mar where significant residential development is located. The Del Mar Union School District includes nine schools for 3,363 kindergarten through sixth grade students (Del Mar Union School District, n.d.-b).

# 4.0 RESOURCE IDENTIFICATION METHODS AND RESULTS

This program-level study was conducted primarily through desktop research and spatial analysis, given that project-specific design details are not fully developed for most CIP projects.

## 4.1 Cultural Resources

### 4.1.1 South Coastal Information Center Records Search

Michael Baker International (Michael Baker) sent a records search request on August 29, 2025, to the South Coastal Information Center (SCIC) of the California Historical Resources Information System and received a response on October 1, 2025. The records search returned 67 cultural resource studies within the City of Del Mar. All identified cultural resource studies intersect the project site (**Table 2**). The records search also identified 37 previously recorded cultural resources within the City. **Table 3** provides a summary of these resources. **Confidential Appendix A** provides the results of the records search, including the DPR site record forms. Copies of the previous reports may be provided upon request.

**TABLE 2: PREVIOUS STUDIES WITHIN THE PROJECT SITE**

| Report Number | Author | Date | Title | Publisher |
|---|---|---|---|---|
| SD-00182 | Barter, Eloise Richards | 1986 | Torrey Pines State Reserves Resource Management Plan | California State Archaeologist |
| SD-00672 | Gallegos, Dennis, Roxana Phillips, and Andrew Pigniolo | 1988 | A Cultural Resource Overview for the San Dieguito River Valley San Diego, California. | Westec Services, Inc. |
| SD-01851 | Hector, Susan | 1989 | Cultural Resources Survey of the San Diego Commuter Rail Project | Recon |
| SD-02958 | Caltrans | 1994 | Negative Archaeological Survey Report 11-SD-5, P.M. R35.2, 189161 | Caltrans |
| SD-03139 | Shultz, Richard | 1995 | Archaeological Resource Inventory for Nogales Drive Property Del Mar San Diego California | Affinis |
| SD-03549 | Kirkish, Alex N. and Brian F. Smith | 1997 | Results of a Data Recover Program at Site SDI-7979, The Whittier-Del Mar Project at Border Avenue Del Mar, California | City of Del Mar Planning Department |
| SD-04177 | Berryman, Judy Ph.D. and Craig Woodman, M.A. | 2000 | Archaeological Investigations for the San Dieguito Wetland Restoration Project EIR/EIS | Science Application International Corporation |
| SD-04207 | Westec | 1977 | Archaeological/Historical Survey of the Stratford Inn Garage. | Westec |
| SD-04236 | APEC (American Pacific Environmental Consultants, INC.) | 1981 | Environmental Impact Report for San Dieguito River Study Draft Conceptual Master Plan | Apec |
| SD-04398 | Kyle, Carolyn | 1995 | North Torrey Pines Bridge Over Los Peñasquitos Creek | Gallegos & Associates |
| SD-04658 | City of San Diego | 2002 | Proposed Mitigated Negative Declaration: Formation of Underground Utility Districts | City of San Diego |

**TABLE 2, CONTINUED**

| Report Number | Author | Date | Title | Publisher |
|---|---|---|---|---|
| SD-04752 | Thesken, Jay | 1985 | Archaeological Survey and Evaluation of the Torre Sands Property | Westec |
| SD-04810 | Rosen, Martin | 1999 | Historic Property Survey Report for the Seismic Retrofit of the North Torrey Pines Road Bridge | Rosen, Martin |
| SD-04813 | Mealey, Marla | 1997 | Statewide Resource Management Program Project Status Report: Archaeological Site Reevaluation and Mapping at Torrey Pines State | Department of Parks and Recreation |
| SD-05593 | Caltrans | 1995 | Historic Property Report: Negative Declaration for North Torrey Pines Bridge | Caltrans |
| SD-06440 | Berryman, Judy and Craig Woodman | 1999 | Draft Archaeological Investigations for the San Dieguito Wetlands Restoration Project EIR/EIS | Science Application International Corp. |
| SD-06444 | U.S. Fish & Wildlife Service and Sand Dieguito River Park Joint Authority | 2000 | Environmental Impact Report/Environmental Impact Statement (EIR/EIS) for the San Dieguito Wetlands Restoration Project | U.S. Fish & Wildlife |
| SD-06629 | Rosen, Martin | 1999 | Historic Property Survey Report Oceanside to San Diego-Rail to Trail | Martin Rosen |
| SD-06638 | Rosen, Martin | 1995 | Historic Property Survey Negative Findings North Torrey Pines Bridge | Martin Rosen |
| SD-06645 | Rosen, Martin | 1994 | Negative Archaeological Survey Grand Avenue & Old Del Mar Airport | Martin Rosen |
| SD-06736 | Wade, Sue | 1997 | Archaeological Survey: Stratford Court Property | Cultural Resource Management |
| SD-06931 | City of San Diego | 1999 | Notice of Preparation of a Draft EIR Carmel Valley Road Enhancement Project | City of San Diego |
| SD-07842 | Nighabhlain, Sinead | 2002 | Significance Evaluation of the Del Mar Bluffs Spillway (P-37-024195) | ASM Affiliates |
| SD-08534 | Smith, Brian F. | 1989 | Results of an Archaeological Data Recovery Program at Sites CA-SDI-4618A, CA-SDI-4619, and CA-SDI-10915 | Brian F. Smith and Associates |
| SD-09145 | Gallegos, Dennis and Carolyn Kyle | 1991 | Cultural Resource Survey Report San Diego Bikeways Project San Diego, California | Gallegos and Associates |
| SD-09329 | -- | 2004 | EIR For the Gad and Schroeder Residences Project | PBS&J |
| SD-09331 | Crawford, Kathleen | 2004 | Historical Assessment of the Residence at 351 13th Street | Kathleen Crawford/ Marie Burke Lia |
| SD-09361 | Byrd, Brian F. and Collin O'Neill | 2002 | Archaeological Survey Report for the Phase I Archaeological Survey along Interstate 5 San Diego County, CA. | ASM, Inc |
| SD-09516 | Caterino, David | 2005 | The Cemeteries and Gravestones of San Diego County: An Archaeological Study | David Caterino |
| SD-09518 | Mealey, Marla | 2005 | Archaeological Site Condition Assessment within Torrey Pines State Reserve for Storm Damage following the 2004/2005 Rainfall Season | California State Parks |
| SD-10415 | Fulton, Phil | 2006 | Cultural Resources Assessment Del Mar Fairgrounds Project Cities of Del Mar and San Diego, San Diego County, California | LSA Associates, Inc. |

**TABLE 2, CONTINUED**

| Report Number | Author | Date | Title | Publisher |
|---|---|---|---|---|
| SD-10433 | Braciszewski, Bruce and Bob Nelson | 1980 | National Register of Historic Places Inventory Nomination Form for the Site of the Del Mar Man/Del Mar North Bluffs Preserve | City of Del Mar |
| SD-10550 | May, Vonn Marie | 2002b | National Register of Historic Places Registration Form for the Canfield-Wright House | Vonn Marie May, Cultural Resource Planner |
| SD-10610 | Braciszewski, Bruce and Bob Nelson | 1980 | National Register of Historic Places Inventory-Nomination Form for the Del Mar North Bluffs Preserve, The Site of Del Mar Man | Park and Recreation Committee and City Manager |
| SD-10885 | Mattingly, Scott A. | 2007 | Archaeological and Geospatial Investigations of Fire-Altered Rock Features at Torrey Pines State Reserve, San Diego, California | Scott A. Mattingly |
| SD-11623 | Hector, Susan M. and Alice Brewster | 2002 | San Dieguito River Valley Inventory of Archaeological Resources | ASM Affiliates |
| SD-11819 | Rosen, Martin D. | 2008 | First Supplemental Historic Property Survey Report for the Seismic Retrofit and Rehabilitation of the North Torrey Pines Road Bridge (Sorrento Overhead), Bridge No. 57C-0207, EA 965100-3ENVR | Caltrans |
| SD-12117 | Zepeda-Herman, Carmen and Harry Price | 2009 | Results of the Archaeological Monitoring Program for the San Dieguito Wetlands Restoration Project, San Diego County, California | Recon Environmental Inc. |
| SD-12236 | Gardner, Jill | 2009 | Cultural Resources Survey for the SDG&E CMP 12-Pole Replacement Project in Escondido, San Diego County, California | ASM Affiliates |
| SD-12273 | Gross, Tomothy G. | 2004 | Cultural Resource Evaluation of the Riverpark Office Project, City of Del Mar, California | Affinis |
| SD-14049 | Ni Ghabhlain, Sinead | 2011 | Cultural Resource Survey Update Bridge 243.0 Revetment Project, Del Mar, California | ASM Affiliates, Inc. |
| SD-14086 | Pham, Angela N. and Sinead Ni Ghabhlain | 2012 | Cultural and Historical Resources Constraints Report for the San Dieguito Bridge Replacement and Second Track Project; Del Mar Tunnel Alternatives Analysis | ASM Affiliates, Inc. |
| SD-14092 | Ni Ghabhlain, Sinead, Sarah Stinger Bowsher, and James Daniels | 2009 | Cultural and Historical Resource Inventory and Evaluation Report for the San Dieguito River Bridge Replacement and Second Track Project, Del Mar, San Diego County, California | ASM Affiliates, Inc. |
| SD-14397 | Pigniolo, Andrew R. | 2010 | Record Search Results for the Underground Utility District Via De La Valle Project | Laguna Mountain Environmental, Inc. |
| SD-14891 | U.S. Department of Homeland Security | 2013 | FEMA HSGP: 2012-SS-00123 (16267) Del Mar City Hall | United States Department of Homeland Security |
| SD-15278 | Courtney, Michelle G. and Brian F. Smith | 2014 | Mitigation Monitoring Report for The North Torrey Pines Bridge Project Del Mar, California | Brian F. Smith and Associates, Inc. |
| SD-15568 | Bonner, Wayne H. and Kathleen A. Crawford | 2013 | Cultural Resources Records Search and Site Visit Results for T Mobile West, LLC Candidate SD06288A (Crest Way Water Tank) 14098 Crest Way, Del Mar, San Diego County, California | Environmental Assessment Specialists, Inc |

**TABLE 2, CONTINUED**

| Report Number | Author | Date | Title | Publisher |
|---|---|---|---|---|
| SD-15569 | Bonner, William H. and Kathleen A. Crawford | 2013 | Direct APE Historic Architectural Assessment for T-Mobile West, LLC Candidate SD06288A (Crest Way Water Tank) 14098 Crest Way, Del Mar, San Diego County, California | Environmental Assessment Specialists, Inc |
| SD-16381 | Brunzell, David and Brunzell, Kara | 2015 | Cultural Resources Assessment of the Del Mar Grandstands Project, Del Mar, San Diego County, California (BCR Consulting Project No. TRF1517) | BCR Consulting LLC |
| SD-16729 | Villalobos, Mary M. | 2015 | ETS 31031 – Cultural Resources Monitoring for Pole Replacement P61716, Del Mar, North San Diego County, California - IO 7074264 | ICF International |
| SD-16877 | Wills, Carrie D. and Bruce, Bonnie | 2016 | Cultural Resource Records Search and Site Visit Results for Cellco Partnership and Their Controlled Affiliates Doing Business as Verizon Wireless Candidate 'Jimmy Durante' 2260 Jimmy Durante Boulevard, Del Mar, San Diego County, California | HELIX Environmental Planning |
| SD-16910 | Ports, Kyle | 2017 | Letter Report: ETS 34638.01 - Cultural Resources Monitoring Report for Install 2040-4 PE Pipe Del Mar Fairgrounds, City of Del Mar, California - IO 7074263 | AECOM |
| SD-17006 | Cheever, Dayle M. | 1995 | Cultural Resource Significance Testing of CA-SDI-10,940 (SDM-W-34A); Whittier Property TPM 94-1 | Recon |
| SD-17103 | Foglia, Shannon E., Theodore G. Cooley, Monica Mello, Brian Spells, Rachel Droessler, Tim Wolfe, and Earl Morales | 2017 | Cultural Resources Survey Report for the Proposed San Diego Gas & Electric TL674A Reconfiguration & TL666D Removal Project, San Diego County, California | AECOM |
| SD-17135 | Cordova, Isabel | 2015 | Archaeological Survey for Pole Brushing Project, Various Locations, San Diego County, California (SDG&E ETS# 29109, PanGIS Project# 1401.07) | PanGIS |
| SD-17966 | Wills, Carrie D. and Bonnie Bruce | 2017 | Cultural Resources Records Search for Cellco Partnership and Their Controlled Affiliates Doing Business as Verizon Wireless Candidate 'Del Mar Race Track' 2260 Jimmy Durante Boulevard, Del Mar, San Diego County, California | Helix Environmental Planning, Inc. |
| SD-18366 | Stropes, J.R.K. and Jillian L. Hahnlen | 2019 | Historic Structure Assessment for the 207 13TH Street Building, Del Mar, California, APN 300-074-11 | Brian F. Smith and Associates, Inc. |
| SD-18757 | Johnston, Rob'yn | 2019 | Letter Report: ETS 38299.01 - Cultural Resources Monitoring Report for Replace Pole, Cable, and Switch, P95709, City of Del Mar, California - IO 7074264 | AECOM |
| SD-18861 | Meling, Juliette | 2020 | Archaeological Survey Report for the Torrey Pines State Natural Reserve | California Department of Parks and Recreation |
| SD-19219 | Mengers, Douglas | 2021 | Cultural Resources Survey for Del Mar Bluffs Stabilization Project 5, Del Mar, San Diego County, California | PanGIS, Inc. |

**TABLE 2, CONTINUED**

| Report Number | Author | Date | Title | Publisher |
|---|---|---|---|---|
| SD-19220 | Mengers, Douglas | 2020 | NRHP/CRHR Evaluation of 4 Cultural Resources for the Del Mar Bluffs Stabilization Project 5, Del Mar, San Diego County, California | PanGIS, INC. |
| SD-19221 | Mengers, Douglas | 2018 | Cultural Resources Survey for Del Mar Bluffs Stabilization Project 4, Del Mar, San Diego County, California | PanGIS, INC. |
| SD-19222 | Mengers, Douglas | 2018 | Supplemental Cultural Resources Survey for Del Mar Bluffs Stabilization Project 4, Del Mar, San Diego County, California | PanGIS, INC. |
| SD-19570 | Jordan, Amy | 2021 | Archaeological Monitoring for the GTS Steel Main 200' 2 PE and 3 Services, Pine Needles Drive, Del Mar Project (SDG&E ETS # 48744; ASM Project # 37001.12/48744) | ASM Affiliates, Inc. |
| SD-19598 | Yerka, Nathanial | 2020 | Results of Historical Resources Survey for the La Atalaya Subdivision Project, Del Mar, California | Recon Environmental, Inc. |
| SD-19938 | Moradi, Leah | 2023 | Letter Report: ETS 5981501 – Cultural Resources Monitoring for TCM Z12313 Anchor and Down Guys, Solana Beach, San Diego County, California | Aecom |
| SD-20288 | Liss, Paige | 2022 | Archaeological Survey Report Carpobrotus Removal in TPSNR Extension | Department of Parks and Recreation |

**TABLE 3: PREVIOUSLY RECORDED RESOURCES WITHIN THE PROJECT SITE**

| Primary Number | Trinomial Number/Site Name | Attribute Code and Site Description | Recording Events (Recorder, Organization, Year) | NRHP/CRHR Evaluation Status |
|---|---|---|---|---|
| -- | 220 27th Street | Residence | -- | -- |
| P-37-000191 | CA-SDI-000191 | AP15: Habitation Debris; Prehistoric habitation site with cobble hearths, shell fragments, sandstone metates, and "worked stones" observed. | Malcolm Rogers, n.d.; Foglia & Spelts, AECOM, 2016; AECOM 2019; T. Wolfe, AECOM, 2020; J. Tansey, GeoPacific, 2021 | Not formally evaluated; likely eligible |
| P-37-000192 | CA-SDI-000192 | AP15: Habitation Debris; unknown prehistoric site, shell scatter, likely destroyed by development | Treganza, Gross and Bull, n.d.; Foglia & Spelts, AECOM, 2016 | Not formally evaluated |
| P-37-004612 | CA-SDI-004612 | Midden/Habitation Debris, Prehistoric site, cobbles, shell midden, eroding sandstone mortar | D. Colbern, 1973; J. Woodward, 1982; M. Mealey et al., 1996; N. Brodie, 2015; D. Mengers, PanGIS, 2018/2021 | Not formally evaluated |
| P-37-007979 | CA-SDI-007979 | Midden/Habitation Debris, Lithic/Ceramic Scatter; moderately developed midden, ground stone tools, shellfish, lithics, mammal bone. | D. Barboela and D. Cheever 1980; B. Smith, Brian F. Smith & Associates, 1996 | Underwent Data Recovery in 1996, likely remains an eligible resource |

**TABLE 3, CONTINUED**

| Primary Number | Trinomial Number/Site Name | Attribute Code and Site Description | Recording Events (Recorder, Organization, Year) | NRHP/CRHR Evaluation Status |
|---|---|---|---|---|
| P-37-010149 | CA-SDI-010149 | Shell, ash, flaked stone, quartzite and metavolcanic flakes; site covered by slope-washed sediment | Richard Carrico & Jay Thesken, WESTEC, 1984; N. Brodie, 2014 | Not formally evaluated |
| P-37-010940 | CA-SDI-010940 | Burial, habitation site, cultures included LIT I & II, trace of Y-III; midden, scarce cobble hearths, burials, shell, bone, charcoal, metate, flakes, points, knives | Malcolm Rogers, n.d., Andrew Pigniolo, WESTEC, 1988 | Not formally evaluated; likely eligible |
| P-37-017450 | 1638 Coast Blvd Powerhouse Building and Smokestack; Powerhouse | Historic structure, last of Old Hotel Del Mar complex; stucco and wood timbers, concrete | John B. Bahorski, City of Del Mar, 1988) | Considered a local landmark; appears eligible for NRHP |
| P-37-024194 | DMB Feature 1 | AH16: Railroad retaining wall, culvert, or drain; concrete storm pipe and retaining wall, collapsed and broken into chunks | Ní Ghabhláin and Pallette, ASM Affiliates, 2001; D. Mengers, PanGIS, 2018/2020/2021 | Not eligible (FRA/SHPO 2021) |
| P-37-024195 | DMB Feature 2 | AH16: Railroad retaining wall, culvert, or drain; historic concrete retaining wall and spillway | Ní Ghabhláin and Pallette, ASM Affiliates 2001/2002, D. Mengers, PanGIS, 2018/2021 | Not eligible (FRA/SHPO 2021) |
| P-37-024196 | DMB Feature 3 | AH16: Railroad retaining wall, culvert, or drain; 20 m concrete wall | Ní Ghabhláin and Pallette, ASM Affiliates, 2001; D. Mengers, PanGIS, 2021 | Not eligible (FRA/SHPO 2021) |
| P-37-024197 | DMB Feature 4 | AH16: Historic foundation and bridge remains; 1910 gazebo/footbridge, wooden pilings of an1890s swimming pool | Ní Ghabhláin and Pallette, ASM Affiliates, 2001; D. Mengers, PanGIS, 2018/2021 | Not eligible (FRA/SHPO 2021) |
| P-37-024198 | DMB Feature 5 | AH16: Railroad retaining wall, culvert, or drain; retaining wall and storm drain, mostly replaced | Ní Ghabhláin and Pallette, ASM Affiliates, 2001; D. Mengers, PanGIS, 2021 | Not eligible (FRA/SHPO 2021) |
| P-37-024199 | DMB Feature 6 | AH16: Railroad retaining wall, culvert, or drain; collapsed historic wall | Ní Ghabhláin and Pallette, ASM Affiliates, 2001; D. Mengers, PanGIS, 2021 | Not eligible (FRA/SHPO 2021) |
| P-37-024200 | DMB Feature 8 | AH16: Railroad retaining wall, culvert, or drain; historic concrete wall | Ní Ghabhláin and Pallette, ASM Affiliates, 2001; D. Mengers, PanGIS, 2021 | Not eligible (FRA/SHPO 2021) |
| P-37-024201 | DMB Feature 9 | AH16: Railroad retaining wall, culvert, or drain; historic large retaining wall with culvert | Ní Ghabhláin and Pallette, ASM Affiliates, 2001; D. Mengers, PanGIS, 2021 | Not eligible (FRA/SHPO 2021) |

**TABLE 3, CONTINUED**

| Primary Number | Trinomial Number/Site Name | Attribute Code and Site Description | Recording Events (Recorder, Organization, Year) | NRHP/CRHR Evaluation Status |
|---|---|---|---|---|
| P-37-024249 | DMB Feature 7 | AH16: Railroad retaining wall, culvert, or drain; concrete wall | Ní Ghabhláin and Pallette, ASM Affiliates, 2001; D. Mengers, PanGIS, 2021 | Not eligible (FRA/SHPO 2021) |
| P-37-026493 | CA-SDI-017389 | Highland accretion midden on red crag formation, platforms, hearths, fire-cracked rock, shell | Rogers 1939 | Not formally evaluated; site destroyed by erosion |
| P-37-033925 | CA-SDI-021312 | AH4: Trash scatter; domestic and automotive artifacts, historic refuse: bottles, cans, hubcaps; destroyed by bridge retrofit | Charles Callahan 2011; Smith et al., Brian F. Smith & Assoc., 2014; D. Mengers, PanGIS, 2018/2021 | Not eligible (FRA/SHPO 2021) |
| P-37-034956 | San Dieguito River Railroad Bridge | HP19: Railroad Bridge; timber pile trestle | Ní Ghabhláin et al., ASM Affiliates, 2009 | Recommended not eligible |
| P-37-035160 | T-Mobile West LLC SD06288A / Crest Way Water Tank | HP11: Engineering Structure; Modern round steel water tank, c.1953, public utility | K. A. Crawford, Crawford Historic Services, 2013 | Recommended not eligible |
| P-37-035935 | Del Mar Infield Pavilion | HP42: Contemporary building, irregular plan, brick and plywood, scoreboard | K. Brunzell, 2015 | Recommended not eligible |
| P-37-035936 | Del Mar Thoroughbred Club Grandstand and Racetrack Complex | HP4: Ancillary building, vernacular Modern style, built circa 1965 | K. Brunzell, 2015; M. Mello, AECOM, 2016 | Recommended not eligible |
| P-37-036273 | A-S-1 (Sewer Tank) | HP39: Sewer Tank; Concrete tank with manhole "City of Del Mar Sewage 1936—Standard Iron Works" | Dina Chatelain et al., 2014 | Not formally evaluated |
| P-37-036281 | CA-SDI-021996 A-S-3 (Historic Trash Dump) | A4: Historic Trash Dump; Refuse scatter, bottles, ceramics, metal, 1929–1954 | N. Turner, California State Parks, 2014 | Not formally evaluated |
| P-37-036412 | Del Mar-P62481-7 (1601 San Dieguito Dr) | HP2: Single-family property; Raised ranch-style residence, 1965 | M. Mello, AECOM, 2016. | Recommended not eligible |
| P-37-036413 | Del Mar-P62481-8 (1604 San Dieguito Dr) | HP2: Single-family property; Eclectic ranch-style residence, 1967 | M. Mello, AECOM, 2016 | Recommended not eligible |
| P-37-036415 | Del Mar-TL666(Portion of TL666 within the Del Mar Project corridor) | HP11: Engineering Structure; SDG&E electric transmission line, c.1918 | Foglia & Spelts, AECOM, 2016 | Recommended not eligible |
| P-37-036420 | CA-SDI-022048 Del Mar-Z90289-1 (Concrete Lamp Post Dump) | AH4: Privies/Dumps/Trash scatters; Dump of concrete blocks and pillars | Foglia & Spelts, AECOM, 2016 | Not formally evaluated |
| P-37-036421 | Del Mar-Z90296-1 (Glass Insulator Fragment) | AH16: Other; Clear glass insulator crown fragment, isolate | Foglia & Spelts, AECOM, 2016 | Not formally evaluated |

**TABLE 3, CONTINUED**

| Primary Number | Trinomial Number/Site Name | Attribute Code and Site Description | Recording Events (Recorder, Organization, Year) | NRHP/CRHR Evaluation Status |
|---|---|---|---|---|
| P-37-036422 | Del Mar-Z90297-1 (Del Mar Blue Print Co/Automotive) | HP8: Commercial Building; large rectangular corrugated metal warehouse, c.1955 | Foglia et al., AECOM, 2016 | Recommended not eligible |
| P-37-036423 | Del Mar-Z90710-1 (Old Grand Avenue Bridge) | HP19: Bridge; WWII-era bridge, now overlook | Foglia & Spelts, AECOM, 2016 | Recommended not eligible |
| P-37-036525 | 34638-ISO-1 (Historic Glass Bottle Isolate) | AH16: Other (Isolate); Clear glass bottle (fragmented from bobcat machine), c.1923-1982 | K. Ports, AECOM, 2016 | Not formally evaluated |
| P-37-039579 | DMB5-02 (Signal Foundation) | AH2: Foundation; Concrete foundation for intermediate signal, pre-1970s | Mengers & Rolland, PanGIS, 2020 | Not eligible for NRHP/CRHR (FRA/SHPO 2021) |
| P-37-039580 | DMB5-03 (Drainage Chute) | HP20: Water conveyance system; Historic-era concrete drainage chute, c.1910 | Mengers & Rolland, PanGIS, 2020 | Not eligible for NRHP/CRHR (FRA/SHPO 2021) |
| P-37-039581 | DMB5-04 (Pipe Outlet) | HP20: Water conveyance system; Historic-era iron pipe outlet, c.1910 | Mengers & Rolland, PanGIS, 2020 | Not eligible for NRHP/CRHR (FRA/SHPO 2021) |
| P-37-039582 | DMB5-05 (Foundation) | AH2: Foundation; Historic-era concrete foundation, c.1910 | Mengers & Rolland, PanGIS, 2020 | Not eligible for NRHP/CRHR (FRA/SHPO 2021) |

## *Precontact Archaeological Sites*

### CA-SDI-191 (SDM-W-37)

This site was first recorded by Malcolm Rogers as a prehistoric habitation on a sandy spit of land north of the San Dieguito River lagoon, with observations of cobble hearths, shell fragments, sandstone metates, and “worked stones” scattered on the surface. The site originally covered roughly 8 acres on a low terrace near today’s Via de la Valle and Jimmy Durante Boulevard (the area now occupied by a utility substation and parking). In Rogers’s time (ca. 1930s), it was an extensive shell midden likely dating to the Archaic (Encinitas/La Jolla) period. Later archaeologists revisited CA-SDI-191 and found it heavily disturbed. A 2016 survey noted only a sparse scatter of about 40 shell fragments (cockle, scallop, abalone) eroding from a landscaped slope at the base of the San Diego Gas & Electric (SDG&E) Del Mar Substation, with no intact deposits visible. In 2019 and 2021, monitoring of grading at the substation confirmed that most of the site’s archaeological strata had been removed or redeposited during past construction. Only a few residual marine shell pieces mixed with modern debris were observed in the fill soils, suggesting the site was largely destroyed when the substation was built in the 1950s. No features or artifacts were found in situ during recent work. In summary, CA-SDI-191 appears to have been a substantial shell midden (likely a Middle Holocene base camp) that yielded shell and groundstone indicative of a coastal Encinitas Tradition occupation, but decades of development have left it in a highly disturbed state with little to no intact deposit remaining.

## CA-SDI-192 (SDM-W-56)

This was an "unknown prehistoric site" recorded by archaeologist Richard Treganza (ca. 1940s) on a narrow finger of land at the east side of the Del Mar Fairgrounds, near the margins of San Dieguito Lagoon. The original record did not describe any artifacts or features; it simply noted the location. A later visit by Gross and Bull (date unknown) likewise provided no detail other than the site's general position "east of the racetrack on a finger of land." In essence, CA-SDI-192 was known only by location, with no documented cultural materials. Modern investigations suggest that whatever deposit existed has since been obliterated. The area was graded and converted into a parking lot and access road for the fairgrounds in the mid-twentieth century, likely destroying the site. In 2016, AECOM archaeologist Ed Morales attempted to relocate CA-SDI-192 during a utility project survey; they found no in situ cultural remains. They only noted a few isolated shell fragments at a road shoulder, apparently washed downslope by rain, not part of an intact midden. No artifacts or soil discoloration were observed. Given the extensive development of the fairgrounds, it is concluded that CA-SDI-192 has been completely destroyed, with only scant secondary traces of shell indicating it ever existed. Thus, aside from its map coordinates and designation in old records, this site offers no meaningful data on Del Mar's prehistory.

## CA-SDI-4612 (Torrey Pines State Beach Site #1, SDM-W-30)

Situated on the coastal bluff at the south end of Del Mar, just north of Torrey Pines State Beach, this was a small shell midden with a bedrock mortar reported in 1973 by D. Colbern. Colbern described "material eroding out of the cliff face"—specifically noting a portable sandstone mortar exposed in the sea cliff about 12 centimeters deep—and associated marine shell fragments (mussel, clam). In 1982, J. Woodward updated the record after a State Parks survey: he confirmed a coastal shell midden on a small sandstone terrace with cultural deposits about 30 centimeters thick, containing mussel shell and midden soil, though he could not relocate the previously noted mortar. By 1996, heavy erosion and construction had taken a toll. A State Parks archaeologist revisiting CA-SDI-4612 failed to find any shell or artifacts and surmised that the site had likely been destroyed during the construction of North Torrey Pines Road parking infrastructure (Mealey, Muranaka, and Heimgaertner 1997). Small-scale redeposited midden lenses might still exist in the inaccessible cliff face. In 2015, N. Brodie observed pockets of shell and some cobbles eroding from the cliff in this general vicinity and tentatively associated them with CA-SDI-4612 (Brodie 2015). However, subsequent systematic surveys for SANDAG's Del Mar Bluffs projects in 2018 and 2020 did not relocate any definable site deposit (Mengers 2018, 2021). Given these findings, CA-SDI-4612 is essentially extinct as an archaeological site—whatever midden existed has been eroded or buried by modern fill. It was likely a small Archaic shellfish processing station or camp on the bluff, but today only a few residual shell bits in the cliff hint at its presence (Colbern 1973; Mealey, Muranaka, and Heimgaertner 1997).

## CA-SDI-7979 (Border Avenue Site)

Discovered in 1980 during a survey of undeveloped land in the northwest corner of Del Mar, CA-SDI-7979 was a moderately dense shell midden with lithic and ceramic scatter on a mesa top in Crest Canyon first recorded by Barbolla and Cheever in 1980. The site measured roughly 50 by 50 meters and lay about 0.5 kilometers northeast of the coast. Surface indicators included marine shell fragments (primarily Venus clam, scallop, oyster), a dark ashy soil, and artifacts such as grinding tool fragments and stone flakes. In 1995–1996, Biran F. Smith and Associates conducted a data recovery excavation at the site in advance of residential development (Kirkish and Smith 1997). Archaeologists excavated six 1×1 meter units, a trench,

and additional mechanical units, reaching a maximum depth of approximately 110 centimeters in cultural deposits. The excavations yielded a rich assemblage: over 1,500 artifacts (including quartzite and metavolcanic flake tools, choppers, scrapers, mano and metate fragments, and hammerstones), approximately 36 kilograms of marine shell, and faunal bone (small mammal and fish remains). Notably, no pottery or arrow points were found, indicating the site's primary occupation pre-dated AD 500. Radiocarbon dates on charcoal and shell placed the main midden formation in the Middle Holocene, ca. 7000–7500 years BP, corresponding to the La Jolla culture (Encinitas Tradition) period. Several discrete hearth features with charcoal and fire-cracked rock were documented, suggesting repeated campfires or roasting pits (Kirkish and Smith 1997). The lack of housepit features or cemeteries implied this was a seasonal resource-processing camp rather than a permanent village. The occupants likely collected shellfish from the nearby San Dieguito Lagoon and processed them on-site, as evidenced by dense shell dumps and groundstone for pounding or grinding shellfish and plant foods. The presence of Olivella shell beads in the midden also indicates early use of shell ornaments or trade items (Kirkish and Smith 1997). After excavation, the site was largely destroyed by construction of homes (the Whittier-Del Mar development). Today, CA-SDI-7979 survives only in the recovered collections and archives. It provided important data on early coastal subsistence (heavy reliance on estuarine shellfish, supplemented by land mammals and possibly fishing) and early Archaic technology in Del Mar (use of cobble tools, absence of bow and arrow). In summary, CA-SDI-7979 was a Middle Archaic shell midden camp whose excavation has contributed significantly to our understanding of mid-Holocene coastal adaptation in the Del Mar area.

### CA-SDI-10149 (Anderson Canyon Site)

This site was a small, localized prehistoric deposit on a coastal bluff slope at the far south end of Del Mar (just south of 15th Street). Recorded in 1984 by Carrico and Theskin of WESTEC Services, it appeared as a "very concentrated lens of shellfish, ash, and flaked stone debris" exposed in an erosion gully. The cultural lens—only a few meters across—contained a dense pocket of marine shell (identified as scallop, oyster, and Venus clam), charcoal-rich soil, and a handful of lithic flakes from locally available quartzite and metavolcanic cobbles. No groundstone or pottery were noted, and no features or burials were observed. Carrico suggested the deposit might represent a single short-term camp or processing episode, perhaps the remains of a single hearth or dump of shellfish remains. The site was revisited by Brodie and Pigniolo in 2014 who noted the site's context had been altered by natural processes: slope wash had covered the lens, and a large erosional channel cut through the area. They mapped the site's location but found no visible midden or artifacts. It is likely that the remaining cultural material sits buried under colluvium or was washed downslope. Given its small size, CA-SDI-10149 is interpreted as an ephemeral Late Archaic camp or task site—perhaps a single cooking station on the bluff where a small group processed shellfish or other food, leaving behind a pocket of shell and ash. With no opportunity for extensive excavation before it was obscured, the site's data potential was limited. Nonetheless, it serves to demonstrate that even steep, rugged slopes in Del Mar were utilized at times—possibly as lookout points or places to procure particular resources (e.g., a freshwater seep or specific plant habitat)—resulting in tiny, short-lived archaeological deposits. Unfortunately, due to natural erosion and lack of in situ remains, CA-SDI-10149 contributes only minimal information beyond confirming a prehistoric presence on that hillside.

### CA-SDI-10940 (SDM-W-34/34A, "Del Mar Man" site)

CA-SDI-10940, also known as SDM-W-34/34A and sometimes referred to as the "Del Mar Man" site, is a prehistoric habitation site located on a bluff along the sea cliff west of the Del Mar Race Track and Old Highway 1, within the City at the northwest point of the San Dieguito Slough. The site was originally

recorded in 1929 by Malcolm Rogers, who identified two loci: W-34, situated on an upper terrace, and W-34A, located approximately 24 feet below on a lower bench. Rogers described the site as having an extensive midden deposit, with features including cobble hearths (noted as very scarce), burials, and a variety of artifacts such as metate, flakes, projectile points, knives, hammer stones, a chopper, and a mano. Non-artifactual constituents documented at the site include shell, bone, and charcoal.

Two human burials have been documented at CA-SDI-10940. One burial was found in the bank between the two loci, with part of a femur mineralized with calcite. A second, fragmentary burial was exposed in the sea cliff of W-34A, though most of it had fallen into the sea. The burial known as "Del Mar Man" was initially dated by amino acid racemization to over 48,000 years before present (BP), but subsequent uranium-based dating revised the age to approximately 4,500–4,800 BP, placing it within the La Jolla cultural horizon.

Significance testing conducted in 1995 involved subsurface sampling, which produced positive returns including 9,228 grams of shell, 5 grams of bone, 56 pieces of debitage, five hammer stones, one chopper, and one mano fragment. The deposit was found to be nearly one meter thick and in good condition, although ongoing marine erosion poses a significant threat to the integrity of the site. The site retains a quantity, quality, and variety of artifacts and ecofacts suitable for research on prehistoric human behavior. The cultural context of CA-SDI-10940 is associated with the La Jolla tradition, characterized by shellfish gathering and simple stone tools, and the documented artifacts are consistent with both San Dieguito and La Jolla components.

CA-SDI-10940 is considered significant under CEQA criteria B, D, and E, due to its ability to address research questions, its age, and its stratigraphic integrity. The site should be protected and preserved, and any proposed development requires mitigation measures to avoid or minimize impacts. The presence of human burials makes the site highly sensitive, and Native American consultation is recommended prior to any further work. Today, only fragments of the site remain in place, and continued erosion threatens what remains. Most information about the site comes from the original site record and subsequent testing and analysis (Cheever 1995).

### CA-SDI-17389 (Rogers W-46)

This site occupies a high ridge in northern Del Mar, about 90 meters above sea level at the west end of Crest Road. Malcolm Rogers recorded W-46 as a "highland accretion midden" resting on a red sandstone outcrop. Even by Rogers's survey (circa late 1930s), the site had been severely deflated by wind and rain: he noted the area was "completely denuded by erosion" with essentially no soil deposit left, only a scatter of artifacts and fire-reddened rock on the bare rock surface (Rogers 1939; Rogers, n.d.). The cultural material that could be discerned included several stone tool flakes, patches of shell, and clusters of fire-cracked rock indicating former hearths or roasting pits (Rogers 1939). No house features or middens remained; instead, Rogers described exposed sandstone "platforms" with embedded hearthstones as the only sign of the erstwhile site. Based on the artifacts, Rogers inferred that the main occupation was Late Prehistoric (Kumeyaay, ca. AD 1200–1800), essentially a "pure Diegueño II site" in his terminology. He did note a possible earlier (San Dieguito) component "trace," but the evidence for any Paleoindian use was minimal—perhaps a few older-looking flakes—and not enough to confirm a multicomponent status (Rogers, n.d.). In essence, CA-SDI-17389 appears to have been a Kumeyaay seasonal camp or lookout, strategically located on a high knoll with commanding views of the San Dieguito Valley and Pacific coast. Its occupants likely harvested resources in the uplands (such as acorns or agave) and used the site for food

processing, as suggested by the hearth remnants. The site's exposure to the elements led to the loss of its midden sediment; only artifacts trapped in crevices and the discolored rock surfaces attest to human activity. Rogers reported no cultural deposits deeper than the scoured rock and no cultural features beyond the hearths. No formal excavations have been conducted since, and the area remains open chaparral. In recent record searches, CA-SDI-17389 is noted but listed as having no remaining deposit (its record relies on Rogers's documentation). The site underscores the fact that not all archaeological sites in Del Mar are shell middens by the water; rather, some are inland, transient camps on hilltops which can be easily erased by natural forces. As of today, CA-SDI-17389 holds limited research value due to its poor integrity, but it is still of interest as part of the network of late prehistoric Kumeyaay sites across the Del Mar highlands (Rogers 1939; Rogers, n.d.).

#### Offshore Sites P-37-033561 and P-37-033562

These two archaeological sites are submerged just offshore of Del Mar and were identified during offshore dredging and survey programs. Each consists of a single large stone bowl artifact recovered from the seafloor, in contexts suggesting an ancient terrestrial origin (Hildebrand and York 2022). Specifically, one bowl was dredged from the San Dieguito "borrow site" about 0.5 kilometers offshore at approximately 8 meter water depth; the other was found off Solana Beach at approximately 12 meter depth (Hildebrand and York 2022). Both artifacts are finely made steatite bowls typically associated with the late Holocene La Jolla or early Kumeyaay cultures on land. Their discovery on the continental shelf indicates that parts of the coastal landscape occupied prehistorically have been inundated by post-glacial sea-level rise (Hildebrand and York 2022). Geological studies show that preserved peat and lagoon deposits of mid-Holocene age lie offshore of the San Dieguito River's mouth. The presence of these bowls confirms that intact prehistoric site components (once on dry land) now exist submerged offshore (Hildebrand and York 2022). While P-37-033561/62 themselves are isolated finds, they are significant because they demonstrate the archaeological potential of offshore landforms. In fact, these finds spurred renewed efforts to identify paleoland surfaces and to protect submerged cultural resources in the region (Hildebrand and York 2022). Future work (e.g., diver surveys or remote sensing) may locate the parent habitation sites for these artifacts on the paleo-shoreline now underwater. For cultural resource management, the documentation of sites 33-561 and 33-562 highlights that coastal development and sand dredging must consider underwater cultural heritage. The artifacts have been conserved, and further research is ongoing to more precisely date them (Hildebrand and York 2022). In summary, the offshore sites provide rare physical evidence of submerged prehistoric occupation on the Southern California coast, underscoring the need to include the offshore environment in archaeological inventories.

### *Historic-Period Archaeological Sites*

#### CA-SDI-21312 (North Torrey Pines Bridge Trash Scatter)

This resource was first recorded in 2011 by Brian F. Smith and Associates as a historic trash scatter underneath the North Torrey Pines Road Bridge, just north of Del Mar. It consisted of discarded modern-historic debris (bottles, cans, hubcaps, and household trash), likely left by transients or tossed from cars (Callahan 2011). The scatter was fully collected and removed during the bridge replacement project around 2011, effectively destroying the site (Callahan 2011). In 2020, PanGIS archaeologists revisited the general area and confirmed that no trace remains within the project area; the site is considered destroyed and not eligible for the NRHP/CRHR due to lack of integrity (Mengers 2021). The California State Information Center has it on record as destroyed with no further action required (Mengers 2021).

### CA-SDI-21996 (Historic Site "A-S-3")

This site is a historic-period trash dump located in Del Mar. It is a refuse scatter containing 1920s–1950s debris such as bottles, ceramics, and metal fragments, likely associated with mid-twentieth-century occupation of the area. It was recorded in 2014 by N. Turner of California State Parks (with the San Diego Archaeological Society) during a survey of the San Dieguito area (Turner 2014). The deposit was documented but not formally evaluated for significance. As a commonplace refuse dump of the 1929–1954 era with no distinguishing historical associations, it has not been proposed as NRHP/CRHR-eligible. It remains a recorded site with no eligibility determination.

### CA-SDI-22048 (Historic Trash Dump "Del Mar–Z90289-1")

Also recorded as "Del Mar–Z90289-1," this is a concrete debris dump site. It consists of a pile of concrete blocks and pillars, believed to be remnants of historic streetlamp posts, located at the base of a steep slope along San Dieguito Road (Foglia et al. 2016). The chunks are partially submerged near the San Dieguito Lagoon's edge. AECOM archaeologists Shannon Foglia and Brian Spelts recorded the site in September 2016 during the SDG&E Coastal Reliability Project survey (Foglia et al. 2016). The site's attributes were logged (resource type "Privies/Dumps/Trash scatters"). It is clearly of historic origin (early-mid twentieth century) but was not evaluated as significant; rather, it was assigned a status code of 6Z, indicating it is not eligible for the NRHP/CRHR (Foglia et al. 2016). In other words, this is a minor refuse site with no further historical importance.

### P-37-036421 ("Del Mar–Z90296-1" Isolate)

This resource is a single artifact isolate: a fragment of a clear glass insulator (the crown portion) likely from a historic telegraph or power line. It was found in 2016 by AECOM surveyors near the railroad corridor (Foglia et al. 2016). Because it is an isolated find (not associated with a larger site), it was documented with an "Other – AH16" designation (miscellaneous historic artifact). Isolates are not eligible for listing on the NRHP/CRHR by definition, and this piece was accordingly given a 6Z (ineligible) status in 2016 (Foglia et al. 2016). It has no further record beyond its documentation.

## *Built Environment Resources – Buildings*

### P-37-017450 – The Powerhouse Building and Smokestack

The Powerhouse Building and Smokestack, located in Del Mar, San Diego County, was first recorded by John B. Bahorski of the City of Del Mar in 1988. The resource was documented for the City's historic resources inventory, with no specific project report cited. The building and smokestack are situated at 1638 Coast Boulevard, within public parkland near the coast.

Constructed between 1926 and 1928, the Powerhouse Building is primarily composed of stucco and wood timbers, while the adjacent smokestack is a 65-foot-tall concrete structure. The exterior of the Powerhouse has remained virtually unchanged since its construction, with only minor damage noted; the interior has experienced some vandalism, but the overall condition of both structures is good. No major alterations have been made since their original construction. These buildings were originally constructed to provide power and hot water to the historic Hotel Del Mar and its Plunge (swimming facility), and they represent the last remaining structures from the Old Hotel Del Mar complex. William Kerckoff commissioned the buildings during Del Mar's early commercial development. It is included in the City's Historic Preservation

Overlay. The resource is listed with a California Historical Resource Status Code of 3S: appears eligible for NR as an individual property through survey evaluation.

### P-37-035935 – Del Mar Infield Pavilion at the Del Mar Fairgrounds

This resource is a one-story building of irregular plan, constructed with brick and plywood, and featuring an attached scoreboard. Built around the 1960s, the pavilion has since been expanded and modified to host a range of events, including exhibits, sports, and concerts during the San Diego County Fair and racing season (Brunzell 2015).

Although the Del Mar Fairgrounds—opened in 1936 as a New Deal project—is historically significant, the pavilion was constructed after the original period of significance and does not display notable architectural distinction or association with important historic events (Brunzell 2015). Designed in a utilitarian Mid-Century Modern style and not attributed to a master architect, the pavilion remains intact and actively used, but its modifications and typical fairgrounds design result in a lack of distinctive historic character.

A 2015 Historic Resources Assessment recommended the Pavilion as not eligible for listing on the NRHP or CRHR, assigning it a likely CHR Status Code 6Z (Brunzell 2015). In summary, while the pavilion is prominent within the fairgrounds, it is not considered a significant historic resource.

### P-37-035936 – Del Mar Racetrack Grandstand and Clubhouse Complex

This resource includes the Del Mar Thoroughbred Club Grandstand, clubhouse, and related structures at the Del Mar Fairgrounds. The racetrack opened in 1937, famously promoted by Bing Crosby, and quickly emerged as a California thoroughbred racing icon. While the original Spanish Colonial-style grandstand was largely replaced by a modern facility in 1991, elements from earlier decades remain, such as the paddock area, a 1940s stable, and the track's overall layout. The Human Resources Building, a 1920s/30s stucco structure now used for offices, is also part of this complex.

Historically, the Del Mar Racetrack is significant for its association with twentieth-century leisure and entertainment. It epitomizes the 1930s era of horse racing glamour—Bing Crosby welcomed the first guests in 1937—and has been a venue for renowned horses and Hollywood celebrities. The racetrack's enduring presence has helped shape Del Mar's development as a resort destination. Despite the grandstand's modern construction, the site's longstanding racing tradition and cultural landscape contribute to its historical importance.

In terms of integrity, the grandstand itself is new, so the original design and materials from 1937 are largely absent. However, the racetrack complex retains its historic function, location, and ongoing use, while the older Human Resources Building adds a touch of original character. Regarding eligibility, the racetrack complex has been considered eligible for listing and treated as a historical resource under CEQA in previous assessments. A 2006 Historic Assessment by LSA determined the fairgrounds and racetrack to be eligible as a historic district for its over 75-year regional role, even if individual buildings—like the renovated grandstand—are not original. More recent reviews (AECOM 2016) continue to regard the complex as significant. The complex is listed in the Built Environment Resource Directory with Status Code 6Y ("Determined ineligible for NR by consensus through Section 106 process – Not evaluated for CR or Local Listing"), signifying official recognition of its eligibility.

The grandstand complex (including the adjacent Horsemen's Club/Human Resources building) was originally built circa 1965 in a vernacular Modern style to serve the racetrack. It was surveyed in 2015 by Kara Brunzell and updated in 2016 by Monica Mello (AECOM) during evaluations for the fairgrounds (Brunzell 2015; Mello 2016). While the grandstand is a prominent landmark—hosting famous races and social events—previous studies did not find it eligible for the NRHP/CRHR. The 2006 LSA historic assessment treated the broader fairgrounds as a historical resource under CEQA, indicating local importance, but the 2015–2016 record concluded that the grandstand complex does not meet NRHP/CRHR criteria due to alterations and its mid-1960s age (Brunzell 2015; Mello 2016). Although locally famous as "Where the Turf Meets the Surf," it is not listed or eligible for state or national historic registers.

### P-37-036412 – 1601 San Dieguito Drive (Residential Property)

This is a single-family residence in Del Mar recorded as a raised Ranch-style house built in 1965. It was documented by AECOM architectural historian Monica Mello in 2016 during the SDG&E Coastal Reliability project survey (Mello 2016). The house features a mid-century Ranch design typical of post-World War II suburban development. By 2016, it had undergone some modifications but still retained its general 1960s character. The survey evaluation found that the property lacked sufficient architectural distinction or historical association to meet significance criteria. In the site record, the conclusion was that 1601 San Dieguito Drive is not eligible for NRHP or CRHR listing, due to only moderate integrity and no notable historical importance (Mello 2016). It was given a Status Code of 6Z (ineligible). In short, this ordinary 1965 ranch house does not qualify as a historic resource.

### P-37-036413 – 1604 San Dieguito Drive (Residential Property)

This is a single-family residence, built in 1967 in an eclectic Ranch style. It was recorded and evaluated by AECOM in October 2016 (Mello 2016). The house exhibits some custom features but has also been altered over time. Like its neighbor above, it represents the post-war residential expansion of Del Mar. The historic assessment determined that, although the home retains a fair degree of 1960s "feel," it does not have significant architectural merit or association with important persons/events that would make it eligible for the NRHP or CRHR (AECOM 2016; Mello 2016). Therefore, 1604 San Dieguito Drive was recommended ineligible for listing. The City and SDG&E accepted this finding, and the property has no historic designation.

### P-37-036415 – SDG&E TL666D and Del Mar Substation

P-37-036415 documents a segment of SDG&E's Transmission Line TL666 within the Del Mar corridor, constructed in 1918 and recorded in 2016 during the Coastal Reliability project (AECOM 2016). This segment consists of approximately 96 utility poles (primarily wood, some replaced with steel), transmission towers, posts, and wires. The line was formally evaluated for historical significance and found to be associated with broad patterns of local and regional history as an early high-voltage transmission corridor in San Diego County. However, due to extensive upgrades, replacements, and changes to the surrounding setting, the segment does not retain sufficient integrity of materials, workmanship, setting, and feeling to qualify for listing in the National Register of Historic Places or the California Register of Historical Resources. The resource remains in use as a utility corridor, but its historic character has been substantially diminished by modernization and maintenance activities.

P-37-036422 – 2260 Jimmy Durante Blvd (Del Mar Blue Print Co. Building)

This resource is a commercial warehouse building at the south end of Del Mar, constructed circa 1955. It is a large, rectangular, corrugated metal structure that historically housed the Del Mar Blue Print Company and an automotive shop on the same parcel. The property was recorded in September 2016 during the SDG&E project survey (Foglia et al. 2016). The building is utilitarian in style—essentially a mid-century industrial shed—occupying an entire lot adjacent to the San Dieguito Lagoon. By 2016 it was still in use (with modern additions like fencing and pavement). The historic review noted the structure appears in aerial photos by 1964 and is a straightforward example of a 1950s light industrial building. It does not embody distinctive architectural qualities, nor is it known for significant events. Accordingly, the record indicates it was given an NRHP Status Code of 6Z, meaning found ineligible for NRHP/CRHR (Foglia et al. 2016). In sum, the Del Mar Blue Print/Auto warehouse, while over 60 years old, did not meet the criteria for historic listing.

## *Built Environment Resources – Structures and Objects*

P-37-024194 (1910 AT&SF Storm Drain and Retaining Wall – Feature 1)

This resource is a concrete storm drain pipe and retaining wall at the base of the Del Mar coastal bluff, likely built in 1910 as part of the Atchison, Topeka & Santa Fe Railway's (AT&SF) "Red Car" line along the blufftop. It was originally recorded in 2001 by ASM Affiliates during the Del Mar Bluffs Stabilization Project 1 and was at that time recommended not eligible for listing in either the NRHP or CRHR (Ní Ghabhláin and Pallette 2001). A 2018 survey update by PanGIS, Inc. observed that the retaining wall had collapsed into large concrete chunks on the beach and the iron outfall pipe was broken (Mengers 2018). The site was revisited in April 2020 during Del Mar Bluffs Project 5 and found in the same collapsed condition (Mengers 2021). The Federal Railroad Administration (FRA), as lead agency for a related project, issued a determination in 2021 that this storm drain feature is not eligible for NRHP listing, a finding concurred with by the State Historic Preservation Officer on May 28, 2021 (Mengers 2021).

P-37-024195 (1910 AT&SF Bluff Spillway and Retaining Wall – Feature 2)

This resource is a concrete retaining wall and spillway (drainage chute) that extends from the top of the Del Mar bluff down to its toe. Like Feature 1, it was built circa 1910 as part of the historic AT&SF railroad infrastructure. ASM Affiliates recorded it in 2001 (Del Mar Bluffs Project 1) and a subsequent evaluation in 2002 confirmed it was not eligible for NRHP/CRHR listing (Ní Ghabhláin and Pallette 2002). A 2018 field check by PanGIS noted the feature remained as described in 2002 (Mengers 2018). A 2020 survey relocation recorded its precise coordinates and confirmed no changes in condition (Mengers 2021). As with Feature 1, FRA determined in 2021 that Feature 2 is not NRHP-eligible, with SHPO concurrence (Mengers 2021).

P-37-024196 (1910 AT&SF Retaining Wall Segment – Feature 3)

This resource is an approximately 60-foot-long concrete retaining wall associated with the 1910 railway construction. It was recorded by ASM in 2001 during the initial Del Mar Bluffs survey (Ní Ghabhláin and Pallette 2001). The wall remains intact and was found unchanged during later re-surveys in 2018 and 2020, aside from more precise locational data gathered (Mengers 2018, 2021). It has not been formally reevaluated since the original record, but like other features of this system, it was recommended not

eligible for NRHP/CRHR (Ní Ghabhláin and Pallette 2001). No eligibility concurrence from SHPO was deemed necessary beyond the earlier recommendations.

### P-37-024197 (10th Street Footbridge Foundations & Natatorium Pilings – Feature 4)

This complex resource includes the concrete foundations of a gazebo and footbridge built in 1910 across the railroad at 10th Street, a fence made from a former bridge deck, and wooden pilings on the beach that are remnants of an 1890s seaside swimming pool (the Del Mar Natatorium). ASM Affiliates recorded these features in 2001 (Ní Ghabhláin and Pallette 2001). A significance evaluation completed in 2018 (as part of Del Mar Bluffs Project 4) concluded the combined site was not eligible for the CRHR due to loss of integrity (Mengers 2018). However, the surviving natatorium pilings on the beach are considered locally important as historical landscape features; the City has leased that beach area to ensure their protection (Mengers 2021). The 2020 survey noted some additional fence collapse but no major changes to the site (Mengers 2021). No NRHP/CRHR listing has been sought, and the site is regarded as not significant for those registers while the pilings remain preserved in place as a City interest.

### P-37-024198 (1910 AT&SF Storm Drain System Segment – Feature 5)

This resource is another concrete storm drain outlet and associated retaining wall at the bluff base, also dating to the AT&SF railway's 1910 construction. It was initially recorded in 2001 by ASM (Ní Ghabhláin and Pallette 2001) and identified as similar in function to Feature 1. By 2018, much of this feature had been impacted by modern infrastructure: a new storm drain system with a catch basin was installed nearby, and the only remnants of the historic feature were a few wooden railroad ties from the original inlet (Mengers 2021). It was previously recommended not eligible for listing (Ní Ghabhláin and Pallette 2001), and the FRA/SHPO determinations in 2021 likewise did not find it eligible for the NRHP (Mengers 2021).

### P-37-024199 (1910 AT&SF Collapsed Retaining Wall – Feature 6)

This resource is a concrete retaining wall tied to the 1910 railroad construction. By the time it was first documented in 2001 (Del Mar Bluffs survey), the wall had already collapsed onto the ground (Ní Ghabhláin and Pallette 2001). It was revisited in 2018 and 2020 and found in essentially the same collapsed state, though detailed descriptions and coordinates were updated (Mengers 2018, 2021). It is not NRHP/CRHR-eligible per the original survey findings (Ní Ghabhláin and Pallette 2001), a conclusion affirmed by the absence of any contrary evaluation.

### P-37-024200 (1910 AT&SF Upper Bluff Retaining Wall – Feature 8)

This resource is a concrete retaining wall near the top of the bluff, also thought to have been built circa 1910 for the railroad. ASM's 2001 survey recorded it as "Feature 8," a high bluff-top wall possibly related to storm water control along the tracks. They recommended the site not eligible Later surveys noted no substantial changes; the 2020 fieldwork provided a more complete description and precise mapping. The Federal Railroad Administration (FRA), as lead agency on the Proposed Pacific Surfliner Coastal Bluff Trackbed Stabilization and Seismic Improvement Project, determined that this property is not eligible for listing in the National Register of Historic Places (FRA_2021_0405_001). The State Historic Preservation Officer concurred with this determination on May 28, 2021.

### P-37-024201 (1910/1941 AT&SF Retaining Wall and Culvert – Feature 9)

This resource is a large concrete retaining wall with an integrated culvert at the base of the bluff. It was constructed in 1910 and later improved (extended or buttressed) in 1941, all as part of the AT&SF railroad corridor stabilization (Ní Ghabhláin and Pallette 2001). ASM recorded it in 2001 (Feature 9), and it was revisited in 2018/2020 with no major changes observed (Mengers 2018, 2021). Like the other railroad features, it was recommended not eligible for NRHP/CRHR listing due to its common engineering nature and altered condition (Ní Ghabhláin and Pallette 2001). There has been no new eligibility finding beyond SHPO's concurrence in general that these 1910 railway remnants are not individually significant.

### P-37-024249 (1910/1941 AT&SF Base-of-Bluff Retaining Wall – Feature 7)

This resource is another concrete retaining wall at the bluff base associated with the 1910 railroad construction (and apparently improved in 1941, similar to Feature 9) (Ní Ghabhláin and Pallette 2001). It was oddly numbered out of sequence, but corresponds to "Feature 7" from the 2001 ASM survey. The wall was revisited in 2020 and still matches its original description (Mengers 2021). It has never been found significant; the original record and subsequent reviews did not identify it as eligible for historic registers (Ní Ghabhláin and Pallette 2001).

It is noted that the nine AT&SF railway features (P-37-024194/195/196/197/198/199/200/201/249) were documented during stabilization studies (Ní Ghabhláin and Pallette 2001, 2002). All were found to be ordinary infrastructure components of the 1910 railroad grade and were collectively recommended *not eligible* for historic designation. They remain in various states of ruin along the bluffs. No further work was required for them aside from standard construction monitoring during bluff projects.

### P-37-034956 – San Dieguito River Railroad Bridge

The San Dieguito River Railroad Bridge, also known as Bridge 243, was recorded by ASM Affiliates in 2009 as part of the San Dieguito River Bridge Replacement and Second Track Project (Ní Ghabhláin et al. 2009). The bridge is located in northern San Diego County, spanning the San Dieguito River near the City.

Bridge 243 is a ballast-deck timber pile trestle railroad bridge, measuring approximately 1,100 feet in length and 19 feet in width, with a maximum height of about 30 feet. The structure consists of 79 spans, each 14 feet long, supported by bents of six timber piles with bi-directional cross bracing and steel stringers and caps. As-built drawings indicate that the current bridge was constructed in 1916 following severe flooding that destroyed the previous structure, with extensions added to both the east and west sides. Some records suggest a significant rebuild or repair occurred in 1926, and date nails in the railroad ties indicate ongoing maintenance, with the oldest dating to 1927. The bridge was designed by R.B. Ball, Engineer Grand Division, and built by the AT&SF Railroad. It remains in use today and is owned by the North County Transit District.

The bridge was evaluated for eligibility for the NRHP and, by extension, the CRHR. Although it meets the age threshold for consideration, the bridge was found not to be associated with significant historical events or trends and is representative of a common bridge type used by the Santa Fe and other railroads. It does not exhibit unique or exceptional design or engineering characteristics. As a result, the bridge was recommended as not eligible for listing in the NRHP or the California Register (Ní Ghabhláin et al. 2009: 17–18).

### P-37-035160 – T-Mobile West LLC SD06288A/Crest Way Water Tank

The Crest Way Water Tank, also identified as T-Mobile West LLC SD06288A/Crest Way Water Tank, was first recorded by Crawford Historic Services in 2013. Constructed around 1953, the Crest Way Water Tank is a Modern-style, round, bolted steel structure standing approximately 37 feet, 9 inches above ground level. The tank is enclosed within a fenced compound, features large steel pipes for water distribution, and is surrounded by mature landscaping and equipment storage areas. The tank was built to support the expansion of Del Mar's public utility infrastructure during a period of significant residential growth in the 1950s.

The Crest Way Water Tank was evaluated for eligibility for listing in the NRHP and was recommended as not eligible for listing in the NRHP and was not assessed for eligibility under the CRHR or local Del Mar criteria.

### P-37-036273 "A-S-1" Historic Site (Sorrento Valley Industrial Park)

This resource (recorded as "A-S-1") is a historic concrete sewer holding tank dating to 1936. It consists of a circular concrete septic or sewer tank with an iron manhole cover reading "City of Del Mar Sewage 1936 – Standard Iron Works". It was discovered and recorded in 2014 by California State Parks archaeologists during a survey (Chatelain et al. 2014). The tank is an isolated infrastructure relic and was not formally evaluated for NRHP/CRHR eligibility. Given its utilitarian nature and the fact that it remains an abandoned piece of 1930s public works, it was recommended as not individually eligible in the record (Chatelain et al. 2014). No official eligibility determination has been made.

### P-37-036423 – Old Grand Avenue Bridge (World War II Era Timber Trestle)

This is the preserved remains of a 1943 wooden trestle bridge in Del Mar. The Old Grand Avenue Bridge originally spanned the San Dieguito River, providing access to a World War II U.S. Navy training facility (a coastal airfield) at the Del Mar Fairgrounds. After the war, it continued to be used for access to the fairgrounds and later was partially removed. Today, one segment of the bridge (extending from the south shore partway over the lagoon) survives as a pedestrian lookout as part of the River Walk Trail. This bridge remnant was documented in 2016–2017 by the Anthropological Studies Center (ASC) for the City (ASC 2017). It is a wood and concrete trestle structure. Historically, it is associated with the World War II era activity (blimp patrols and military presence) and early post-war use of the fairgrounds. However, the bridge is no longer intact—only a portion remains—and a modern concrete viewing platform has been added. The evaluation in 2017 found that while the bridge has local interest, it lacks the integrity and significance for NRHP or CRHR eligibility (the bridge was given status 6L, "determined ineligible for NRHP, eligible as local landmark" by the City) (ASC 2017). In effect, the Old Grand Avenue Bridge is not NRHP/CRHR-listed; it is recognized as a Del Mar local historical feature and is being preserved in a park setting, but it did not meet the formal criteria for state or national registers.

### P-37-039579, P-37-039580, P-37-039581, P-37-039582

These four resources were newly recorded by PanGIS archaeologists in April 2020 during the Del Mar Bluffs 5 project. All are features associated with the historic railway infrastructure:

P-37-039579 (DMB5-02) is a concrete foundation of a former railroad signal or similar trackside equipment, likely dating to the mid-twentieth century (pre-1970s) signaling system (Mengers 2021).

P-37-039580 (DMB5-03) is a historic-era concrete drainage chute on the bluff. The upper portion appears to be the original 1910 railway storm water chute, now capped and partly rerouted by a modern concrete cover at the bottom (Mengers 2021).

P-37-039581 (DMB5-04) is an iron pipe outlet set in the bluff face, about 6 feet above the ground, encased in concrete. It likely served as part of the 1910 railway's drainage system, carrying runoff through the bluff (Mengers 2021).

P-37-039582 (DMB5-05) is a concrete foundation footing protruding from the bluff, believed to be part of a 1910 retaining wall or possibly a bridge abutment related to the railroad (Mengers 2021).

All four resources were recorded in detail in 2020 during the Del Mar Bluffs 5 project. Each was formally evaluated for NRHP/CRHR eligibility in December 2020 and found not eligible. These determinations were confirmed by both the Federal Railroad Administration and the California State Historic Preservation Officer in 2021. (Mengers 2021).

### 4.1.2 Sacred Lands File Search Results and NAHC Contact List

On September 10, 2025, Michael Baker requested that the NAHC search the Sacred Lands File for any tribal cultural resources that might be affected by the project. The NAHC responded in a letter dated September 17, 2025, stating that the search of the Sacred Lands File was negative. The NAHC also provided a list of tribal contacts who may have knowledge regarding tribal cultural resources in the vicinity of the project area (**Table 4**). The NAHC correspondence is presented in **Appendix B**. Michael Baker did not send notification letters to the tribal contacts provided by the NAHC but did send the list of contacts to the City. The City will mail AB 52 consultation letters to the tribal contacts. AB 52 compliance will be documented in the PEIR, including any written correspondence with tribes and agreed-upon mitigation.

**TABLE 4: NAHC CONTACT LIST FOR DEL MAR CIP PEIR PROJECT**

| Tribe Name | Contact Person | Fed (F) Non-Fed (N) | Contact Info |
|---|---|---|---|
| Barona Group of the Capitan Grande | Art Bunce, Attorney | F | 1095 Barona Road<br>Lakeside, CA, 92040<br>(760) 489-0329<br>Buncelaw@aol.com |
| Campo Band of Diegueno Mission Indians | Daniel Tsosie, THPO | F | 36190 Church Road, Suite 1<br>Campo, CA, 91906<br>(619) 760-6480<br>Dtsosie@campo-nsn.gov |
| Campo Band of Diegueno Mission Indians | Ben Dyche, Vice Chairperson | F | 36190 Church Road, Suite 1<br>Campo, CA, 91906<br>(619) 478-9046<br>Bdyche@campo-nsn.gov |
| Campo Band of Diegueno Mission Indians | Marcus Cuero, Chairperson | F | 36190 Church Road, Suite 1<br>Campo, CA, 91906<br>(619) 478-9046<br>Marcuscuero@campo-nsn.gov |
| Ewiiaapaayp Band of Kumeyaay Indians | Eduardo Mercado, Principle | F | 1 Crestwood Road<br>Boulevard, CA, 91905<br>(619) 301-4794<br>Emercado75@hotmail.com |

**TABLE 4, CONTINUED**

| Tribe Name | Contact Person | Fed (F) Non-Fed (N) | Contact Info |
|---|---|---|---|
| Iipay Nation of Santa Ysabel | Clint Linton, Director of Cultural Resources | F | P.O. Box 507<br>Santa Ysabel, CA, 92070<br>(760) 803-5694<br>Clint@redtailenvironmental.com |
| Inaja-Cosmit Band of Indians | Rebecca Osuna, Chairperson | F | 2005 S. Escondido Blvd.<br>Escondido, CA, 92025<br>(760) 747-8568 |
| Jamul Indian Village | Erica Pinto, Chairperson | F | P.O. Box 612<br>Jamul, CA, 91935<br>(619) 669-4785<br>Epinto@jiv-nsn.gov |
| Jamul Indian Village | Lisa Cumper, THPO | F | P.O. Box 612<br>Jamul, CA, 91935<br>(619) 669-4855<br>Lcumper@jiv-nsn.gov |
| La Posta Band of Diegueno Mission Indians | Eric La Chappa, Chairman | F | 8 Crestwood Road<br>Boulevard, CA, 91905<br>(619) 478-2113<br>ELaChappa@lptribe.net |
| Manzanita Band of Kumeyaay Nation | Angela Elliott Santos, Chairperson | F | P.O. Box 1302<br>Boulevard, CA, 91905<br>(619) 766-4957 |
| Mesa Grande Band of Diegueno Mission Indians | Michael Linton, Chairperson | F | P.O Box 270<br>Santa Ysabel, CA, 92070<br>(760) 782-3818 |
| Pauma Band of Luiseno Indians | Lucia Majel, Cultural Resource Project Manager | F | P.O. Box 369<br>Pauma Valley, CA, 92061<br>(760) 742-1289<br>Crm@Pauma-nsn.gov |
| Rincon Band of Luiseno Indians | Cheryl Madrigal, Cultural Resources Manager/THPO | F | One Government Center Lane<br>Valley Center, CA, 92082<br>(760) 648-3000<br>Cmadrigal@rincon-nsn.gov |
| Rincon Band of Luiseno Indians | Joseph Linton, Tribal Council/Culture Committee Member | F | One Government Center Lane<br>Valley Center, CA, 92082<br>(760) 803-3548<br>Jlinton@rincon-nsn.gov |
| Rincon Band of Luiseno Indians | Denise Turner Walsh, Attorney General | F | One Government Center Lane<br>Valley Center, CA, 92082<br>(760) 689-5727<br>Dwalsh@rincon-nsn.gov |
| Rincon Band of Luiseno Indians | Laurie Gonzalez, Tribal Council/Culture Committee Member | F | One Government Center Lane<br>Valley Center, CA, 92082<br>(760) 484-4835<br>Lgonzalez@rincon-nsn.gov |
| San Pasqual Band of Diegueno Mission Indians | Allen Lawson, Chairperson | F | P.O. Box 365<br>Valley Center, CA, 92082<br>(760) 749-3876 |

**TABLE 4, CONTINUED**

| Tribe Name | Contact Person | Fed (F) Non-Fed (N) | Contact Info |
|---|---|---|---|
| Sycuan Band of the Kumeyaay Nation | Bernice Paipa, Cultural Resource Specialist | F | Sycuan Cultural Center:<br>910 Willow Glen Drive<br>El Cajon, CA, 92019<br>(760) 749-3200<br>Bpaipa2@sycuan-nsn.gov |
| Sycuan Band of the Kumeyaay Nation | Cody Martinez, Chairman | F | Sycuan Tribal Office:<br>1 Kwaaypaay Court<br>El Cajon, CA, 92019<br>(619) 445-2613<br>Cmartinez@sycuan-nsn.gov |
| Viejas Band of Kumeyaay Indians | Ray Teran, Resource Management Director | F | 1 Viejas Grade Road<br>Alpine, CA, 91901<br>(619) 659-2312<br>Rteran@viejas-nsn.gov |
| Viejas Band of Kumeyaay Indians | Ernest Pingleton, THPO | F | 1 Viejas Grade Road<br>Alpine, CA, 91901<br>(619) 445-3810<br>Epingleton@viejas-nsn.gov |

### 4.1.3 Native American Consultation and Outreach

Michael Baker has not conducted any outreach to the tribes to obtain information regarding tribal cultural resources within the City. In some instances, Michael Baker archaeologists reach out to tribal contacts provided by the NAHC as part of a due diligence effort to obtain information regarding areas with potential tribal cultural sensitivities or general tribal knowledge of the area. For this particular study, Michael Baker has not sent these requests for information to the tribes so as to avoid confusion or overlap during the City's AB 52 consultation process.

## 4.2 Paleontological Resources

On September 25, 2025, Michael Baker staff requested the San Diego Natural History Museum (SDNHM) to search its holdings for documented paleontological resources located in the City or within 5 miles of the City, provided they came from the same, or similarly aged, geologic deposits to those found within the City. The SDNHM responded in a letter dated October 22, 2025 (**Confidential Appendix C**). The records search found two definitive fossil localities within the City and 622 more fossil localities that lie within 5 miles of the City. Additionally, there are three more fossil localities from the Delmar Formation with poor geographic control that are believed to be within the City. More information about the localities within 5 miles of the City are listed below (**Table 5**); however, specific location data for each locality is confidential and available to view on the maps provided in the SDNHM Records search letter in **Confidential Appendix C**.

**TABLE 5: SDNHM RECORDS SEARCH PALEONTOLOGICAL LOCALITIES WITHIN 5 MILES OF THE CITY**

| Collection Number | Taxa | Formation | Chronological Unit |
|---|---|---|---|
| 2966, 4306, 4313, 4327, 4210, 5935, 69, 2853, 2903, 2904, 3241, 3242, 3861, 3904, 5008–5010, 5018, 6553–6558, 6560–6563, 7737, 4164, 4278, 4279, 4353, 6092*, 68, 2987, 5001, 6586, 7500, | Trace fossils, flowering plants, foraminifers, marine invertebrates (e.g., corals, polychaete worms, bryozoans, clams, mussels, scallops, oysters, pen shells, jingle shells, chitons, tusk shells, snails, bubble snails, sea urchins, heart urchins, sand dollars, crabs, ghost shrimp, mantis shrimp, barnacles, and ostracods), marine vertebrates (e.g., rays and bony fish), and terrestrial vertebrates (e.g., amphibians, lizards, birds, rodents, rabbits, giant ground sloth, horse, camel, and bison) | Bay Point Formation (Old paralic deposits, Units 2-4 and 6) | Late Pleistocene |
| 4172–4173, 4290–4291, 4454, 4474, 4515, 5418, 6180, 6190, 6770, 7892, 8738 | Trace fossils (borings, burrows, and internal molds of clams), nearshore marine invertebrates (clams, scallops, snails, barnacles, and sand dollars), marine vertebrates (sharks and baleen whales) | Lindavista Formation (Very old paralic deposits, Unit 11) | Early to Middle Pleistocene |
| 3913, 3948, 3951, 3953–3957, 3960, 3968, 3269, 3282, 3285, 3847, 3859–3860, 3910, 4456, 5793, 6086, 7273–7274, 7816, 8375–8377 | Trace fossil burrows, vascular plants, marine invertebrates (corals, polychaete worms, brachiopod, clams, oysters, tusk shells, snails, sea urchins, an insect, barnacles, crabs, and shrimp), marine vertebrates (sharks and bony fishes), terrestrial vertebrates (lizard, birds, and rodents) | Torrey Sandstone | Middle Eocene |
| 5624–5631, 134, 182–183, 454, 2304–2305, 2722–2723, 3407*, 3542, 3547, 3565, 3671, 3791–3796, 3829, 3848, 3850, 3854–3856, 3884, 3915–3916, 3975, 4062–4065, 4284, 4947, 5193–5194, 5314, 5437, 5633, 5923, 6002–6006, 6564–6570, 6587–6589, 6706–6708, 6858–6864, 7787–7815, 7817, 7820, 7928, 8367–8368, 8525–8528 | Carbonized logs, trace fossils (borings and burrows), plants, marine invertebrates (bryozoans, snails, clams, mussels, oysters, crabs, barnacles, ostracods, and sea urchins), marine vertebrates (sharks, rays, and bony fishes), and terrestrial vertebrates (lizard, turtle, crocodile, rodent, stem perissodactyl, and tillodont) | Delmar Formation | Middle Eocene |

Note: Fossil localities marked with an asterisk occur within the City.

Of the 624 localities in the SDNHM records search, 209 localities are from similar geologic formations and members to those formations found within the City or found just outside the City, including localities from unnamed but likely relevant Quaternary sediments, Friars Formation, Scripps Formation, Ardath Formation, Point Loma Formation, and Santiago Peak Volcanics. Although these localities are not from geologic units found at the surface of the City, these formations and their fossil material may be encountered below the anticipated mapped geologic units as basement rocks or as reworked sediment within younger surficial alluvium. These localities are listed in a separate table below (**Table 6**).

**TABLE 6: SDNHM RECORDS SEARCH ADDITIONAL LISTED RELEVANT LOCALITIES WITHIN 5 MILES OF THE CITY**

| Collection Number | Taxa | Formation | Chronological Unit |
|---|---|---|---|
| 3945A, 3945C, 3945D, 3945, 3946, 3947, 3945B | Mollusca | Unnamed Quaternary estuarine deposits | Holocene |
| 4508 | Porifera, bryozoan, bivalves | Unnamed marine deposit | Holocene |
| 129 | Gastropods, bivalves | Pleistocene Landslide Deposits | Pleistocene |
| 2626 | Gastropods, bivalves | unlabeled | Pleistocene? |
| 6871, 7910, 7911, 7912, 3898, 4514, 6769, | Gastropods, bivalves, plants | Friars Formation | Middle Eocene |
| 3381, 3830, 3919–3921, 4146, 4147, 4166–4171, 4207, 4214, 4216–4217, 4229, 4231–4240, 4275, 4316, 4334, 4337–4338. 4341–4342, 4438–4441, 4444, 4453, 4461, 4475–4478, 4530, 4552, 4700-4703, 4712–4714, 4723, 4853-4854, 4893, 4901, 4904, 4968-4970, 4989–4999, 5403–5405, 5450–5451, 5531–5535, 5577–5578, 5590–5592, 5596–5605, 5612–5614, 5620, 5637–5643, 5645, 5649–5655, 5723, 5726, 5792, 6007–6008, 6019, 6127–6128, 6220, 6329, 6396–6397, 6425–6427, 6429, 6672–6675, 6746–6753, 6830–6835, 6849–6857, 6872–6877, 7225, 7290–7301, 7304–7316, 7325–7326, 7331, 7334–7337, 7342–7343, 7368, 7377–7381, 7593, 7619–7620, 7644, 7680–7682, 7728–7734, 7893–7895, 7968–7969, 7985–7986, 8321–8322, 8371–8373, 8586–8587, 8726–8737, 8743, 8400–8409, 8562, 5478, 4202, 4205, 4208, 4211–4212, 4218, 4226, 4241–4245, 8425, 8429, 8432, 4335, 4865–4866 | Marine invertebrates (bryozoans, snails, clams, mussels, oysters, crabs, barnacles, ostracods, and sea urchins) | Scripps Formation | Middle Eocene |
| 4202, 4205, 4208, 4211–4212, 4218, 4226, 4241–4245, 8425, 8429, 8432, 4335, 4865–4866, 2302, 3284, 3797, 3857, 3865, 3911–3912, 3914, 3917–3918, 3922–3935, 3949–3950, 3952, 3958–3959, 3961–3967, 3969–3974, 3976–3981, 4201, 4203–4204, 4206, 4209, 4213, 4215, 4219–4225, 4227–4228, 4230, 4336, 4529, 4551, 4553, 4887, 4894–4895, 4900, 4902–4903, 4915, 5408–5409, 5505, 5580–5581, 5668, 6009, 6027, 6126, 6184, 6611–6615, 6671, 6679–6682, 6756–6757, 7303, 7366–7367, 7376, 7643, 7679, 8278–8279, 8300–8320, 8420–8421, 8428, 8430 | Bivalves, gastropods, decapods, fishes (Osteichthyes), and plants | Ardath Shale | Middle Eocene |
| 8046, 8333–8334 | Ammonites (*Baculites lomeaensis*), plants, echinoderms, molluscs, bryozoa | Point Loma Formation | Cretaceous |
| 3170, 3310–3311 | Bivalves, plants | Santiago Peak Volcanics | Jurassic |

Note: None of the units listed in Table 6 are geologically mapped at the surface within the City. However, deep ground disturbance may uncover these units at depth. Exact locations and depths of this would require additional geotechnical testing during the planning phase of individual projects.

In addition to the official paleontological records search requested from the SDNHM, Michael Baker conducted supplemental paleontological records searches within online public databases for localities within 5 miles of the City from similarly aged or the specifically named geologic units found within the City. Websites and databases used included the Paleobiology Database (PBDB), which collects digital data about fossil localities from multiple repositories across the state and country, and the University of California Museum of Paleontology (UCMP), which was the primary repository for Californian paleontological fossil specimens before and through the 1960s.

The UCMP listed one locality within 5 miles of the City and from an Eocene geologic unit. Locality UCMP 7170 consisted of fossil remnants of a pine tree (*Pinus delmarensis)* from the McGonigle Canyon area from an unknown Eocene geologic unit (UCMP 2025).

The PBDB listed nine localities within 5 miles of the City from middle Eocene-aged Delmar and Torrey Formations. No localities from Holocene or Pleistocene age sediments were recorded in their database (PBDB 2025). The named localities are listed with their taxa, formation, chronological unit, and location relative to the City in the table below (**Table 7**).

**TABLE 7: PALEOBIOLOGY DATABASE LOCALITIES WITHIN 5 MILES OF THE CITY**

| Collection Number | Taxa | Formation | Chron. Unit | Distance and Direction from the City |
|---|---|---|---|---|
| 16422 | Tilodont mammal (*Trogosus castoridens*), Perissodactyl (*Hyrachyus modestus*), crocodile (*Pristichampsus* sp). | Delmar Formation of the La Jolla Group | Eocene | 5 Miles North |
| 200729 | Gastropods (*Calyptraea cf. diegoana, Crommium andersoni, Nerita triangulate, Potamides carbonicola, Pyrgulifera cf. lajollaensis, Anomia mcgoniglensis, Cuneocorbula torreyensis, Myrtucina cf. roseburgensis, Ostrea idriaensis, Pelecyora* cf. *Aequilateralis*) | Delmar Formation of the La Jolla Group | Eocene | 1 Mile Southeast |
| 200730 | Bivalves (*Calyptraea diegoana, Ostrea idriaensis, Pelecyora aequilateralis*) | Delmar Formation of the La Jolla Group | Eocene | 1 Mile South |
| 200731 | Gastropods (*Calyptraea diegoana, Crommium cf. andersoni, Loxotrema turritum, Nerita triangulate, Potamides carbonicola, Pyrgulifera lajollaensis)*, Bivalves (*Brachidontes* cf. *cowlitzensis, Cuneocorbula torreyensis, Myrtucina roseburgensis, Ostrea idriaensis, Panope torreyensis, Pelecyora aequilateralis, Tivelina* cf. *idriaensis*). | Delmar Formation of the La Jolla Group | Eocene | 1 Mile South |
| 200732 | Gastropods (*Calyptraea diegoana, Crommium andersoni, Loxotrema turritum, Neverita globosa, Potamides carbonicola*), Bivalves (*Cuneocorbula torreyensis, Myrtucina roseburgensis, Panope torreyensis, Pelecyora aequilateralis*). | Delmar Formation of the La Jolla Group | Eocene | 1 Mile South |
| 200733 | Gastropods (*Crommium andersoni, Loxotrema turritum, Nerita triangulate, Potamides carbonicola, Myrtucina roseburgensis*), Bivalves (*Ostrea cf. idriaensis, Pelecyora aequilateralis, Tellina cf. jollaensis*) | Delmar Formation of the La Jolla Group | Eocene | 1.5 Miles South |
| 200734 | Gastropods (*Calyptraea diegoana, Crommium* cf. *andersoni, Loxotrema turritum, Nerita triangulate, Neverita globosa, Potamides carbonicola*), Bivalves (*Brachiodontes cowlitzensis, Cuneocorbula torreyensis, Lithophaga clarki, Myrtucina* cf., *roseburgensis, Ostrea idriaensis, Panope torreyensis, Pelecyora equilateral's, Solen parallelus, Tellina jollaensis*) | Delmar Formation of the La Jolla Group | Eocene | 1.5 Miles South |
| 200735 | Bivalves (*Ostrea idriaensis)* | Delmar Formation of the La Jolla Group | Eocene | 1.5 Miles South |
| 204961 | Bivalves (*Acanthocardia* cf. *brewerii, Ostrea* cf. *idriaensis*) | Torrey Formation of La Jolla Group | Eocene | 2 Miles South |

# 5.0 RESOURCE SENSITIVITY MODELING

## 5.1 Utility for CEQA Impact Analysis and Mitigation

In the context of CEQA and the PEIR for the proposed project, the sensitivity models are a valuable planning and decision-support tool. They provide a proactive identification of high-risk areas for archaeological resources across the City. By mapping very high and high sensitivity zones, the model helps the City and project planners anticipate where there is a greater likelihood of impacting significant archaeological, built environment, and paleontological resources. This can inform land use decisions and project design—for instance, if a proposed development lies in a very high resource sensitivity area, the City can require early surveys, extended testing, and/or monitoring during construction, as appropriate for CEQA compliance. Conversely, in low sensitivity areas, the probability of discovery is low, which might streamline review or justify lesser levels of investigation. In essence, the models allow prioritization of survey and mitigation efforts: areas depicted as high sensitivity can be targeted for intensive study or avoidance, thereby focusing limited resources where they are most needed. It also has the benefit of potentially reducing costly surprises—by identifying sensitive areas in advance, the City can avoid or redesign projects in those locations (e.g., routing infrastructure through a lower-sensitivity corridor if feasible), or at least be prepared with a mitigation plan. This aligns with common cultural resource management practice, where agency-wide sensitivity maps are used to manage and protect archaeological resources (often referenced in general plan conservation elements or resource management plans). This approach does not replace field survey or site-specific evaluation, but it provides an important landscape-level assessment that helps efficiently manage resources by flagging hotspots of archaeological, built environment, and paleontological potential in the City's PEIR.

## 5.2 Archaeological Resources

Michael Baker created an archaeological sensitivity model in ArcGIS Pro to assess the likelihood of subsurface prehistoric cultural resources within Del Mar. Using a weighted overlay GIS approach (Taylor 2018), several variables affecting site location and preservation were standardized to a 1–5 sensitivity scale and weighted by relevance. The resulting sensitivity map identifies areas from very low to very high archaeological potential (see **Figure 4**). This inductive, correlative model highlights zones with environmental factors linked to known archaeological sites, rather than predicting site presence with certainty (Judge and Sebastian 1988; Sebastian and Judge 1988:8; Kohler and Parker 1986). Sensitivity models are widely used in cultural resource management and CEQA planning as practical tools for guiding surveys and mitigation where data for true predictive models are lacking.

The Del Mar archaeological sensitivity model was built by integrating multiple GIS layers—known site proximity, water proximity, slope, soil/landform characteristics, and modern disturbance—each reclassified to a uniform scale and weighted by its relative importance, using a transparent multi-criteria overlay approach. The methodology is rooted in standard spatial analysis techniques and informed by regional archaeological knowledge. The result is a composite map highlighting areas with environmental profiles similar to known archaeological sites (and where human occupation would have been favorable) while accounting for where sites are likely to have survived intact. As a planning tool, this sensitivity model guides environmental review under CEQA by delineating which parts of Del Mar are most sensitive for

buried cultural resources, thereby supporting informed decision-making to avoid or mitigate potential impacts to these non-renewable resources (Taylor 2018; Judge and Sebastian 1988).

### 5.2.1 Data Sources and Variables

The sensitivity model incorporated several key spatial variables reflecting natural landscape features, soil/geomorphic context, and land use disturbance. These were chosen based on the following regional prehistoric settlement patterns and factors affecting site preservation.

### 5.2.2 Distance to Known Precontact Sites

All recorded prehistoric archaeological sites in and around Del Mar (from the California Historical Resources Information System records) were used to create a proximity raster. Using ArcGIS Euclidean distance, the distance to the nearest known site was calculated for each cell. The assumption is that areas near known sites have elevated potential for additional (possibly as-yet-unrecorded) cultural deposits, due either to favorable environmental conditions or spatial clustering of past human activities. **Table 8** under "Weights and Scoring of Variables" presents the assigned weights and the scoring scheme (based on a 1–5 scale) for the distance-to-site raster.

These breakpoints reflect a decaying influence of known sites with distance; for example, locations within approximately one or two football fields of a known site were rated very high sensitivity, whereas beyond 1 kilometer (the maximum in-City distance observed was approximately 1,314 meters) the influence was minimal. The specific thresholds were informed by professional judgment and examination of site clustering in the area (e.g., many known sites in coastal California tend to occur in proximity rather than isolated beyond a kilometer).

### 5.2.3 Distance to Water

Proximity to fresh water or the coastline is a well-established predictor of prehistoric site location in California (people favored living near water for access to resources). Natural water bodies including the Pacific Ocean shoreline, the San Dieguito River and Lagoon, and any significant streams or springs in Del Mar were compiled into one feature class. A Euclidean distance raster was generated from these water features. **Table 8** under "Weights and Scoring of Variables" presents the assigned weights and the scoring scheme (based on a 1–5 scale) for the distance-to-water raster.

Because Del Mar is a small city bounded by water features, even the farthest point is approximately 956 meters from water; thus, the distance classes cover a relatively short range. The highest sensitivity was assigned to areas immediately adjacent to water (within 100 meters, roughly a one-minute walk) and progressively lower scores for farther distances—recognizing that in this coastal context, nearly all areas are within reasonable reach of water, but closer locations (e.g., overlooking the lagoon or along creek terraces) would have been especially attractive for prehistoric habitation.

### 5.2.4 Slope (Terrain Steepness)

A 1/3-arcsecond Digital Elevation Model (DEM) was used to derive a percent slope raster (vertical rise divided by horizontal run, times 100) using the Spatial Analyst Slope tool. Slope influences site favorability (flat surfaces are easier to camp or build on) and post-depositional site integrity (steep slopes tend to erode, removing or redistributing archaeological materials). **Table 8** under "Weights and Scoring of

Variables" presents the assigned weights and the scoring scheme (based on a 1–5 scale) for slope values, which were classified using natural breaks in the slope distribution.

In practical terms, this scheme assigns highest sensitivity to flat or nearly flat areas (0–7% slope) such as coastal terraces and valley floors, which were ideal for past settlement and also conducive to preserving site stratigraphy. Moderately sloping areas get intermediate scores, while very steep slopes (greater than 57%, or roughly greater than 30 degrees) are least likely to contain intact sites (both because they would have been less utilized and because any archaeological deposits could be destroyed or not accumulate on such slopes).

### 5.2.5 Soil and Geomorphology

To assess the potential for buried archaeological deposits, soil data from the Natural Resources Conservation Service's Soil Survey Geographic Database were analyzed, extracting eight attributes per soil map unit: geomorphic setting, drainage class, hydric rating, flood frequency, slope range, taxonomic order, hydrologic group, and erosion K-factor. Each attribute was reclassified to a 1–5 sensitivity scale based on its relevance to site presence or preservation. For example, stable alluvial terraces with good drainage and low flood risk were rated high, while steep, eroded, marshy, or frequently flooded areas were rated lower. Weights were assigned to each attribute reflecting their importance: geomorphic setting (30%), drainage (20%), hydric rating (10%), flood frequency (10%), slope range (5%), taxonomic order (10%), hydrologic group (10%), and erosion K-factor (5%). These reclassified rasters were combined into a composite soil sensitivity score for each unit, then rounded to an integer (1–5) to produce the final sensitivity layer. This approach highlights well-drained late Quaternary alluvial terraces as high sensitivity and deemphasizes less favorable landforms like steep hills or wetlands. **Table 8** under "Weights and Scoring of Variables" presents the assigned weights and the scoring scheme (based on a 1–5 scale) for soil and geomorphology.

### 5.2.6 Land Use/Modern Disturbance

Modern development and ground disturbance significantly affect the preservation and detectability of archaeological resources. The SanGIS current land use dataset was used as a proxy for disturbance intensity, with each land use category assigned a sensitivity score from 1 (heavily disturbed) to 5 (undisturbed). **Table 8** under "Weights and Scoring of Variables" presents the assigned weights and the scoring scheme (based on a 1–5 scale) for current land use/modern disturbance.

Natural open spaces such as parks, preserves, beaches, and undeveloped land received a score of 5 (highest sensitivity) due to minimal soil disruption. Low-intensity recreation or rural uses, like golf courses and passive parks, were scored 4, reflecting minor disturbance. Typical residential areas were assigned a score of 3, acknowledging moderate disturbance from construction but some intact areas remain. Light commercial and mixed-use developments received a score of 2, indicating substantial disturbance, while heavy urban infrastructure and industry were scored 1 due to extensive excavation and paving. The disturbance layer was added to the model to account for the likelihood of site preservation, adjusting sensitivity where landforms have been altered by development.

### 5.2.7 Weights and Scoring of Variables

**Table 8** presents the variables used, their assigned weights in the overlay, and the scoring schema for each (based on a 1–5 scale).

**TABLE 8: VARIABLES IN DEL MAR ARCHAEOLOGICAL SENSITIVITY MODEL – WEIGHTS AND SCORING**

| Variable | Weight in Model | Reclassification to Sensitivity Score (1 = Lowest, 5 = Highest) |
|---|---|---|
| Distance to Known Precontact Sites (Euclidean distance to nearest recorded prehistoric site) | 40% | 5: 0–150 meters (very near known site)<br>4: 151–400 meters<br>3: 401–700 meters<br>2: 701–1000 meters<br>1: more than 1000 meters away |
| Distance to Water (distance to ocean, lagoon, or perennial stream) | 20% | 5: 0–80 meters (immediate proximity to water source)<br>4: 80–200 meters<br>3: 200–300 meters<br>2: 300–450 meters<br>1: more than 450 meters (furthest approximately 610 meters) |
| Slope (percent grade from DEM) | 10% | 5: 0%–6.8% (flat to nearly flat terrain)<br>4: 6.8%–18.3% (gentle slopes)<br>3: 18.3%–34.5% (moderate slopes)<br>2: 34.5%–56.7% (steep slopes)<br>1: more than 56.7% (very steep) |
| Soil/Landform Composite (integrates geomorphology, drainage, etc.) | 20% | 5: Highly conducive landform/soil (e.g., level terraces, well-drained young alluvium; low flood risk)<br>4: Favorable with slight limiting factor (e.g., gentle slope or minor periodic flooding)<br>3: Moderate conditions (average soil, some slope or wetness)<br>2: Marginal conditions (poor drainage, frequent flooding, or eroding slope)<br>1: Unsuitable context (e.g., extremely rocky or waterlogged soils, very unstable landform) |
| Land Use/Modern Disturbance (present-day land use category as proxy for ground disturbance) | 10% | 5: Undisturbed natural land (open space, preserve, beach, lagoon, vacant land)<br>4: Low disturbance recreation/rural (parks, golf courses, rural large-lot residential)<br>3: Moderate disturbance residential (single- and multi-dwelling unit residential areas)<br>2: Substantial disturbance mixed urban (commercial offices, low-rise retail, hotels)<br>1: Heavy disturbance/infrastructure (major commercial, industrial, roads, utilities, civic hubs) |

### 5.2.8 Model Execution

All raster layers were prepared to a common spatial resolution and extent (1 meter cell size, covering the entire City) and aligned (using the DEM as the snap raster). ArcGIS Pro's weighted overlay tool was used to combine the standardized rasters. The weights in **Table 8** were input to the overlay, with the soil composite contributing 20% of the final score, known site proximity contributing 40%, water contributing 20%, slope contributing 10%, soil contributing 20%, and disturbance contributing 10%. Each input raster was on a 1–5 integer scale, enabling the overlay tool to simply multiply each cell's value by the weight factor and sum the results. The weighted overlay produces a raster with each cell containing a calculated sensitivity score. Because of the weighting and rounding, most output values fell within 1–5 to produce the five sensitivity classes. The final map was reviewed to ensure it aligned with professional expectations (e.g., known archaeological site locations generally fell within areas the model labeled high or very high, providing a basic validation).

### 5.2.9 Sensitivity Versus Predictive Model

It is important to note that this approach produces a sensitivity model, not a deterministic predictive model. The terminology follows common practice in cultural resource management: a "predictive model" in archaeology often implies a rigorous, quantitative prediction of site occurrence based on theory-driven

variables and usually requires extensive testing of accuracy (Kohler and Parker 1986). In contrast, a "sensitivity model" identifies areas that should be treated as sensitive (likely to contain resources) based on correlations of known sites with environmental factors, without asserting a firm prediction that sites *will* be found there (Judge and Sebastian 1988). The term "sensitivity" was used to communicate the inherent uncertainty and to emphasize that these are zones of elevated potential or concern, not guaranteed site locations. As Sebastian and Judge (1988) observed, fully explanatory models of site location are extremely challenging to build and validate in practice; thus, planners often favor simpler, empirical models that highlight high potential areas given what is already known. Our weighted overlay method is an inductive, correlative approach that falls squarely in that tradition (it assumes that prehistoric sites are more likely to be found in environmental settings similar to those of recorded sites, but does not attempt to explain *why* in human behavioral terms).

### 5.2.10 Precontact Archaeological Sensitivity Model Results

The GIS-based precontact archaeological sensitivity model was developed and executed to identify areas within the City where ground-disturbing activities associated with the CIP may intersect with moderate to high archaeological or tribal cultural sensitivity. The model integrates multiple spatial datasets including previously recorded site locations, proximity to natural features (e.g., lagoon margins, creeks, and coastal bluffs), topographic slope, soil types, and land disturbance history. The model was run using a weighted overlay approach, assigning higher sensitivity values to areas with environmental characteristics historically associated with prehistoric and historic site occurrence.

The preliminary sensitivity map generated by the model (see **Figure 4**) delineates four archaeological sensitivity zones: very low, low, moderate, and high. These zones are intended to guide project-level cultural resource screening and mitigation planning.

- **High Sensitivity Zone:** This zone is concentrated along the San Dieguito River and Lagoon margins, coastal bluff edges, and undeveloped open space parcels adjacent to natural drainages. These areas correspond with known site clusters and environmental conditions conducive to prehistoric occupation and burial. CIP projects intersecting this zone will require preconstruction survey, tribal consultation, and archaeological monitoring.
- **Moderate Sensitivity Zone:** This zone includes inland canyon edges, older residential neighborhoods with limited prior grading, and transitional zones between developed parcels and natural features. These areas may contain buried or obscured cultural deposits not previously recorded. CIP activities in this zone, such as utility trenching or park improvements, should be evaluated for monitoring or subsurface testing on a case-by-case basis.
- **Low Sensitivity Zone:** This zone encompasses heavily urbanized corridors, previously graded parcels, and areas with deep fill or artificial surfaces. This zone is unlikely to contain intact cultural deposits. CIP projects in this zone may proceed with standard discovery protocols unless new information arises.
- **Very Low Sensitivity Zone:** This zone includes areas where prior ground disturbance has been so extensive that virtually no intact native soils remain. These areas are typically locales dominated by major infrastructure or earthwork—for example, heavily engineered corridors (railroad alignments or highway rights-of-way), sites of deep artificial fill, or large commercial/industrial parcels that have been completely graded and paved. In such highly disturbed contexts, the

likelihood of encountering any preserved archaeological deposits is negligible. Consequently, CIP projects this zone can generally proceed with only standard inadvertent discovery protocols in place (i.e., a stop-work and evaluation procedure for any unexpected finds) as a precaution. No special surveys or monitoring would typically be required in these areas unless new information emerges to warrant otherwise, given the extremely low potential for intact cultural resources.

The sensitivity model provides a programmatic framework for anticipating cultural resource concerns across the CIP footprint. It is not intended to replace project-specific field investigations or tribal consultation, but rather to inform early planning and mitigation tier assignment. The model can be updated as new site data becomes available or as additional field studies are conducted.

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**Legend**

Project Site

**Precontact Archaeological Sensitivity Zones**

- 5 - High Sensitivity
- 4 - Moderate Sensitivity
- 3 - Low Sensitivity
- 2 - Very Low Sensitivity

CITY OF DEL MAR CIP STREAMLINING PROJECT
PROGRAMMATIC CULTURAL & PALEONTOLOGICAL RESOURCES ASSESSMENT

Michael Baker INTERNATIONAL

0 0.25 0.5 Miles

Source: Esri, ArcGIS Online, City of Del Mar, San Diego County

# Archaeological Sensitivity Zones

Figure 4

# 5.3 Built Environment

The City has a Historic Preservation Ordinance and have designated certain buildings as local historic landmarks. These data, along with the results from the records search from the SCIC were used to generate a built environment sensitivity model. **Figure 5** shows the locations of the built environment resources identified from the combined sources and their presumed eligibility status. **Table 9** lists the nine designated Historic Preservation landmarks identified under the Historic Preservation Ordinance, and **Figure 6** provides locational data based on the City's Historic Preservation Overlay.

**TABLE 9: CITY OF DEL MAR HISTORIC PRESERVATION LANDMARKS**

| Del Mar Historic Preservation Landmark | Address | APN (if applicable) |
|---|---|---|
| Powerhouse Building and Smokestack | 1638 Coast Blvd | 2992302500 |
| Railroad Depot | 15th Street | 2992302700 |
| Historic Home | 1726 Coast Blvd | 2992320600 |
| Rockhouse | 410 15th Street | 2992805500 |
| Hotel Del Mar Guest Cottage | 110 15th Street | 2993100300 |
| Stratford Square | 1438 Camino del Mar | 3000120400 |
| Old St. James Church (Library) | 1309 Camino del Mar | 3000200600 |
| Public Walkway (Gunthers) | N/A | N/A |
| Torrey Pines Road Overhead (PCH) Bridge (Bridge 57C0207) | Pacific Coast Highway south of Carmel Valley Road | Caltrans Local Bridge No. 57C0207 |

PCH = Pacific Coast Highway




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## Legend

- Project Site

**Built Environment Buildings Ineligible**

- Ineligible

**Built Environment Structures and Objects**

- Ineligible
- Ineligible, but locally important

**Historic Addresses**

- 1S Listed in the CR
- 3S Appears Eligible
- 6Y Ineligible

CITY OF DEL MAR CIP STREAMLINING PROJECT
PROGRAMMATIC CULTURAL & PALEONTOLOGICAL RESOURCES ASSESSMENT

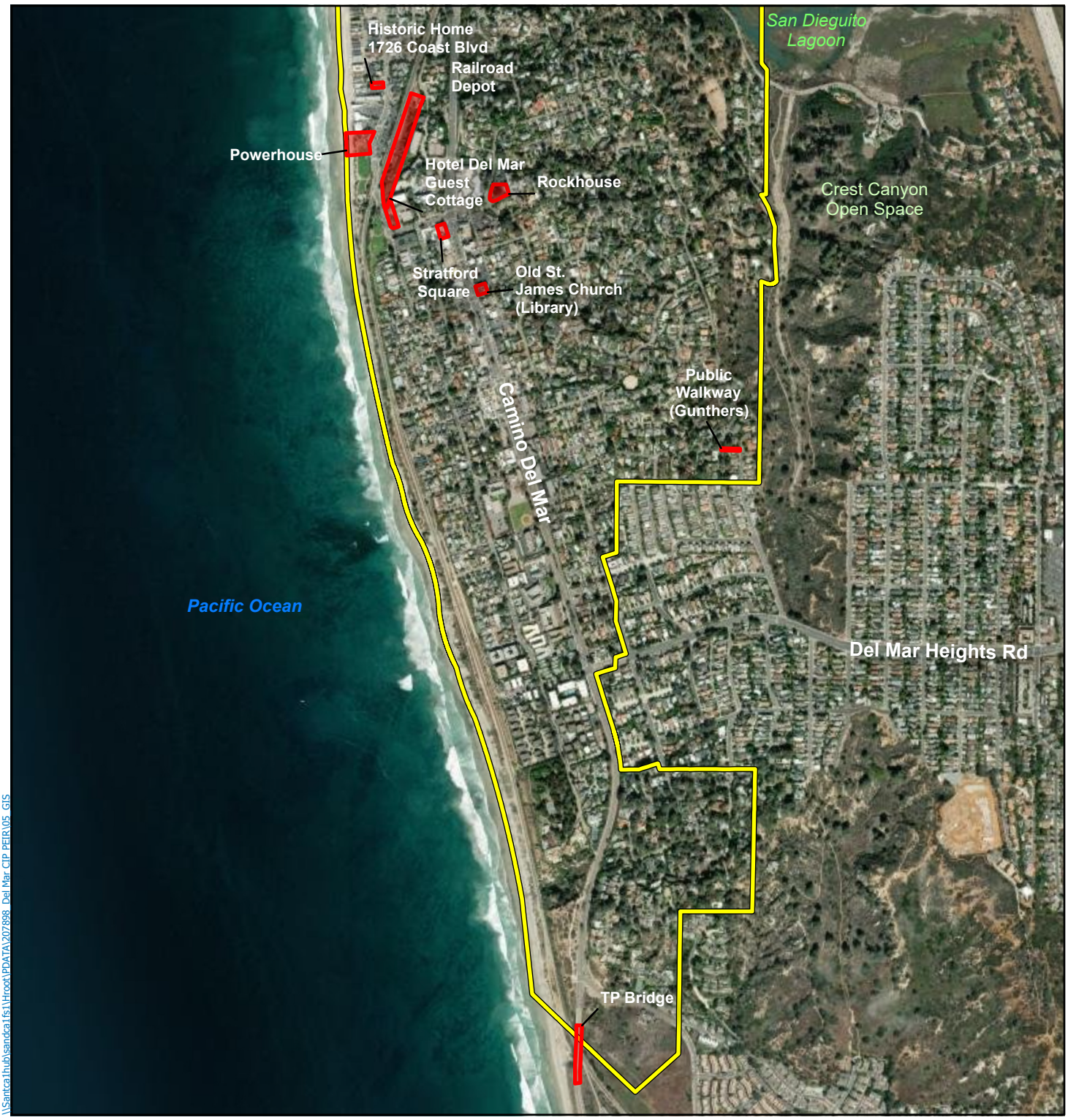
Michael Baker INTERNATIONAL

0 0.25 0.5 Miles

Source: Esri, ArcGIS Online, City of Del Mar, San Diego County

# SCIC Recorded Built Environment Resources

Figure 5

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**Legend**

- Project Site
- Del Mar Historic Preservation Overlay

CITY OF DEL MAR CIP STREAMLINING PROJECT
PROGRAMMATIC CULTURAL & PALEONTOLOGICAL RESOURCES ASSESSMENT

Michael Baker INTERNATIONAL

0 650 1,300 US Feet

# Del Mar Historic Preservation Overlay

Source: Esri, ArcGIS Online, City of Del Mar, San Diego County

Figure 6

# 5.4 Paleontological Resources

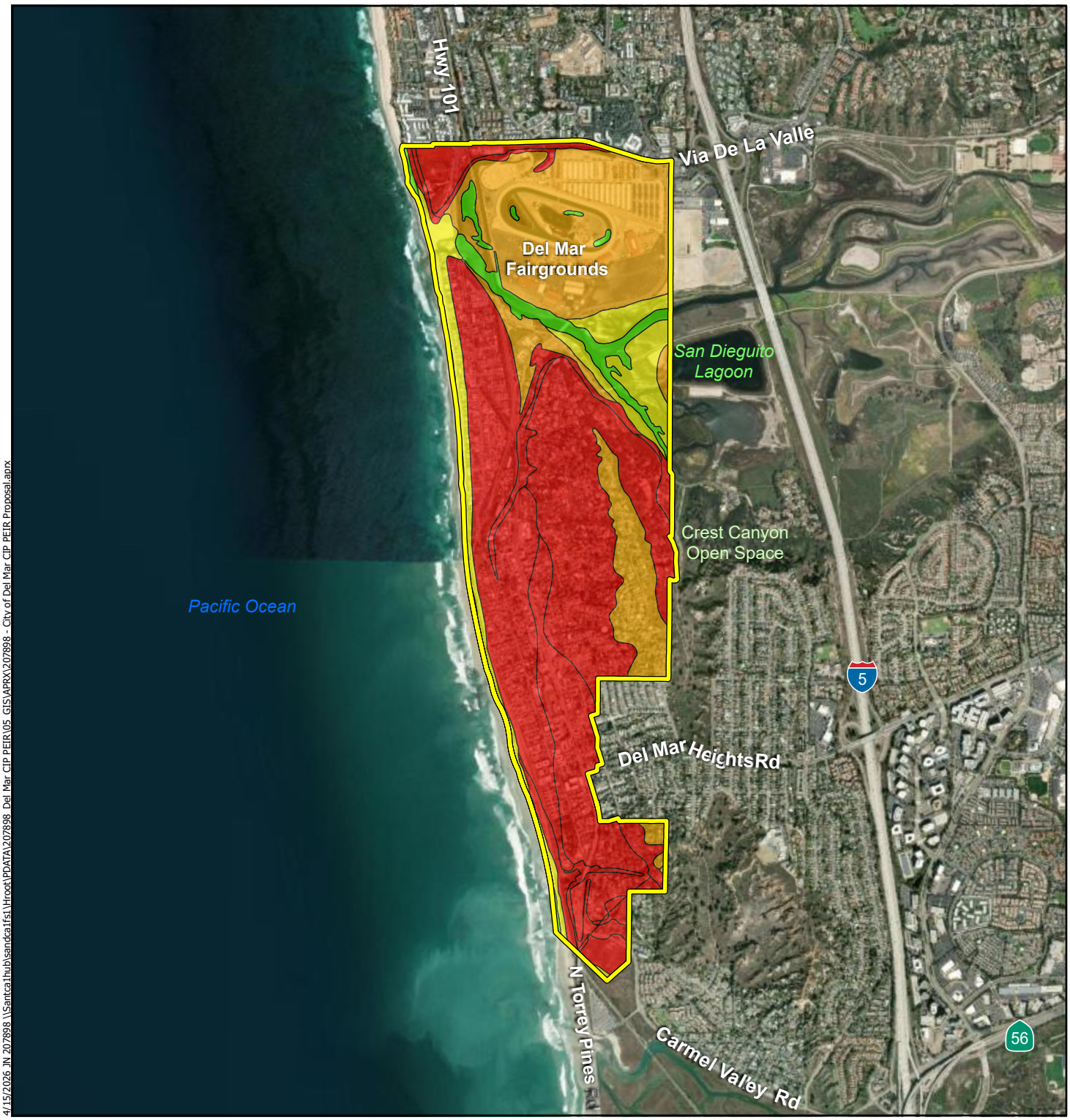
The paleontological sensitivity analysis for the City was developed using a GIS-based approach grounded entirely in the mapped geologic units from the 2008 Geologic Map of the San Diego 30' x 60' Quadrangle (California Geological Survey Regional Geologic Map RGM-3, 1:100,000 scale; Kennedy and Tan 2008). This methodology relies on the principle that the fossil-bearing potential of a given area is primarily determined by the age, lithology, and depositional environment of the geologic formations present at or near the surface.

To begin, the geologic unit shapefiles from the Kennedy and Tan map (2008) were imported into ArcGIS Pro and clipped to the boundaries of the City. Each polygon was attributed with its formal unit label, geologic age, and descriptive lithology. These attributes formed the basis for assigning paleontological sensitivity ratings of high, moderate, low, or no sensitivity. This four-tiered classification is based on the guidelines established by the Society of Vertebrate Paleontology (SVP 2010), which emphasize that any geologic unit known to contain significant fossils anywhere within its extent should be considered sensitive throughout its mapped area.

- **High sensitivity** was assigned to Delmar Formation (Td), Torrey Sandstone (Tt), and the late to middle Pleistocene-aged paralic deposits ($Qop_{2–4}$, $Qop_{6}$), which are for previously yielding scientifically significant fossils in the City. These formations are known regionally for yielding vertebrate and invertebrate fossils and are considered to have high potential for additional discoveries.
- **Moderate sensitivity** was assigned to Middle Pleistocene very old paralic deposits ($Qvop_{11}$) and Holocene to late Pleistocene Young alluvial floodplain deposits (Qya), which have previously yielded scientifically significant fossils but not in the City.
- **Low sensitivity** was assigned to Holocene-aged geologic units, including marine beach deposits (Qmb) and estuarine deposits (Qpe), because their young age makes fossil preservation unlikely.
- **No sensitivity** was assigned to Artificial fill (af) and water polygons, as they do not represent natural geologic formations and lack any in situ fossil potential.

The sensitivity ratings were added as a new attribute field within the GIS layer and symbolized using a standardized color scheme to support visual interpretation and integration into CIP planning workflows. This sensitivity layer serves as a screening tool for identifying areas where ground-disturbing activities may intersect fossil-bearing formations and where mitigation measures, such as paleontological monitoring, may be warranted under CEQA.

It is important to note that this model does not incorporate additional spatial variables such as depth to bedrock, prior disturbance, slope, or proximity to known fossil localities. Instead, it provides a baseline sensitivity map based solely on surface geology. While future iterations may integrate these factors to enhance predictive accuracy, the current methodology remains consistent with SVP guidance and regional best practices for paleontological resource management. **Figure 7** shows the results of the paleontological sensitivity analysis.

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## Legend

Project Site

**Paleontological Resources Sensitivity Zones**

- High
- Moderate
- Low
- No Paleontological Resources Sensitivity Zones

CITY OF DEL MAR CIP STREAMLINING PROJECT
PROGRAMMATIC CULTURAL & PALEONTOLOGICAL RESOURCES ASSESSMENT

Michael Baker INTERNATIONAL

0 0.25 0.5 Miles

Source: Esri, ArcGIS Online, City of Del Mar, San Diego County

# Paleontological Sensitivity Map

Figure 7

# 6.0 SUMMARY OF POTENTIAL EFFECTS AND RECOMMENDED PROTECTION MEASURES

**Table 10** summarizes the potential effects to archaeological, built environment, and paleontological resources associated with the CIP projects based on existing site conditions, as well as a summary of protection measures to avoid or minimize effects. This information is intended to be used within the PEIR impact analyses and future project-specific evaluations.

**TABLE 10: SUMMARY OF POTENTIAL EFFECTS AND PROTECTIONS**

| Existing CIP Site Conditions | Potential Effects | Summary of Protection Measures |
|---|---|---|
| **Archaeological Resources** | | |
| Site is wholly within low and/or very low archaeological sensitivity zones as depicted in Figure 4. | Ground-disturbing construction activities in these zones are unlikely to encounter undiscovered archaeological resources. Impacts would be less than significant. | Construction contracts would be required to include an Unexpected Discovery Clause. If an unexpected discovery is made, the find must be evaluated by a qualified professional archaeologist. |
| Site is wholly and/or partially within moderate or high archaeological sensitivity zones as depicted in Figure 4. | Ground-disturbing construction activities in moderate and high archaeological sensitivity zones could encounter undiscovered archaeological resources. If encountered, impacts could be potentially significant. | Preconstruction archaeological resource evaluation and a cultural resources monitoring program would be required.<br>A qualified archaeologist shall conduct an archaeological survey to evaluate the presence of cultural resources and the need for project-specific impact mitigation by preservation, relocation, or other methods.<br>Additionally, during ground-disturbing constructions activities, a cultural resources monitoring program shall be conducted to provide for the identification, evaluation, treatment, and protection of any cultural resources that are affected by or may be discovered during project construction. Monitoring shall consist of the full-time presence of a qualified archaeologist and a traditionally and culturally affiliated Native American monitor. Ground-disturbing activities include vegetation removal, clearing, grading, trenching, excavation, or other activities that may disturb the ground. |
| **Built Environment Resources** | | |
| No known built environment resources (shown on Figures 5 and 6) and no structures 50 years of age or older on site. | No potential to cause a substantial adverse change in the significance of a built environment resource. | Basic built environment resource screening to confirm absence. |
| No known built environment resources (shown on Figures 5 and 6); however, structure(s) on site are (or could potentially be) 50 years of age or older. | Potential changes to the original integrity and context of a known built environment resource. Additionally, structures 50 years of age or older have the potential to be built environment resources and could be impacted. | Preconstruction built environment resource review would be required to determine age of onsite structure(s). A qualified architectural historian shall conduct a formal survey, recordation, and CRHR evaluation. |

**TABLE 10, CONTINUED**

| Existing CIP Site Conditions | Potential Effects | Summary of Protection Measures |
|---|---|---|
| Known built environment resources occur on site, including those shown on Figures 5 and 6 as well as any structures 50 years of age or older that are determined to be a built environment resource. | Potential changes to the original integrity and context of a known built environment resource. | If the structure is determined to be a built environment resource, any proposed alteration shall follow mitigation guidelines contained in CEQA Guidelines Section 15126.4(b). Mitigation standards may include, but are not limited to avoidance and preservation, conducting alterations in a manner consistent with the Secretary of the Interior's Standards for the Treatment of Historic Properties (including as applicable, standards for Preservation, Rehabilitation, Restoration and Reconstruction), and documenting resources. The approach to comply with these standards shall be prepared by an Architectural Historian or Historic Architect and provided to the City. |
| **Paleontological Resources** | | |
| Site is wholly within low and/or no paleontological sensitivity zones as depicted in Figure 7. | Ground-disturbing construction activities in these zones are unlikely to encounter paleontological resources. | Construction contracts would be required to include a stop-work clause in the event that any unexpected discovery is made. If an unexpected discovery is made, the find must be evaluated by an SVP-qualified paleontologist per CEQA Statute and State Law. |
| Site is wholly and/or partially within moderate or high paleontological sensitivity zones as depicted in Figure 7, and ground-disturbing activities would occur wholly within previously disturbed sediments (i.e., fill soil). | Ground-disturbing construction activities in previously disturbed sediments, such as beneath existing roadways and utility corridors, are unlikely to encounter paleontological resources. | Construction contracts would be required to include a stop-work clause in the event that any unexpected discovery is made. If an unexpected discovery is made, the find must be evaluated by an SVP-qualified paleontologist per CEQA Statute and State Law. |
| Site is wholly and/or partially within moderate or high paleontological sensitivity zones as depicted in Figure 7, and ground-disturbing activities would occur within Delmar Formation (Td), Torrey Sandstone (Tt), late to middle Pleistocene-aged paralic deposits ($Qop_{2–4}$, $Qop_{6}$), Middle Pleistocene very old paralic deposits ($Qvop_{11}$), and/or Holocene to late Pleistocene Young alluvial floodplain deposits (Qya). | Ground-disturbing construction activities within Delmar Formation (Td), Torrey Sandstone (Tt), late to middle Pleistocene-aged paralic deposits ($Qop_{2-4}$, $Qop_{6}$), Middle Pleistocene very old paralic deposits ($Qvop_{11}$), and/or Holocene to late Pleistocene Young alluvial floodplain deposits (Qya) could encounter paleontological resources, typically occurring 5 to 10 feet below ground surface. | During earthwork affecting the aforementioned geological units, a paleontological resource mitigation monitoring program would be conducted, and would include paleontological sensitivity training to all construction personnel, monitoring of ground-disturbing activities, review of boring and drilling of deep holes, and completion of daily written monitoring logs, and final paleontological mitigation report. |

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# APPENDIX A

# CHRIS/INFORMATION CENTER RECORDS SEARCH RESULTS

***CONFIDENTIAL BOUND SEPARATELY***

# APPENDIX B

# NAHC CORRESPONDENCE AND TRIBAL CONTACT LIST

Michael Baker
INTERNATIONAL

*We Make a Difference*

September 10, 2025

Laura Miranda
California Native American Heritage Commission
1550 Harbor Blvd., Suite 100
West Sacramento, CA 95691
nahc@nahc.ca.gov

Re: Cultural Resources Inventory for the Del Mar PEIR Project, Del Mar, California

Dear Chairperson Miranda,

Michael Baker International is conducting a cultural resources inventory for the proposed Del Mar PEIR Project in Del Mar, CA. The cultural resources inventory will be conducted in compliance with the California Environmental Quality Act. The City's Capital Improvement Program (CIP) is a 10-year capital planning program comprising many small-to-medium infrastructure projects including utility undergrounding, water and sewer line upgrades, storm drain improvements, roadway rehabilitation, and facility repairs. CIP projects will not occur in undisturbed open space areas such as coastal lagoons or preserves, which limits potential impacts on intact archaeological sites.

Michael Baker International will conduct a cultural resources records search of the project area and a 0.5-mile search radius surrounding it at the South Coastal Information Center (SCIC), a Native American Heritage Commission (NAHC) Sacred Lands File (SLF) search, literature, historic map and aerial photo review, local historical society consultation, an archaeological pedestrian survey, and an archaeological sensitivity analysis of the project site.

We would also like to request a list of Native American tribes that may have knowledge of cultural resources in the project area or who may wish to be notified of the investigation. Please submit your response to me via e-mail at rachel.garcia@mbakerintl.com.

Sincerely

Rachel Garcia

Rachel Garcia, MA
Archaeologist
rachel.garcia@mbakerintl.com

**Your Requested Information:**
County – San Diego
USGS Quad – Del Mar OE W
Township and Range – T14S R4W, Sec 2,11,14,23

Attachments: 1. 1:24,000 Scale Location Map of Project Area




Michael Baker INTERNATIONAL

0 0.25 0.5 Miles

# Project Location

Source: Esri, ArcGIS Online, Lancaster West USGS 7.5-Minute topographic quadrangle maps: *Del Mar, California*

# Sacred Lands File & Native American Contacts List Request

**Native American Heritage Commission**
1550 Harbor Blvd, Suite 100
West Sacramento, CA 95691
916-373-3710
916-373-5471 – Fax
nahc@nahc.ca.gov

*Information Below is Required for a Sacred Lands File Search*

**Project:** Del Mar PEIR Project

**County:** San Diego County

**USGS Quadrangle Name:** Del Mar OE W

**Township:** 14S **Range:** 4W **Section(s):** 2,11 & 14, 23

**Company/Firm/Agency:** Michael Baker International

**Street Address:** 5050 Avenida Encinas Suite 260

**City:** Carlsbad, CA **Zip:** 92008

**Phone:** (760) 603-6251

**Fax:**

**Email:** rachel.garcia@mbakerintl.com

**Project Description:**

The City's Capital Improvement Program (CIP) is a 10-year capital planning program comprising many small-to-medium infrastructure projects including utility undergrounding, water and sewer line upgrades, storm drain improvements, roadway rehabilitation, and facility repairs. Notably, CIP projects will not occur in undisturbed open space areas such as coastal lagoons or preserves, which limits potential impacts on intact archaeological sites. Because the CIP encompasses a variety of project types, the PEIR uses four "representative" projects to bracket the range of project scale and characteristics.

**From:** Green, Andrew@NAHC
**To:** Garcia, Rachel
**Subject:** EXTERNAL: Del Mar PEIR Project
**Date:** Wednesday, September 17, 2025 11:11:47 AM
**Attachments:** AB52 No Del Mar PEIR Project 9.17.2025.pdf
Del Mar PEIR Project 9.17.2025.xlsx

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**EXTERNAL EMAIL**

Good morning,

Attached is the response to the project referenced above. If you have any additional questions, please feel free to contact me directly.

Regards,

**Andrew Green**
Native American Heritage Commission
1550 Harbor Blvd., Suite 100
West Sacramento, CA 95691
Andrew.Green@nahc.ca.gov
Direct Line: (916) 573-1072
Office: (916) 373-3710

# NATIVE AMERICAN HERITAGE COMMISSION

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**Michelle Carr**

**NAHC HEADQUARTERS**
1550 Harbor Boulevard
Suite 100
West Sacramento,
California 95691
(916) 373-3710
nahc@nahc.ca.gov

September 17, 2025

Rachel Garcia
Michael Baker International

Via Email to: Rachel.Garcia@mbakerintl.com

**Re: Tribal Consultation Under CEQA, Del Mar PEIR Project, San Diego County**

To Whom It May Concern:

Pursuant to your request, attached is a consultation list of tribes that are traditionally and culturally affiliated with the geographic area of the above-listed project. Additionally, a search of the Native American Heritage Commission (NAHC) Sacred Lands File (SLF) was completed based on the information submitted for the above referenced project. The results were negative. Be aware that tribes do not always record their sacred sites in the SLF, nor are they required to do so. As such, an SLF search is not a substitute for consultation with all tribes that are traditionally and culturally affiliated with a project's geographic area. Please contact all of the listed tribes as they may have information about sacred sites within the project area that is not listed with the NAHC.

Additionally, the NAHC recommends that agencies include with their notification letters, information regarding any cultural resources assessment that has been completed on the area of potential effect (APE), such as:

1. The results of any record search that may have been conducted at an Information Center of the California Historical Resources Information System (CHRIS), including, but not limited to:

- A listing of any and all known cultural resources that have already been recorded on or adjacent to the APE, such as known archaeological sites;
- Copies of any and all cultural resource records and study reports that may have been provided by the Information Center as part of the records search response;
- Whether the records search indicates a low, moderate, or high probability that unrecorded cultural resources are located in the APE; and
- If a survey is recommended by the Information Center to determine whether previously unrecorded cultural resources are present.

2. The results of any archaeological inventory survey that was conducted, including:

- Any report that may contain site forms, site significance, and suggested mitigation measures.

All information regarding site locations, Native American human remains, and associated funerary objects should be in a separate confidential addendum, and not be made available for public disclosure in accordance with Government Code section 6254.10.

3. The result of the Sacred Lands File check conducted through the Native American Heritage Commission.

4. Any ethnographic studies conducted for any area including all or part of the APE; and

5. Any geotechnical reports regarding all or part of the APE.

Lead agencies should be aware that records maintained by the NAHC and CHRIS are not exhaustive and a negative response to these searches does not preclude the existence of a tribal cultural resource. A tribe may be the only source of information regarding the existence of a tribal cultural resource, which is why consultation is vital.

This information will aid tribes in determining whether to request formal consultation. If consultation is requested, having the information beforehand will help to facilitate the process.

If you receive notification of a change of address or phone number from a tribe, please inform the NAHC. With your assistance, we can assure that our consultation list remains current.

If you have any questions or require additional information, please contact me at Andrew.Green@nahc.ca.gov.

Sincerely,



Andrew Green
*Cultural Resources Analyst*

Attachment

**Native American Heritage Commission**
**Native American Contact List**
**San Diego County**
**9/17/2025**

| Tribe Name | Fed (F) Non-Fed (N) | Contact Person | Contact Address | Phone # | Fax # | Email Address | Cultural Affiliation | Counties | Last Updated |
|---|---|---|---|---|---|---|---|---|---|
| Barona Group of the Capitan Grande | F | Art Bunce, Attorney | 1095 Barona Road<br>Lakeside, CA, 92040 | (760) 489-0329 | | buncelaw@aol.com | Diegueno | Imperial,San Diego | 7/25/2023 |
| Campo Band of Diegueno Mission Indians | F | Daniel Tsosie, THPO | 36190 Church Road, Suite 1<br>Campo, CA, 91906 | (619) 760-6480 | | dtsosie@campo-nsn.gov | Diegueno | Imperial,San Diego | 5/24/2024 |
| Campo Band of Diegueno Mission Indians | F | Ben Dyche, Vice Chairperson | 36190 Church Road, Suite 1<br>Campo, CA, 91906 | (619) 478-9046 | | bdyche@campo-nsn.gov | Diegueno | Imperial,San Diego | 5/24/2024 |
| Campo Band of Diegueno Mission Indians | F | Marcus Cuero, Chairperson | 36190 Church Road, Suite 1<br>Campo, CA, 91906 | (619) 478-9046 | | marcuscuero@campo-nsn.gov | Diegueno | Imperial,San Diego | 5/15/2024 |
| Ewiiaapaayp Band of Kumeyaay Indians | F | Eduardo Mercado, Principle, Grey Wolf Monitoring | 1 Crestwood Road<br>Boulevard, CA, 91905 | (619) 301-4794 | | emercado75@hotmail.com | Kumeyaay | Imperial,San Diego | 8/26/2025 |
| Iipay Nation of Santa Ysabel | F | Clint Linton, Director of Cultural Resources | P.O. Box 507<br>Santa Ysabel, CA, 92070 | (760) 803-5694 | | clint@redtailenvironmental.com | Diegueno | Imperial,San Diego | 11/30/2023 |
| Inaja-Cosmit Band of Indians | F | Rebecca Osuna, Chairperson | 2005 S. Escondido Blvd.<br>Escondido, CA, 92025 | (760) 737-7628 | (760) 747-8568 | | Diegueno | Imperial,San Diego | |
| Jamul Indian Village | F | Erica Pinto, Chairperson | P.O. Box 612<br>Jamul, CA, 91935 | (619) 669-4785 | (619) 669-4817 | epinto@jiv-nsn.gov | Diegueno | Imperial,San Diego | |
| Jamul Indian Village | F | Lisa Cumper, Tribal Historic Preservation Officer | P.O. Box 612<br>Jamul, CA, 91935 | (619) 669-4855 | | lcumper@jiv-nsn.gov | Diegueno | Imperial,San Diego | 9/5/2018 |
| La Posta Band of Diegueno Mission Indians | F | Eric La Chappa, Chairman | 8 Crestwood Road<br>Boulevard, CA, 91905 | (619) 478-2113 | (619) 478-2125 | ELaChappa@lptribe.net | Diegueno | Imperial,San Diego | 5/7/2025 |
| Manzanita Band of Kumeyaay Nation | F | Angela Elliott Santos, Chairperson | P.O. Box 1302<br>Boulevard, CA, 91905 | (619) 766-4930 | (619) 766-4957 | | Diegueno | Imperial,San Diego | |
| Mesa Grande Band of Diegueno Mission Indians | F | Michael Linton, Chairperson | P.O Box 270<br>Santa Ysabel, CA, 92070 | (760) 782-3818 | (760) 782-9092 | | Diegueno | Imperial,San Diego | |
| Pauma Band of Luiseno Indians | F | Lucia Majel, Pauma Cultural Resource Project Manager | P.O. Box 369<br>Pauma Valley, CA, 92061 | (760) 742-1289 | | crm@Pauma-nsn.gov | Luiseno | Los Angeles,Orange,Riverside,San Bernardino,San Diego,Ventura | 8/1/2025 |
| Rincon Band of Luiseno Indians | F | Cheryl Madrigal, Cultural Resources Manager/Tribal Historic Preservation Officer | One Government Center Lane<br>Valley Center, CA, 92082 | (760) 648-3000 | | cmadrigal@rincon-nsn.gov | Luiseno | Los Angeles,Orange,Riverside,San Bernardino,San Diego,Santa Barbara,Ventura | 5/31/2023 |
| Rincon Band of Luiseno Indians | F | Joseph Linton, Tribal Council/Culture Committee Member | One Government Center Lane<br>Valley Center, CA, 92082 | (760) 803-3548 | | jlinton@rincon-nsn.gov | Luiseno | Los Angeles,Orange,Riverside,San Bernardino,San Diego,Santa Barbara,Ventura | 5/31/2023 |
| Rincon Band of Luiseno Indians | F | Denise Turner Walsh, Attorney General | One Government Center Lane<br>Valley Center, CA, 92082 | (760) 689-5727 | | dwalsh@rincon-nsn.gov | Luiseno | Los Angeles,Orange,Riverside,San Bernardino,San Diego,Santa Barbara,Ventura | 7/7/2023 |
| Rincon Band of Luiseno Indians | F | Laurie Gonzalez, Tribal Council/Culture Committee Member | One Government Center Lane<br>Valley Center, CA, 92082 | (760) 484-4835 | | lgonzalez@rincon-nsn.gov | Luiseno | Los Angeles,Orange,Riverside,San Bernardino,San Diego,Santa Barbara,Ventura | 5/31/2023 |
| San Pasqual Band of Diegueno Mission Indians | F | Allen Lawson, Chairperson | P.O. Box 365<br>Valley Center, CA, 92082 | (760) 749-3200 | (760) 749-3876 | | Diegueno | Imperial,San Diego | |
| Sycuan Band of the Kumeyaay Nation | F | Bernice Paipa, Cultural Resource Specialist | Sycuan Cultural Center: 910 Willow Glen Drive<br>El Cajon, CA, 92019 | (619) 445-6917 | | bpaipa2@sycuan-nsn.gov | Kumeyaay | Imperial,San Diego | 8/7/2023 |
| Sycuan Band of the Kumeyaay Nation | F | Cody Martinez, Chairman | Sycuan Tribal Office: 1 Kwaaypaay Court<br>El Cajon, CA, 92019 | (619) 445-2613 | | cmartinez@sycuan-nsn.gov | Kumeyaay | Imperial,San Diego | 8/7/2023 |
| Viejas Band of Kumeyaay Indians | F | Ray Teran, Resource Management Director | 1 Viejas Grade Road<br>Alpine, CA, 91901 | (619) 659-2312 | | rteran@viejas-nsn.gov | Kumeyaay | Imperial,San Diego | 6/29/2023 |
| Viejas Band of Kumeyaay Indians | F | Ernest Pingleton, THPO | 1 Viejas Grade Road<br>Alpine, CA, 91901 | (619) 445-3810 | | epingleton@viejas-nsn.gov | Kumeyaay | Imperial,San Diego | 6/29/2023 |

This list is current only as of the date of this document. Distribution of this list does not relieve any person of statutory responsibility as defined in Section 7050.5 of the Health and Safety Code, Section 5097.94 of the Public Resources Code and Section 5097.98 of the Pub Resources Code.

This list is only applicable for consultation with Native American tribes under Public Resources Code Sections 21080.3.1 for the proposed Del Mar PEIR Project, San Diego Count

Record: PROJ-2025-005215
Report Type: AB52 GIS
Counties: San Diego
NAHC Group: All

# APPENDIX C

# PALEONTOLOGICAL RECORDS SEARCH RESULTS

***CONFIDENTIAL BOUND SEPARATELY***

# APPENDIX D

# CONFIDENTIAL SITE MAPS
# (SEPARATE, RESTRICTED ACCESS)

# APPENDIX G
# NOISE DATA

Roadway Construction Noise Model (RCNM),Version 1.1

Report date: 10/07/2025
Case Description: Project No. 1 and 2 - Distance 117 (MM NOI-1)

**** Receptor #1 ****

Baselines (dBA)

| Description | Land Use | Daytime | Evening | Night |
|---|---|---|---|---|
| Residential | Residential | 1.0 | 1.0 | 1.0 |

Equipment

| Description | Impact Device | Spec Usage (%) | Actual Lmax (dBA) | Receptor Lmax (dBA) | Estimated Distance (feet) | Shielding (dBA) |
|---|---|---|---|---|---|---|
| Backhoe | No | 40 | 77.6 | 65.0 | | 0.0 |
| Front End Loader | No | 40 | 79.1 | 65.0 | | 0.0 |
| Dump Truck | No | 40 | 76.5 | 65.0 | | 0.0 |
| Drum Mixer | No | 50 | 80.0 | 65.0 | | 0.0 |
| Vacuum Street Sweeper | No | 10 | 81.6 | 65.0 | | 0.0 |
| Paver | No | 50 | 77.2 | 65.0 | | 0.0 |
| Roller | No | 20 | 80.0 | 65.0 | | 0.0 |
| Concrete Mixer Truck | No | 40 | 78.8 | 65.0 | | 0.0 |
| Pneumatic Tools | No | 50 | 85.2 | 65.0 | | 0.0 |
| All Other Equipment > 5 HP | No | 50 | 85.0 | 65.0 | | 0.0 |

Results

| | Calculated (dBA) | | Noise Limits (dBA) | | | | Noise Limit Exceedance (dBA) | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | Day | | Evening | | Night | | Day | | Evening | | Night | |
| Equipment | Lmax | Leq | Lmax | Leq | Lmax | Leq | Lmax | Leq | Lmax | Leq | Lmax | Leq | Lmax | Leq |
| Backhoe | 75.3 | 71.3 | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Front End Loader | 76.8 | 72.9 | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Dump Truck | 74.2 | 70.2 | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Drum Mixer | 77.7 | 74.7 | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Vacuum Street Sweeper | 79.3 | 69.3 | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Paver | 74.9 | 71.9 | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Roller | 77.7 | 70.7 | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Concrete Mixer Truck | 76.5 | 72.5 | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |

N/A N/A
Pneumatic Tools 82.9 79.9 N/A N/A N/A N/A N/A N/A N/A N/A N/A N/A
N/A N/A
All Other Equipment > 5 HP 82.7 79.7 N/A N/A N/A N/A N/A N/A N/A N/A N/A N/A
N/A N/A
Total 82.9 85.0 N/A N/A N/A N/A N/A N/A N/A N/A N/A N/A N/A
N/A

Roadway Construction Noise Model (RCNM),Version 1.1

Report date: 10/22/2025
Case Description: Scenario 1

**** Receptor #1 ****

Baselines (dBA)

| Description | Land Use | Daytime | Evening | Night |
|---|---|---|---|---|
| Residential | Residential | 1.0 | 1.0 | 1.0 |

Equipment

| Description | Impact Device | Usage (%) | Spec Lmax (dBA) | Actual Lmax (dBA) | Receptor Distance (feet) | Estimated Shielding (dBA) |
|---|---|---|---|---|---|---|
| Backhoe | No | 40 | | 77.6 | 117.0 | 0.0 |
| Front End Loader | No | 40 | | 79.1 | 117.0 | 0.0 |
| Dump Truck | No | 40 | | 76.5 | 117.0 | 0.0 |
| Drum Mixer | No | 50 | | 80.0 | 117.0 | 0.0 |
| Vacuum Street Sweeper | No | 10 | | 81.6 | 117.0 | 0.0 |
| Paver | No | 50 | | 77.2 | 117.0 | 0.0 |
| Roller | No | 20 | | 80.0 | 117.0 | 0.0 |
| Concrete Mixer Truck | No | 40 | | 78.8 | 117.0 | 0.0 |
| Pneumatic Tools | No | 50 | | 85.2 | 117.0 | 0.0 |
| All Other Equipment > 5 HP | No | 50 | 85.0 | | 117.0 | 0.0 |

Results

| Equipment | Calculated (dBA) Lmax | Calculated (dBA) Leq | Noise Limits (dBA) Day Lmax | Noise Limits (dBA) Day Leq | Noise Limits (dBA) Evening Lmax | Noise Limits (dBA) Evening Leq | Noise Limits (dBA) Night Lmax | Noise Limits (dBA) Night Leq | Noise Limit Exceedance (dBA) Day Lmax | Noise Limit Exceedance (dBA) Day Leq | Noise Limit Exceedance (dBA) Evening Lmax | Noise Limit Exceedance (dBA) Evening Leq | Noise Limit Exceedance (dBA) Night Lmax | Noise Limit Exceedance (dBA) Night Leq |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Backhoe | 70.2 | 66.2 | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Front End Loader | 71.7 | 67.7 | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Dump Truck | 69.1 | 65.1 | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Drum Mixer | 72.6 | 69.6 | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Vacuum Street Sweeper | 74.2 | 64.2 | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Paver | 69.8 | 66.8 | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Roller | 72.6 | 65.6 | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Concrete Mixer Truck | 71.4 | 67.4 | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |

N/A N/A
Pneumatic Tools 77.8 74.8 N/A N/A N/A N/A N/A N/A N/A N/A N/A N/A N/A N/A
All Other Equipment > 5 HP 77.6 74.6 N/A N/A N/A N/A N/A N/A N/A N/A N/A N/A N/A N/A
Total 77.8 79.9 N/A N/A N/A N/A N/A N/A N/A N/A N/A N/A N/A N/A

Roadway Construction Noise Model (RCNM),Version 1.1

Report date: 10/22/2025
Case Description: Project No. 1 and 2 - Distance 117 - Less than Significant with Mitigation Measures Incorporated

**** Receptor #1 ****

Baselines (dBA)

| Description | Land Use | Daytime | Evening | Night |
|---|---|---|---|---|
| Residential | Residential | 1.0 | 1.0 | 1.0 |

Equipment

| Description | Impact Device | Spec Usage (%) | Actual Lmax (dBA) | Receptor Lmax (dBA) | Estimated Distance (feet) | Shielding (dBA) |
|---|---|---|---|---|---|---|
| Backhoe | No | 40 | 77.6 | 205.0 | | 0.0 |
| Front End Loader | No | 40 | 79.1 | 205.0 | | 0.0 |
| Dump Truck | No | 40 | 76.5 | 205.0 | | 0.0 |
| Drum Mixer | No | 50 | 80.0 | 205.0 | | 0.0 |
| Vacuum Street Sweeper | No | 10 | 81.6 | 205.0 | | 0.0 |
| Paver | No | 50 | 77.2 | 205.0 | | 0.0 |
| Roller | No | 20 | 80.0 | 205.0 | | 0.0 |
| Concrete Mixer Truck | No | 40 | 78.8 | 205.0 | | 0.0 |
| Pneumatic Tools | No | 50 | 85.2 | 205.0 | | 0.0 |
| All Other Equipment > 5 HP | No | 50 | 85.0 | 205.0 | | 0.0 |

Results

| Equipment | Calculated (dBA) Lmax | Calculated (dBA) Leq | Noise Limits (dBA) Day Lmax | Noise Limits (dBA) Day Leq | Noise Limits (dBA) Evening Lmax | Noise Limits (dBA) Evening Leq | Noise Limits (dBA) Night Lmax | Noise Limits (dBA) Night Leq | Noise Limit Exceedance (dBA) Day Lmax | Noise Limit Exceedance (dBA) Day Leq | Noise Limit Exceedance (dBA) Evening Lmax | Noise Limit Exceedance (dBA) Evening Leq | Noise Limit Exceedance (dBA) Night Lmax | Noise Limit Exceedance (dBA) Night Leq |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Backhoe | 65.3 | 61.3 | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Front End Loader | 66.9 | 62.9 | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Dump Truck | 64.2 | 60.2 | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Drum Mixer | 67.7 | 64.7 | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Vacuum Street Sweeper | 69.3 | 59.3 | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Paver | 65.0 | 62.0 | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Roller | 67.7 | 60.8 | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Concrete Mixer Truck | 66.5 | 62.6 | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |

N/A N/A
Pneumatic Tools 72.9 69.9 N/A N/A N/A N/A N/A N/A N/A N/A N/A N/A N/A N/A
All Other Equipment > 5 HP 72.7 69.7 N/A N/A N/A N/A N/A N/A N/A N/A N/A N/A N/A N/A
Total 72.9 75.0 N/A N/A N/A N/A N/A N/A N/A N/A N/A N/A N/A N/A

Roadway Construction Noise Model (RCNM),Version 1.1

Report date: 10/07/2025
Case Description: Project No. 3 - Distance 66.5 - Significant and Unavoidable

**** Receptor #1 ****

Baselines (dBA)

| Description | Land Use | Daytime | Evening | Night |
|---|---|---|---|---|
| Residential | Residential | 1.0 | 1.0 | 1.0 |

Equipment

| Description | Impact Device | Usage (%) | Spec Lmax (dBA) | Actual Lmax (dBA) | Receptor Distance (feet) | Estimated Shielding (dBA) |
|---|---|---|---|---|---|---|
| Backhoe | No | 40 | | 77.6 | 66.5 | 0.0 |
| Front End Loader | No | 40 | | 79.1 | 66.5 | 0.0 |
| Dump Truck | No | 40 | | 76.5 | 66.5 | 0.0 |
| Excavator | No | 40 | | 80.7 | 66.5 | 0.0 |
| All Other Equipment > 5 HP | No | 50 | 85.0 | | 66.5 | 0.0 |
| Vacuum Street Sweeper | No | 10 | | 81.6 | 66.5 | 0.0 |
| Paver | No | 50 | | 77.2 | 66.5 | 0.0 |
| Roller | No | 20 | | 80.0 | 66.5 | 0.0 |
| Concrete Mixer Truck | No | 40 | | 78.8 | 66.5 | 0.0 |
| Paver | No | 50 | | 77.2 | 66.5 | 0.0 |
| Pneumatic Tools | No | 50 | | 85.2 | 66.5 | 0.0 |

Results

| Equipment | Calculated (dBA) Lmax | Calculated (dBA) Leq | Noise Limits (dBA) Day Lmax | Noise Limits (dBA) Day Leq | Noise Limits (dBA) Evening Lmax | Noise Limits (dBA) Evening Leq | Noise Limits (dBA) Night Lmax | Noise Limits (dBA) Night Leq | Noise Limit Exceedance (dBA) Day Lmax | Noise Limit Exceedance (dBA) Day Leq | Noise Limit Exceedance (dBA) Evening Lmax | Noise Limit Exceedance (dBA) Evening Leq | Noise Limit Exceedance (dBA) Night Lmax | Noise Limit Exceedance (dBA) Night Leq |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Backhoe | 75.1 | 71.1 | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Front End Loader | 76.6 | 72.7 | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Dump Truck | 74.0 | 70.0 | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Excavator | 78.2 | 74.3 | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| All Other Equipment > 5 HP | 82.5 | 79.5 | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Vacuum Street Sweeper | 79.1 | 69.1 | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Paver | 74.7 | 71.7 | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |

| | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Roller | 77.5 | 70.5 | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Concrete Mixer Truck | 76.3 | 72.3 | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Paver | 74.7 | 71.7 | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Pneumatic Tools | 82.7 | 79.7 | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Total | 82.7 | 85.0 | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |

Roadway Construction Noise Model (RCNM),Version 1.1

Report date: 10/07/2025
Case Description: Project No. 3 - Distance 120 - Less than Significant with Mitigation Measures Incorporated

**** Receptor #1 ****

Baselines (dBA)

| Description | Land Use | Daytime | Evening | Night |
|---|---|---|---|---|
| Residential | Residential | 1.0 | 1.0 | 1.0 |

Equipment

| Description | Impact Device | Usage (%) | Spec Lmax (dBA) | Actual Lmax (dBA) | Receptor Distance (feet) | Estimated Shielding (dBA) |
|---|---|---|---|---|---|---|
| Backhoe | No | 40 | | 77.6 | 120.0 | 0.0 |
| Front End Loader | No | 40 | | 79.1 | 120.0 | 0.0 |
| Dump Truck | No | 40 | | 76.5 | 120.0 | 0.0 |
| Excavator | No | 40 | | 80.7 | 120.0 | 0.0 |
| All Other Equipment > 5 HP | No | 50 | 85.0 | | 120.0 | 0.0 |
| Vacuum Street Sweeper | No | 10 | | 81.6 | 120.0 | 0.0 |
| Paver | No | 50 | | 77.2 | 120.0 | 0.0 |
| Roller | No | 20 | | 80.0 | 120.0 | 0.0 |
| Concrete Mixer Truck | No | 40 | | 78.8 | 120.0 | 0.0 |
| Paver | No | 50 | | 77.2 | 120.0 | 0.0 |
| Pneumatic Tools | No | 50 | | 85.2 | 120.0 | 0.0 |

Results

| Equipment | Calculated (dBA) Lmax | Calculated (dBA) Leq | Noise Limits (dBA) Day Lmax | Noise Limits (dBA) Day Leq | Noise Limits (dBA) Evening Lmax | Noise Limits (dBA) Evening Leq | Noise Limits (dBA) Night Lmax | Noise Limits (dBA) Night Leq | Noise Limit Exceedance (dBA) Day Lmax | Noise Limit Exceedance (dBA) Day Leq | Noise Limit Exceedance (dBA) Evening Lmax | Noise Limit Exceedance (dBA) Evening Leq | Noise Limit Exceedance (dBA) Night Lmax | Noise Limit Exceedance (dBA) Night Leq |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Backhoe | 70.0 | 66.0 | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Front End Loader | 71.5 | 67.5 | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Dump Truck | 68.8 | 64.9 | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Excavator | 73.1 | 69.1 | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| All Other Equipment > 5 HP | 77.4 | 74.4 | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Vacuum Street Sweeper | 74.0 | 64.0 | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Paver | 69.6 | 66.6 | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |

| | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Roller | 72.4 | 65.4 | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Concrete Mixer Truck | 71.2 | 67.2 | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Paver | 69.6 | 66.6 | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Pneumatic Tools | 77.6 | 74.6 | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Total | 77.6 | 79.9 | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |

Roadway Construction Noise Model (RCNM),Version 1.1

Report date: 10/07/2025
Case Description: Project No. 3 - Distance 210 - Less than Significant

**** Receptor #1 ****

Baselines (dBA)

| Description | Land Use | Daytime | Evening | Night |
|---|---|---|---|---|
| Residential | Residential | 1.0 | 1.0 | 1.0 |

Equipment

| Description | Impact Device | Usage (%) | Spec Lmax (dBA) | Actual Lmax (dBA) | Receptor Distance (feet) | Estimated Shielding (dBA) |
|---|---|---|---|---|---|---|
| Backhoe | No | 40 | | 77.6 | 210.0 | 0.0 |
| Front End Loader | No | 40 | | 79.1 | 210.0 | 0.0 |
| Dump Truck | No | 40 | | 76.5 | 210.0 | 0.0 |
| Excavator | No | 40 | | 80.7 | 210.0 | 0.0 |
| All Other Equipment > 5 HP | No | 50 | 85.0 | | 210.0 | 0.0 |
| Vacuum Street Sweeper | No | 10 | | 81.6 | 210.0 | 0.0 |
| Paver | No | 50 | | 77.2 | 210.0 | 0.0 |
| Roller | No | 20 | | 80.0 | 210.0 | 0.0 |
| Concrete Mixer Truck | No | 40 | | 78.8 | 210.0 | 0.0 |
| Paver | No | 50 | | 77.2 | 210.0 | 0.0 |
| Pneumatic Tools | No | 50 | | 85.2 | 210.0 | 0.0 |

Results

| Equipment | Calculated (dBA) Lmax | Calculated (dBA) Leq | Noise Limits (dBA) Day Lmax | Noise Limits (dBA) Day Leq | Noise Limits (dBA) Evening Lmax | Noise Limits (dBA) Evening Leq | Noise Limits (dBA) Night Lmax | Noise Limits (dBA) Night Leq | Noise Limit Exceedance (dBA) Day Lmax | Noise Limit Exceedance (dBA) Day Leq | Noise Limit Exceedance (dBA) Evening Lmax | Noise Limit Exceedance (dBA) Evening Leq | Noise Limit Exceedance (dBA) Night Lmax | Noise Limit Exceedance (dBA) Night Leq |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Backhoe | 65.1 | 61.1 | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Front End Loader | 66.6 | 62.7 | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Dump Truck | 64.0 | 60.0 | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Excavator | 68.2 | 64.3 | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| All Other Equipment > 5 HP | 72.5 | 69.5 | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Vacuum Street Sweeper | 69.1 | 59.1 | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Paver | 64.8 | 61.7 | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |

| | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Roller | 67.5 | 60.5 | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Concrete Mixer Truck | 66.3 | 62.4 | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Paver | 64.8 | 61.7 | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Pneumatic Tools | 72.7 | 69.7 | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Total | 72.7 | 75.0 | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |

Roadway Construction Noise Model (RCNM),Version 1.1

Report date: 10/07/2025
Case Description: Shores Park - Scenario - Threshold

**** Receptor #1 ****

Baselines (dBA)

| Description | Land Use | Daytime | Evening | Night |
|---|---|---|---|---|
| Residential | Residential | 1.0 | 1.0 | 1.0 |

Equipment

| Description | Impact Device | Usage (%) | Spec Lmax (dBA) | Actual Lmax (dBA) | Receptor Distance (feet) | Estimated Shielding (dBA) |
|---|---|---|---|---|---|---|
| Dozer | No | 40 | | 81.7 | 260.0 | 0.0 |
| Excavator | No | 40 | | 80.7 | 260.0 | 0.0 |
| Backhoe | No | 40 | | 77.6 | 260.0 | 0.0 |
| Front End Loader | No | 40 | | 79.1 | 260.0 | 0.0 |
| Paver | No | 50 | | 77.2 | 260.0 | 0.0 |
| Roller | No | 20 | | 80.0 | 260.0 | 0.0 |
| Vacuum Street Sweeper | No | 10 | | 81.6 | 260.0 | 0.0 |
| Dump Truck | No | 40 | | 76.5 | 260.0 | 0.0 |
| Concrete Mixer Truck | No | 40 | | 78.8 | 260.0 | 0.0 |

Results

| | Calculated (dBA) | | Noise Limits (dBA) | | | | Noise Limit Exceedance (dBA) | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | Day | | Evening | | Night | | Day | | Evening | | Night | |
| Equipment | Lmax | Leq | Lmax | Leq | Lmax | Leq | Lmax | Leq | Lmax | Leq | Lmax | Leq | Lmax | Leq |
| Dozer | 67.3 | 63.4 | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Excavator | 66.4 | 62.4 | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Backhoe | 63.2 | 59.3 | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Front End Loader | 64.8 | 60.8 | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Paver | 62.9 | 59.9 | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Roller | 65.7 | 58.7 | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Vacuum Street Sweeper | 67.3 | 57.3 | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Dump Truck | 62.1 | 58.2 | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |

| | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Concrete Mixer Truck | 64.5 | 60.5 | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| Total | 67.3 | 70.0 | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |